

**INTERFACE BETWEEN THE BIOPHYSICAL ENVIRONMENT IN INFORMAL
SETTLEMENTS AND POVERTY IN DEVELOPING COUNTRIES: THE CASE
FOR SIERRA LEONE.**

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ABSTRACT

The socio-economic problems of developing countries, especially Sub-Saharan African cities are the result of rapid growth, increasing poverty, unequal distribution of resources, civil conflicts and poor governance. These problems have been exacerbated by perennial incidence of civil wars. In Sierra Leone, eleven years of protracted civil war has exacerbated the problems of rural-urban migration, increased poverty, dislocation of urban governance, severe unemployment and lost income opportunities, which all combined have worsened the unequal distribution of resources and poverty. This has led to the collapse of urban infrastructure and of the formal economy, which have combined to accentuate urban poverty and the deterioration of the biophysical environment. These problems have further been compounded by heavy debts burden and structural adjustment programmes imposed on developing countries to facilitate economic diversification, while multilateral aid policies have failed to address the problems of the poor, especially the urban poor.

However, the postulation of this study is that for a pragmatic policy formulation and implementation in aid of poverty alleviation, there must be an adequate understanding of the informal settlement problem. To this effect, two combined survey methods of investigation were employed to access both primary and secondary data on the state of informal settlements in urban areas of Sierra Leone. This consisted of socio-economic and attitudinal survey of residents of three randomly chosen informal settlements two of which have benefited from partial upgrading and one has yet to benefit from any upgrading initiative.

The findings from the study clearly presents an understanding of the informal settlement problems, including knowledge poverty, the basic social and economic needs of the residents. Recent efforts by especially international and local aid agencies to improve living conditions in informal settlements have not had significant impact on the quality of life of residents and the biophysical environment. This has been due to bad implementation of programmes and lack of proper co-ordination system among stakeholders rather than choice of strategy. Thus, the central thesis in the present study is that Settlement Upgrading is the appropriate approach to improving the living conditions of residents in informal settlements in Sierra Leone, which can be achieved under the auspices of the Urban Informal Settlement Development Authority as the central co-ordinating body. Poverty alleviation policies have also been proposed, which are realistic and implementable for better quality of life within the built environment in Sierra Leone.

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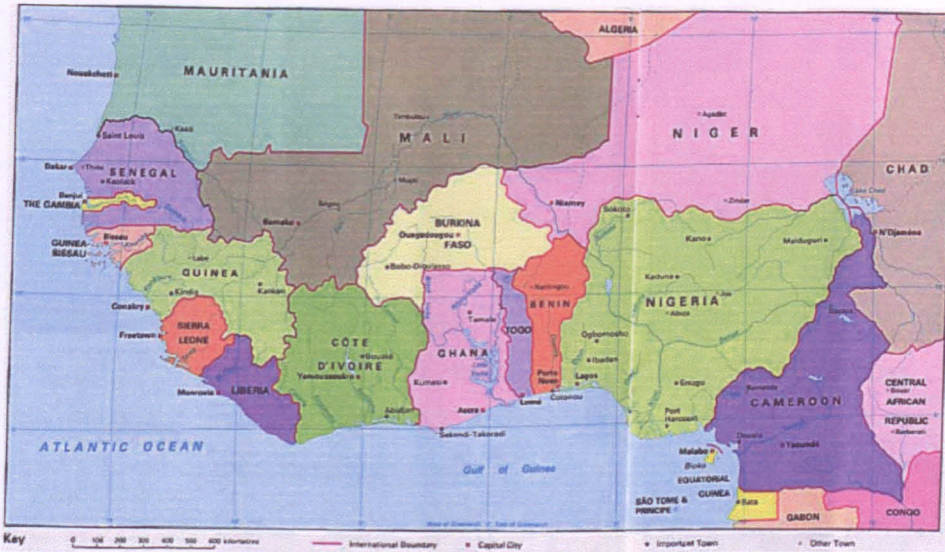
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Maps showing West Africa and Sierra Leone

(Source: First Atlas for Sierra Leone Schools, Macmillan, 1993)



Map of West Africa



Map of Sierra Leone

CHAPTER ONE

THE RESEARCH BACKGROUND AND STUDY APPROACH

1.1 Introduction

The 'carrying capacity' of the global, physical and biotic environment has come under considerable pressure and threat from the huge and insatiable demands exerted by humankind. This is particularly down to the huge increases in global population, pollution, natural resource depletion and the need to accelerate economic growth and development to sustain increasingly rising affluent lifestyle on the one hand and to ameliorate global poverty on the other. However, the developing countries, especially Sub-Saharan Africa are disproportionately represented in global poverty. Developing Countries have been traditionally described as the countries, which house the poor and the underprivileged majority of persons on the globe (Gilbert and Gugler, 1992). Most developing countries exhibit an unequal society, a tremendous gap between rural and urban areas, and an extreme form of poverty, which is demonstrated by poor housing conditions in most cities of developing countries, including Sierra Leone (World Bank, 1993). This has posed serious socio-economic problems to the capacity of urban cities to fulfil the widely acknowledged functions and dynamic role in economic growth and development of nations (UNCHS, 1996; Gilbert and Gugler, 1992 and World Bank, 1993). In the experiences of the developed countries and those of the newly industrialising developing countries, the role of cities has increasingly been significant, especially for the developing countries where major cities account for more than 70 percent of total gross domestic service (Gilbert et al, 1992). However, the combined incidence of rising rural-urban migration, increased urban birth rates and rising poverty and the attendant implications for infrastructure demands have meant that the ability of urban cities to fulfil their vital role in economic development is compromised (Pugh, 2000).

Indeed, in most of the developing countries, especially Sub-Saharan Africa, planned cities are deteriorating spontaneous illegal cities are both expanding and thriving (Stren and White, 1989; Simon, 1992). Informal Settlements now dominate cities of developing countries, defining their physical forms, supporting their economies, and characterising their social lives, especially in housing low-income groups (Mahmud and Duyar-Kienast, 2001). This is especially the case in Sierra Leone where protracted civil war has caused massive destruction of housing, infrastructure and dislocation of populations leading to the emergency of many make-shift informal settlements across the country. As has been previously established by UNCHS et al (1996), 30 to 70 percent of urban housing in low income countries are illegal or unauthorised. This has been blamed on the absence or lack of land ownership laws or building and planning laws (UNCHS, 1996; Akrofi, 2001; Mahmud and Duyar-Kienast, 2001). Due to the fact that most land (if not all) suitable for settlement is scarce and expensive, the location of illegal or informal settlements in majority of the cities in developing countries, including Sierra Leone are located in hazardous environment (World Bank, 1993; WHO, 1998; UNCHS, 1996; Pugh, 2000; Akrofi, 2001). Residents of informal settlements are not only constantly under threat of eviction, health risks and hazards to well-being associated with poor quality housing, inadequate water supply, sanitation, and access to social services, they are also socially, economically, legally and politically exposed to many more potential threats (WHO, 1998; UNCHS, 1996; Pugh, 2000; Akrofi, 2001). This has notable implications for the physical and biotic environment and pose arduous challenges to urban planning, infrastructure provision and poverty alleviation initiatives.

1.2 Theoretical Framework and Research Problem

The theoretical framework of this study derives from the need to further explore the interface between poverty, environmental sustainability and informal settlements.

While the problem of informal settlements in urban cities have received much attention, the vast majority of the studies on most developing countries have been conducted on a sectoral basis, which has its drawbacks. For instance, policies targeted at identified problems have not been far reaching and as a result economic development has been delayed, especially in improving quality of life in informal settlements. This creates the need for a holistic approach to the problems associated with informal settlements to allow the causes and effects, which will aid the design of pragmatic and effective policies. Such an approach requires an understanding of the forces, which have shaped and sustained the spread of informal settlements in Sierra Leone. By adopting a historical view of the evolution of informal settlements in Sierra Leone, this study aims to fulfil this requirement. Three such historic views follow:

Firstly, the emergency of informal settlements in Sub-Saharan Africa (SSA) has been blamed on the outdated and restrictive land-use control and regulatory standards and unreformed tenure arrangements, which creates the need for the informal sector to make up for the inefficiencies of the public land management (Fekade, 2000). Indeed, the informal sector in SSA has proven adaptive and responsive and has been providing the bulk of the urban population with buildable urban land. But the case of Sierra Leone may not exactly fit this general explanation given its peculiar socio-political circumstance. Although only a recent phenomenon, many years of political unrest may have played a role in the increase of informal settlements. This thesis, therefore, seeks to examine the factors driving and sustaining the informal settlements in Sierra Leone.

Secondly, choice of strategy towards tackling the challenges of informal settlements has been under intense debate. In the 1950s and 1960s, the dominant approach to informal settlements was one of demolition and replacement by public housing (Abbott, 2002). The assumption was that this approach would eventually eliminate the perceived squalor and disorder of informal settlements (Pugh, 1995). More recently, however, the upgrading or

regularisation of informal settlements has slowly come to be recognised as the primary mechanism through which residents of these settlements can improve their living conditions (Pugh, 2000; Akrofi, 2001). Despite the recent wide acceptance of upgrading as the solution to informal settlements, it has to be recognised that the choice to upgrade or demolish an informal settlement will have to be weighed against the peculiar circumstance and development objective of the country. Sierra Leone specifically has unique socio-economic characteristics, which require that development policies are tailored to the needs of the displaced and informal settlers. Further, even where upgrading is accepted, the specific upgrading approach to be adopted remains unclear given the various approaches that have been tested and proven in the literature (Abbott, 2002). This study, therefore, hopes to weigh the policy choices facing Sierra Leone with respect to either demolition or upgrading of key informal settlements, and in the event of grading, what upgrading approach should be adopted.

Thirdly, the peculiar circumstance of Sierra Leone creates further challenges to the resolution of the informal settlement problem. Poverty, weak institutional and infrastructural capacity, underdeveloped and depleted human capital are some of the factors that stand to undermine any development initiative. This has been exacerbated by the protracted civil conflict in the country, which has derailed social and economic development, and depleted the nation's meagre resources. Thus the prevailing socio-economic circumstance of Sierra Leone makes addressing development initiatives, such as tackling informal settlements, an arduous change. Part of the goal of this study is to explore better ways of formulating, implementing and targeting informal settlement and poverty alleviating policies to achieve maximum benefits within the limited capacity in Sierra Leone.

1.3 Objectives of the Study

Against the theoretical framework above, the broad objective of the study is to explore and understand the interface between poverty and the biophysical environment, and how this interface is addressed in responding to poverty alleviation strategies for better quality of life within the Sierra Leonean built environment. Towards achieving this objective, the specific tasks that will be carried out in the study include:

- Critical exploration of the interface between poverty and environmental degradation in informal settlements of Sierra Leone
- Validation of the quality of life in these settlements against the United Nations' UNCHS (Habitat) indicators for better quality of life within the built environment
- Propose a set of strategies targeted at resolving the informal settlement problems without compromising the goal of poverty alleviation.

1.4 Research questions

The above objectives and tasks will be guided by the following questions:

- Is there a causal link between poverty and environmental degradation in informal settlements? If so, what is the direction of causality?
- What environmental hazards or threats do informal settlement communities commonly encounter?
- How do these hazards or threats to health and well being affect their daily or quality of life?
- How do people's activities within the informal settlements affect the biophysical environment both locally and globally?
- How does the poor in informal settlements view the environment?
- Could there be a huge part of that too that can be associated with poverty?
- What is their perception of the environment?

- What are the socio-economic / biophysical environmental characteristics of informal settlements in Sierra Leone, and to what extent are they relevant to poverty alleviation interventions?
- What are the current International responses to the urban housing issue in developing countries, in particular to the problem of urban low-income informal settlements?
- What is the *status quo* of urban housing and policy in Sierra Leone and supply; in particular so far as housing for the low-income urban majority is concerned?

1.5 Significance of the study

The goals of the study include:

- To contribute to knowledge on informal settlements issues in developing countries
- To successfully reorientate minds away from a sectoral approach to urban management to a more appropriate holistic approach
- To show the evidence for the need to target policies and also indicate how this may be done effectively towards poverty alleviation, especially in informal settlements of Sierra Leone.

1.6 Structure of the study

The remainder of the thesis is arranged into seven chapters:

Chapter Two presents the Literature Review on Informal Settlements and Low-income Urban Housing, covering quality of life indicators within the built environment as suggested by the United Nation' UNCHS (Habitat). Here the interface between poverty, informal settlements and environmental degradation is critically explored. The effects of poverty are discussed. These include, among

other things, inadequate housing, prevalence of informal settlements and degraded biophysical environments.

Chapter Three presents Urban Poverty and the Biophysical Environment in Informal Settlements in Sierra Leone. In this chapter detail and critical analyses of the situation in Sierra Leone with regard to urban poverty and housing problems is carried out to provide a background to the empirical analysis in the study. The effects of urbanisation, and demographic trend; protracted civil conflict as well as rural and urban poverty, massive housing deficit, and development of positive structures or institutions in Sierra Leone are also discussed.

This chapter also provides information on the physical and economic characteristics of the study sites. Included here are details of the economy, topography, location, infrastructure, population density and physical features of three informal settlements representing Freetown East, Central and West.

Chapter Four presents the Policy Prescriptions and Programme Responses to the Urban Housing Problems in Developing Countries, in particular to the Problem of Low-income Urban Informal Settlements. These policies and programmes are critically evaluated for their suitability and effectiveness in addressing the problem of urban poverty and housing in Sierra Leone.

Chapter Five presents the Research Methodology. A combination of Qualitative and Quantitative methods are employed in this study. Quantitatively, questionnaire or face to face interviews has been used (based on random sample survey) for socio-economic and attitudinal survey of residents of informal settlements in order to obtain true views about their quality of life as they experience it. Qualitatively, self-administered questionnaire for stakeholders such as, for example, professionals were used to gauge their opinion from their individual professional perspective on the problem of informal settlements. Views obtained within the stakeholders were compared and contrasted with the views of

residents of informal settlements, to enable us obtain and analyse our primary data, validating 'empirical' against 'theory' in order to achieve the objectives of the study. The data has been analysed using the statistical package for the social sciences (SPSS) and the preference for this software is based mainly on its versatility and ease of use.

Chapter Six presents the Empirical Analysis. This focuses on three informal settlements and stakeholders. Findings from responses of residents of the informal settlements as well as findings from responses of stakeholders would be obtained. Such findings would help us validate the empirical study against the theoretical perspective of informal settlements.

Chapter Seven presents the Findings and Policy Recommendations. This chapter presents the main findings from the previous chapter regarding the quality of life of residents in informal settlements, especially their housing conditions. In addition, poverty alleviating policies that are practically implemented would be suggested.

Chapter Eight presents Conclusions. Here the overall summation of the study is presented and areas of future research are suggested.

CHAPTER TWO

LITERATURE REVIEW ON INFORMAL SETTLEMENTS AND LOW-INCOME URBAN HOUSING

2.1 Introduction

The recent increase in empirical studies on informal settlements makes this an appropriate time to reflect on what has already been done, what has been learned and what gaps remain, especially on the interface between poverty, the biophysical environment and informal settlements. Given the fact that the overwhelming majority of the urban population in Sub-Saharan Africa lives in informal settlements with neither legal recognition nor basic infrastructure services (Akrofi, 2001), it is important to understand the actual quality of life of residents in these settlements. This is so because unless and until the complex informal settlements formation process and the conditions in which they live are thoroughly understood, it would be difficult if not impossible to target effective and efficient policies at alleviating their poverty.

Indeed, the informal settlements continue to grow as the urban population increases (Akrofi, 2001). The increases in the urban population are the results of the high rate of migration from rural area into the big cities with the migrants hoping for a better life and a better job opportunities (Mahmud and Duyar-kienast, 2001). However, Mahmud and Duyar-Kienast argue that in urban areas there are neither enough jobs nor proper housing waiting for the migrants. They claim that due to the lack of formal institutions and solution for their problems, the migrants have to create their own way to survive in the city (Mahmud and Duyar-Kienast, 2001). As Fernandes and Varley (1998) put it, up to 70 percent of urban populations in developing countries live in settlements that were established outside of the law and remain excluded from the formal regulatory and management system.

The reason for the existence and growth of these settlements, they argue, is not the defiant nature of the population, but rather the exclusive nature of the legal framework (Fernandes and Varley, 1998). Indeed, it has been observed that while the elite manage to manipulate the legal system, the poor have no choice but to arrange their residential lives outside of it (Perry, 1998). It is not surprising therefore that the poor are housed in informal settlements (Pugh, 2000).

Indeed, the informal settlements and the serious socio-economic problems posed to the capacity of urban cities to fulfil the widely acknowledged functions and dynamic role in economy growth and development of nations has been highlighted (UNCHS, 1996; Gilbert and Gugler, 1992 and World Bank, 1993). In the experiences of the developed countries and those of the newly industrialising developing countries, the role of cities has increasingly been significant, especially for the developing countries where major cities account for more than 70 percent of total gross domestic service. However, the combined incidence of rising rural-urban migration increased urban birth rates and rising poverty in countries like Sierra Leone and the attendant implications for infrastructure demands have meant that the ability of urban cities to fulfil their vital role in economic development is compromised.

Notwithstanding the fact that urban cities have received much attention, the majority of studies that have been undertaken on poverty, environment and the informal settlements in developing countries have been conducted on a sectoral basis, which has its drawbacks. Such an approach makes it necessary the need to adopt a holistic approach to urban problems that would allow the causes and effects to be better understood in aid of pragmatic and effective policies as aforementioned. Additionally, the sectoral approach of the past has meant that only the material deprivation endured by the inhabitants commanded attention and no consideration has been given to the equally important aspects of dwelling in informal settlements, which is quality of life of the inhabitants as stated above. Although intangible, there is a growing awareness that the quality of life is

equally, if not more important than the tangible material deprivations (Gilbert and Gugler, 1992).

Although there is a common association between poor housing conditions and poverty and that housing quality improves with higher income, this does not, and may not necessarily result in a better quality of life for informal settlers. The significance of the failure to recognise this fact can be seen in previous policy prescriptions which concentrated solely on infrastructure provision and little emphasis placed on employment, income generation activities, participatory development, and the environment, particularly the quality of the built environment. Inadequate shelter, lack of food, poor education, and health facilities have become the direct manifestations of poverty, which is widely acknowledged to have serious implications for the biophysical environment. This is due mainly to the simultaneous causal link found to exist between poverty and environmental degradation (Thomas and Humphreys, 2001). Indeed, poor environmental quality is implicated in the explanation of more than a quarter of all preventable global ill health, including diarrhoea and acute respiratory infections (WHO, 1998).

Similarly, it has been observed that some 66 percent of preventable ill health due to environmental conditions occurs among children, especially in Sub-Saharan Africa (Pugh, 2000). Expressed in another way, Phillips (1994) argues that health (or epidemiological) transitions are characterised by socio-economic variation and by the environmental qualities of living areas. Indeed, the health-environment nexus is implicated by the revelation of high correlation, which is said to exist between socio-economic variables on the one hand, and the spatial distribution of mortality rate on the other (De Sousa, 2000).

Although mortality rate has been associated with children in developing countries, it is an acknowledged fact that informal settlements present higher risks of mortality among children (De Sousa, 2000). For instance, a comparison

of 1998 Kenya Demographic and Health Survey with the 2000 Nairobi Slum Cross-section Survey showed that the infant mortality rate is 76, 57 and 39 per 1000 live-births in rural Kenya, Urban Kenya, and Nairobi city respectively, it is 91 per 1000 live births among Nairobi slum or informal dwellers (Sankoh, 2002). At the same time, it is evident that in childhood and under-five mortality urban slum dwellers are exposed to higher mortality risks than their rural counterparts (Sankoh, 2002). This is due mainly to the poor environmental quality in which they live, where, among others, access to both safe water supply and effective sanitation services are absent (WHO, 1998; Pugh, 2000). Thus, the mere provision of infrastructure does not necessarily imply better quality of life and as such improvements to the built environment is seen as a necessary but not sufficient in itself as a measure to better quality of life. Thus, solution to urban problems must be seen as part of a wider strategy for poverty alleviation (World Bank, 1993). However, for such policies to be successful, the interface between poverty and the biophysical environment must first be investigated, especially within the confines of country specific attributes, which might prove to mitigate or exacerbate urban problems. In other words, in order to investigate the interface between poverty, biophysical environment and informal settlements, the development of a solid theoretical foundation is necessary to understand the complex informal settlements formation process and to develop or target policy that is realistic within social, environmental, legal, economic and political contexts (Macedo, 2000).

2.2 Informal Settlements and Low-income Housing

The research on squatter or informal settlements started in Latin America due to the rapid rate of urbanisation that accompanied the Second World War. The resulting literature provided theoretical platform for future inquiry, which continues to stimulate interest in other parts of the world, especially Africa and Asia. Latin American settlements became a focal point for a variety of special interests. For example, city authorities and politicians were wary of potential preconditions for revolutionary activity. In this aspect, Mangin (1970) indicates

that informal settlements or 'shantytowns' became a popular topic for research where the logistical constraints inherent in urban inquiry are investigated. Policy-makers as well as development specialists, according to Gugler (1988), were concerned with urban poverty in the context of national economies. Also, as Turner (1976) and Payne (1977) point out, architects were attracted to informal settlements and low-income housing as examples of ingenuity, self-planning, and low-income design.

However, as it has been pointed out above, informal settlements and low-income housing are characteristic of urban development in developing countries, which, among others, is as a result of rural-urban migration. Nevertheless, the focus of the process changed over time. Therefore, it is possible to distinguish between three periods in low-income housing in developing countries:

- The period between the Second World War and 1970 (the pre-1970 period)
- The period between 1970 and the mid-1980s
- The period from the mid-1980s to today.

2.2.1 The period 1945 – 1970

This period mainly represents an era in which it was believed that housing problem in developing countries could be solved by direct government involvement in the building of modern, standardised houses (mostly rental) (Pugh, 1991; 1992; Gilbert, 1997). This mainly resulted from either copying the post-Second World War housing Policies of the colonial powers (especially Great Britain) or from Marxist thinking (Marais, 1998). As a result, anti-squatter policies were common, which in practical terms meant that informal settlements or 'slums' were illegal and consequently demolished (Gilbert, 1997; Pugh, 1997). Thus, in the 1950s was a period of slum eradication, but proved ineffective and controversial. However, in certain countries it also coincided with closed city policies, which prevented rural people from urbanising (Gilbert and Gugler, 1992). By the end of the 1960s and the early 1970s severe criticism of public sector housing started to develop (World Bank, 1993).

2.2.2 The 1970s

The influence of Turner (1976) was instrumental in changing the conventional wisdom of providing formal public sector housing. In contrast to public housing, he advocated ideas such as housing as a verb, housing as a process, and dweller control; which is a process of popular participatory activity (Pugh, 2000). Put in another words, Turner based his advocacy upon humans' self-fulfilment and their commitment to housing for expressing things of value in their lives (Pugh, 2000). In essence he argued for the provision of services and that governments should let people construct their own houses. His major contribution to the housing scene was probably that he influenced governments to stop demolishing informal settlements or slums and to initiate more positive attitudes towards such settlements. Turner (1967; 1969; 1972) whose views were shared by both Abrams (1964) and Mangin (1967) opposed slum clearance and public housing policies. Instead he advocated for flexible building standards, provide essential services, and legalise squatters' tenure. Abrams (1964), who led UN missions to developing countries in the 1950s and 1960s wrote about gross housing shortages in rapidly growing cities and the appalling insanitary conditions widespread in squatter settlements. He favoured in situ slum improvement and 'instalment construction' (Pugh, 2000). In his analysis, Mangin (1967) asserts that migrants make enormous contribution to the economy of cities via their involvement in the informal economy. Rather than a problem as perceived by informal settlements critics, Mangin and Turner saw squatter or informal settlements as the "solution" to problem of housing the urban poor and stressed that, when provided with secure tenure, self-built neighbours has the potential to improve over time as residents gradually upgrade their properties. Encouraged by such optimism unilateral and multilateral aid agencies such as the World Bank, the IMF and ILO supported a variety of self-help housing schemes.

Indeed, Turner influenced the housing approach of the World Bank and other aid agencies. For the first time the Bank became involved in the funding of housing

projects (Gilbert and Gugler, 1992). Site and Services Schemes and In Situ Upgrading Projects (as opposed to formal housing units) as examples of Self-help housing were being promoted as the ultimate answer to solving the housing problems of the developing countries as it was the only affordable housing delivery mechanism (Pugh, 1997). Affordable housing delivery mechanism meant that land and service costs were to be budget-led rather than town planning and engineering design standards (Pugh, 2000). However, this approach by the World Bank coincided with structural adjustment programmes, which led to less money being spent on social services, infrastructure and housing.

Nonetheless, between 1972 to 1982, the World Bank advances Turner's theories on sites and services and in situ slum upgrading projects, which were mainly based on the principles of cost recovery and replicability in addition to affordability as stated above (Pugh, 2000). Affordability is said to be the determining factor for the social inclusions and exclusions of low-income groups to housing systems (Sivam et. al, 2000).

Reasons for such inclusions and exclusions include the income of the household as influencing its capacity to save in the short and medium terms, which will be influenced by economic growth, the pattern of income distribution in the economy and the way housing finance is provided and structured (Sivam et. al, 2000). Housing finance referred to above include mortgages and credit instruments, among others. Indeed, while cost recovery can be argued to fit the precepts of orthodox economics, which applies the 'user pays principle', replicability encourages projects to continue (Pugh, 2000). Replicability was a prescriptive principle, which meant that in practical sense, projects could continue and eventually reduce the growth in squatter or informal settlement (Pugh, 2000). However, it has been observed that, in terms of achievement, cost recovery was achieved only occasionally, especially in the slum or informal settlement upgrading projects (Pugh, 2000). This low or occasional achievement in the 'cost recovery' projects has been attributed to the remoteness of sites for self-help

building from employment opportunities, weakness of institutional capability; and projects scarcity with respect to city-wide housing reform (Pugh, 2000).

2.2.3 From mid-1980s to present

During the mid-1980s there was increasing awareness that the structural adjustment programmes (SAP) had a negative effect on the poorer households. Indeed, SAP's impact on all sectors of the developing world's economy, and more so, the built environment were both direct and indirect (Young, 1988). It directly resulted in severe cuts in services and investment rights across the economy. Indirectly, the impact on the monetary sector in the area of currency devaluation and foreign exchange depreciation priced the poor out of most markets, especially for consumer goods but no exception for housing and construction material (Longhurst and Mensurah, (1988). At the same time site-and-services and in-situ-upgrading projects by World Bank did not manage to solve the problem (Pugh, 2000). This led to the introduction of targeted subsidies, which could be focused on the poor. However, the World Bank promoted the utilisation of these subsidies for infrastructure only (not for building material or top structures). The question of subsidies for infrastructure only was a partial rather than a fully comprehensive conceptualisation of housing and as a result, did not set housing in a broader context of its contribution to economic and social development (Pugh, 2000).

Subsidies, according to Sivam et. al (2000) might be designed to reduce inequity in the housing system, so that the lower income groups are not subjected to more payment for housing, especially in developing countries. In developing countries such as India, Latin America, and Sub-Saharan Africa, it has been observed that inequities exist, especially in social housing schemes (Sivam et. al, 2000). Indeed, subsidy issues have received only fragmentary attention in developing countries, and in some sites and services projects would require inducement subsidies of up to 90 percent to total costs to attract the targeted poverty groups (Mayo and Gross, 1985). However, due to the Bank's partial

approach to the urban housing problem, the early projects had mixed success and failure depending upon political, institutional, and management conditions (Sivam et. al, 2000). Problems occurred in corrupt practices, unsuitable locations far from employment (as aforementioned), and inadequacies in housing finance and land policies (Pugh, 1997b). As a consequence, in the period 1983 to 1998 the Bank moved its low-income housing theory on from a partial focus to whole general urban policy and full ranges of programmes or projects (Pugh, 2000).

2.2.4 Urban Policy and Programmes/Projects (From 1983 to 1998)

In a progressive fashion the World Bank placed more emphasis upon broad institutional reform, using housing finance systems as conduits for developing housing, and moving from geographically delineated projects to a more 'programmatic' approach (Sivam et. al, 2000). Accordingly, the overall aims were for scaling up city-wide impacts, for enhancing Sustainability in terms of finance, social development, and increasingly in the 1990s for environmental improvement (Sivam et. al, 2000). Put in another way, Pugh (1992) argues that the World Bank's policies are based on the economic realities in developing countries and is 'learning by doing experience', which has included:

- the emphasis on project-by-project approaches to wider programmes; programme impact at national levels; and capital market reforms in aid of urban development funds in developing countries;
- the streamlining of urban policies to macro-economic reforms within the overall framework of development policies, this has been influenced by the external debt crisis in Mexico and other developing countries during the 1980s;
- stressing a holistic approach to obviate the need to separate between urban and rural sectors. The rationale behind this strategy was the recognised fact that urbanisation enhances rather than retards economic growth and development and

- the acknowledgement of the importance of both private and public sector investments are complementary and not contradictory (Pugh, 1992).

However, housing was to be understood as economically productive, especially in its capacity to generate income and employment multipliers or opportunities (Pugh, 2000). Hence, the New World Bank policy was to drive economic reform where urban growth is linked to micro-economic policy. Therefore, there was to be formulated an urban policy that embraces macro-economic conditions, especially the reform of housing finance and legislation on planning and land management. This manifested in the United Nations Centre for Human Settlement's Global Strategy for Shelter to the year 2000 (UNCHS, 1988). This document detailed the future directions of World Bank urban policies, especially its housing policies. The role of governments is seen by the World Bank and UNCHS (Habitat) to operate within the theory and practice of 'enablement'. Enablement requires the state to create the legal, institutional, economic, financial, and social frameworks to enhance economic efficiency and social effectiveness in the development of the housing sector, the wider economy and the urban sector (UNCHS, 1987; World Bank, 1991; Pugh, 2000). The specific enabling roles include (UNCHS, 1988 and Pugh, 2000):

- the simplification of legislative task and modification of building regulations and building codes to take cognisance of local situations;
- the streamlining of land administration and the promotion of appropriate land use policies and availability of serviced land;
- mobilisation of private sector finance through the provision of right incentives;
- promoting programmes for the development of small building materials industry and supporting training of personnel;
- strengthening and co-ordinating housing sector institutions;
- the legal-administrative system within government to secure property rights to plots of land and

- the overall policy and enablement framework to have some pro-poor and egalitarian for relevancy in social development.

Some housing commentators have identified the above measures as constituting supply side policies aimed at eliminating rigidities and distortions to the urban housing. The implication is that the World Bank seems to perceive housing shortages in developing countries as a market phenomenon. In other words, disequilibrium in the housing market is blamed on supply constraints. The impacts of these constraints is often manifested in high housing costs, denying the poor access to affordable and decent housing. It is therefore not surprising that radical supply-side policies are required. While some commentators believe that by simply reducing standards, both for houses, services and density, the barriers that deny the poor access to permanent legal homes will be eliminated, others argue that elimination of such supply imperfections in urban land, services, and the development of the undeveloped financial institutions are seen as the necessary prerequisites to accessing housing by the poor (Ebohon and Rodriques, 1998).

However, by the mid 1990s 'enablement' had broaden and deepened in prominence, encompassing institutionally-loaded reform as well as governance (Pugh, 2000). Governance became a focal point in all development agendas, taking on board state-market-society relations, which embraced economic, education, health, environment, housing, urban and other policies (Pugh, 2000). According to Hyden and Bratton (1992), the concept of governance as a process is broader than that of "government", which attributes sole political power and decision-making mainly to the state. Governance encompasses the activities of a range of groups - political, social and governmental, as well as their interrelationships (UNCHS, 1996). According to Kaufmann et al (1999), governance can be organised around three broad categories as follows:

- (a) voice and accountability, which includes civil liberties and freedom of the press, and political stability;
- (b) government effectiveness, which includes the quality of policymaking and public service delivery especially, and the lack of regulatory burden; and
- (c) rule of law, which includes protection of property rights and independence of the judiciary, and control of corruption.

The multilateral organisations view governance to include the relationship not only between government and state agencies but also between government and communities and social groups (UNCHS, 1996).

Also, in the view of the World Bank, good governance requires more open and democratic government at local and national levels. It emphasised decentralisation policy design and implementation. This requires that policy formulation and implementation be driven down to local and regional authorities, such as political leaders and town or city councils. It also advocates for public participation via local community initiatives, aided by NGOs and other voluntary groups or organisations (UNCHS, 1996). Sharing this view, Fatton (1992) claims that an underlying presumption of good governance is that an effective State necessarily serves the common good, whereas in Africa States are never divorced or separated from the material, political and ideological interests of the ruling few or class.

Similarly, Kaufmann et al (1999) posit that misrule and corruption can hurt the growth rate of incomes and human capital, increasing the rate of natural resource depletion. Also, misgoverned states tend to exhibit a distorted set of economic and institutional policies that blunt factor productivity and growth, thereby increasing poverty which is already endemic. Therefore, via complex direct and indirect mechanisms, effective and clean government is vital for implementing and sustaining sound economic and institutional policies and for promoting human capital development and for alleviating poverty (Kaufmann et al, 1999).

However, according to Fatton (1992), corruption is not an aberration or moral lapse, but the way the system work.

In the experience of the author, Fatton's statement is critical to the development of Africa, especially. It is critical because, the rampant corruption in Africa is a product of system failure, which needs to be addressed by the Africans themselves for alleviating poverty in informal settlements, especially. For example, the "corruption" phenomenon is responsible for almost all conflicts in Africa, where governments are unable to provide the very basic for the survival of it citizens. A case in point is the Sierra Leone protracted civil war, which emanated from successive corrupt governments (with the exception of late Sir Milton Margai's government – 1961 to 1964) since gaining independence from Great Britain in 1961. Sierra Leone, with a population of less than five million, is endowed with rich natural resources which include diamonds, gold, iron ore, bauxite and the newly discovered crude oil to name but a few. But because of the prevalent of rampant corruption among the politicians, civil servants, parastatals, businesses, the ordinary Sierra Leoneans remain poor and could not even be sure of a meal for the next day – the eleven years war have worsen the situation. Corruption is the demise of Africa, but it can be eradicated when appropriate systems are put in place and strictly adhered to.

However, as Dale (1996) observes, governance policies have begun to acknowledge corruption, a word that until recently, which hardly figured in the language of economic diplomacy for fear of offending some developing countries. There is now growing recognition of the economic costs of corruption and as a result the International Monetary Fund and the World Bank have identified it recently as one of the world's main economic and political challenges (Dale, 1996). In this connection, other commentators have suggested that corruption at all levels in Africa especially, promote both self-interest and fatalism, which discourage or impede community participation.

Although it can be argued that the concept of governance is not new, the World Bank had identified Africa's crisis as one of poor governance rather than economic (Hyden and Bratton, 1992). The Bank identified four signs of Africa's poor governance such as the personalisation of power, the denial of fundamental human rights, rampant corruption (as stated above) and the prevalence of unaccountable government (Hyden and Bratton, 1992). Indeed, there is a growing call for the need of good governance in Africa, which requires more democratic government at the national and local levels in order to enhance, among other things, public participation through local community initiatives (UNCHS, 1996). Such broad participation approach among residents has been recognised as a wide social inclusion, especially the community-based participatory element in the upgrading of Squatter Settlements.

Given the fact that policies such as institutional reform and good governance had been too narrowly-based, the World Bank has now redirected its policies to include urban policies and development (Pugh, 2000). This change of direction is meant to embrace a broad-based development transitions such as in the urban, the environmental, the health dimension, and changing volumes and nature of poverty (Stiglitz, 1998). However, while the World Bank's acclaimed broad-based development strategy has been praised by its followers, critics elsewhere has called it a mere 'bluff', because the strategy does not go far enough for poverty alleviation in informal settlements, which now dominate cities of developing countries. In particular, the World Bank's strategies and policies on housing and urban poverty in developing countries seem not to depart from the expedient quick fix solution approaches of the past. The implication here is that the need for the identification of essential institutions that could facilitate policy formulation and implementation at different phases of the delivery process in developing countries has been underestimated or deliberately overlooked. Essentially, unless effective and functional institutions are in place to facilitate policy development and implementation, any subsequent policies would be expedient and cosmetic (Ebohon and Rodrigues, 1998). Institutions, which are discussed in

more detail in chapter three (3.6), are considered as vital to the development process (North, 1994), especially in informal settlements, which are characterised by acute shortages in basic services due to underdevelopment.

2.3 The main Characteristics of Informal Settlements

Informal settlements or low-income communities are now permanent features of urban centres in most developing countries. Typical characteristics of informal settlements and a brief summary of two different kinds of rental housing associated with informal settlers or low-income groups are discussed below (Kandeh and Ramachandran, 1985; Amis, 1984; World Bank, 1993 and UNCHS, 1996):

Settlements are normally established at fringe of cities, on wastelands along sea fronts, hilltops and valleys, which have implications for the urban form and quality of life. The urban form has been reshaped by these irregular settlements, which has resulted to lopsided development. On the other hand, communities living in informal settlements in many parts of the developing countries are particularly vulnerable to environmental hazards (Napier et. al, 2002). This can be attributed to the nature and location of the settlement itself and also to external threats coming from outside of the settlement. This makes the quality of life of residents in informal settlement miserable.

These settlements often vary considerably in their physical layout and density of housing units, ranging from neighbourhoods with a methodical layout and a moderate concentration of dwellings, to areas with an indiscriminate configuration and extremely high densities. These high densities have implications including lost of visual privacy, overcrowding and virtually lack of space for newcomers or residents to put additional dwellings (Tipple and Willis, 1991). As a result of these implications, the residents' quality of life in the settlements would be negatively affected.

Housing units or dwellings are erected or constructed predominantly of what are officially deemed to be 'temporary' or semi-permanent materials and do not conform to existent minimum standards accepted by law. On the other hand, physical planning, building and infrastructure standards have been widely infringed. The implications here are that in most cases residents' lives are at serious risk from natural calamities such as heavy wind or floods. This results in loss of lives, especially children. Further more, government authorities find it difficult to extend services to these 'sub-standard' settlements on the premise that residents would not afford payment. This is both true and false. It is true that most residents would not afford payment for services, because they are unemployed and have no source of income. Such residents find it very difficult to have their daily food intake. On the other hand, it is false that residents in the informal or 'sub-standard' settlements cannot afford payment for services. Because experience has taught us that in many cases residents in informal settlements spend far more money buying services such as water from water vendors than paying for them if extended or provided on their building plots.

The majority of owners have some temporary occupation licences or authority from government agencies to occupy public land, or arrangements with landowners to occupy private land. In some cases, private and public lands are occupied without permission. It must be stressed that in some or most cases, informal settlers have absolutely no rights at all. This has implication for housing development and accessing funds in the sense that there is no proper title deed to guarantee ownership of land or property on which loan can be raised, especially from the formal economy. As a result, residents in informal settlements normally operate or transact in the informal economy, where title deed, for example, is not a condition for lending. In actual fact, construction for most part in informal settlements involves a division of labour among nucleus or extended family members.

Environmental infrastructure – water, sanitation, drainage and solid waste disposal and other basic urban services and amenities are elementary, deficient or non-existent in informal settlements. For instance, where water is provided, it is ordinarily limited to a number of standpipes or communal water points: more commonly, water (as stated above) is purchased from water kiosks or vendors at high cost or obtained from water-wells or streams or rain water collected in containers. The implications here are that public health is compromised and water borne diseases spread easily from time to time. On the other hand, residents are faced with cost implication by using their meagre resources to purchase services, which government authorities could have introduced on their building plots for less payment.

Sanitation is inadequate: where communal water borne sanitation has been installed, it is almost inevitably non-operational, while in cases where non-water borne sanitation (usually pit latrines) have been provided, it is commonly incommensurate with the number of users. Also, solid waste management is acutely deficient, and refuse regularly accumulates in in-sanitary and environmentally hazardous heaps, often blocking open drainage channels. This poses serious health threats to residents in informal residents. Personal hygiene is very low and diseases spread fast, resulting to lost of lives.

Morbidity rates, especially among infants who are among the most vulnerable groups, are significantly higher than in more affluent neighbourhoods. This is primarily due to diseases precipitated by poor environmental conditions resulting from inadequate water suppliers, deficient sanitation, inadequate solid waste management, poor drainage, and overcrowding at both settlements and dwelling levels.

Similarly, the majority of households have low or very low incomes and no assets and are often engaged in informal sector occupations, ranging from hawking to service and production enterprises. manifold informal sector activities are located

in informal settlements and majority of households are tenants. This has implications for both housing affordability and policy formulation and implementation. For instance, housing affordability is practically impossible where people are not gainfully employed and have no source of income whatsoever. On the other hand, it is extremely difficult (if not impossible) to formulate and implement tax policy, for example, in a disorganised or sub-housing market where taxation is not accurately or virtually accounted for.

Last but not the least, a greater number of households have women heads. The main implication here is income and affordability. Most women in informal settlements like their counterparts in formal settlements in developing countries stay at home to rear the children and do not earn any income and therefore cannot afford housing.

Finally, it is important to point out that the residents of informal settlements or low-income groups also use rental housing in many cities of developing countries. Example of such rental housing and the implications for quality of urban life is briefly summarised in the table below.

Brief summary of two different kinds of rental housing used by low-income groups in many cities and the implications for quality of urban life include:

Types of rental accommodation	Common characteristics	Problems
Rented room in subdivided inner city tenement building	Often the most common form of low-income housing in early stages of a city's growth. Buildings originally built legally as residences for middle/upper groups but subdivided and turned into tenements when they move to suburbs or elsewhere. Advantage of being centrally located so usually close to job or income earning opportunities. Sometimes rent levels are controlled by legislation. Many cities in the South never had sufficient quantities of middle/upper-income housing suited to conversion into tenements to make this type of accommodation common.	Usually very overcrowded and in poor state of repair. Whole families often in one room, sometimes with no window. Facilities for water supply, cooking, storage, laundry and excreta/garbage disposal very poor and have rarely been improved or increased to cope with much higher density of occupation caused by subdivision. If subject to rent control, landlord often demanding extra payment 'unofficially'. Certain inner-city areas with tenements may be subject to strong commercial pressures to redevelop them (or their sites) for more profitable uses. Building often very poorly maintained.
Employer-housing for low-paid workers	In many cities, a considerable proportion of the higher income groups provides accommodation for servants. Some large enterprises provide rented rooms for some of their workforce. This is common in plantations but is also evident in some city-based enterprises or for some public authority employees.	The quality of this housing is usually very poor with several people crowded into each room and very inadequate provision for basic services. Rules may prevent workers' families living there and these have to live elsewhere so two separate forms of accommodation have to be paid for and household members have to live apart for of the time.
Public-housing unit	In many cities, public housing units represent a considerable proportion of all rental accommodation although the extent to which low-income groups obtain access to them varies greatly. In some cities, most public housing unit is allocated to government employees or military personnel. Some may be sublet from their original tenants. In many cities, the proportion of public housing stock that is rented is declining, as governments promote their sale to tenants.	The size and quality of the buildings vary greatly – but many have suffered from inadequate or no maintenance. Many have also been very small, relative to the size of household using them.

Source: Adapted from UNCHS (1996).

From our discussion and brief summary of rental housing above, there is clear evidence to show that the quality of housing in informal settlements or low-

income groups is usually very poor with several people crowded into each room and very inadequate provision for basic services (UNCHS, 1996). Such poor housing conditions are clearly a reflection of poverty. In other words, inadequate housing has a direct influence on poverty (World Bank, 1993).

2.4 Urban Poverty and Informal Settlement

It has been recognised that poverty implies deprivation of basic human needs that are not met, which is generally understood to arise from lack of income or assets and is country specific (UNCHS, 1996). To this end, recent WHO report contends, among other things, that:

'Poverty defined solely by level of personal income cannot cover health, life expectancy, literacy or access to public goods or common property resources. Clean drinking water, for example, is essential for a reasonable standard of living but is not reflected in consumption or income as usually measured'.

Thus, 'many poor households have lost access to common property resources which has meant a decline in the availability of fuel, fodder, food and building materials but this is not reflected in income statistics. Likewise, such aspects of a minimum quality of life as security against crime and physical violence and participation in the economic, cultural and political activities of the community are also not revealed in income-based poverty definitions'. Thus, it appears that there is still no universal definition to accurately define poverty, since this varies from country to country.

However, the concept of poverty is multidimensional that it resists a single definition. Nevertheless, Cameron et al (1995) have defined poverty as applying to a group of underprivileged individuals. In the same vein, Taylor and Mackenzie (1992) argued that the poor are a group of people who cannot have what the majority of society accepts as the minimum threshold requirements for decent survival. Similarly, Lipton and Maxwell (1992) defined poverty as the absence of a secure and sustainable livelihood resulting from inadequate personal income

and consumption. However, such definitions have not escaped criticism. It has been argued that rather than measure poverty by income, instead, a Human Poverty Index (HPI), which uses indicators that reflect the conditions in which the poor live should be used (UNDP, 1997). The indicators referred to include life expectancy, literacy, child nutrition, access to health services and safe drinking water. However, according to Pugh (1997), the concept of poverty applies to those individuals whose income and living conditions are below certain acceptable standards of a given society. Thus defined, poverty exposes a host of unfulfilled wants.

Notwithstanding the difficulty with its definition, World Bank (1993) has argued that the general consensus is that the incidence of poverty is highly concentrated among people with little education, who experience unemployment, low job status, small and irregular incomes and poor housing conditions. However, in the view of UNCHS (1996), poverty's most obvious meaning is that of low income per capita, which then results in malnutrition, poor health, and horrible housing in informal settlements, for example.

Given the fact that poverty is by no means similar in certain respects to levels of household monetary income, the very usefulness of the latter in exposing poverty can be either implicit or explicit in the various approaches to defining and measuring the concept. Thus, statistically poverty affects those who either earn less than the average income of a given population, or those whose earnings placed them in the lowest given percentile of societal income distribution. In contrast, subsistence line approaches identify man's basic needs and determine the minimum amount of money required to meeting them. Thus, to define a poverty line, all persons whose incomes fall below this line are regarded as poor. This appears to be the definition adopted in the Global Community, where according to the World Bank (2000/2001), the official definition of poverty is based on the amount of income required to provide a stipulated minimum level of living. For instance, it has been reported that in this new century, poverty remains

a global problem of huge proportion. This is explained by the fact that out of the World's 6 billion people, 2.8 billion live on less than US\$2 a day and 1.2 billion on less than US\$1 a day (World Bank 2000/2001).

However, according to MacPherson and Silburn (1998), it is necessary to measure or examine the concept of poverty in two ways including absolute poverty and relative poverty. Absolute poverty is associated with people whose life is threatened by deprivation and lack the ability to obtain basic human needs such as food, clothing, shelter, health care, education and sanitation services (UNCHS, 1996). Material deprivation has been highlighted in this measure. The other measures in which absolute poverty is revealed include malnutrition, hunger, absence of safe drinking water, basic health care and toilet or sanitary facilities. On the other hand, relative poverty is associated with people who can manage to survive through sharing of goods and services in a community or society.

However, Satterthwaite (1997) argues that measurements of poverty fail to consider both environmental, health and social aspects of deprivation. He opined that absolute poverty in an urban context usually involves five interrelated sets of deprivations, which include:

- a) **Inadequate or unstable income** which manifests in inadequate consumption);
- b) **Inadequate, unstable or risky asset bases** – this include social, human, physical (e.g. capital goods, equipment, housing) and natural (for instance access to productive land and fresh water).
- c) **Limited or no right to full political participation**, which does not guarantee civil and political rights.
- d) **Poor quality / insecure housing and lack of basic services** – that often impose very large health burden and invites high economic and other costs.
- e) **Discrimination**, especially gender discrimination faced by certain groups on their ethnic origin or caste, which apply in the labour and financial markets.

Contrary to the foregoing discussions with respect to the income/consumption poverty line, DFID (2002) argues that personal income can vary greatly from year to year, which is only appropriate for wage earner and has less relevance to the poor, especially in informal settlements. It suggests that many poor people rely on their own production and informal sector activities in which the concept of profit is clear rather than on a formal income. Thus, income/consumption poverty has assumed importance only because of its importance as a developed World phenomenon (DFID, 2002). Notably, income deprivation seems to be very low on the poor priority ranking as against self-respect and powerlessness or lack of domination (Chambers, 1995).

However, housing has been suggested to be a highly visible dimension of poverty (Gilbert and Gugler, 1992). Also, the quality of the urban environment and the performance of the housing sector are inextricably linked. Generally, the urban environment and the residential environment particularly, comprise important elements that define housing quality (World Bank, 1993). Thus, if housing meets the needs and priorities of its residents, it contributes much to physical, mental and social well being (UNCHS, 1996). This is bound to reduce the urban poverty to a significant minimal. Nevertheless, Napier et al (2002) suggest that urban poverty is likely to continue to increase alongside the rise of urban population, unless urban authorities and governance systems improve urban planning and empower the poor to participate in the distribution of the urban benefits for the improvement of their conditions.

However, it is worth mentioning that Sub-Saharan Africa to which Sierra Leone belongs demonstrates the highest percentage of poor in comparison with other regions as Table 2.1 illustrates.

Table 2.1 Estimated percent of poverty

Region	Estimated percentage of poor for 1998
East Asia and the Pacific	15.3%
Eastern Europe / Central Asia	5.1%
Latin America / Caribbean	15.6%
Middle East / North Africa	1.9%
South Asia	40.0%
Sub-Saharan Africa	46.3%
Total	24.0%

Source: Adapted from Napier et al, 2002.

Nonetheless, it has been suggested that poverty negatively affect the urban environment, especially in informal settlements (Taylor and Mackenzie, 1992).

2.5 Urban Environment and Informal Settlements

The concept of environment is almost as multidimensional as that of poverty. Generally, the environment encompasses the natural resource base that provides specific resource inputs, but also provides a sink for absorbing pollution and other services essential to sustaining the livelihood of present and future generation (Jodha, 1995). However, the environment may be defined as the external conditions and influences affecting the life of mankind (Bartelmus, 1986). In other words, the environment is the totality of the external conditions that influence the life (growth, development and functioning) of an individual or a population. Thus defined, it becomes much more than the physical aspect of ones surroundings. It is in deed a combination of physical, social, economic, personal, biological and cultural factors (Omuta, 1988). However, the environment that is of primary functional significance to man is his/her home, which forms the nucleus of his/her housing environment. According to Arias (1993), the dwelling constitutes an environment to the extent that it is an embodiment of the physical, social, economic, cultural and political factors of

society in general, which can influence the individual or people occupying it, with respect to their safety and security. Put simply, homes are anchors of human life – whether they be permanent or temporary environment. The implication is that environments or homes are closely associated with a culture, which may connect people to one another (and the way they perceive, and are perceived by society), especially ancestral past or future.

In this context, the urban dwelling environment is perceived as embracing the physical space available within and around the actual walls of the shelter, the degree of crowding of structures in the neighbourhood, and the degree of crowding of people in an affordable habitable area. It also comprises the amount of privacy guaranteed by the accommodation, the physical appearance and structural stability of the shelter, and the level of sanitation maintained within and around the house (UNCHS, 1972).

However, in the urban environment, Douglas (1983) observed that: 'Great cities are biologically parasites in their use of vital resources, air, water and food, in urban metabolism. The bigger the cities, the more these systems demand from the surrounding countryside and the greater the danger of damaging the natural environment "host"'. In developing countries, however, Pugh et al (2000), have indicated that urban environmental problems are enormous and detrimental to health, production and social development. They pointed out that there is evidence of these conditions in squatter or informal settlements, where rivers are used to dispose of human excreta and household rubbish, for example. This has accounted for 66 per cent of preventable ill health due to environmental conditions in developing countries, especially among children (Pugh et al, 2000). However, UNCHS (1996) has suggested that it is difficult to assess environmental conditions and trends in the world's settlements when the term 'environment' encompasses so much, and means different things to different people. Nonetheless, Taylor and Mackenzie (1992) have suggested that increased poverty induces the poor to degrade the physical environment as they struggle to eke out a precarious living.

2.6 Poverty and Environmental Degradation

The links between Poverty and Environmental Degradation are complex. They are affected by variety of factors such as global to local institutional arrangements, policies, markets, gender relations, property rights, access to technology and information (UNEP, 2002).

However, the links between poverty and environmental degradation and its effect on particular groups of poor people such as low-income informal settlers, for example, among other things, depend on "availability" and "access". Many environmental problems are seen simply via availability of and access to environmental resources. Net forestation, for example, represents an availability decline in forest resources for all groups of people, while its consequences maybe especially serious for those poorer people who depend disproportionately on forest resources for their livelihood (Sen, 1981).

Indeed, Thomas and Humphreys (2001) suggest that environmental degradation involve questions of the public interest while being beyond the capacities of states, even the strongest, to deal with alone. They argue that in many, if not most, parts of the world, local communities and particular groups find their collective needs met by neither market nor state. Supporting this argument, Durning (1989) argues that poor people are forced to over-exploit natural resources to meet short-term needs regardless of the long-term consequences for their environment. In contrast to this argument, Holmberg (1991) suggests that poor people often manage their environment in sophisticated and sustainable ways, and poverty can serve to limit their impact on the environment. They claim that increasing wealth can evidently lead to environmental degradation.

Such claim seems very appropriate in the case of environmental degradation that continues to take place due to divergence between poverty and affluent life style, especially in the developed economies of the Developed World. Indeed,

increased industrialisation and urban developments, in the absence of comprehensive planning and regulation to protect the local environment, have caused and continue to cause several adverse impacts on the biophysical environment, especially in informal settlements (Napier et al, 2002). For instance, the energy sector is the major polluter both locally and globally, because of the increased burning of fossil fuels in the form of petroleum products in all the economic sectors. That is, transportation, industry and power generation as well as domestic application, which are beyond the reach of the poor, especially in informal settlements.

Thus, the form of pollutants and emissions from informal settlements are a great deal less than those produced by formal settlement activities (Napier et al, 2002). This makes the urban poor (especially in informal settlements) more clearly victims rather than principal agents of environmental degradation. Of course, it is only fair to say that the urban poor in informal settlements do contribute to degrade the biophysical environment in the sense that excreta, household rubbish, among other things, for example, are disposed of in an unsanitary manner due to inadequate or lack of services and facilities. Also, in addition to the unplanned extension of the settlement, it is difficult for the urban poor to reduce dependence on, or to manage the collection of natural materials, which in some cases leads to the loss of biodiversity in the area.

In deed, the rural poor in developing countries are often implicated in processes of environmental degradation. They appear to be at the same time both its victims and its unwilling agents (Taylor and Mackenzie, 1992). In deed, the rural poor in developing countries such as Sierra Leone, in most cases, are victims of environmental degradation. For instance, both the diamond, bauxite and rutile mining by companies from the developed world in the minerals-rich areas of South-Eastern Sierra Leone have transformed stretches of virgin lands into waste lands. Unlike agricultural activity, which would have enhanced economic development and improved quality of life of Sierra Leoneans, proceeds from

mining operations have only benefited both corrupt government officers, big businesses and smugglers. The majority of Sierra Leoneans, especially the poor remain in poverty and continue to suffer the attendant environmental degradation.

However, the link between housing and poverty can hardly be ignored in the discussions about the environment not only in rural areas, but also in urban areas. According to World Bank (1997), environmental degradation primarily affects the poor, both in rural and urban areas. The urban poor have been recognised to be vulnerable to environmental problems and disease due mainly to their inadequate housing circumstances and reliance on often hazardous informal bread-winning activities (Urban Edge, 1991). It has been a common allegation that the poor degrade and pollute their environment, which seems unavoidable in most cases, since they are often denied basic urban services. In view of this, Tipple (1994) asserts that government authorities, on the other end, claim that the requisite resources to extend such services are absent and the urban poor cannot afford them.

However, Hardoy and Satterthwaite (1990) suggest that important qualitative differences exist between poverty-environment interface in urban areas compared to the rural areas. It was argued that urban environmental degradation often contributes to processes of impoverishment, but poor people and their activities have relatively less impact on the environment than in the rural areas (Hardoy and Satterthwaite, 1990). Thus, impact of urban environmental degradation is primarily felt in the health status of the urban populations.

Indeed, according to Hardoy and Satterthwaite (1984), there is clear proof that the urban poor suffer disproportionately from environment problems - the housing environment of low-income group in cities of developing countries are among the most degraded and unhealthy living environment in the world. Accordingly,

UNCHS (1996) has noted nine features of the housing environment as having important direct or indirect effects on the health of their occupants or inhabitants:

- The structure of the shelter (which includes a consideration of the extent to which the shelter protects the occupants from extremes of heat or cold, insulation against noise and invasion by dust, rain, insects and rodents).
- The extent to which the provision for water supplies is adequate – both from a qualitative and a quantitative point of view.
- The effectiveness of provision for the disposal and subsequent management of excreta and liquid and solid wastes.
- The quality of the housing site, including the extent to which it is protected from contamination and provision for drainage.
- The consequence of over-crowding – including household accidents and airborne infections whose transmission is increased: acute respiratory infectious diseases; pneumonia, tuberculosis.
- The presence of indoor air pollution associated with fuels used for cooking and / or heating.
- Food safety standards – including the extent to which the shelter has adequate provision for storing food to protect it against spoilage and contamination.
- Vectors and hosts of disease associated with the domestic and peri-domestic environment.
- The home as a workplace – where occupational health questions such as the use and storage of toxic or hazardous chemicals and health and safety aspects of equipment used need consideration.

Using the above criteria, UNCHS et al (1989 and 1991) have indicated that the urban housing environments of the lower income groups in the developing countries rank as the most unhealthy and life threatening environments. Indeed, Olpadwala and Goldsmith (1992), WHO (1988) and other experts have linked the low productivity of the urban poor to high urban environmental degradation.

Thus, it is argued that the infant mortality rates, which is largely caused by environmental factors such as inadequate housing, lack of access to safe drinking water and sanitation explain the low productivity of the urban work force. As observed by Tipple (1994) the rapid urbanisation and poverty have constrained people to live as inexpensively as possible on dangerous, marginal sites and inadequately constructed houses.

Nevertheless, Gilbert and Gugler (1992) has argued along this line that the extent of the problem depends on the relative size of cities. Thus, conditions in large and small cities need to take account of the fact that the manifestation of poverty differs. In large cities, poor housing conditions are likely to be found where high proportions of people live in room and at the same time paying high rent. Jobs and services may be available in the central areas of those cities, but space is at a premium. On the other hand, in small cities the problems may be just the reverse.

However, poor housing conditions reflect poverty and housing quality improves with higher incomes (World Bank, 1993). In other words, poverty exacerbates housing problems on one hand, and on the other, with higher incomes housing improves, which in turn improves quality of life, especially for residents in informal settlements.

However, according to the UNCHS (1996), ideally, a range of indicators should be measured that reflect two aspects of quality of life or wellbeing: The constituents of well-being such as health, life expectancy, civil and political rights, and the main determinants of well-being such as income, housing quality (that should include adequate provision for water, sanitation and drainage within neighbourhoods), and the quality and accessibility of schools, health care services and other social facilities. Nonetheless, UNCHS (1996) has suggested that for most nations, there is inadequate data to be found for most of the

constituents and determinants of well being or quality of life to allow progressive assessment.

Given the fact that, the well being or quality of life in informal settlements in developing countries has received little treatment in previous studies as stated above, attempts have been made in this study to examine the quality of life in the informal settlements of Sierra Leone, using UNCHS indicators. This would assist us to empirically assess the actual quality of life as experienced by residents in informal settlements in Freetown, to inform on policy formulating, implementing and targeting poverty alleviating policies.

Quality of life (QoL) is difficult to precisely define and may mean different things to different people, because of its subjectivity. However, QoL of life is understood as a component of way of life and it encompasses more than adequate physical well-being, it includes perceptions of well-being, a basic level of satisfaction and general sense of self-worth (Bowling., 1997). However, given the difficulties in defining the concept of quality of life precisely, the author assumes that these difficulties may be reduced considerably by introducing the Post-modern Theory of Explanation in order to make sense of the various viewpoints that have been advanced on quality of life, especially in informal settlements.

Indeed, Rogers (1991) has noted that postmodernism offers not just a conceptual framework for formulating theories, but a basis for theorising itself about, say, psychological phenomena like attitudes, opinions and belief. This kind of theory, she explains, proposes that the way we make sense of our world in everyday life is a process of making explicit, at any precise point in time, one from a number of co-existing complementary explanations. In other words, Rogers (1991) suggests that not just that social realities are constructed, nor just that different people construct different realities, but that each individual and collective draws upon and lives constantly within multiple realities. She contends that, as regards postmodernism, there is not a single, coherent real world, but instead that there

are multiplicity of alternative realities. These multiplicity of alternative realities, which are referred to by others as 'social construction of reality' will be applied from time to time in the subsequent chapters.

Furthermore, it has been observed that QoL or well being comprises an external and internal components. The external component deals with people's perceptions of quality of life or wellbeing in informal settlements, while the internal component covers the actual quality of life or wellbeing in informal settlements (as experienced by the residents themselves) within the confines of their community in Sierra Leone. Thus, this gives us the opportunity to briefly discuss below the UNCHS (Habitat) indicators for quality of life within the built environment, which would be empirically validated against the quality of life within the informal settlements in Sierra Leone.

2.7 UNCHS (Habitat) Indicators of QoL

Here, we will attempt to briefly but separately discuss six indicators of QoL as stated by UNCHS and these include health, life expectancy, civil and political rights (Constituents of wellbeing or QoL); and income, housing quality and education (Determinants of well-being).

2.7.1 Health

Sagan (1987) has suggested that while the absence of disease maybe necessary to good health, clearly health implies more than an absence of disease. He went on to suggest that an element critical to health is a sense of subjective well-being, happiness, joy, or exuberance – in other words, health is not an objective entity but a highly subjective one, reflecting the individual's cultural and personal values. Sagan states that entities such as those referred to above are difficult to define and measure.

However, according to the World Health Organisation (WHO), health may be defined as "a state of complete physical, mental and social well-being and not

simply the absence of disease or infirmity” (1958). Nonetheless, in his view, Sagan (1987) observes that, though the WHO definition highlights health as a positive and meaningful entity that has dimensions of its own, yet such definition creates other problems: for example, who is to decide whether a state of well being exists? He argues that presumably judgements of “well-being” are subjective judgements of the individuals themselves. If this is the case, he queried, how do we identify persons with good health other than by asking them? And what of the WHO inclusion of “social well-being”? These, he points out suggests that the individual’s characteristics alone are not sufficient to establish and maintain health, but that a salutary environment, both psychological and economic, must be present. In support of Sagan’s argument, Blaxter (1990) affirms that from a wide-ranging and complex data obtained from survey participants and which included some interesting results on beliefs about health, content analysis of open-ended replies generated nine definitions of health. These are summarised in Table 2.2.

Table 2.2: Summary definition of health

Definition	Sample Statement
Not ill	When you don’t hurt anywhere and you’re not aware of any part of your body.
Despite disease	I am very healthy although I do have diabetes.
A reserve	Both his parents are still alive at 90 so he belongs to healthy stock.
Living a healthy life	I call her healthy because she goes jogging and she doesn’t eat fried food. She walks a lot and doesn’t drink alcohol.
Physical fitness	There’s a tone to my body, I feel it.
Energy and vitality	Health is having loads of whumph. You feel good you look good, nothing really bothers you, everything in life is wonderful, you seem to feel like doing more.
Social relationships	You feel as though everyone is your friend, I enjoy life more and can work, and help other people.
A means-to-an-end	Health is being able to walk round better, and doing more work in the house when my knees let me.
Wellbeing	Emotionally you are stable, energetic, happier, more contented and things don’t bother you.

Source: Adapted from Blaxter’s (1990) definition of health.

However, Blaxter (1990) observes that the concepts of health expressed by the majority of people as well as the kinds of definitions offered, varied depending on the stage of life and gender with younger men tending to speak of health in terms of physical strength and fitness, whereas younger women seeing health more in terms of energy, vitality and the ability to fit in. She notes that in middle age, thinking becomes more complex, with greater emphasis being placed on mental and physical wellbeing with regards to older people, particularly men. Blaxter notes that they are more concerned with the functional aspect of health, such as the ability to perform development activities within the built environment.

Indeed, UNCHS (1996) has suggested that the built environment within villages and urban areas of all sizes should be safe places where environmental hazards are minimised and where environmental factors do not figure as major causes of serious injuries or illnesses or premature death. Considering that the costs of achieving safe environments are not very high and the social returns as well as the economic benefits are both very high, it is very important to invest in effective environmental management (UNCHS, 1996).

It is noted that in all settlements or communities, the health of the inhabitants has always depended on their ability to maintain a healthy environment (UNCHS, 1996). In this respect, World Bank (2000/01) affirms that in urban areas, the health of the poor is particularly affected by a degraded environment, one characterised by sub-standard housing, inadequate or polluted water, lack of sanitation systems, and outdoor and indoor air pollution. It argues that ill health leads to a host of problems, including a decreased ability to work. As a result, the report went on to suggest that improving the urban environment positively impact the health of the poor.

However, White (1994) observes that humans constantly modify their environments, both built and natural. He warns that the urban environment itself is profoundly changing the entire global ecosystem, with consequences that we

have only just begun to think about. He advises that for us to understand the environmental role played by settlements or cities, the damage done, and the actions that may be put in place to minimise the damage, it is very essential to see the city or settlement as part and parcel of the environment. Based on this advice, UNCHS (1996) opined that, the management of our city or settlement environment could either be done by mutual co-operation of residents or delegating such management to some city or village authority. In particular, UNCHS (1996) has expressed the need for the protection of settlements' communal water sources and the control of water surface either for irrigation purposes or for controlling floods. Indeed, sharing the view on clean water, Sagan (1987) asserts that the importance of clean water to health has been recognised for literally thousands of years. He explains that in recent times experiments in a number of cities demonstrated that, in addition to the need to boiling water, filtering and then, later, chlorinating of water were significantly associated with a reduction in the incidence of certain diseases, notably typhoid fever.

However, UNCHS (1996) has noted that as the size of a settlement grows and as its economic base expands and demands increase on local resources, so does the need for a system to manage three environmental tasks:

- the safeguarding of basic resources – for instance to ensure that all inhabitants receive freshwater while the sources from which the freshwater is drawn is protected;
- to ensure wastes are removed; and
- to prevent any individual or enterprise dumping their environmental costs on others.

However, for such management to occur there has to be a proper policy framework. Thus, it is the official responsibilities of government agencies and local authorities to undertake the three tasks stated above. Nevertheless, their

failure or inability to do so in practical terms in many settlements in the Developing Countries has resulted in serious environmental problems. However, UNCHS (1996) has attributed any person's state of health to be the result of interactions between their human biology lifestyle, the health-care system and the environment. They do however, concede that history, suggests that the environment has always played a major role in our state of health. Thus, environmental hazards such as biological pathogens in the air, water, soil or food have always been among the main causes of disease and death in urban and rural settlements. Similarly, WHO (1998) asserts that poor environmental quality is implicated in the explanation of more than a quarter of all preventable ill-health, including diarrhoea, and acute respiratory infections, which would have negative effect on life expectancy.

2.7.2 Life Expectancy

Life expectancy is a measure of the average number of years a person will live from the day he or she is born. This measure gives rise to a powerful tool for indicating social achievement. It exposes the extent to which economic, social and political factors within a country have made it possible for citizens to avoid premature death and, in general, lead a healthy life (UNCHS, 1996). According to WHO (2000), Japanese have the longest life expectancy of 74.5 years among 191 countries as against less than 26 years for the lowest-ranking country of Sierra Leone. While life expectancy estimates were previously based on overall length of life based on mortality data only, recent emphasis is placed on Disability Adjusted Life Expectancy (DALE) developed by WHO scientists. DALE summaries the expected number of years to be lived in what might be termed the equivalent of "full health". DALE is calculated by weighting the years of ill health according to severity and subtracted from the expected overall life expectancy, which gives the equivalent years of healthy life.

The WHO rankings show that years lost to disability are substantially higher in poorer countries because of some limitations – injury, blindness, paralysis and

the debilitating effects of several tropical diseases such as malaria – strike children and young adults. People in the healthiest regions loss some 9 percent of their lives to disability, versus 14 percent in the worst-off countries (WHO, 2000). Given in terms of DALE, WHO has identified ten top nations including Japan to have healthy life expectancy, while ten countries including Sierra Leone make the bottom ranking as Table 2.3 illustrates.

Table 2.3: Ranking of Healthy Life Expectancy given in terms of DALE

Countries (10 top)	Healthy Life Expectancy (in years)
Japan	74.5
Australia	73.2
France	73.1
Sweden	73.0
Spain	72.8
Italy	72.7
Greece	72.5
Switzerland	72.5
Monaco	72.4
Andorra	72.3
Countries (10 bottom)	
Ethiopia	33.5
Mali	33.1
Zimbabwe	32.9
Rwanda	32.8
Uganda	32.7
Botswana	32.3
Zambia	30.3
Malawi	29.4
Niger	29.1
Sierra Leone	25.9

Source: WHO (2000)

Accordingly, several factors go into making, for example, Japan number one in the healthy life expectancy rankings. One is the low rate of heart disease, associated with the traditional low fat diet. The national diet is changing, with high fat foods such as red meat becoming common. The effects of tobacco have also been mild until recently, with low lung cancer rates. These rates for men are expected to jump in coming years as the long-term effects of the post-world war 11 smoking popularity begin to hit (WHO, 2000). However, WHO has been quick to suggest that as countries get richer, women tend to live longer and healthier than men do. This has been attributed to the fact that women are generally more health conscious, have better diets than men, have much lesser smoking rates and exercise much more. However, WHO contradicts that women in richer countries have adopted smoking much more in recent years. This, it warns will translate into disability and death rates in the coming years.

Given the situation above, it has been acknowledged that there are large variations in the life expectancy of countries (UNCHS, 1996). Various explanations have been given for such variations. Three of the main ones being:

First, the countries with the highest life expectancy are generally the countries considered to have the highest per capita income.

Second, the countries with the lowest life expectancy are the countries generally with the lowest capita income.

Third, while the countries with the highest per capita income exhibit better ways of promoting, for example, human settlement policies on housing and services associated with housing, especially water, sanitation and health care, which increase life expectancy, the countries with the lowest per capita income do not. Also, while the rate of inequality within the countries of the highest life expectancy in terms of income and asset that helps explain their natural average life expectancy is low, that of the countries of the lowest life expectancy,

including Sierra Leone is very high. Nevertheless, it has been suggested that life expectancy would be improved in the countries of the lowest life expectancy if only poverty is reduced or eradicated and especially if there is an even or fair distribution of income.

2.7.3 Income distribution

In general, an income in the economic sense can be said to be money received by a household or households during a period as wages for services rendered or interest earned for doing business.

However, comparing income distribution across countries is particularly difficult; aside from the fact that the data are simply not available for some countries, results will depend on data collection methods and the time of collection (e.g. when in the economic cycle), and will vary according to the measure (usually income or consumption) upon which distribution estimates are based. With this caveat, World Bank figures on income distribution for 1987, 1990 and 1998, produced on fairly mechanical basis from GDP and income share estimates, suggest that extreme poverty declined only slowly in developing countries during the 1990s. The share of the population living on less than US\$1 a day fell from 28 percent in 1987 to 23 percent in 1998, and the number of poor people remained roughly constant, as the population increased. The share and number of people living on less than \$2 per day - a more relevant threshold for middle-income economies such as those of East Asia and Latin America – showed roughly similar trends (see Tables 2.4 and 2.5)(World Bank, 2000/01).

Table 2.4: Population living on less than US\$1 per day in developing countries, 1987, 1990 and 1998

Region	Population covered by at least one survey (percent)	No. of people living on less than \$1 a day (millions) 1987	No. of people living on less than \$1 a day (millions) 1990	No. of people living on less than \$1 a day (millions) 1998
East Asia and the Pacific	90.8	417.5	452.4	267.1
(excluding China)	71.1	114.1	92.0	53.7
Eastern Europe and Central Asia	81.7	1.1	7.1	17.6
Latin America and the Caribbean	88.0	63.7	73.8	60.7
Middle East and North Africa	52.5	9.3	5.7	6.0
South Asia	97.9	474.4	495.1	521.8
Sub-Saharan Africa	72.9	217.2	242.3	301.6
Total	88.1	1,183.2	1,276.4	1,174.9
(excluding China)	84.2	879.8	915.9	961.4

Source: Adapted from World Development Report (2000/01), World Bank.

Table 2.5: Population living on less than \$2 per day in developing countries, 1987, 1990 and 1998.

Region	Population covered by at least one survey (percent)	No. of people living on less than \$2 a day (millions) 1987	No. of people living on less than \$2 a day (millions) 1990	No. of people living on less than \$2 a day (millions) 1998
East Asia and the Pacific	90.8	1,052.3	1,084.4	884.9
(excluding China)	71.1	299.9	284.9	252.1
Eastern Europe and Central Asia	81.7	16.3	43.8	98.2
Latin America and the Caribbean	88.0	147.6	167.2	159.0
Middle East and North Africa	52.5	65.1	58.7	85.4
South Asia	97.9	911.0	976.0	1,094.6
Sub-Saharan Africa	72.9	356.6	388.2	489.3
Total	88.1	2,549.0	2,718.4	2,811.5
(excluding China)	84.2	1,796.6	1,918.8	2,178.7

Source: Adapted from World Development Report (2000/01), World Bank.

However, World Bank (2000/01) points out that population below US\$1 a day and population below US\$2 a day are the percentages of the population living

below those levels of consumption or income at 1993 prices, adjusted for purchasing power.

However, the concept of US\$1 a day or US\$2 a day 'poverty lines' has been challenged by Satterthwaite (1997), who claim that such use is inaccurate. In general, poverty declined in countries that achieved rapid growth, and increased in countries that experiences stagnation or contraction. Indeed, in Sub-Saharan Africa, slow growth increased both the share and the number of the poor in the 1990s; Africa is now the region with the largest share of population living on less than US\$1 per day (World Bank, 2000/01). Nevertheless, experience shows that income inequality is extremely high in informal settlements where residents, because of their settlements are not legally recognised, cannot fully benefit from education and health services.

2.7.4 Education and Health

Education and good health improve people's ability to shape their lives – strengthening their functioning in society and contributing to their welfare directly. Educating women, for example, not only increases their income – earning capacity, but also improves their reproduction health, lowers infant and child mortality, and benefits both current and future generation (Thomas et al, 2000). Thomas et al intimate that education and good health increase the poor's ability to cope with changes in their environment, which allow them to switch jobs and provide some protection against economic down turns and financial crisis. Furthermore, Thomas et al (2000) suggest that investing in human capital is crucial for economic growth, poverty reduction, and environmental protection on one hand. On the other hand investing in people does not only help to overcome social exclusion and increase productivity, but also improves human rights and social justice, which provides direct satisfaction. As a result, basic education enables the poor to learn about their civil and political rights – to exercise those rights by voting and running for office and to voice their concerns, seek legal redress, and exercise public oversight (Thomas et al, 2000).

However, it has been observed that progress in education and health in most developing countries remain a nightmare due to lack of funds, professionally qualified personnel, appropriate institutions and underdeveloped infrastructure (Ebohon and Field, 1997). Sharing this observation, World Bank (1999) affirms that lack of access to basic education remains a major challenge in many countries. According to the Bank, for example, increase in public spending on education is desirable, but not sufficient due to the fact that, mainly public spending is only weakly related to outcomes. In effect, therefore, it may be appropriate to suggest that education outcomes depend on both demand and supply factors, thus on policies and incentive structures that affect the whole economy, especially the urban environment and housing quality (World Bank, 1999).

2.7.5 Urban Environment and Housing quality

The issue of housing is extensively discussed in chapter three. However, the quality of the urban environment and the performance of housing sector are inextricably linked. The urban environment in general, and the residential environment in particular, comprises important elements of the quality of housing. Water quality, sewerage and drainage facilities, solid waste disposal, and the spatial distribution of housing all affect the quality of housing or its price, as well as having consequences for the sustainability of the urban environment (World Bank, 1993).

Indeed, according to UNCHS (1996), it has been found that the higher the per capital income of the country, the larger and better quality of the housing and the higher the proportion of dwelling units that have water piped to the plot and are made of permanent building materials. Nevertheless, UNCHS notes that large differences exist in housing quality between the most prosperous cities in countries with comparable levels of per capita income. These differences, UNCHS suggests effective government housing policies, especially efficient

systems that ensure an unconstrained supply of land, materials, infrastructure for housing and finance, are among the main reason for this difference.

However, UNCHS (1996) has observed, among other things, that there is no evidence that housing conditions for the lower income groups in cities in developing countries have improved since Habitat I in terms of affordability, tenure, standards and access to services. Supporting this observation, World Bank (1993) affirms that despite the expansion of water supply and sanitation facilities during the 1980s, the absolute number of urban dwellers without sanitation services in developing countries has grown by 70 million, and those without a nearby source of potable water by 170 million. Nevertheless, lack of basic services such as, for example, sanitation and safe drinking water has been mostly associated with residents of informal settlements, which had adverse affect on their health in particular, civil and political rights in general (Napier et al, 2002).

2.7.6 Civil and political rights

Although not commonly associated with poverty, civil and political rights are seen as indicator of poverty. Satterthwaite (2000) suggests that obsolete poverty in an urban context usually involves interrelated sets of deprivations, which among other things, includes limited or no right to make demands within the political or legal system – often within a framework which does not guarantees civil and political rights. For instance, the right to have representative government, the right to exercise voting rights, the right to organise and to make protection against forced eviction. He further suggests that lower income groups are also often more affected by occupational and environmental health and safety hazards because of inadequate legislation or its implementation. The implementation of legislation or policies by most governments of Africa has been and is still a nightmare. For example, successive governments in Sierra Leone have always come up with good legislation or policies that would enhance

economic development, but there have been no implementations because of bad governance.

However, Thomas et al (2000) indicate that the paramount importance of civil and political rights or liberties transcends its worth in lowering corruption, or merely as an "input" to development outcome – it is a basic good that enhances welfare. At the same time, they state that assessing whether civil rights do matter as an input in developmental and financial outcomes is of relevance within the debate in the aid community regarding fiduciary responsibilities to make aid effective. Supporting their statement, Thomas et al assert that evidence from more than 1,500 World Bank-finance projects suggests that civil rights and citizen or community participation are important factors for quality housing development.

2.8 Summary

The literature review focuses on the interface between poverty, informal settlements and environmental degradation and has been critically explored. It is well acknowledged that poverty in the developing countries, especially Sub-Saharan Africa is replicating into different forms and dimensions. Some of the direct manifestations of poverty is found in inadequate housing, prevalence of informal settlements, and degraded biophysical environments. Although several policies have been prescribed, the need to have such policies to country specifics is overwhelming, especially the acceptance that features and extent of poverty and the attendant implications could vary according to size of cities. Implicitly the size of countries, their places within global economic order, population and economic structures would have important bearings on poverty, informal settlements and the biophysical environment. These country specific attributes for Sierra Leone would be considered towards arriving at effective and efficient policies for poverty alleviation, especially in informal settlements for a better quality of life within the built environment. The next chapter examines urban poverty and the biophysical environment in informal settlements.

CHAPTER THREE

URBAN POVERTY AND THE BIOPHYSICAL ENVIRONMENT IN INFORMAL SETTLEMENTS IN SIERRA LEONE

3.1 Introduction

This chapter starts with a summary account of the pattern of urbanisation in Sierra Leone, and the prevailing rural and urban poverty. An analysis of the demographic dimension of the urban housing challenge in Sierra Leone – regarding housing need, demand and supply is presented. This is followed by an examination of housing policies, strategies and programmes that have been suggested to address the urban housing issue. The constraints to an effective supply of low-income urban housing are examined, along with the legal and regulatory framework within which urban housing development takes place. The role played by the formal housing sector in supplying housing for the urban low-income majority is appraised. Finally, the informal sector is considered and a physical description of each of the three settlements that were studied is provided.

3.2 Urbanisation and Demographic Trends in Sierra Leone

The earliest official estimate of the Sierra Leone population was recorded in 1901 and numbered at 1.02 million. Another “censuses” followed in 1911, 1921, 1931 and in 1948, all of which were unreliable and could neither provide data on urban growth nor define an urban area regarding urban settlement.

However, after Sierra Leone attained its independence in 1961, three reliable “censuses” have been conducted in 1963, 1974 and 1985 respectively. The 1985 census is the last and recent one. These post independence censuses had been invaluable as major source of population data, particularly for Government Administration and Development Planning (Kandeh and Ramachandran, 1985). The population figures for the period 1901 to 1985 are in Table 3.1.

Table 3.1: Population for the period 1901 to 1985.

Year	Population (million)
1901	1.02
1911	1.40
1921	1.54
1931	1.77
1948	1.86
1963	2.18
1974	2.74
1985	3.52

Source: Kandeh and Ramachandran, 1985

However, reliable data on urban growth emerged with the population censuses conducted in 1974 and 1985, which defined an urban settlement as one with a minimum of 2000 inhabitants. These censuses indicated that urbanisation is still low in the country as only five towns had 2000 or more inhabitants (Kandeh and Ramachandran, 1985). These urban centres, according to Kandeh and Ramachandran (1985), constituted the centre of social, economic and administrative activities.

However, due to sustained high fertility and declining mortality levels, there have been rapid increases in population. Data derived from the 1963 and 1974 National Population Censuses and the 1985 National Population and Housing Census show that total population has increased from 2.74 million in 1974 to 3.52 million in 1985. These figures represent absolute increases of 28.49 percent between 1974 and 1985, making annual rates of 2.3 percent between 1974 and 1985. The present population at the 1994 estimate is 4.37 million and by projection it is to reach 6.58 million in the year 2010. While the population of Sierra Leone shows an uneven distribution among 12 districts in the Northern, Eastern and Southern Provinces and the Freetown Peninsula in the Western Area (See Figure 3.1, page 125), the country occupies an area of 28,000 square miles or approximately 72,000 square kilometres with population densities of 38 and 49 persons / sq. km. respectively in 1974 and 1985.

Similarly, the figures from the 1985 census show that approximately 69.5 percent of the Sierra Leone population were rural and the remaining 30.5 percent urban. Contrary to the suggestion that urbanisation is still low in the country, comparative figures from the 1974 population census indicate relatively rapid rates of urbanisation for Sierra Leone as a whole (Kandeh and Ramachandran, 1985). Accordingly, there has been an increase in the urban population by 5.3 percent per annum between 1974 and 1985, while for Freetown, which accommodates 50 percent of the urban population, the rate of increase was higher, over 10 percent per annum. Conversely, there has been less than 1.5 percent per annum growth in the rural population, which explains the fact that the family units in the rural communities are becoming smaller. This has been attributed to rural-urban migration, especially young people moving away from traditional rural setting to big towns and cities in search of fortunes or greener pastures (Pugh, 2000).

The civil conflict in the country has triggered important changes in the distribution of the population within the past eleven years. There are no reliable figures available on the numbers, or directions of movements of the displaced persons. However, according to the United Nations Humanitarian Affairs Co-ordination Unit (HACU), registered internal displaced Persons (IDPs) currently total 183,077, consisting of 56,960 IDPs in approved and unapproved centres in Freetown and the surrounding peninsula; 17,077 in Bo; 3,400 in Pujehun (both in the Southern Province); 54,891 in Kenema; 95 percent of the 32,000 in Daru are IDPs (both in the prosperous Eastern Province), 16,377 in Port Loko; 20,000 in Kambia, and 14,373 in Tonkolili (all in the Northern Province). Also, an estimated 90,000 Sierra Leonean refugees remain in Liberia, 350,000 in Guinea, 2,000 in Ghana, and 8,000 elsewhere in West Africa. These estimates do not account for those on resettlement programmes in America and Europe or in the Developed World. See Figure 3.2, page 126, which shows Political Sierra Leone.

However, it is important to state that before the distortion to the pattern of Sierra Leone population by the protracted civil conflict, the urban population was initially concentrated in the four largest capital cities. The Capital Freetown, which is the principal port city; Bo, the commercial capital of the South; Kenema, the capital of the diamond rich East, and Makeni, the commercial capital of the North as shown in Figure 3.1 in page 125. Of these four cities, Freetown has the greatest socio-economic opportunities, which explains why it accounts for over 70 percent of the population (Kandeh and Ramachandran, 1985). Nonetheless, statistical evidence indicates that the intermediate towns are now also growing fast into urban centres or cities (Kandeh and Ramachandran, 1985). Indeed, the development of urban cities constitutes a major component of Government's policy of achieving a rural-urban balance through even distribution of socio-economic opportunities and infrastructure to all parts of the country (National Development Plan 1974/75 – 1978/79). However, the supply or distribution of urban services has not matched the increasing need in almost all-urban cities. For instance, accessibility to employment, education, affordable housing, commercial and social services, and several other urban facilities and amenities are difficult with rapid urbanisation. Public expenditures in most urban cities, have declined in nominal and real terms whilst capital requirements have increased with expansion in urban population (Syagga, 1992). As a result, there is a huge gap in urban services and basic infrastructure, perpetuating a vicious cycle of poverty, unemployment, and urban degradation.

The administration of urban areas is, for the most part, under the auspices of the Ministry of Local Government and the Local Authorities. Within the Sierra Leone framework or context, the administration of urban cities or areas is the responsibility of the Interior Ministry. This Ministry has the primary responsibility of overseeing the operation and financing of local authorities and district councils. It is also required on the one hand to interpret and disseminate central government policies to local authorities and district councils and on the other hand give them technical assistance. The need for technical assistance at this

period of reconstruction and rehabilitation, after eleven years of total destruction of lives and properties in Sierra Leone's rural and urban areas, cannot be overemphasised.

3.3 Rural and Urban Poverty in Sierra Leone

In a current study of poverty in the developing world, the UNDP Human Development Index ranks Sierra Leone as the poorest country in the world. About four-fifths of Sierra Leone's population live in absolute poverty, with expenditures below US\$1 a day. The population below this poverty line is highest in the rural areas where 88 percent of the rural population live below the poverty line. However, this fell to 77 percent in the large towns and 71 percent in smaller towns (FDHSDSD, 2001). In economic and development terms, the 1990s marked the worst period in Sierra Leone history. Gross Domestic Product (GDP) per capita declined from US\$ 237 in 1990 to about US\$ 142 in 2000, a fall of around 40 percent. A host of other indicators point to the severity of poverty in the country: Life expectancy at birth is about 38 years compared to 45 years for Sub-Saharan Africa; only three out of ten people can read or write, compared to the Sub-Saharan average of 60 percent; primary school enrolment of children in the school age bracket declined from 55 percent in 1990 to 42 percent in 1999; food security has deteriorated and in 1999, only 20 percent of the national requirement of 450,000 metric tons of rice, which is the staple food, was domestically produced; and 65 percent of the population does not have access to safe drinking water, 60 percent to health services and 80 percent to sanitation (FDHSDSD, 2001). As in many other poor countries, FDHSDSD (2001) observes that property-related indicators are more pronounced among the female population. For instance, illiteracy among women stands at 89 percent in contrast to 69 percent for men; and primary school enrolment in school age cohort is 38 percent for girls but 58 percent for boys. The highest illiteracy among females is attributable to their school enrolment, higher dropout rates, early marriages, and high demand for female labour as well as teenage pregnancies. The health status of women is often poorer than that of men because of high fertility rates,

work-related stress, high mortality rates and insufficient food nutrients, which is aggravated by inadequate housing.

3.4 Housing need, demand and supply

In assessing the housing situation in developing countries Abrams (1964) states that: "Despite man's unprecedented progress in industry, education and sciences, the simple refuge affording privacy and protection against the elements is still beyond the rich of most members of the human race." Similarly, Payne (1977) notes that the combination of high urban growth rates, inappropriate policies and inequalities in distribution of resources has created a situation in which a large proportion of urban population is unable to afford conventional minimum dwellings. Sharing this view; Konadu-Agyemang (2001) suggests that housing production, access and affordability and maintaining existing stock in habitable condition still remains some of the most intractable problems facing many cities in the developing countries, where population growth has exceeded their capacity and ability to provide basic shelter. Sierra Leone is one such country, where the problems of population growth coupled with ten years of civil conflict, vis-a-vis limited housing production, are starkly demonstrated.

However, though it is customary to introduce discussions on housing or shelter in the Southern Hemisphere with some overall assessment of needs and their satisfaction, yet various writers have highlighted the disadvantages in this approach (Rakodi, 1992). The estimation of these needs usually takes into account demographic data on population growth rates and household formation, including an assessment of existent dwelling units in terms of the numbers, size, condition and facilities (National Housing Policy Report, 1994). Moreover, the estimation of housing needs, by whatever approach, produces estimates that are daunting in relation to the physical and fiscal capacities of most developing countries, and as a result discourages housing investment rather than encourage it (Drakakis-Smith, 1981). Thus, in recent project planning and research, the

focus has been on assessing effective demand or needs for housing or shelter (Rakodi, 1992).

3.4.1 Housing Need

The Sierra Leone National Housing Policy Report (NHPR) affirms that in estimating housing needs, an assessment must be made of both current and future needs required by a given population without reference to their ability to afford. Affordability of housing as Haffner (2000) noted, is usually measured as the ratio of household expenditure to household income.

The NHPR elaborates that current housing needs consist of the number of dwelling units required for (a) reducing existing levels of overcrowding and high occupancy rates and (b) replacing dwelling units considered unfit for human shelter. Future needs on the other hand, are determined principally by demographic trends and consist of the number of dwelling units required to meet (a) increases in the future size of the population, (b) increases in the number of new households to be formed as a result of population increases and a greater incidence of marriage and family formation at younger ages and (c) greater desire for better housing facilities.

Noting that several models are available for assessing housing needs, the NHPR adopts a simple one for the purposes of the report, based on the assumption that: (a) replace depreciating units, (b) replace the existing inadequate stock, and (c) the main component of future housing needs is that determined by the future size of the population and the number of households formed by that population. It points out, however, that additional contributory factors, which should be included in the assessment of future housing needs, among others, are (a) levels of fertility and mortality rates and (b) life expectancy (Table 3.2).

Table 3.2: Projection of Total Population (in thousands) and Average Annual Growth Rates, 1985 – 2010.

Year	Total	Growth Rate
1985	3515	-
1990	3957	2.4
1994	4373	2.54
1995	4481	2.56
2000	5093	2.58
2005	5784	2.58
2010	6577	2.60

Source: National Housing Policy Report (Final Draft), Sierra Leone (1994).

Table 3.2A: Assessing the national housing need, the Report makes the following summary:

Category of Housing Need	Number of Units
1. Units needed to accommodate population increase and formation of new households 1994 - 2010	301,781
2. Units in need of replacement	59,917
3. Units for reducing room density:	179,753
a. From 3.65 persons / room to 2.0 persons / room	
b. From 2.43 persons / room to 2.0 persons / room	70,363
Category of Need	Number of Units
a. Population increase	18,860
b. Replacement	3,744
c. Reducing overcrowding	4,397
d. New construction (a + b + c)	27,002
e. Upgrading	10,036
Grand Total (d + e)	37,038

Alternatively, Rogers and Partners (2001) in their assessment found that for Sierra Leone as a whole, excluding the Western Area, over 340,000 dwellings had been destroyed during the ten year civil conflict out of an existing total of nearly 655,000 before the war. They point out that: "On average, about 52% of dwellings have been destroyed countrywide. The highest level of destruction occurred in the Eastern Province especially Kono (94%) followed by Kailahun and Kenema (80 and 72%), respectively. About one-thirds of the dwellings in the Northern Province have been destroyed with Koinadugu and Tonkolili bearing the brunt (52 and 50%) respectively, followed by Kambia (46%). A little over one-

third of the South has been destroyed. Pujehun suffered more than any other district in the South (50%).” The assessment, however, reveals that of the houses destroyed, community recovery programmes had rehabilitated over 36,000 dwellings by December 2000. Table 3.3 gives the levels of destruction by province and district (excluding the Western Area).

Table 3.3: Level of Destruction of Dwellings (Excluding the Western Area).

Province	District	No. of Pre-war Dwellings	No. of Dwellings Destroyed	% Level of Destruction
Eastern	Kenema	90,190	50,563	72
	Kailahun	72,839	57,959	80
	Kono	111,111	106,108	94
	Subtotal	274,140	214,630	78
Southern	Bo	60,622	17,906	30
	Moyamba	48,892	17,816	36
	Pujehun	16,868	9,746	58
	Bonthe	76,783	19,062	25
	Subtotal	203,165	64,530	32
Northern	Bombali	48,067	4,652	10
	Tonkolili	35,376	17,726	50
	Portloko	34,640	13,072	38
	Koinadugu	33,923	15,072	44
	Kambia	25,249	11,099	44
	Subtotal	177,258	61,621	35
Grand Total		654,563	340,781	52

Source: Rogers, K. B. and Partners (2001)

Similarly, Gibb and Partners (1997) in their study of Greater Freetown, reveals that in 1996 the housing stock was around 59,000 units, made up of 38,600 (65%) dwellings in high density areas (more than 50 housing units per hectare), 14,300 (24%) in medium density areas (15 – 50 housing units per hectare) and 6,500 (11%) in the lower density areas (less than 15 units per hectare). Out of this housing stock, a survey carried out by Ministry of Lands, Housing, Country Planning and the Environment (MLHCPE) in 1999 reports that 1,382 houses had been destroyed by the rebels, in addition to infrastructure services – displacing

over 22,000 people (around 22% of the city population). In effect, there is now more housing need than mere demand. Thus, the housing need for Sierra Leone is overwhelming.

3.4.2 Housing Demand

Housing demand is related to both population growth and an increase in incomes. These in turn may create additional demands for services. Such tendency is not only limited to developing countries. Donnison and Ungarson (1981) state that for Europe, as people's incomes rise "they want more 'houses' and are prepared to pay more for it." Similarly, World Bank (1993) notes that spending for housing, like that for most commodities, increases with household income in every urban society. And as economic development proceeds, the average fraction of income spent on housing in countries at different levels of economic development increases from 5 percent to about 30 percent, before beginning to decrease again. This is attributed to the fact that households give increased priority to housing as incomes increase and as food becomes less of a problem (World Bank, 1993).

However, a clear distinction must be made between housing 'need' and housing 'demand' – the former being a social measure of the difference between actual conditions and accepted standards – the latter an economic measure based on the people's ability to pay for the housing they need (NHPR, 1994). NHPR (1994) argues that "effective demand" is a poor measure of need, because it fails to take into account the total housing demand which would come into the market if appropriate organisational and institutional arrangements existed to mobilise the resources of less affluent households. Instead, it suggests that "income" is an important determinant of housing and at the household level, it determines the housing a family can afford. In relation to this, Turner (1976) emphasises the importance of distinguishing between three kinds of housing demand: "The differences between what household can do and what they will do, is so great, especially within lower income sectors, that distinctions must be made between

effective pent-up and potential demands, and the non-market demand or competition for public housing." Pent-up demands are those which could be released or become effective, if households had access to existing options at prices that are commensurate with costs and income. On the contrary, effective demand is more frequently used as a justification for directing public housing towards the middle income groups in order to avoid rental deficits (Drakakis-Smith, 1981). The original and still the most common estimates of effective demand are based on "rule of thumb" methods where it is assumed that urban households can afford to pay for a certain proportion of their income for housing (Lee., 1985). This explains why the housing industry and its circle of actors (e. g. developers, lending institutions, contractors, manufacturers, suppliers, etc.) are primarily concerned with the effective demand for housing (Harms, 1972).

The demand for housing in Sierra Leone is affected by several factors, which include: (i) demographic factors, (ii) low-income whereby conventional housing is beyond the affordability of most households, and (iii) the housing deficit made worse by eleven years of civil war. Over 80 percent of the Sierra Leone populace cannot afford a minimum conventional dwelling, while the majority of others, especially the low-income in urban areas are marginalised in obtaining access to housing and other services (NHPR, 1994). Thus, housing as such does not seem to rank high on the household list of priorities. This is not because housing is not important, but rather due to low incomes, households tend to first satisfy their more basic and survival needs such as food items before they can turn to housing (NHPR, 1994), which remains in short supply.

3.4.3 Housing Supply

Housing supply is affected by the availability of resources, including suitable land, infrastructure services and building materials. It is as well affected by the organisation of the construction industry, the availability of skilled and productive labour and the degree of dependency on imports (Ebohon and Rodriques, 1998).

Both the demand and supply sides of housing are affected by government policies, regulatory and institutional conditions (World Bank, 1993).

However, Drakakis-Smith (1988) warns that it would be incorrect to examine housing in the Southern Hemisphere solely in econometric terms of demand and supply. Rigid or well-disciplined social and political forces shape both sides of the equation. For example, the demand for housing cannot be equated with needs, even within the same locality or city. Housing demand can be articulated via market forces and possibly elicit some sort of government response. Housing needs on the other hand, are considerably more difficult to define and relate to the establishment of standards of habitation, which may be linked to income and the affordability of alternatives. Nevertheless, housing problems can only be tackled properly through a sound housing policy (World Bank, 1993).

3.5 Housing Policy, National Housing Strategy and Programmes

3.5.1 Government Policies Responses

In order for a country to address the problem of housing deficit and to deliver housing for all income groups, the formulation of a rational, comprehensive and co-ordinated housing policy and an institutional framework to facilitate it are fundamental requisites. In the absence of such an explicit policy, there will be no framework within which housing priorities and related development needs could be defined and this will impede the formulation and implementation of housing programmes. The establishment of effective organisation and processes for the formulation of housing policies is of vital importance and should be a main objective of any housing delivery strategy. According to Jagun (1989), national housing policies in the Southern Hemisphere or Third World Countries reveal considerable variation in terms of specific objectives owing to many factors, including economic conditions, social and political pressures, and the existing housing stock. Indeed, Jagun (1989) contends that many housing policies in various political systems are seen in the form of legislation and regulations

without any conceptualisation of what these legal requirements fully imply. This position is true of virtually all Third World Countries and makes housing policy objectives extremely difficult to achieve. However, Ligale (1977) has identified as crucial to any national housing policy the following objectives:

- a) housing production for the lower income group as a priority;
- b) the opportunity for low-income households to own houses;
- c) a housing programme offering reasonable choice of environment;
- d) a sound financing policy as well as encouragement of savings;
- e) an effective construction industry striving towards a reduction of construction costs;
- f) a reasonable programme for prevention as well as re-housing of squatters; and
- g) enforceable rent control or their repeal.

It has been observed that despite notable progress in most fields of national development in developing countries, housing remains elusive and a paramount challenge to governments. Indeed, public housing programmes in developing countries have dealt with the quantitative addition to the housing stock. For instance, in his description, Dwyer (1975) has described such programmes as being characterised by 'confusion, apathy and symbolic schemes' while Abrams (1966) has pushed forward empirical evidence to show that despite good intentions, public housing has not resulted in improving the conditions of the poor or low-income group. Indeed, various model housing projects, which were constructed in the 1960s, had to be abandoned because of lack of funds and a guarantee of title or ownership (Abrams, 1966). Additionally, it has been suggested that in most countries of the Third World, public housing has resulted in standards, which may not be relevant to the local environment or needs of the poor on one hand. On the other hand, the establishment of government housing institutions has not assisted the poor (Pugh, 1997).

3.5.2 Housing Policy of Sierra Leone

Housing in Sierra Leone has always had a low priority. This is explained by the fact that for its part, the public sector has traditionally not allocated more than 0.05 percent of its annual budget to the housing sector. Similarly, local knowledge shows that private sector participation, through formal financial institutions to the whole of the property sector in Sierra Leone does not exceed 3 percent as against 70 percent for other sectors, such as the commercial sector. The terms and conditions on which banks give out loans are out of the reach of the poor and are afforded only by the very few upper income groups or business tycoon. The loan facilities are confined to a few major centres such as Freetown and large urban areas and there is no government input for rural housing.

The first major effort towards public housing was initiated through the creation of the Sierra Leone Housing Corporation (SALHOC) under the Ministry of Lands, Housing, Country Planning and the Environment (MLHCPE) by an Act of Parliament in 1982 to provide housing and to support housing activities in the entire country (NHPR, 1994). SALHOC may acquire, hold and dispose of real property. It may also develop land for residential and other community purposes, construct houses and provide loans for the construction of houses and the acquisition of building materials for all income groups in Sierra Leone. Under the Act, SALHOC is empowered to take over, operate and manage all the housing estates owned by the state (National Housing Policy Report, 1994). However, the Report notes that since its inception in 1982, SALHOC has not been able to mobilise enough working capital to exercise its responsibilities as stipulated in the empowering Act of Parliament. This has been attributed to the unfavourable economic conditions of the last decades and the low priority accorded to housing in the allocation of development funds. As a consequence, the Report reveals that except for a few demonstration units and some parcels of land acquired, SALHOC has not constructed any housing units or developed or acquired land for that purpose. Nonetheless, the Report asserts that the sole function performed by SALHOC has been the management of housing estates vested in it

by the State (NHPR, 1994). Notably, SALHOC is still in operation and trying to accumulate funds from renting its properties, which is the only current source of funding in order to carry out its functions. But it is fair to say that SALHOC will only be able to support housing activities in the country to a reasonable degree if Government or external funding is made available to it.

The rapid increase in population against the background of economic stagnation had worsened the already poor housing conditions in the country. Recognising the gravity of the predicament, the new National Provisional Ruling Council (NPRC) government commissioned the United Nations Development Programme (UNDP), the United Nations Centre for Human Settlements (UNCHS – HABITAT), and National and International Experts in 1994 for the preparation of a comprehensive Housing Policy Report, which is to guide decision-makers in their efforts to direct, co-ordinate, monitor and evaluate development activities in the housing sector. This Report (National Housing Policy Report, 1994) after taking into account the political and socio-economic realities prevailing through out Sierra Leone, pronounced that the role of government is redefined as a “facilitator” or “enabler” rather than direct producer of housing units. This meant that government would create an enabling environment for the full participation of both the public and private sector in the production of housing and at the same time ensuring that the resources of these sectors are mobilised and effectively utilised for housing development. However, commenting on the Report, FDHSDSD (2001) notes that the core of the current housing policy dates back to 1994 before the intensification of the eleven years civil conflict. It argues that while the policy appears adequate in most other respects, it does not fully address the immediate challenges brought about by the extensive destruction of shelter that has taken place during the intervening period. It suggests that in normal circumstances, the main concern of housing policy is to set out a framework for confronting the challenges of housing, especially in the urban centres, which face both immediate and long-term housing problems in post-conflict situations.

3.5.3 Housing Policy, Strategies and Programmes in Development Plans

Generally, National Development Plans are statements of hopes, aspirations and aggregates. Above all, they are the products of the existing political systems as for example, the then President Dr. Siaka Stevens (1967 - 1985) of Sierra Leone stated that:

"The National Development Plan represents the blueprint of the development efforts which we propose to make during the next five years to build a stronger nation and a more progressive society.... It embodies the national consensus for development strategy and policies and the programmes and projects contained therein represents the developmental tasks which the various productive entities in the economy will undertake" (National Development Plan, 1974/75 – 1978/79).

It has been observed elsewhere that policies and proposals in national plans serve political ends. However, implementing these plans to the advantage or benefit of ordinary people is far from easy and may not even be envisaged.

It has been suggested that, in some developing countries, national plans preceded independence. For instance, Ghana's first national plan was produced in 1919. It was written by the British Administrators and the proposal for the various sectors was largely a reflection of foreign rather than local solutions. Similarly, a semblance of Sierra Leone development plan was produced between 1940 and 1945. It was produced by the British Government under the Colonial Development and Welfare Act, which authorised the British money on colonial industries, roads, schools and welfare services (Fyfe, 1962). Indeed, according to Conyers (1984), the Soviet Union is generally regarded as the first country to engage in systematic planning. Its very first five-year plan, which came out in 1929, was an influence to a number of countries. This plan's main attractions were the importance placed on the realisation of economic targets via industrialisation and the campaign of state control in getting them right. Most countries were drawn to this element of state control and based their initial plans

on the Soviet Union model, with the hope to providing the possible satisfaction to the populace.

Notwithstanding the gloomy view of planning in academic circles, the sixties and seventies witnessed a rapid production of plans whose promises ranged from economic growth and self-reliance to social and political justice. Many plans were written with laudable objectives and proposals. Sierra Leone was not immuned from this fashion as demonstrated by its National Development plan (1974/75 – 1975/79) with the view to assessing the extent to which the stated goals can be attained, especially in the housing sector of the economy. The 1974/75 to 1978/79 National Development Plan is selected because it appears to be the most comprehensive volume.

3.5.4 1974/75 – 1978/79 National Development Plan

In the Sierra Leone's National Development Plan (1974/75 – 1978/79), a review of past achievements was attempted. It was shown that the growth of the economy since independence has been slow. The economy continued to depend on the export of primary products and, as a result, development efforts have fallen short of expectations. For instance, from 1963/64 to 1970/71, Gross Domestic Product (GDP) grew in real terms by an average of 4.3 percent a year. Since the population was growing by 2.2 percent a year over the same period, income per head grew only by 2.1 percent a year.

Nevertheless, the plan had given rather sketchy information on the impact of population on housing. The plan states that there can be little doubt that the demographic situation in Sierra Leone has a direct impact on the housing crisis. For instance, where the rate of population increase is nearly 4 percent and rural-to-urban migration is equally high, the development plan integrates housing into the framework of the country. The number of new dwelling units in the urban areas was estimated at 5,000 per year. This figure, which is based on a modest provision for low / middle-income families, does not go into the details of housing

requirements in relation to the needs of increasing population. As a result, the overall effects of population on housing in the plan are implicit. However, the plan acknowledged that, the provision of housing for the rapidly-increasing population, especially in urban areas, is restricted by the shortage of local capital for investment, the high cost of building materials and labour, the shortage of skilled manpower and inadequate planning and building regulations. Alternative ways in which housing could be provided were however identified: "These houses could be undertaken as self-help or slum clearance projects with Government providing basic infrastructure facilities, and the World Food Programme providing food packets for the families" (National Development Plan 1974/75 – 1978/79). This leads us to the examination of national housing strategy for the country.

3.5.5 National Housing Strategy for Sierra Leone

Housing programmes designed to benefit the urban poor, especially residents of informal settlements, can only be successful if formulated within comprehensive shelter strategy which defines priorities, makes provision for resource allocations and integrates the various sectoral components and programmes. In this respect, the fundamentals for an integrated shelter strategy include: (i) clear policy objectives; (ii) an understanding of shelter conditions and housing markets at national and local levels; (iii) a perception of the interrelationships between components of the shelter programme and the way in which the overall results are affected by the deficiencies in any one component; and (iv) the capacity to mobilise resources so that they will be readily available when needed (UNCHS, 1987).

In common with many other countries, Sierra Leone does not have an integrated shelter strategy that effectively addresses the shelter problems of the country (FDHSDSD, 2001). For a coherent response to urban shelter, it is necessary to develop and field-test a shelter strategy to lead to an action plan. The intended aim is to formulate realistic guidelines on how to operationalise housing policy

and identify the activities and resources to support its implementation. Thus, the main elements of such strategy and action plan should include:

- (i) To determine the scale of the urban shelter problem;
- (ii) To sensitise stakeholders to the conceptual approach to shelter delivery set forth in the national housing policy;
- (iii) To assign roles to the three main blocks of actions: public sector, community sector and the private sector;
- (iv) To launch regulatory reform with a view to creating an enabling environment for shelter delivery; and
- (v) To test the strategy through the implementation of carefully selected activities (FDHSDSD, 2001).

For such a strategy to work, it requires proper institutional arrangement or co-ordination.

3.6 Institutional Framework

The existence of appropriate institutional arrangement is essential to the formulation, implementation, monitoring and evaluation of shelter or housing policies (Ebohon and Field, 1997). In Sierra Leone, for example, the institutional arrangement, though not well developed, is defined by a framework of public and private agencies, whose work, in few cases, is supplemented by efforts of international agencies and NGOs. Where there is no effective co-ordination of all these agencies, their rapid growth may in itself be an obstacle to making housing accessible, especially to the poor residents in informal settlements due to negative externalities emanating from inter-agency conflicts (Pugh, 1997).

Indeed, Pugh (1997) has suggested that the process of housing development for all income groups is a function of effective and efficient institutions. He opined that the institutions would enhance and facilitate policy formulation and implementation, which are necessary to underpin housing development. In the

experiences of the developed countries, Pugh asserts that a well functioning property market, which is governed by proper legislation and supported by appropriate institutions and good and functioning infrastructure enable the process of housing development. The concept of effective and efficient institution for housing from a development perspective, is a comprehensive process that includes the ability to identify problems, plan and manage development. Therefore, these institutions, unarguably, require certain prerequisites, which include both the developments of human and material resources that would go with particular institutions (Ebohon and Field, 1997).

However, while the functions of institutions in the economic development in developed countries is recognised, the noticeable absence of such key institutions in the developing countries like Africa has been seen as a major hindrance to economic growth and development. Given the fact that residents in informal settlements in developing countries are faced with abject or passive poverty and underdevelopment, there is urgent need for effective institutional development. As a consequence, the lack of appropriate institutions is now widely recognised to be the most serious impediment to growth in Africa and developing countries (Ebohon and Field, 1997). Functional sets of institutions are required to facilitate the identification of policy trade-offs, maintenance of standards, and monitoring and enforcement of development policies and regulations (Ebohon and Field, 1997). Such an attempt will encourage wider participation, curbing the power of vested interest and making public accountability possible (Ebohon and Field, 1997).

Essentially and in line with Ebohon and Field (1997)'s suggestion for effective institutional development for the enhancement of economic growth and development, Sierra Leone needs its existing institutions to be reformed. Nevertheless, it is an accepted fact that for Sierra Leone to properly tackle the housing needs of its populace, especially the very low-income groups, it requires,

among other things, a well-developed property market, which is supported by functional financial institutions.

In deed, a well-developed and functional property or housing market is essential for any country, including Sierra Leone. This is due to the fact that it caters for every sector of the economy, including residents in informal settlements. Also, a well-functioning property market provides an effective way of monitoring property or housing transactions and tracking the performance of property in the economy.

Thus, well-developed functional financial institutions provide ideal environment for consumers, investors and developers in the property or housing market. By ideal environment, we mean that there would be many options for conventional and well-regulated non-conventional finance systems to enhance housing and economic development, especially in low-income communities. Nevertheless, the existing housing finance institutions in Sierra Leone (see 3.7.3) should be reformed and adequately modified to reflect the political, cultural and socio-economic circumstances of the country.

On the issue of the non-conventional finance system, the country's popular Rotating Credit Association (*Osusu*), should be reformed, organised and regulated by Government to ensure probity. Example of two other non-conventional finance systems proposed for consideration, which are briefly discussed below, are:

Co-operative Housing Association / Shared Ownership – This could be agents for housing finance mobilisation and disbursement, if properly managed. What is being proposed here is joint ownership with the association, which could be government or privately funded. This means that contributing members of the association will not be sole owners of their dwellings outrightly at the beginning. But they would have the opportunity to increase their share or ownership

percentage over time, with the minimum initial ownership being determined by what members can afford and availability of funding capital in the association. In this arrangement, household would be responsible for the incremental construction of the dwelling, with technical assistance and supervision being provided by the association. Payment equivalent to the interest due on the association's share can be charged and payable on regular monthly basis or payment made as may be agreed, by members and their financiers. This association would allow poorer household in the informal communities to have easier access to housing finance.

Integrated Housing Finance – This housing finance system could provide loans for enterprise and encourage the construction of the dwelling incrementally from the profits. Nevertheless, it must be acknowledged that integrated housing finance could be explored to cater for households who can engage in sufficiently viable enterprise. That is to say, members here would be able to repay business loans and subsequently invest part of the profits accruing therefrom in home ownership.

Nonetheless, for non-conventional financial systems, SALHOC can serve as the apex institution, disbursing wholesale funds to each source of non-conventional finance for on lending to their members.

However, it is an acknowledge fact that institutional arrangements in developing countries can be placed into two categories, such as formal and informal institutions. Both formal and informal institutions exist parallel to each other due to the fact that the former do not fully cater for the requirements of all the individuals in society, especially residents of informal settlements. As a result, informal institutions have emerged to fill the gap. In Africa, for example, where ethnic and cultural norms remain strong, subsistence and informal practices still prevail in economic activity and relations because of indigenous belief and cultural heritage. In this understanding, resistance to formal institutions may be

viewed as not healthy to cultural norms and value to which informal institutions belong. Nevertheless, whether formal or informal, their proper definitions is paramount to their success, when institutions are poorly defined or few formal institutions exist their economic activities, including housing are limited to interpersonal exchange (Aron, 2000).

The development of housing in Sierra Leone is organized through three different government agencies:

- (i) the Ministry of Lands, Housing, Country Planning and the Environment (MLHCPE);
- (ii) the Sierra Leone Housing Corporation (SALHOC) and
- (iii) the Local Authorities.

The Ministry is responsible for the development and administration of Government Housing Policy and Programmes on the one hand. On the other hand, the Ministry's other responsibilities include land administration, overseeing of all land surveying activities, country planning and environmental protection.

Funding for housing development comes from national appropriations in the form of loans and external assistance, and has mostly been channelled through the Department of Development and Economic Planning, which is responsible for monitoring of investment in the sector. Other institutions that are mostly concerned with the housing / shelter sector, among others, include:

- (i) The Sierra Leone Roads Authority – responsible for the provision of trunks and feeder roads, and drainages;
- (ii) The Guma Valley Water Company – responsible for the provision of water supply in greater Freetown;
- (iii) The Sierra Leone Water Company – responsible for the provision of water supply to all major provincial urban centres;

- (iv) The Water Supply Division of the Department of Labour, Energy and Power – responsible for the provision of water supply in minor urban centres and rural areas.
- (v) The National Power Authority (NPA) – responsible for generating and distribution of power nationwide; and
- (vi) The Department of Health and Sanitation – responsible for the disposal of solid waste and sewage.

Nonetheless, the private sector remains the principal actors in the housing domain. The Private Sector provides about 95 percent of houses and it is assumed that before the ten-year civil conflict, there was little or no homelessness in the country (Kandeh and Ramachandran, 1985). The absence of such homelessness was due to the extended family type culture, where, families and extended relatives share accommodation. However, the civil war created many orphans and led to the destruction of many houses. With Employer's housing, large private firms and parastatals such as, banks, factories, insurance companies provide housing for their employees. The terms of provision are normally in the employment package. Such houses are generally in good condition and very convenient. Examples of these categories of houses are those provided by the National Diamond Mining Company (DIMINCO), SIEROMCO and Sierra Rutile. In the circumstances wherein accommodation cannot be provided, a housing allowance is usually provided. In the Public Sector, it is observed that between 1989 and 1994 the total of about 260 housing units were built in the capital city (Freetown) and none in the provinces. This shows that the Government lacks any serious commitment in providing housing for its citizens (NHPR, 1994).

It must be stated however that the Local Government institutions particularly in urban centres formerly provided housing, a function that they no longer perform. The Freetown City Council for example continues to manage the few housing units that were developed during the late 1960s. Nonetheless, most of the Town

Councils continue to manage substantial acres of land, which could be used for housing development (National Housing Policy Report, 1994). In other words, Town Councils are on the verge of or are developing a sort of land bank in order to hedge against land constraints for future housing supply.

3.7 Constraints to an Effective Housing Supply

The human settlement conditions of most Sierra Leoneans, especially in urban areas, have deteriorated in the last eleven years. This has been largely due to the brutal civil war, and the economic hardship, and rapid population growth, coupled with increased rural-urban migration with which the country has been confronted. Moreover, both Government and Private sector expenditures on housing have reduced significantly or are completely absent. These factors, among others, have constrained the provision of adequate housing, resulting in the proliferation of informal settlements or substandard housing in most urban areas. A progressive increase in construction cost, lack of finance and financial innovations, high land prices, to give a few examples, have further contributed to the observed overall insignificant increase in housing units completed by both public and private developers (Kandeh and Ramachandran, 1985).

The six major components in the housing process are: land, finance, the construction industry or labour, building materials, infrastructure, and the legal and regulatory framework. Supply-side distortions arise mainly from policy affecting these inputs (Tipple, 1994; World Bank, 1993).

Indeed, the most apparent constraints to the supply of low-income housing identified in both the Development Plan (1974/75 – 1978/79) and the National Housing Policy Report (1994) are: difficulties in access to land; shortages of local capital for investment; high cost of building materials and labour; shortage of skilled manpower; and inadequate planning and building regulations.

3.7.1 Land

The provision of adequate land for housing and other economic and social needs is the essential challenge confronting urban administrators (Earthscan, 1983). Land is widely recognised as the principal component in housing provision, whether for the rich or poor. Thus, housing provision is a function of the land delivery mechanism of each country (Pugh, 1997). For conventional housing markets, land is commonly the single largest factor, whilst for the poor, obtaining tenure has long been considered to be their foremost priority. This assumption has been the fundamental precept or rule of conduct on which numerous low-cost housing programmes have been founded and have failed completely (Drukakis-Smith, 1988). If a maximum potential delivery of affordable housing for all urban households and systematic industrial, and commercial development are to be achieved, it is imperative that urban land markets operate efficiently, and that constraints to such systematic development are removed. However, urban land development issues, as Ondiege (1992) argues, are highly complex both in theory and practice due to interdependencies, specificity of location advantage, transfer costs and market imperfections. Similarly, McAuslan (1985) argues that in tackling the housing crisis in developing countries, many countries have failed to adopt realistic land policies in favour of the urban poor. Indeed, as Ramachandan (1985) points out, "land is the key to tackling the housing crisis confronting Third World Cities." The National Housing Policy Report (1994) suggests, among other things, that in order to ensure an orderly and more efficient use of urban land, the Government of Sierra Leone for example, should institute the appropriate machinery to produce urban structure plans and detailed planning schemes to guide the development of Freetown and the provincial urban centres and to ensure effective land use controls. In this respect, Hardoy and Satterthwaite (1989) assert that in most cities there is no lack of underdeveloped or partially developed land on which low-income housing sites could be developed – all that is required is proper planning and management, backed by good or flexible land tenure system.

3.7.1.1 Land Tenure, Land Administration and Land Use Planning

The systems of land tenure or land rights vary throughout the world. They are a product of history, culture, urbanisation and political philosophy. Land ownership is deeply rooted in family and national institutions and as a result, attitudes towards land are not likely to change easily. However, the impact of colonialism on land tenure systems in the developing world has been clearly established. McAuslan (1985) asserts that colonialism was basically about land tenure. "Europeans grabbed desirable land and its resources from all over the world. An alien law sanctions the land grab and removed from the colonised the rights to their lands."

Indeed, in defining the concept of land ownership, the colonial powers drew a distinction between occupied lands (which were therefore owned) and unoccupied lands (vacant and "without master"). The occupied lands were deemed open to settlement, as happened in Kenya, Zambia and Zimbabwe; or to lease by foreign concessionaires as for instance, in the Cote d'Ivoire and Congo; for use in other public purposes. These distinctions were much influenced by European conceptions of title and property. As a consequence, the land tenure in Sub-Saharan Africa today varies and can be understood only in their historical perspective (Feder and Noronha, 1987).

However, the land tenure system, based on the English Common Law, for example, restricts the rights and ownership in land. This system has spread in various parts of the developing world to countries such as the United States of America, Belize and Cyprus. The English system does not accept absolute ownership of land, the land is vested in the Crown. This makes it easier to control land, to impose limits on land use and to bring about the transfer of land for public housing. The 'leasehold' limits absolute ownership and is practised widely in various African and Asian countries. While the 'freehold' is effectively equivalent to absolute ownership, the principle of compulsory purchase or acquisition by the state is well established.

Nevertheless, provision of suitable land is a fundamental factor in housing development; different systems of land ownership have significant implications. Land in Sierra Leone can be held under three broad categories of rights and one lesser right (a licence): Freehold land (Public or Private individuals becoming freeholders of government leased land on developing it) and Private land, leasehold (public and private), customary rights and licence. Freehold land confers absolute title to the owner subjective to legislative restrictions, while leases for urban land are normally 3 years for residential development (with option to buy the freehold after development), 7 years for commercial and 99 years for institutions, imposing restrictive conditions on transfer, sale, subletting or any other form of disposal of land. Customary rights based on communal ownership and sharing exists for land held in trust by Paramount Chief and Tribal Authorities for various tribes in the Provincial towns and villages. Licences grant permission to occupy state land temporarily and the term is one year, which is renewable on the anniversary of the commencement for the permission. Nonetheless, under the Provincial Land Acts, Cap.122 land held under customary rights can be leased to "natives" for a specified period of time subject to negotiation for renewal. On the other hand, after series of workshops in which stakeholders (including author) in the land process have participated, a consensus has been reached whereby provincial lands could now be released for community development purposes.

Overall, however, complex legislation and procedures relating to, subdivision, registration and planning approval, in addition to inadequate resources and personnel, have constrained public agencies from meeting the demand for residential urban land, especially and generally hindered various development activities (FDHSDSD, 2001).

3.7.1.2 Urban Land Use Policy and Management

Land use policy, as such, has not existed in Sierra Leone up to this moment. The general lack of land use planning and the use of land use control in the country,

has led to the inefficient use of scarce urban land and disorganised urban settlement (NHPR, 1994). Moreover, the Report (national housing policy report) argues that, the Town and Country Planning Act (TPA) of 1946, which contains the main statutory provision for physical planning, declaration of planning areas and setting up of planning board is inadequate. Similarly, in the absence of a clear national land use policy, the local land use planning is carried out in an *ad hoc* basis and the lack of up-to-date maps and modern facilities to produce them has been a major constraint for planners and land developers (FDHSDSD, 2001).

Indeed, it is suggested that land use policy relates to a regulatory framework that governs the rights and obligations of stakeholders in land, together with guidelines to ensure optimum utilisation of available land in both rural and urban areas. Towards this suggestion, the National Housing Policy Report (1994) recommends that the government is to ensure that all land is planned, surveyed and registered with a view to issuance of titles. This provides security of tenure and promotes investment in and development of land, which, in turn, leads to increased productivity, general rise in economy growth, higher incomes and improved standard of living (World Bank, 1993).

As the success of the above policy is contingent upon the preparation of land use plan, the Report (1994) propose to address, among other things, the following constraints: inadequacies in planning and land management information and data; lack of co-ordination of housing sector departments / institutions; inadequate legislative and policy frameworks and insufficient trained staff. In view of these constraints and in order to eliminate impediments to the implementation of an effective land policy, the Government's role as a "facilitator" or "enabler" will create a conducive development environment, which facilitates mobilisation of the full potentials and resources of all actors in the shelter production and improvement process, especially activities (such as land supply for housing) that the private and community sectors cannot do (NHPR, 1994).

3.7.1.3 Land for Residential Use and Low-cost Housing

The situation regarding land is particularly complex and the increase of land supply for housing development for the low-income groups seems especially challenging. The problem of supply of serviced land is probably the greatest constraint to any production in Sierra Leone. The principal problems (National Housing Policy Report, 1994) are:

- Non availability of serviced land within urban areas, especially low-income housing development.
- The sale, lease or disposal of state land, which could be alienated for low-income housing development to higher income use at prices well below the prevalent market values.
- Administrative and related resource constraints,
- The legal machinery governing the development of urban land for housing development, especially for the low-income groups.

Within the policy framework of sustainable growth and development the optimum utilisation of the scarce land commodity or resource is fundamental. The NHPR (1994) recognises that this can only be realised through the formation and implementation policy guidelines to ensure that:

- (i) Infrastructure standards will be affordable, upgradable, sustainable and environmentally appropriate.
- (ii) An adequate amount of serviced land at affordable prices in suitable locations with secure tenure is accessible for housing development.
- (iii) Appropriate housing finance system is operating throughout the country to mobilise private savings, and encourage the provision of housing through conventional and the non-conventional finance mechanisms.
- (iv) An efficient institutional framework and an appropriate legislative base within which the private and community sectors perform their role in housing delivery are in place.

As land for housing programmes needs to be identified and reserved for future housing development, where state land is available, it will be reserved for future development of low-cost housing. Government will encourage non-government organisations (NGOs) and co-operatives in urban and rural areas to engage in housing development through assured access to land, finance and enabling laws (NHPR, 1994).

3.7.1.4 Informal Land Market for Housing Development

As regards the provision of land for housing the low-income or urban poor, informal systems have performed better than legal systems at a scale, which cannot be accurately measured (Van der Linder, 1994). Undoubtedly in Sierra Leone, informal land markets generally represent the only easy means by which majority of the urban poor can gain access to land for housing. The transaction involved in the informal land markets take different forms, but are primarily non-commercial deals which involve no cost, such as settlements on traditional or customary lands. It must be stressed that the non-commercial land markets are in decline while the informal commercial land markets are growing rapidly (UNCHS, 1996). In the informal commercial land markets, the transactions are mostly illegal and do not conform to formal regulations. Commentators and critics of the system have suggested that multiplicity of problems go with the informal transactions, which, among other things, include the illegal sales of public or state land, sub-standard land or plot subdivisions sold at exorbitant prices, land fragmentation in settlements, and insecurity of tenure.

Despite the problems referred to above, the informal markets continue to provide land for housing at a cost that is affordable by many low-income households and with the advantage of immediate possession and no paper work regarding transfer of legal instruments of ownership (UNCHS, 1996). Indeed, this system is exploitative in that a high proportion of housing plots has no provision for infrastructure and services. On the other hand, the illegal land system serves many powerful vested interests – including in many instances politicians and real

estate companies. But housing conditions would be much worse without it (UNCHS, 1996).

As informal land transaction and housing development continue unabated in urban centres in Sierra Leone, especially Freetown, the emerging pattern of land development is the generic *ad hoc* type resulting in informal settlements.

Indeed, as stated *inter alia*, the informal land market, which serves large numbers of low-income households, does not follow the formal institutional processes of registering deeds. Because it is usually found in marginal sites, land in the informal market is comparatively cheaper and therefore more affordable to the poor than land in the formal market. Land arrangements and processes in this market are simpler, less costly, and more flexible, attributes which the poor find attractive (FDHSDSD, 2001). Nevertheless, because of the usual marginalised nature of the land, among other things, the inhabitants find it extremely difficult, if not impossible, to have a legal claim to the urban services and infrastructure they need (Napier et. al, 2002).

3.7.2 Access to Urban Services and Infrastructure

The most recent development policies has shifted away from housing provision toward attempts to improving the management of infrastructure and services (Stren and White, 1989; World Bank, 1993). The provision of infrastructure and services is a much needed requirement if housing is to achieve its objectives either in secondary towns or in the main cities (UNCHS, 1996).

In Sierra Leone, as in most developing countries, urban infrastructure such as roads, drainage and water supply, and city services such as schools, hospitals, transport, electricity supply and waste collection, have deteriorated. Several factors contribute to worsening conditions. First, the resources necessary to sustain these underdeveloped facilities are inadequate, the meagre one misappropriated and therefore cannot keep pace with the growing population. Furthermore, the eleven years of civil conflict has destroyed every fabric of Sierra

Leone's society, making any form of both investment and development practically impossible.

As stated above, accessibility to basic urban services by especially the urban poor has been constrained by a number of political, economic, social and administrative factors. Income is the most important factor in shaping the housing situation in any country. The amount of housing and related services that household can afford is determined by the per capita income and its distribution among households, along with the price of the housing itself (UNCHS, 1996). In Sierra Leone, the urban poor majority is incapable of paying for urban services, because of their inadequate incomes.

Water and Sanitation, in addition to others, are essential requirements, which have implications for health as well as the human settlement environment. If housing standards are to improve, Governments should invest in water supply as well as establishing health programmes to sensitise the poor about health hazards. In Sierra Leone, roads, electricity, water supply and other essential services are provided by both Central and Local Governments. It is worth stressing that all the services in question need to be improved and extended to other areas in the country. For instance, the Report (1994) asserts that:

"The present water supply situation in Freetown and the Provinces clearly shows that there is a considerable gap in meeting the demands of the present population in the country for its water requirement. Apart from limitations in coverage and scope of the systems, there are many other deficiencies, which contribute significantly to the problems of meeting demands. These deficiencies are not only technical, but also institutional and financial in nature. Severe efforts may be required to address them adequately" (NHPR, 1994).

Having recognised infrastructure as public services for which the Central and Local Governments are responsible, it is clear that public finance sources alone

will not be sufficient to meet the high level of investment in infrastructure services. With a view to generating adequate funds and lowering the cost of service provision, Governments should adopt policy options geared towards mobilisation of local resources. In addition, Governments should introduce cost recovery system for service users; adopt appropriate and cost-effective standards in the development, operation and maintenance of water supply, sewerage works and roads in urban areas.

As World Bank (1993) reported, the provision of infrastructure in low-income settlements has proved to be an effective method for assisting and organising the poor and for enabling the poor to house themselves. Governments should give this the priority it deserves in budgeting their expenditures to rescue the poor from the prevalent predicament, which includes high cost of building materials, among other housing implements.

3.7.3 Housing Finance

Housing finance is concerned with the system of money and credit that operates to enable all types of residential property be constructed, improved, bought, rented, maintained and repaired (Garnet et al, 1990). Indeed, next to land and building materials, housing finance is possibly the most important factor in housing production – and may even be considered the most important given that adequate finance can facilitate the purchase of the land and the materials. The extent to which housing finance is available, the terms under which it is available, and the proportion of the population that can obtain it significantly influences not only housing, but also cities (UNCHS, 1996).

However, housing finance in developing countries is very different from that in developed countries. There is always an implicit assumption that people in developing countries can afford to buy houses and that there are financial institutions that will help them do so (Boleat, 1985). In most developing countries such as Sierra Leone, financial systems are not well developed and there is a

mutual suspicion between these institutions and potential borrowers, especially the low-income groups. Moreover, conventional instruments of housing finance are not accessible to low-income groups because of restrictive eligibility requirements and inappropriate terms (UN, 1977). The mortgage markets are usually very thin because of artificially fluctuating interest rates on capital, which limits the flow of funds to the housing markets. Large loans and high downpayments tend to price low-income groups out the supply networks. Additionally, complex land tenure systems prevent land being used as a collateral and lack of regular employment make the poor ineligible for loans from the conventional market (Boleat, 1985).

In the entire Sierra Leone there are no specialised financial intermediaries to mobilise and channel savings into the housing sector. However, the main financial institutions in the country include the Central Bank (Bank of Sierra Leone), Commercial Banks, few Insurance Companies, Rural Banks, Post Office Savings Bank, and few others include Savings and Loan Scheme such as Sierra Leone Housing Corporation. These Institutions play some role in supporting few residential housing development projects for both their customers and employees mainly, but their efforts have been hampered by poor household savings rate, largely as a result of low incomes, civil conflict and political instability, which leads to hyper inflation (NHPR, 1994).

It is observed that the public sector has traditionally not allocated more than 0.05 percent of its annual budget to housing sector. However, the non-conventional sources of finance play a vital role in meeting the housing finance needs of households countrywide. These sources include "Osusu" (rotating savings and credit association), family savings, money lenders, business activities, contributions from children and relatives within and without the country and foreign remittances. We will now briefly examine the legal and regulatory framework regarding housing development in the country, followed by the building by-laws and planning regulations. This is to ensure as to whether the

development control framework is properly ventilated for the low-income groups' participation in the housing development process in Sierra Leone.

3.8 Legal and Regulatory Framework for Housing Development in Sierra Leone

Building Acts, codes and regulations are the means by which authorities control construction activities for the purpose of ensuring safety and health in the built environment. Similarly, standards and specifications for building materials production and use safeguard quality production of products. These regulatory procedures largely determine the types of building materials, construction techniques and skills to be employed in a given construction process (UNCHS, 1996).

3.8.1 Building by-laws and Planning Regulations

Many countries in the Southern Hemisphere have either inherited or adopted the codes and standards of the Northern Hemisphere or 19th. Century European Health Acts (Cook, 1984). These largely achieved their objectives up to 1939, when urban growth was low. However, after 1950 the situation changes; urban areas grew so rapidly that building regulations were commonly ignored or regarded by most people as inappropriate or irrelevant (Cook, 1984). In most cases, prevailing standards and regulations are thus obsolete and out of context, relating little to the realities of the contemporary Southern Hemisphere (Drakakis-Smith, 1981). The negative impact of defects in building codes and standards on the housing situation are manifested by the low quality building materials and construction techniques utilised in low-income settlements (UNCHS, 1987).

The regulatory framework controlling urban housing development in Sierra Leone was modelled on the British Town and Country Planning Act (TACP) of 1932 and therefore failed to take cognisance of level of the economic, social and cultural development in the country. The TACP remained unchanged with the time and

as a consequence, Sierra Leone seems not to have any unified building code (FDHSDSD, 2001).

However, the existing statutory legislations forming the legal basis for guiding housing development, namely the Public Health Regulations of 1927, the Public Health (Protectorate) Ordinance 1964, the Rent Restriction Ordinance 1953, the Public Health Ordinance 1960 amended in 1970 and 1978, the Freetown Improvement Act and Rules 1960 and the Building Fees Act 1973 and the 1993 amendments thereto, have been critically appraised (NHPR, 1994).

It is noted that some of these legislations impose considerable constraints on the housing supply market. For example, the Freetown Improvement Act and Rules 1960 set high standards relative to the level of income, which are restrictive in their application within the country. Also, it is revealed that such standards do not provide adequate flexibility in the use of building materials and have therefore largely excluded the low income from participating in housing development and forced to use inappropriate and unapproved building materials. Sites and services project, core housing, self-help and upgrading programmes have not been addressed or adequately treated in any of the above legislations. Other constraints include the inability of successive governments to enforce these legislations; lack of understanding and co-operation by the public in general; inefficient training and low level of salaries of government personnel; and inappropriate and insufficient equipment to facilitate the enforcement process (NHPR, 1994).

Understandably, however, all registration of buildings, payment of the required fees, and request for building permits are to be handled, as far as the provinces are concerned, by the Area Town Planning Offices. They would check that drawings are in accordance with the Building Regulation aforesaid before taking them to Freetown for final approval. It is worth mentioning that notwithstanding the fact that the process of obtaining a building permit can be

very protracted, as officers hardly inspect the actual construction to verify whether the right and proper materials are used or whether the specification outlined are being adhered to. There is also little or no intervention in the layout of new areas for housing development and individual plot owners and sometimes landowners are left to sort out the conflict or confusion that arises due to official negligence. This affects the whole country and it may be attributed to the fact that either the logistic for such official inspections are completely absent or the officers responsible (from the top brass to the bottom) have had their palms greased with some cash.

However, the need to effect appropriate amendments to the various legislations and to enact new ones where necessary to fulfil the needs of the housing policy has been recognised by the National Housing Policy Report (1994). The Report suggests that:

"Government will therefore carry out case studies into all related legislations in order to establish their appropriateness to the existing situation and the new dimensions posed in housing the low-income group. In this connection, the guiding principles of any review of existing legislation or attempts at new legislations will be on performance standards, affordability and flexibility" (NHPR, 1994), especially in the formal housing sector.

3.9 Formal Housing Sector Performance

3.9.1 Public Sector Housing in Sierra Leone

In Sierra Leone as already mentioned in the previous section (3.5.2), public housing has always had a low priority. Indeed, low priority has so far been given to housing in development budgets. The limited funds that have so far been allocated have been used to construct few highly subsidised projects in Freetown including one financed from an international source (NHPR, 1994). In this connection, it is observed that between 1989 and 1994 the total of about 260

housing units were built in Freetown and non in the provinces, which shows the Government's less commitment in providing housing for its all citizens. Other public funds are used to subsidise rentals and provide housing allowances for civil servants (NHPR, 1994). In addition, the creation in 1986 of a Home Savings and Loan Scheme (HSLs) under the Sierra Leone Housing Corporation (SALHOC) has not benefited the poor. The HSLs was created to encourage and facilitate wider home ownership by eligible persons and families. But no loans have so far been made to consumers due to lack of sufficient funds (NHPR, 1994). In reality, public housing programmes have made no significant impact on the low-income housing scene as compared to the private sector.

3.9.2 Private Sector Housing in Sierra Leone

Large private companies have generally had a limited role in innovative government programmes providing credit to low-income communities. In general, private contractors have remained outside such programmes (UNCHS, 1996).

However, at present, although the private sector builds most of the conventional housing in cities of developing countries, relatively few of these units are affordable by the urban poor. On the other hand, as existing private sector housing deteriorates, suffers neglect and / or subdivision, and generally becomes substandard, it plays an increasingly important role in housing the low-income groups. Still, the private sector is widely assumed to make a negligible contribution to housing the urban poor since profits are more readily available from constructing factories, shops, offices or luxury housing (Drakakis-Smith, 1981).

The private sector housing was discussed in the previous section (3.4). However, the private formal housing in Sierra Leone takes place at two levels: construction of new houses or the subdivision of existing houses to accommodate increasing densities. Property owners aware of the acute shortage of housing engage in the practice of erecting at the back of the existing houses a set of row houses usually

consisting of a room and parlour, most of which the necessary building permits are not obtained. Private developers wanting to cash in on the booming rental market have in recent years engaged in the development of single family expensive villas or the development of apartment blocks. Construction is usually financed from savings, windfall gains, loans from family or others, or short term loans from banks. Development is usually very slow especially in cases where the developer has to rely on his own sources of finance. In the absence of long-term loans, it is not surprising to find a large number of unfinished or uncompleted buildings or units in most parts of the city (Freetown) and the Western Area. In recent years landlords do ask for at least a year's rent in advance and for the high income units, rent is defined in terms of a foreign currency such as the united states dollar (NHPR, 1994).

Indeed, the private formal housing sector in Sierra Leone can be argued to be preoccupied with profit maximisation and thus, concentrates on supplying housing for middle and higher income groups. Its contribution to overall housing development has, however, varied significantly over the years, but unfortunately no record exists to show its total contribution output of formally authorised housing.

However, since formal private sector participation can be said to be limited to the development of housing for the upper or middle-income group, it is expected to impact on the low-income groups' accessibility to shelter or housing. Nevertheless, other institutions that support housing activity in the country include, for example, the World Bank and non-government organisations (NGOs).

3.9.3 World Bank and Non-Government Organisation Housing Projects in Sierra Leone

The World Bank's involvement in the housing process for the urban poor in Sierra Leone has in recent years been limited to upgrading services in low-

income communities. It funded the upgrading of selected slum areas of Freetown under the Freetown Infrastructure Rehabilitation Projects (FIRP). This involves mainly with the introduction of water and sanitation systems in the low income informal settlements, but has been interrupted by the protracted civil conflict.

Non-Government Organisations support for housing varies considerably. However, various international and national non-governmental organisations are involved in various forms of community development projects, especially in rural areas. The majority of them including Plan International, Action Aid, Catholic Relief Services (CRS), Water Aid, Peace Corps and Cause Canada are executing in conjunction with Local Communities, projects in water, few shelter construction, sanitation and child health care. Nevertheless, the development of a regulatory framework for their total involvement in the shelter sector will go a long way in bridging gaps in shelter delivery programmes (NHPR, 1994). While Action Aid is promoting the use of local building materials in their areas of operation, CRS has been the main actor through a project to be implemented in Grafton, a neighbourhood on the outskirts of urban Freetown (FDHSDSD, 2001).

3.10 The Urban Informal Sector in Sierra Leone

With the contraction of formal sector employment and the civil service, more and more workers in African cities rely on the informal sector. Even university-educated professionals are either underpaid or cannot find secure employment easily and must try to make a living by engaging in a variety of informal activities. Indeed, as Amis (1987) notes, the informal sector now comprises two distinct elements: an 'intermediate' sector, capable of capital development, and a 'community of the poor'. The fundamental division within the sector is the ability to accumulate capital. It is characterised by greater differentiation, increased security due to official acceptance of housing in unauthorised areas, and increasing constraints to entry.

The original assumption of 'easy of entry' into the informal sector has been questioned in light of minimum requirements of skills and capital. Moreover, there is evidence or proof of informal sector workers defending their market niche, occasionally by force, 'freedom of entry' is frequently an outsider's illusion. Access controlled by kinship networks and / or politically reinforced monopolies commonly further reinforces this process (Amis, 1989). Amis thus tentatively suggests the following conclusions about the informal sector:

- There is a process of capitalisation and differentiation occurring in the informal sector (a) between sectors of activity and (b) between owners and workers.
- There is a tendency towards monopoly or barriers to entry in the lucrative areas. The mechanisms vary but include legalisation, licensing and control by certain political, ethnic or kin groups.
- Employers' wages in the informal sector are related to formal sector wages. It is unsustainable for few atypical sectors.
- The urban informal sector and rural non-agricultural income generating activities are structurally similar, albeit spatially separate.
- There is an increasing realisation at the policy level of the importance of the informal sector; implementation of policies remains problematic and may in some cases even be counterproductive (Amis, 1987).

The productivity of and the demands from informal sector are suppressed by a number of internal and external constraints. The former include lack of operating capital owing to insufficient income and savings; inadequacy of education of informal sector proprietors and workers; poor management skills of proprietors; and utilisation of low productivity technologies. The principal external constraints are the prevalence of a hostile policy environment with Governments (central and local) policies that are biased against the sector. This often exacerbate the constraints in terms of access to resources and markets; and governments licensing requirements, which require adherence to standards, which are

practically impossible to meet. Such standards are detrimental to the sector's expansion and in most cases result to the participants disintegration (UNCHS, 1986 and Taylor and Mackenzie, 1992).

The informal sector in Sierra Leone is growing steadily, despite frequent Government Officers' (central and local) harassment in the form of money extortion, particularly in Freetown and the provincial urban cities. Notably, there is no evidence to suggest that any attempt at regularising the sector's activities had been made, which may be deliberate in the sense the official extortion would continue. Nevertheless, the sector's operation requires little capital and equipment, relies on local resources and utilises, simple, labour-intensive technology as against the formal sector as shown in Table 3.5. Because of its non-complex operation, the sector has attracted not only the unemployed, but formal sector employees as well, with women dominating, among others, the petty trading.

Table 3.4: Comparison of the formal and informal sectors.

Category	Formal Sector	Informal Sector
Ease of access	Difficult to enter	Easy to enter
Main origin of resources	External	Indigenous
Scale of operation	Large	Small
Ownership	Corporate	Family
Technology	Capital-intensive and often imported	Labour-intensive and adapted
Skills	Formally acquired, often expatriate	Acquired outside the formal education system
Market	Protection through tariffs, quotas and trade licences	Unregulated and competitive

Source: UNCHS / ILO (1995)

However, the participation of women in the informal sector, in order to generate additional income, is not a new phenomenon for women in urban and rural areas of developing countries such as Sierra Leone (Taylor and Mackenzie, 1992). Moreover, the current economic crisis and the growing monetisation of the subsistence economy has created a high demand for cash to meeting the rising costs of food items, clothing and other basic needs. This situation, according to Taylor and Mackenzie (1992), has negatively affected the nutritional welfare of children who are left in the care of either other children or ageing grandmothers. It is argued that in many cases children are forced to work late hours to help their mothers to generate income through petty trading, which often results in their being absent from school.

Indeed, many factors have been attributed to women's increased involvement in the informal sector. Such factors have been suggested by Taylor and Mackenzie (1992), among others, to include:

- a) Male migration, especially from rural to urban areas leaving the women to provide and manage family needs.
- b) An opportunity for women to gain economic independence.
- c) Cultural or traditional obligation for women to provide food for the family.

The civil war left most households to be headed by women. Often these women preside over an average household size of more than seven (7) people. Given the predominance of children with low skills and the skewness of population structure towards women, it is not surprising to have women dominate the informal sector of the economy.

Taking the above factors into consideration, therefore, it is not surprising that so many women in Sierra Leone are turning to income-generating activities in the informal sector in order to earn extra income and to supplement other sources of income for the continued sustenance of their families. This is particularly the case since it is no longer possible for low-income households to subsist on their low

and sometimes irregular income (Taylor and Mackenzie, 1992), especially if they are to undertake construction activity of new dwelling units.

3.10.1 The Role of the Informal Sector in Housing for the Urban Poor in Sierra Leone

Moavenzadeh (1987) has suggested that the average number of dwellings built by the informal sector is about four times the number that appear in government or formal statistics. Indeed, in the majority of Southern Hemisphere Countries, where the formal sector is less regulated, the informal production of building materials and shelter is extensive; its size and output is substantial. The sector typically provided more housing than all the supplies in the formal sector combined. It is also the only conceivable source of owner-occupier housing for low-income households or informal settlements (Moavenzadeh, 1987; Tipple, 1987).

Informal Settlements have made a significant contribution to the supply of shelter for the low-income groups in Sierra Leone. The FDHSDSD (2001) affirms that:

'In Freetown, and to a smaller degree in the main urban centres, a number of residential localities consist of houses which fall outside of official planning and building regulations. In spite of their poor environmental conditions, these informal settlements play an important role in housing supply. Indeed, without them, towns would have found it extremely difficult to cope with the sudden influx of migrants brought about by conflict'.

Indeed, the cardinal role of the informal sector in urban housing supply has now been recognised by both the Government and planners. As FDHSDSD (2001) asserts, 'policy should now focus on how to regularise tenure and improve environmental services in those settlements which are suitable for habitation'. There is good intention here, which means that the resources of the informal sector will now be exploited and encouraged to contribute more to the production

of habitable or acceptable housing. This would contribute significantly (as it were) to mending or repairing the scars left behind by the destructive impact of the protracted civil war on human settlements through out the country.

3.10.2 Development of positive Structures or Institutions in Sierra Leone

Following the end of the brutal civil war in Sierra Leone, which lasted for eleven years (1991 – 2002), positive developments have taken place in order to ensure that the peace already achieved is reinforced with justice. Because, majority of people across the board argued that peace without justice seeing to be done to the war victims would be unsustainable. In view of this fact, two institutions, backed and financed by the International Community, have been established in Sierra Leone to see that justice, confession and forgiveness, healing and reintegration take place in the country. The institutions are the Special Court for Sierra Leone (SCSL) and the Truth and Reconciliation Commission (TRC), which are briefly discussed below:

The Special Court for Sierra Leone (SCSL) – The SCSL was set up jointly by the Government of Sierra Leone and the United Nations and agreement signed on 16 January 2002, which was mandated by the United Nations Security Council Resolution 1315 of 14 August 2000. SCSL is an international body that is independent of any Government or Organisation and its staff made of Sierra Leoneans and Internationals. The SCSL is mandated to try those who bear the greatest responsibility for serious violations of International Humanitarian Law and Sierra Leonean Law committed since 30 November 1996. This was the date set for all atrocities to seize after the signing of the peace agreement between the Government of Sierra Leone and the rebels in Abuja, Nigeria and then 1999 in Lome, Togo.

Currently, eleven persons associated with all the three of the country's former warring factions stand indicted in the special court. The former warring factions include the Revolutionary United Front (RUF), the Armed Forces Revolutionary

Council (AFRC) and the Civil Defence Force (CDF). However, it must be emphasised that while both the RUF and AFRC were the main rebel groups fighting the Government and the people, the CDF stuck its neck to defend the later. But because it is suggested that some of the CDF membership also committed atrocities during the war, the leaders have been held accountable and thereby indicted. Nevertheless, the charges against the indicted persons include war crimes, crimes against humanity, serious violations of international law, murder, rape, sexual slavery, extermination, acts of terror, enslavement, looting and burning, conscription of children into an armed force, and attacks on United Nations Peacekeepers and humanitarian workers, among others.

The Truth and Reconciliation Commission (TRC) – The TRC was inaugurated on 05 July 2002 and started public hearing on 14 April 2003. The TRC was established in order to create an impartial record of violations of human rights and humanitarian law. Other functions of the TRC include addressing impunity, helping the victims, promoting healing and reconciliation and preventing a repetition of the abuses that took place during the war. Essentially, while the victims would tell their stories, the perpetrators are given the opportunity to confess their wrongs. As a result, it is hoped that there would be forgiveness, reconciliation and reintegration into communities of both perpetrators and victims. Nevertheless, it is worth mentioning that unlike SCSL, which will lead to imprisonment, TRC will not. In fact, TRC will not pass information to the SCSL; for both remain separate institutions.

Nonetheless, other positive developments are gradually taken place in Sierra Leone to further maintain the peace achieved and to also address the socio-economic needs of the country. In this respect, Government has embarked on major reforms of all its existing institutions or structures. Such reforms are now taking place in the Military, Police, Judiciary and the Civil Service, to name but a few.

More importantly, the *Population and Housing Census* is ongoing after the last one, which was held in 1985. This is vital for national planning and socio-economic development.

Thus, to follow through its socio-economic development programmes, the Sierra Leone Government with the help of the International Community, has, among others, established three important structures or institutions including the Anti-Corruption Commission Prevention Department (ACC), the National Commission for Social Action (NaCSA) and the National Commission for Privatisation (NCP). The aims and objectives of these structures or institutions are briefly stated below:

The Anti-Corruption Commission or ACC: It started operation in 1999 but its Act was enacted in 2002. ACC was created to educate, sensitise and inform the public on the fight against corruption in the country. Thus, to manage to prevent corruption in the country, ACC's strategy is to ensure the improvement of transparency, accountability, proper management systems and other related issues throughout Sierra Leone. It is important to mention that since its creation, ACC has not made any great impact on corruption, which has been attributed to mainly lack of full co-operation from the Attorney General's office. In other words, ACC has met many set backs that include the non-prosecution of cases sent to the office of the Attorney General who should approve them. Nevertheless, few investigations are ongoing involving few public corrupt officials, which includes a Government Minister.

The Nation Commission for Social Action or NaCSA: It started operation in 2001. NaCSA's mandate is to promote the efficient and effective implementation of projects and programmes that would ensure post-conflict sustainable development. This leads to the alleviation of poverty reduction in the risk of renewed conflict and improvement in the well-being of Sierra Leoneans. It is worth mentioning that NaCSA has successfully implemented some projects and

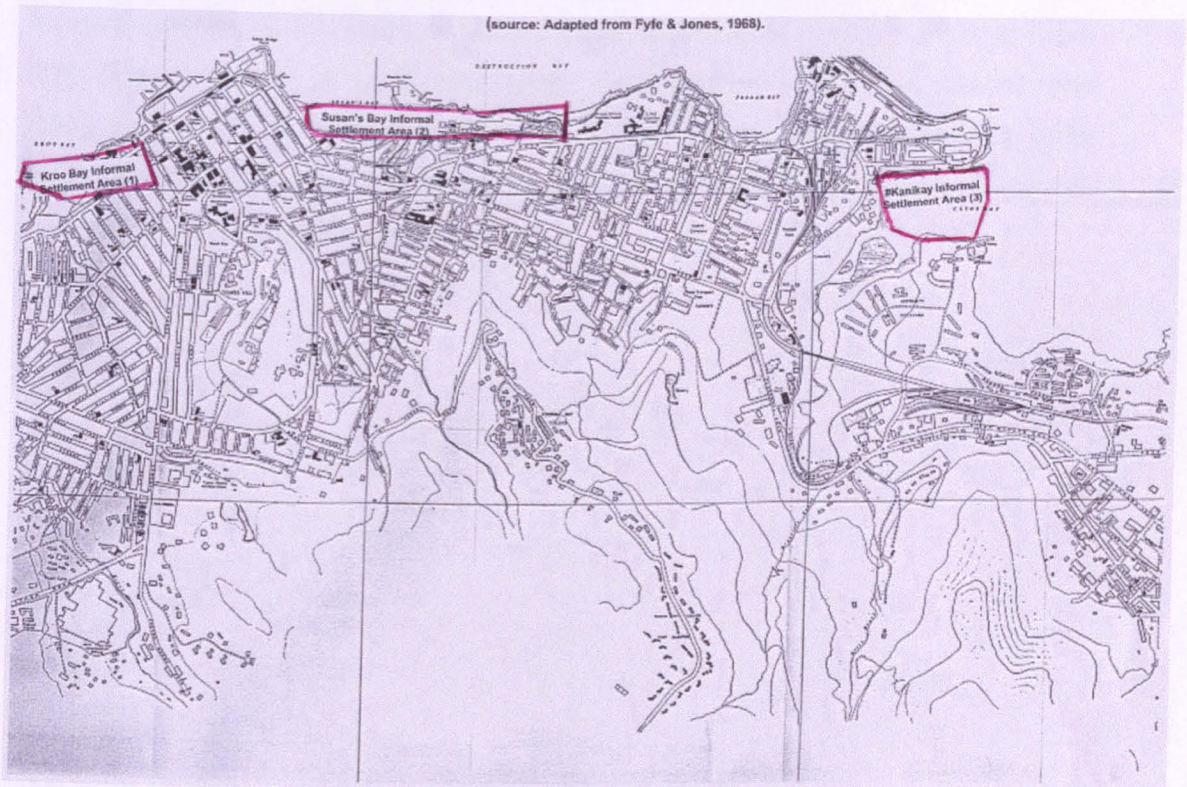
additional projects for implementation up to the year 2007 have been agreed with its major funding partners including the World Bank, African Development Bank, the Islamic Development Bank and the Government of Sierra Leone.

The National Commission for Privatisation or NCP: It is new and yet to go into full operation. However, NCP's mandate is to formulate and implement policies for the enhancement of the privatisation of the Sierra Leone Government's owned enterprises.

3.11 Physical Characteristics of the Study Sites

This section presents a description of the physical features of three informal settlements studied, which include Kroo Bay, Susan's Bay and Kanikay. These settlements are located in three different Freetown Wards or Blocks: West, Central and East (Figure 3.3).

Figure 3.3: Map showing the locations of study sites (1, 2 &3).



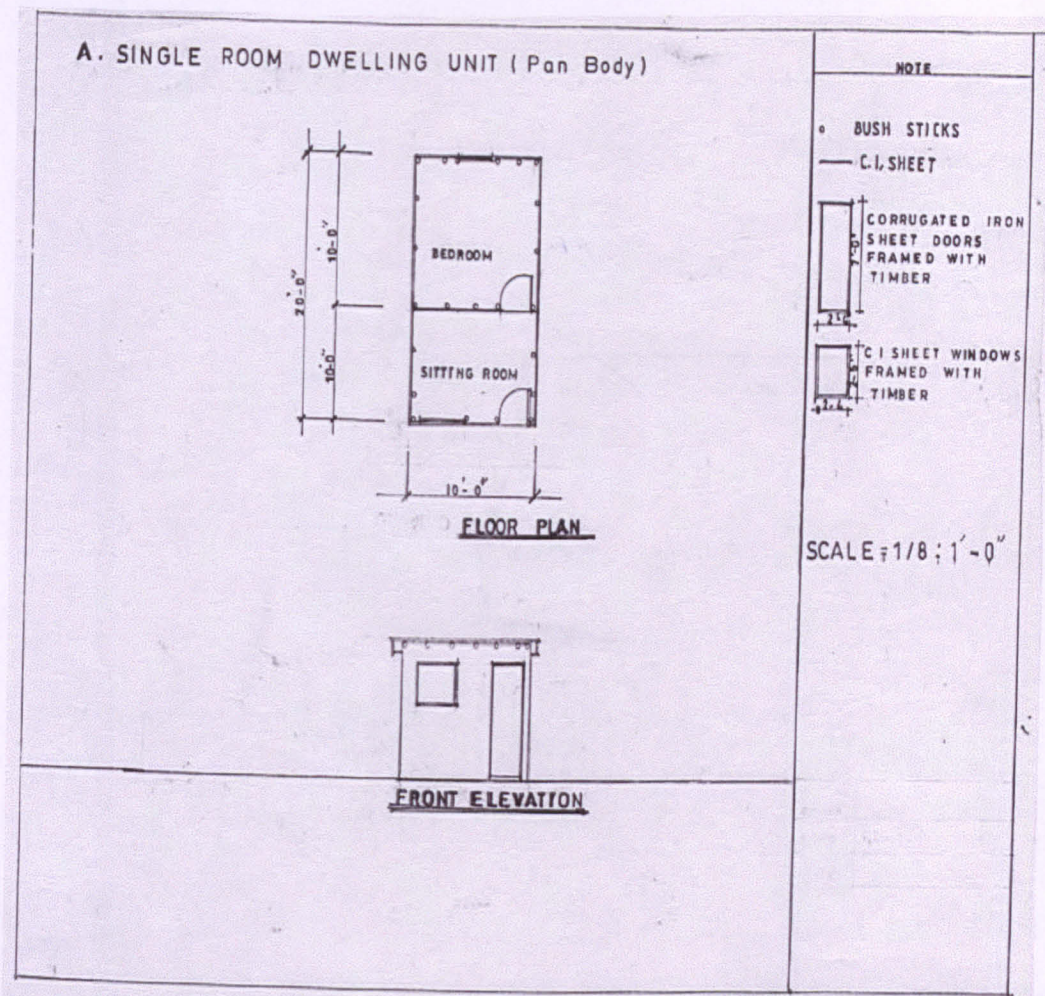
Note to Study Sites Map.

- 1 = Kroo Bay Settlement
- 2 = Susan's Bay Settlement
- 3 = Kanikay Settlement

Settlement Boundary Marked Red

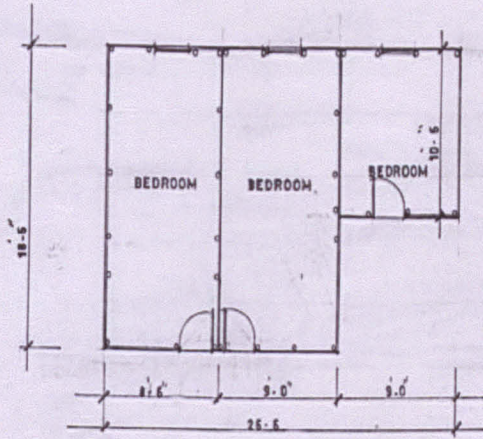
For the most part, housing in the three settlements is similar with a good number of households renting single room dwellings. The rent is between Le3,000.00 and Le30,000.00 and above per month. The predominant house construction materials in all the three settlements are re-used corrugated iron sheets or flattened metal-and-wattle for walling and re-used corrugated iron sheets, patched together sometimes with plastics sheets or flattened metal sheets for roofing. Floors are made of red earth, and occasionally may be coated with a thin layer of cement. The housing in all the three settlements is either a single-room unit ('Panbody') or a long multi-room (between two and six rooms) unit ('Adjoining panbody') with a central corridor as layout plans and dwelling units illustrate by Figures 3.4a and 3.4b. Some of the rooms are as small as 5ft. by 6ft. or a size of an African single bed.

Figure 3.4a: Floor plans showing layout of dwelling units in informal settlements.

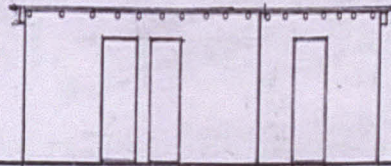


A floor plan showing a layout of dwelling unit with a single extension to add one more room in informal settlement. Parents sleep in the inner room and what appears to be a sitting room in theory, is in practice a sleeping room for the children and any member of the extended family.

B. MULTI-ROOM DWELLING UNIT (Adjoining Pan Body)



FLOOR PLAN



FRONT ELEVATION

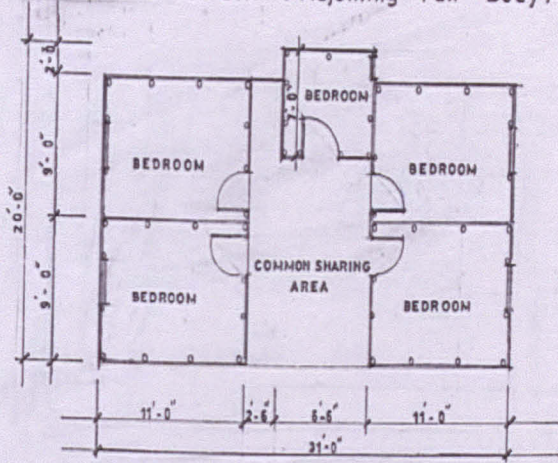
NOTE

- BUSH STICKS
- CORRUGATED IRON SHEET
- CORRUGATED IRON SHEET DOORS FRAMED WITH TIMBER
- C.J. SHEET WINDOWS FRAMED WITH TIMBER

SCALE = 1/8" = 1'-0"

A floor plan showing a layout of dwelling unit with two more extensions to add to make two more rooms for renting and accommodating a nucleus family and members of the extended family in informal settlement.

C. MULTI-ROOM DWELLING UNIT (Adjoining Pan Body)



FLOOR PLAN



FRONT ELEVATION

NOTE

- BUSH STICKS
- CORRUGATED IRON SHEET
- CORRUGATED IRON SHEET DOOR FRAMED WITH TIMBER
- C I SHEET WINDOWS FRAMED WITH TIMBER

SCALE $\frac{1}{8} = 1'-0''$

A floor plan showing a layout of dwelling unit with multiple extensions to add four more rooms, in this case, purely for commercial purpose (renting) to earn more income and at the same time accommodate the family and members of the extended family. Interestingly, each tenant comes with their family and later joined by members of the extended family, which results to overcrowding in the informal settlements.

Figure 3.4b: Dwelling units in informal settlements.



Above: Photo shows housing in informal settlements, where in few instances residents share dwellings with pigs in Kroo Bay settlement, for example.



Dwelling unit drowned in household garbage in Susan's Bay, which is Disposed of by burning or through rivers since no disposal means exist.

Water is collected, in five-gallon plastic containers ('Havolene') from public taps, wells or rain water collected in open drums, for cooking and drinking, and from rivers aided by the rainy season for washing or laundering as Figure 3.5 shows.

Figure 3.5: Community Water Point and Laundry Facility



Above: Residents use rivers to do washing or laundry and bathing in informal settlements.



Photo shows community upgraded water point with residents waiting to get water in turn at Kroo Bay.

Tenants as well as landlords use shared latrines. The number of households per latrine varies from settlement to settlement. But the latrines that are common to the three settlements, are the pit latrine and the hanging type. The later is constructed with sticks, re-used corrugated iron sheets or plastic sheets and

hangs over and empties in the river. In actual fact, the hanging latrine is a trap-bridge like structure with no roof at all as is illustrated by Figure 3.6. Household size, common to the three settlements is between 4 and 10 plus, most of whom, live in one room. Indeed, in 1979, it was estimated that one of the settlements (i.e. Kroo Bay) had 60 distinguishable structures housing between 1,000 and 1,500 people at an estimated density of 25 persons per house (Doherty, 1985). However, this section is not meant to give a meticulous account of the houses and dwelling units in the three settlements and of the owner and tenant households that occupy them. Rather, via an analysis of some key characteristics (as stated above), empirical evidence will be obtained to provide guidance in the formulation of strategies to improve housing conditions in Kroo Bay, Susan's Bay and Kanikay in particular; and to improve quality of life within the built environment in general.

Figure 3.6: Latrine/toilet facility in informal settlement



Above: Photo shows pit latrine and bathing facilities in Susan's Bay.

Below: Toilet facility in informal settlement.



Photo shows hanging latrine (the only toilet facility available) in Kanikay, which empties directly in to the river or sea.

3.11.1 Kroo Bay

The founding of the Kroo Bay settlement, can be traced back to the 19th Century residential arrangement in Freetown, where certain tribal and ethnic groups are traditionally associated with particular areas (Doherty, 1985). For example, the Mandingoes predominate in Bambara town, Foulahs in Foulah town, Aku in Fourah Bay, Mende in Genger Hall, to name but a few. As a result of this settlement arrangement and without any kind of planning, Kroo Bay Settlement was carved out of Kroo Town. Kroo Town was set aside in 1817 as the original receiving settlement for the Kroo ethnic groups (Figure 3.14 in page 129). Kroo Bay is still the city's popular site for many kroos as well as diverse ethnic migrants because of its proximity to both Kroo Town Road, King Jimmy, Big and Congo Markets, which are in the heart of Freetown West. In these markets you can buy almost everything there at competitive prices. These markets in total have more than 3,000 stalls selling all kinds of commodities including food stuff, medical herbs and mostly second hand items such as clothing ('pick your

choice'), furniture, hardware, electrical and automotive goods. Throughout the day and late evening these markets, especially Kroo Town Road Market, teems with life, providing a major centre of business for late shoppers shopping for food-stuff. Others include bargain hunters, commuters, cookery or cooked food dinners as well as muggers (e.g. unemployed, street kids/youths or generally pick-pockets) and pub goers.

Kroo Bay is the Freetown most notorious and degraded slum or informal settlement. It has a population of almost 10,000 and one of the most degraded physical environments, lie in the coastal area of Freetown West, as Figure 3.7 on page 127 shows. In all places, it is almost impossible to even dig a full metre without hitting the water table. Dwelling units are exposed to frequent floods, a serious threat to lives of young children and babies, who may sleep on low beds or on the floor. Kroo Bay settlement is usually muddy even during the dry season walking into the community becomes extremely difficult with water everywhere, including houses.

Many of the residents in Kroo Bay are small-scale operators in the informal sector, conducting their activities within the settlement or in near by town. They engage in cottage industries such as blacksmiths and building blocks production (Figure 3.8).

Figure 3.8: Home cottage industry in informal settlements.



Above: Photo shows blacksmith at work in Kroo Bay with a resident watching.



Photo shows commercial cement/earth block production in informal settlements.

Residents also engage in operating retail and food kiosks (Figure 3.9), trading in second-hand items, selling water, ginger beer drink, fish or fish mongering and illicit liquor (omole or disqualified sasman).

Figure 3.9: Commercial Activities in informal settlements.



Above: Photo shows household preparing food (rice) for commercial purpose in Kroo Bay.

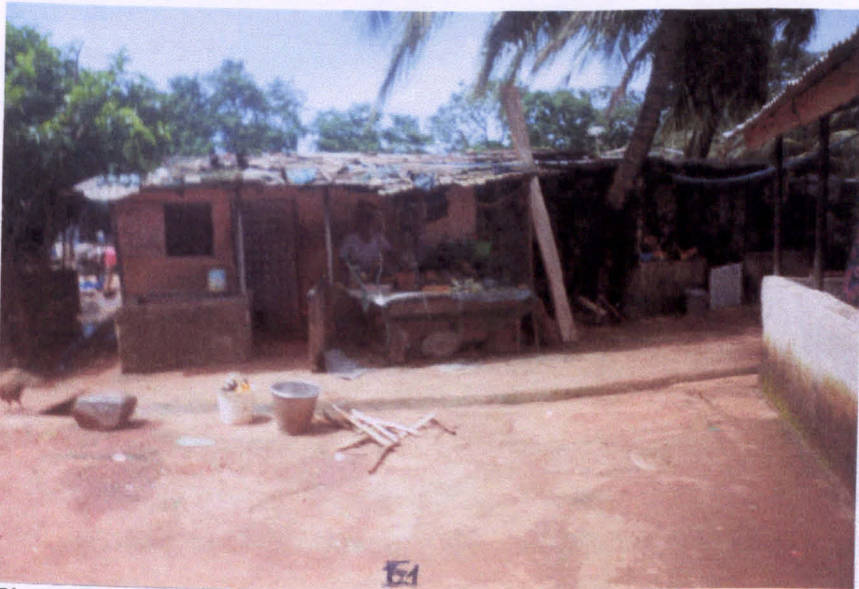


Photo shows multi service facility where food, vegetables, liquor or local drinks, etc. are sold.

A minority of the residents are formally employed or engaged (paid or unpaid), especially by the Freetown City Council to oversee or manage the public ablution and a few grossly inadequate five pit latrine facilities within the settlement (Figure 3.10).

Figure 3.10: Upgrading intervention in informal settlements.



Above: Photo shows ablation facility constructed under the World Bank funded FIRP in Kroo Bay and Susan's Bay respectively. These facilities in both the settlements are not only grossly inadequate, they have no regular running water and the bad smells from the blocked toilets had become a nuisance to both communities.

The ablation block was constructed under the Freetown Infrastructure Rehabilitation Projects funded by the World Bank upgrading loan scheme. This ablation facility (like the five pit latrines) is grossly inadequate and does not meet the needs of the residents. Worst still, the facility has infrequent running water yet a hundred leones (Le100) is charged per use, which is justified on grounds of cost recovery for maintenance. The majority of the residents, because they are not gainfully employed, cannot afford the Le100 user-cost even if the facility was adequate and fully operational with frequent running water.

Similarly, the five community pit latrines could not serve the majority of residents, who unfortunately would not be able to afford private facilities at home. Owning private latrines poses two main problems for the residents. Firstly and of great importance is the problem of space. After residents have managed to find small

space within the settlement to erect their dwellings, there is no space left to dig pit latrines. Secondly, due to the fact that they are not gainfully employed, majority of residents could not afford the money to dig private latrines in a muddy soil. For a solid pit latrine in a muddy soil, it requires few iron rods and cement, which is relatively expensive. Given this situation, where residents are left with no escape route, they excrete and dispose garbage in the river, posing serious health risk, especially in the case of children during high tides and the raining seasons.

This appalling situation raises dilemma in the World Bank approaches to the improvement of informal settlements like Kroo Bay where upgrading programme has failed woefully, especially given the failure to install access roads, portable water, sewerage system, garbage collection and disposal system, electricity and income earning programme, to name but a few. The implication here is that residents would have a negative view of urban upgrading policies and programmes. Therefore, it can be argued that the role of the World Bank's upgrading projects should be wider than construction of ablution facility with infrequent running water. Rather, informal settlements beckon for upgrading in social, economic, financial and environmental terms.

3.11.2 Susan's Bay

Like Kroo Bay, Susan's Bay, which is in the central coastal area of Freetown was established around 1819 as part of or spill over from Gibraltar Town (see Figure 3.14, page 129) to settle recaptives who were sent to Freetown from time to time (Fyfe and Jones, 1968). Recaptives comprised immigrants of diverse ethnic groups mostly from America, the West Indies and West Africa. Freetown was originally plotted into Farmland Plots to enable the Recaptives or Immigrants build their homes and do gardening. The Colonial Administration allocated the plots to settlements without proper survey plans, title deeds or house plans in order to affect uniformity in the construction of homes or houses.

However, Susan's Bay is slightly larger than Kroo Bay with a population of about 14,000 before the civil war started in 1991, 8,000 of which were children aged between 0 – 5 years. Today, the rapid growth of this settlement and its coastal location (Figure 3.11, page 128) has become a critical issue. This is because Susan's Bay continue to house the lower and low-middle income groups arriving in Freetown from the rural areas. These migrants are drawn to the markets such as the 'rogbebeh open' market and the notorious Saw Pit or Long Step market. These markets are located within the vicinity or catchment of Susan's Bay. While rogbebeh is a congested trading area of legitimate or legal, goods and services, stretching along the defunct railway lines, saw pit or long step deals in more illegitimate or illegal, goods (e.g. stolen items) and services (e.g. selling sex). The Susan's Bay wharf (Figure 3.12) plays a vital role in both the informal and formal economy of Freetown Central, since it is an important supply sea route where goods and services are freely exchanged or smuggled to invade customs duty into and from the city.

Figure 3.12: Community facilities in informal settlements.



Above: Community supply wharf in Susan's Bay. This wharf plays a vital role in both the formal and informal trade, where goods and services are freely exchanged day and night. Nevertheless, smuggling is very rampant through this wharf, especially in the sea trade. Interestingly, this wharf is not only used to smuggle goods, it is also used to smuggle human cargo. For instance, local information reveals that fugitive and war criminal Major Johnny Paul Koroma (former junta boss) was smuggled through this wharf. He is still at large, which may likely see him escaping justice for war crime offences.



Photo shows community open market in Susan's Bay with author posing for the camera.

Within the settlement itself, there is an open community market, which operates on a daily basis, but the topography is very steep and comprises rugged multiple steps (Figure 3.13). This makes it extremely difficult for law enforcement agencies to monitor any illegal activities in the settlement.

Figure 3.13: Access to Services in informal settlements.



Above: Photo shows a rugged multiple steps, which is the main land access in to Susan's Bay.



Photo shows a primary school in session at Kroo Bay where children have no proper school building, no chairs or desks.

The infrastructure and facilities in Susan's Bay are worse than those of Kroo Bay. While footpaths are in a very bad condition, any form of vehicular access to the

settlement is completely absent. There are four public standing water taps, a public ablution block and a toilet, but no regular water supply as in Kroo Bay (Figure 3.10). This leaves the majority of residents with no option but to use the rivers as toilet and disposal of household rubbish. Due to this acute shortage of toilet facilities and in order to tackle it through self-help, the youths of the settlement are now engaged in fund raising activities. Notwithstanding the aforementioned problems, Susan's Bay has both a health post that sees 36 patients per week, and a primary school, up to class six, which teaches both Arabic and English Languages.

Like in Kroo Bay, the houses in Susan's Bay have corrugated iron sheet-and-wattle walls and roofs covered with either corrugated iron sheets or plastic sheets or mixture of both and have similar layout as indicated in section 3.11.1 (see also Figures 3.4a&b). Tenants constitute a good number of residents in Susan's Bay, but many owner-occupiers also live in their buildings or houses. Rents for single rooms range between Le10,000 and Le30,000 per month, depending on the size and condition of the room with or without electricity. There is however a limited number of homes with electricity and most of the time supply is very low (voltage) or absent for weeks, if not months.

Many of the residents are small-scale operators in the informal sector, carrying out their activities within the settlement, or in the surrounding open-air market or in town (e.g. "Rogbegbeh" – along the defunct railway lines). Like in Kroo Bay, the activities in which they engage include, hawking, trading in cotton fabrics, second hand clothes, second hand ware and household goods, selling food stuff (Figure 3.9) and other items along Sani Abacha Street, Kissy Road, Fisher Street and Dove Cut markets, operating retail food kiosks, fire wood selling, to name but a few. Majority of residents are petty traders, whilst few work for Lebanese as shops assistants, cooks or domestic servants. Others are unemployed and like their counterparts at Kroo Bay, engage in criminal activities within the settlement.

3.11.3 Kanikay

Unlike Kroo Bay and Susan's Bay, which have direct and clear historical sketches, the history of Kanikay remains indistinct. However, there seems to be no doubt, based on the founding sketch of Freetown (Figure 3.14, page 129), that Kanikay came out of Cline Town, which was established in 1846, forming part of the layout plan of Freetown undertaken by Surveyor Pepys between 1792 and 1794 (Fyfe and Jones, 1968). As a result, Kanikay's origin can be traced back to 1846. However, Surveyor Pepys, on the instruction of the Colonial Administration, plotted Freetown into Farm Lots of about 2,500 acres, granting one-fifth to each family (Fyfe and Jones, 1968). The plots originally measured about 48 feet by 76 feet, which would enable allottees to use the frontage to build their houses or dwellings and use the back as vegetable gardens (Fyfe and Jones, 1968). Given this situation where land became inadequate and scarce, and Freetown occasioned by the need to settle recaptives or immigrants, families had no choice but to sub-divide their plots in order to accommodate new arrivals, especially members from their clans. Thus, Kanikay attracted more new settlers and became an easy option for people to settle.

However, when the plots were issued by the Colonial Administration, allottees were neither provided with any form of title deed nor house plan to follow in order to ensure uniformity within all the settlements, including Kanikay.

The present Kanikay settlement houses people from diverse ethnic background with a population of between 600 and 1,000, and having between 4 and 10 people per household. Tarmac or earth roads running in front of the settlement built some years ago in the Cline Town Catchment Area, but still in fairly good condition, make the settlement easily approachable or accessible. However, Kanikay settlement like the other two settlements has a poor sanitary environment, especially during raining season and does not provide for some comparatively generous open spaces in between the houses, though footpaths or access roads appear to be slightly better.

Like the other two settlements, the predominant house construction materials in Kanikay are corrugated iron sheets-and-wattle for walling, and corrugated iron sheets or plastic sheets for roofing. Unlike Kroo Bay and Susan's Bay, Kanikay has neither a public ablution block within the settlement nor toilet facility such as a basic pit latrine normally found in low-income communities. Instead, while few residents rely on a makeshift bridge toilet (Figure 3.6), majority of residents uses the sea or river toilets and disposal of household waste. This creates health hazards for residents and exposes children to the risk of drowning in the high tides and raining seasons. Nonetheless, the facilities within the settlement include two community standing water taps, a Roman Catholic Nursing School and electric supply for very few homes.

Kanikay is located (see Figure 3.15, page 130) on the South-East of Queen Elizabeth 11 Quay (Freetown Deep Water Quay – Sierra Leone's main harbour) and other offices such as Customs, Shipping Agencies, Rice Corporation, to name but a few – all in the Cline Town Catchment Area. As a result, the majority of male residents at Kanikay rely on casual jobs provided by the Quay, especially during shipping peak periods. Similarly, the majority of women residents are engaged in informal sector pursuits or other small-scale enterprises within the settlement or in the nearby gates of Deep-water Quay and other offices. Other activities that the residents engage in include retail food kiosks, hawking of vegetables, fish and other comestibles, selling household items and second-hand clothes trading. Most importantly, women of especially unemployed husbands sell firewood (Figure 3.16) to run and provide for the family.

Figure 3.16: Role of household wives in informal settlements.



Above: House wife selling wood to support or provide for the family in Kanikay.



Photo shows a house wife undertaking the domestic chores, rearing the children and ably assisted by the older children.

It is also important to mention that Kanikay is notorious for pirate activities undertaken by young energetic men. It has been suggested that pirates are supported and aided by prominent and influential people in the Freetown or

Sierra Leone society. Pirate activities involve organised criminals armed to the teeth, who use boats with outboard engines to steal from ships at the Quay or mid-seas during the night and share the loots with their employers or financiers. They sell the looted goods wholesale to business people such as the Lebanese. Sadly, this is how most of the residents at Kanikay make their living.

3.12 Summary

In this chapter, it has been established that urbanisation and demographic trend in Sierra Leone, in addition to the civil war; and the escalating rural and urban poverty, have precipitated a massive housing deficit, which primarily affects the poor income groups. Despite the formulation of housing policy, strategies and programmes (articulated in both National Development Plan in review and the National Housing Policy Report) aimed at addressing the housing plight of the low-income majority in urban areas, by government's own admission, public housing has woefully failed to reach the poor. The failure has been attributed to various constraints and the legal and regulatory framework for urban housing development. As a consequence, coupled with impact of civil war and poverty on human settlements, the informal sector or informal settlement is playing an increasingly important role in the supply of housing for the Sierra Leone urban poor or low-income groups.

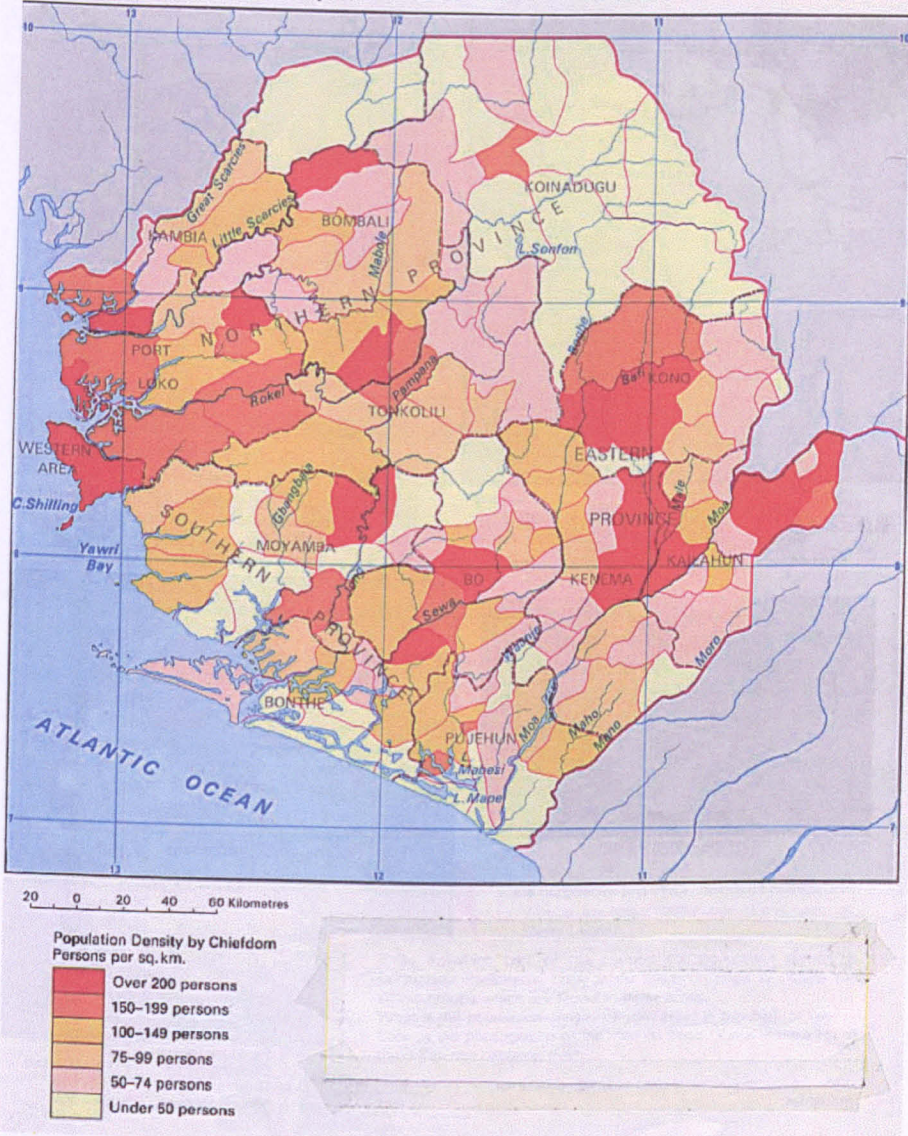
Additionally, we critically examined our three study sites. While all the three sites share common similarities in their housing arrangement, sharp differences exist in infrastructure and services.

This chapter having set the background, the next chapter will now discuss the policy prescriptions and programme responses to the problem of informal settlements in Developing Countries and, more specifically, in Sierra Leone.

3.0 Figures

Figure 3.1 Sierra Leone Population

Sierra Leone Population



Source: First Atlas for Sierra Leone Schools, Macmillan, 1993.

Figure 3.2 Political Sierra Leone



SHORT HISTORY SKETCH

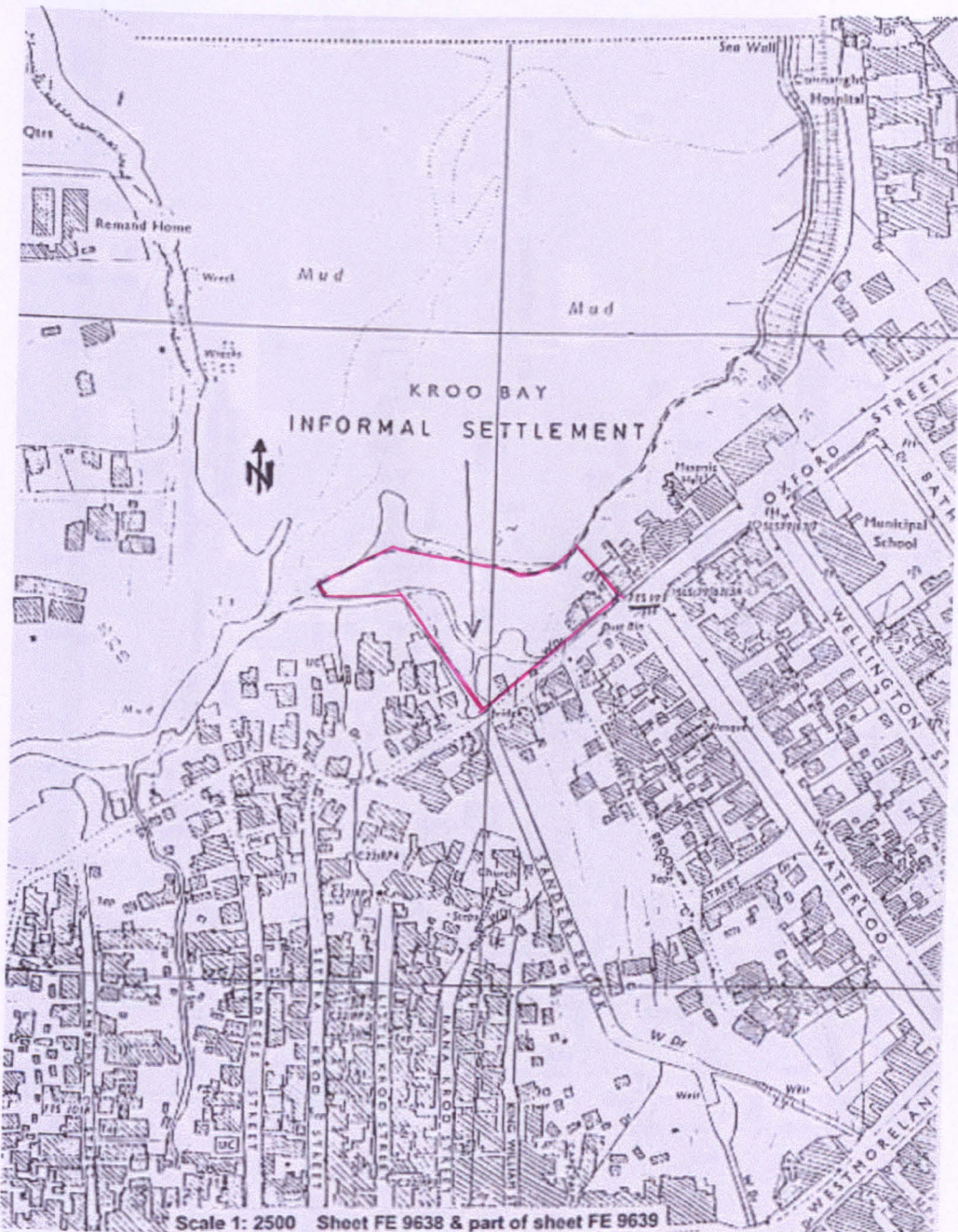
Before Immigration into the territory and settlement of various groups, notably:

- 1462:** The Bullom or Sherbro, Temne, Limba and Susu.
- 1462:** Visit of Portuguese explorer Pedro da Centra and naming of Sierra Leone (Lion Mountains).
- 1787:** Founding of settlement for freed slaves on peninsula of today's Sierra Leone.
- 1808:** Declaration of settlement as British Colony and Freetown the capital.
- 1896:** Proclamation declaring Protectorate over hinterland.
- 1951:** Constitution providing first step towards self-government.
- 1953:** Dr. (later Sir) Milton Margai became a chief Minister.
- 1958:** Sir Milton Margai became Prime Minister.
- 1961:** April 27th. Sierra Leone gained independence.
- 1964:** Sir Milton dies and his brother Sir Albert Margai succeeds him as the new PM.
- 1967:** Siaka Stevens and the APC replaces Sir Albert and the SLPP, but later deposed by military coup.
- 1968:** Siaka Stevens regains power after another military coup.
- 1971 April 19th.:** Sierra Leone became a Republic and Dr. Siaka Stevens the Executive President.
- 1978 June 24th.:** The All Peoples Congress (APC) became the only political party.
- 1985 Nov. 28th.:** Major General J. S. Momoh became the new President and Head of State.
- 1991 March 23rd.:** Rebel war started by Foday Sankoh and his RUF.
- 1992:** President Momoh ousted and Captain V. Strasser became the new President & Head of State. May 1st. National Provisional Ruling Council (NPRC) formed.
- 1996 Jan. 16th.:** Capt. Strasser ousted and Brigadier J. Maada Bio became the new President and Head of State.

- 1996 March 29th.:** Dr. Alhaji A. Tejan Kabbah became the new President and Head of State.
- 1997 May 25th.:** Dr. Kabbah overthrown and Major Johnny Paul Koroma became the new self-acclaimed President and Head of State.
- 1998 March 10th.:** Dr. Alhaji A. Tejan Kabbah restored (by the help of the Nigerian-led West African Peace Keeping Force (ECOMOG) as the legitimate President and Head of State.
- 1998 Oct.:** Former members of the Armed Forces implicated in the May 25 coup executed.
- 1999 Jan. 6th.:** Rebels attack Freetown and killing 5,000 (five thousand) people.
- 1999:** Lome Peace Agreement signed.
- 1999 Nov. / Dec.:** UN troops deplored to police Peace Agreement.
- 2000 May:** British Paratroopers arrive in Freetown to evacuate British Citizens and to help the UN troops. Foday Sankoh later captured.
- 2001 May:** Disarmament of rebels started.
- 2002 Jan.:** War declared over and disarmament of fighters completed.
- 2002 May:** President Kabbah wins election for a final five (5) year term.
- 2003 July:** Rebel Leader Foday Sankoh dies of natural causes while waiting to be tried for war crimes.
- 2003 August:** President Kabbah testifies at the Truth and Reconciliation Commission, which looks into civil war human right abuses.

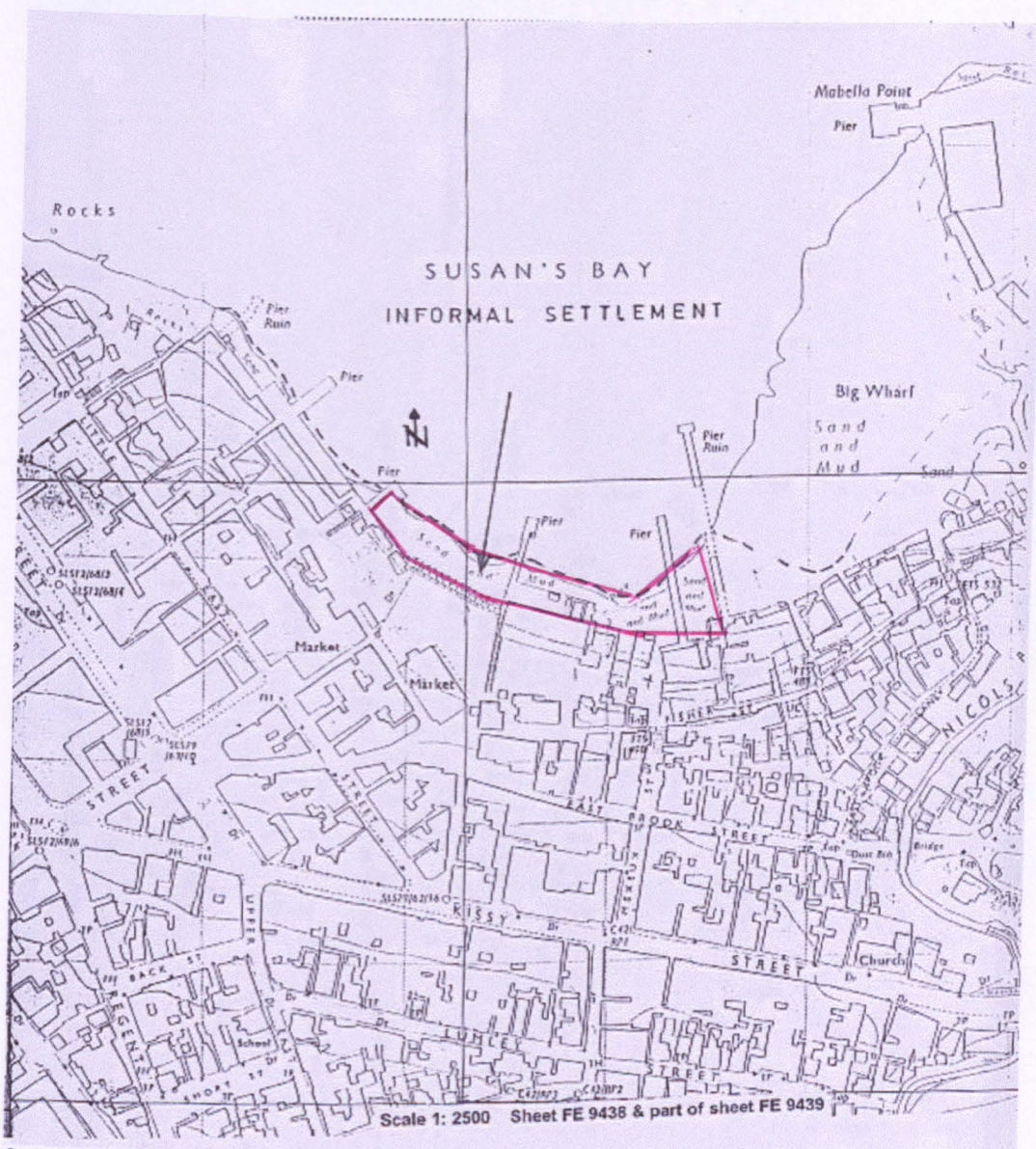
Sources: First Atlas for Sierra Leone Schools, Macmillan, 1993; Africa South of the Sahara 2000, Europa Publications and Time Line: Sierra Leone – A chronology of Key events, 22nd. Jan. 2004.

Figure 3.7: Map showing Kroo Bay Informal Settlement in Freetown West, West Area, Sierra Leone. (Source: D.O.S. for Sierra Leone Government, 1971)



Settlement Boundary Marked Red

Figure 3.11: Map showing Susan's Bay Informal Settlement in Freetown Central, Western Area Sierra Leone. (Source: D.O.S. for Sierra Leone Government, 1973).



Settlement Boundary Marked Red

Figure 3.14 Map showing the founding of Freetown

(source: Adapted from Fyfe & Jones, 1968).

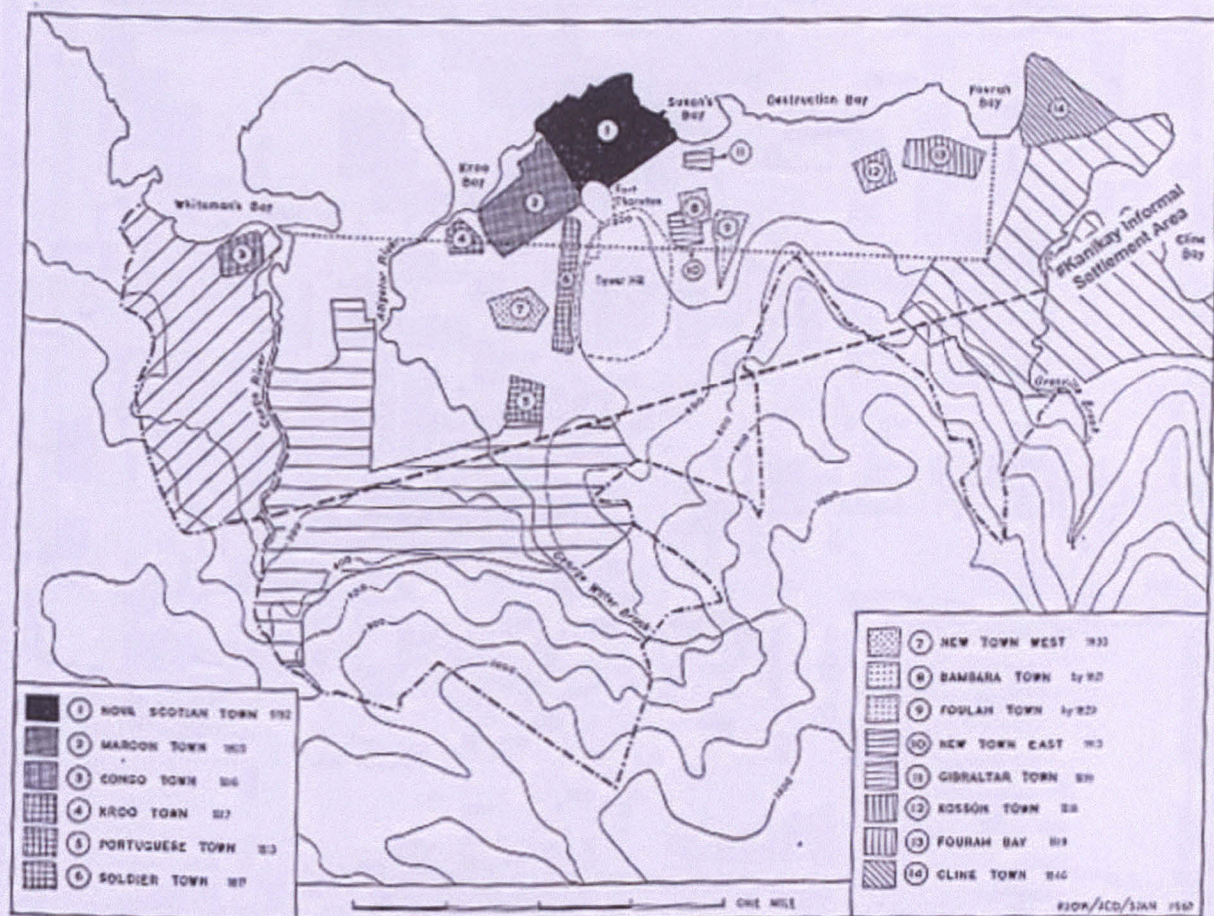
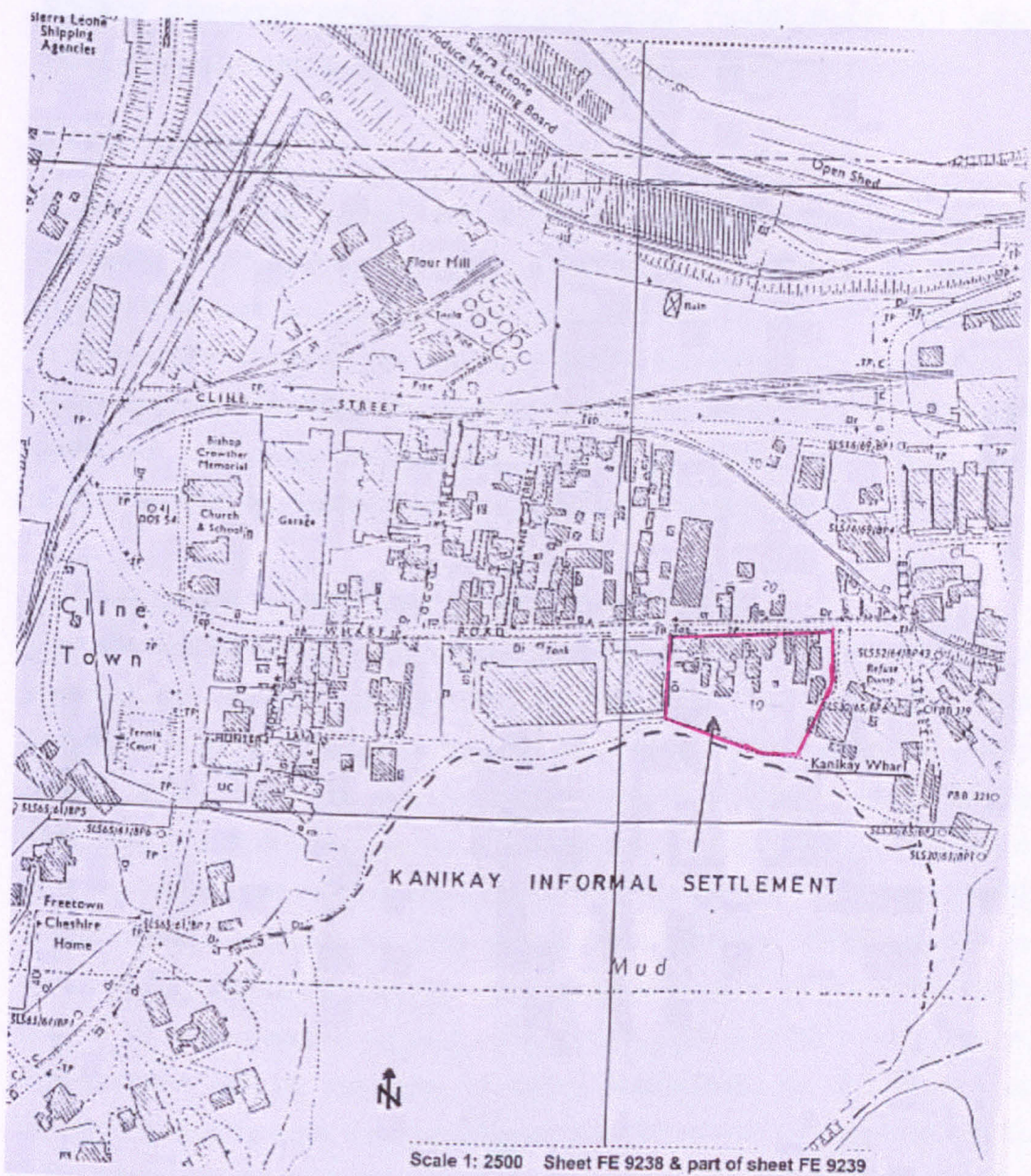


Figure 3.15: Map showing Kanikay Informal Settlement in Freetown East, Western Area, Sierra Leone. (Source: D.O.S. for Sierra Leone).



Settlement Boundary Marked Red

POLICY PRESCRIPTIONS AND PROGRAMME RESPONSES TO URBAN POVERTY AND HOUSING PROBLEMS IN DEVELOPING COUNTRIES

4.1 Introduction

In this chapter, the policies and programmes prescribed over the years for alleviating urban poverty and housing problems in developing countries are critically discussed and applied to the Sierra Leonean scenario. The idea here is to explore and ascertain the relevance of these policies and programmes for developing countries like Sierra Leone. Some of the areas of focus include slum clearance and public housing programmes, self-help, sites and services, upgrading, financial intermediaries and enablement programmes.

4.2 Slum Clearance and Public Housing Programmes

Over the last half-century, developing countries have tackled the problems of poverty and housing deficiencies by relocating the poor from slum neighbourhoods or informal settlements to a more relatively adequate shelter (Abbot, 2002). This was also the policy pursued in Sierra Leone, but the demolition of unfit dwellings or those that violated specified standards did little to cure the overall slum problem since the families and households involved merely shifted elsewhere, taking the problem with them (Doherty, 1985). Indeed, the failure of slum clearance policy led many developing countries during the 1960s and 1970s to try massive public housing construction. It is fair to say such an interventionist role by the state, in taking responsibility for the delivery of permanent housing units was transplanted from the developed countries, where it had proved successful in the immediate post-war period (Abbot, 2002). In other words, it has been the universal experience of the developed capitalist countries that a marked improvement in the provision of mass housing had to await state intervention, although the timing and intensity of that intervention has taken different forms (Doherty, 1985).

In Sierra Leone the level of involvement by the state in housing provision falls far short of that experienced elsewhere, even among other underdeveloped or developing countries. For example, in Freetown, the Kissy low-cost housing scheme began in the 1950s – its recent additions and around a dozen UNDP experimental houses remain the sole examples of direct government housing provision for low-income groups (Doherty, 1985). Comparing this to the consistency and intensity of housing provision prevalent in developed countries, it is evident that such programmes in the developing countries leave a lot to be desired.

The problems of the poor were defined primarily by the condition of their housing, and the solution was to construct public units with relatively low rent. The assumption was that this approach would eventually get rid of the perceived squalor and disorder of informal settlements (Pugh, 1995). Again, neither services nor employment opportunities were usually provided, and the results were equally disappointing. In other words, these housing projects did not have community amenities and thus were not sustainable. Also, not only was the public housing prohibitively expensive for the vast majority of the population, but it failed to accommodate the households economic opportunities considered necessary for the survival of low-income groups. The point here is that it is not enough to provide housing alone without any prospect of employment for low-income groups, because jobs are necessary to ensure residents have the resources to maintain the houses. Infact, according to Burgess (1992), income opportunities are in the form of using the residence as a workplace and subletting. In the absence of income generating opportunities, this mode of public housing production turned out to carry a high price tag relative to the poor earning capacity in the country. Moreover, the standards were often too high considering that low-income groups were the main target and could hardly afford the maintenance cost of such housing. Consequently, many of the housing units intended for the poor or low-income groups were sold or transferred by their intended beneficiaries to better off households for whom permanent

accommodation had other benefits either in terms of use or as an investment (Wakely, 1994). Thus, these policies benefited the better off households rather than the poorest families.

Given the facts above, it can be safely argued that, despite the good intentions and benefits attributed to public housing programmes in developing countries, they have not improved the conditions of the poor in developing countries (Abrams, 1966; Pugh 1995, 2000). Indeed, most of the housing projects that were built in the 1960s had to be abandoned due to lack of funds and a guarantee of land ownership. The lack of funds is always a problem for developing countries, as these countries are heavily reliant on donor loans or grants to facilitate such housing projects. Equally, because formalised land ownership in the form of registered title deeds are virtually absent in most developing countries, such housing projects will unfortunately also be adversely affected; conferring no legal rights to the intended beneficiaries. Likewise Hardoy and Satterthwaite (1981), writing on a similar theme assert that, although many nations have government sponsored housing programmes dating back to the 1950s or early 1960s, the scale of their operations was generally limited. Also, they further mentioned that it was common practice for governments of developing countries to direct their housing budgets towards housing public officials. As a result, public housing was and is still monopolised by elite groups, while the urban poor who are in dire need for housing often face total exclusions.

The case of Sierra Leone is no different in the sense that the cheapest available contract-built housing has proved too expensive for the majority of households, especially the low-income. Interestingly, what seems to set developing countries such as Sierra Leone apart from the developed countries is that both the private and public sector programmes have failed to provide shelter in adequate volume at the prices the poor can afford (Rodwin and Sanyal, 1987). Accordingly, Tipple and Willis (1991) attribute the failure of housing policies and programmes in developing countries to political expediency rather than a rational and informed analysis of housing need.

However, the situation is far more complicated and political expediency is just part of the problem. For instance, what the housing programmes seemed to ignore are the contributions and hidden potential of the private and informal sector, which collectively account for 85 – 95 percent of housing production in developing countries (Arimah, 2000). What this omission means is that most housing units offered under the programmes often attract well-off individuals. As a consequence, the only way the majority of the poor are now sheltered or housed in the developing countries such as Sierra Leone is through incremental housing development (Rodwin and Sanyal, 1987).

Arguably, incrementally built housing is a more effective way to provide low-and moderate-income families in developing countries with housing at affordable costs compared to government housing programmes, especially in terms of volume (Rodwin and Sanyal, 1987). Furthermore, he argues that incremental building, even when constructed with the most rudimentary materials, makes significant contribution to generating savings, investment, income and employment in the country. As a result, the process of incremental building or construction should not be sacrificed for standards to ensure shelter quality. Indeed, through the process of incremental or progressive construction each poor family in developing countries like Sierra Leone is able to complete the construction of their house affordably, using the materials and design of their preference and normally with no required time by which the building or construction must be completed (Bamberger, 1982).

However, it can be argued that incremental or progressive construction has both its advantages and disadvantages. On the advantage side, families can either build a very simple house or save to build a good quality house over a period of years rather than being forced to complete the construction within a short period of time having to use low quality materials (Bamberger, 1982). On the disadvantage side, incremental construction is a form of delayed consumption and has serious implication for construction industry development (Ebohon and

Field, 1997). For instance, because the need for proper housing is one of the basic needs in life, individuals embarking on a building have set time frames for its completion. But in the case of incremental development this is to the contrary, and projects could take several years to complete, in a way defeating their original purpose. It's to this effect that delayed consumption becomes a serious issue to the construction industry.

Furthermore, since the construction industry development aids economic development by allowing residential, commercial and industrial properties to be produced for occupation, sale and investment (Healey, 1992; Cadman and Topping, 1999), then developing countries such as Sierra Leone whose construction industry are underdeveloped are faced with or have problems getting the quality and quantity of building to spearhead economic development. All this is indicative of the fact that appropriate institutions and institution building capacity to facilitate speculative housing development are absent. Rodwin and Sanyal (1987), despite the likely delay to consumption of commodity, support the idea of incremental construction and call for its recognition by urban planners as an effective component of a shelter delivery system. This, they argued, represents a functional substitute for incremental payments such as mortgages. Indeed, Skinner and Rodell (1983) pointed out that gradual construction does not imply reduced standard. Analogously, appropriate short and long-term policies are necessary to deal with property rights, especially land tenure. The poor are unlikely to invest or be able to raise finance without tenure rights backed by law.

On the other hand, Woodfield (1989) cautioned against optimism in resolving housing problems in developing countries especially in the light of the structural adjustment programmes embarked on by these countries under the recommendation of donor countries and multilateral organisations. His major concern was the massive loss of employment and income that accompanied structural adjustments, a scenario, which has actually reduced access to housing in these countries. Additionally, the deflationary policies pursued as parts of the adjustment programmes such as the withdrawal of consumer subsidies, price

controls and reductions in services have forced many middle-income households into informal housing. Combining such demand constraints with supply rigidities earlier identified complicates and aggravates shortages in developing countries such as Sierra Leone, especially from the viewpoint of policy analysis.

Given the high correlation between permanent housing production, per-capita income and investment, Woodfield (1989) argued that housing supply is unlikely to satisfy housing demand in developing countries without what he calls an 'exogenous stimulus or inducement'. By inference, such stimulus should be exogenous to the public sector, but will only happen with the removal of the 'generally obstructive inefficient public policies' that have prevented owner-occupiers from investing in their homes. Some of these obstructions have already been identified as tenure rights, inadequate infrastructure, and rent control policies (Mayo and Angel, 1993). Eliminating supply rigidities, providing credits and technical advice to the building materials sector can ease developing countries housing problems.

However, although, the World Bank views housing as a tool for development, source of employment, it rejected the conventional approach to the housing problem, and emphasised the need to economise public funds. Also, it is the Bank's view that should market conditions change, the market being the plank of its policies, it should be possible to reverse to using conventional solutions mainly as a last resort (World Bank, 1975). Furthermore, the World Bank sees progressive or incremental development as a means of economising public funds since it shifts the burden of housing from the public to the private sector. What seems surprising is that the World Bank advocated for more private sector participation in the provision of housing as opposed to public sector. Yet for the private sector to participate in the housing sector, the appropriate institutions have to be functional. In developing countries such as Sierra Leone where the vital institutions such as property rights, banks, legal institutions and government

ministries necessary to underpin the housing market are underdeveloped or dysfunctional, then one wonders how such policies can be delivered.

Few housing analysts have reinforced World Bank's view by emphasising the need for housing market liberalisation to attract the much-needed resources to the housing sector. In particular, Rodwin and Sanyal (1987) have argued that lessons must be learnt from past mistakes to accelerate housing delivery in the developing countries. These mistakes can be found in very high and unattainable standards; settlements or site clearance; huge housing and energy subsidies, and over centralisation of housing policies. Once again, World Bank's view for recommending market liberalisation to developing countries such as Sierra Leone are based on assumption that policies successful in developed countries can be applied directly without actually taking into consideration the economic structures in these countries. While these practices are noted to present formidable supply constraints to housing supply, they are still prevalent in the housing strategies of developing countries such as Sierra Leone. These sentiments are shared by Rodell and Skinner (1983) who argue that such policies of the 1950s and 1960s were founded on the belief that slums and squatter or informal settlements are direct manifestations of poverty. They contend that ignorance more than poverty may account for the proliferation of squatter or informal settlements in developing countries. Therefore, government subsidy or high standards are inadequate solutions because of the spectacular failure of well-funded government programmes. Nonetheless, government interventions are definitely needed but these must be enabling interventions to allow low-income earners access housing (Ebohon and Rodriques, 1998). Additionally, Rodell and Skinner (1983) argued for a complete redirection of settlement policies by merging self-help with public housing programmes.

4.3 Self-Help

Self-help programmes can be described as a phenomenon where individuals take active participation in the production of necessary goods and services for

their consumption, which in this case is housing. According to Burgess (1992), this practice of self-help is as old as humanity itself; however If we restrict the definition of 'self-help' to attempts by the state to organise or sponsor self-help housing, then the origins of the movement can be traced back to the nineteenth century. However, the earliest self-help concept was based on growth patterns and construction methods witnessed in informal settlements (Choguill, 1999; Napier et. al, 2002). In other words, the emergency of self-help housing policies in the 1970s and 1980s in Latin America, Africa and Asia can only be explained in the context of the broader goals of redistribution with growth (RWG) and basic needs strategies that dominated the leading policies of the international development agencies in this period (Burgess, 1992). In deed, RWG as we are reminded by Ebohon and Rodriques (1998), was to enhance the income of the low-income groups, which was generalised into four basic themes, such as:

- Maximising economic growth through raising savings and allocating resources more efficiently, with benefits to all groups in society;
- Redirecting investment to poverty groups especially with access to credit and public facilities;
- Redistributing income (or consumption) to poverty groups through the fiscal system or through direct allocation of consumer goods;
- A transfer of existing assets to poverty groups, as in land reform.

Notably, the vast majority of self-help housing projects were sponsored and influenced by multilateral funding bodies such as the World Bank, the International Monetary Fund and a range of bilateral donor agencies (Napier et. al, 2002). As a result, responses to informal settlements have been to some extent shaped by the "neoliberal" policies of these bodies. This is not unexpected given that multilateral and unilateral donor agencies such as World Bank play a pivotal role in the economies of developing countries, especially since they provide the majority of the funding.

Indeed, self-help policies gained wide currency from 1973 onwards as it became apparent that no real alternative for housing the poor existed at the time (Ward, 1982). During this period it is suggested that a number of developing countries were undertaking 'self-help' projects mostly funded by the World Bank to meet the growing housing needs of low-income communities. Other commentators like Turner (1983) presented a new generation of policy in the developing countries based not on governments' programmes in the conventional sense, but rather on locally self-determined, self-organised and self-managed programmes they effectively demand. Although the total financial commitment to the housing sector did not usually change markedly in majority of developing countries, policies moved closer to those espoused by multilateral agencies (Ward, 1982). However, the incorporation of self-help philosophy in planning has not escaped criticism; emerging practices are criticised on several grounds. For instance, Ward (1982) has considered self-help practice to be an abrogation of government responsibility insofar as house construction is placed firmly in the hands of the worker rather than those of the industrialist, local or central government. He suggests that labour is exploited twice over; first in the workplace where wages are low; second, in the home where households bear the burden of life in poor dwelling condition with inadequate services and have to use their spare time and labour to build or improve their dwelling.

Similarly, Harms (1976) has suggested that self-help romanticises and confuses freedom of choice to all. By inference, Harms (1976) views reminds us that self-help practice is romantic, but because of the freedom to "do it yourself", care must be taken in terms of how we want to design and build our dwelling in order to avoid choices that might end us in confusion. On the other hand, it is argued that self-help functions to the advantage of a range of interests; it offers politicians opportunities for patronage and social control exercised through vote catching and negotiation over services and land; the construction industry benefits through an enhanced market for materials. Meanwhile industry, commerce and the rich in general benefit through being able to pay low wages

(Ward, 1982). Contrary to the views expressed above, it can be argued that self-help has a lot more to offer in developing countries in terms of putting a roof over the head of the poor, especially in informal settlements. Indeed, in recent years, some theorists including John Turner (1969, 1976) have sought to place self-help on a wider theoretical framework. They have argued that self-help should not be seen in terms of self-built and that what matters most is the degree of control which developers exercise in housing construction. Thus, in his own words Turner asserts that:

"Even readers of 'Freedom to Build' tend to assure that my co-author and I are writing about 'self-help' in the narrow and literal sense of do-it-yourself building and so relegate the basic principles of dweller control to a special corner or sector of the housing system" (Turner, 1976).

In this assertion, however, it is absolutely important to note that Turner's position on self-help is equally concerned with management as with the builder.

In highlighting the ability or capacity of individuals for housing through self-help, especially for low-income groups in informal settlements, Turner is definitely on safe ground. Contemporary studies (Mangin, 1970; Nelson, 1969) have shown that long before state or government's involvement, people have been helping themselves to provide their own housing. In so doing, they have created avenues for self-expression. A major weakness in Turner's theory, among others, however, is that it examines the individual without giving consideration to the historical, political and socio-economic aspects. As a result of this oversight, it can be argued successfully that the consolidation achieved by low-income groups in the past is seriously threatened as economic growth declines, inflation increases, real wages drop, as self-help policies require, a commitment to pay for the loss of land and legal recognition, together with the costs of service installation and land taxes (Ward, 1982).

Given that some of the biggest problems in developing countries are unemployment and lack of economic activities, it is incredible that World Bank's policies should set to foster subsistence development rather than evolving housing policies from a realistic business or economic perspective. It can be argued that one of the rationale for this is that the World Bank has not anticipated the link between housing and economic development as a necessity at the time (UNCHS, 1996). Put in another way, the Bank's self-help initiative was narrower than the fuller developmental and environmental advocacy of Abrams (1964) and Turner (1976). Abraham and Turner saw self-help as enhancing community, fulfilling and developing skills and, especially for residents in informal settlements (Pugh, 1997). Thus, due to the fact that the Bank's self-help initiative lacked sufficient economic package in terms of job creation and income generating activity, it failed to achieve any significant success. Thus, the World Bank programmes lacked a sustainable and holistic approach to self-help programmes.

4.4 Sites and Services and Upgrading Programmes

The World Bank's Sites-and-Services programme was based on the realisation that private sector housing in most developing countries was unaffordable for most urban dwellers. Also, that mass production of adequate housing to meet urban needs required substantial subsidies that most governments in market-oriented economies were either unwilling or unable to afford; that low-income households in developing countries including Sierra Leone were building affordable housing through an evolutionary process; and that providing secure land tenure and basic infrastructure services increased the incentive of households themselves to invest their services, labour, and management skills in housing (Mayo and Angel, 1993).

The whole emphasis of sites-and-services programme was to drastically reduce construction cost to make housing affordable. For example, if a breakdown of actual cost for constructing a house is done, we discover that the land takes a

higher percentage of the total cost of house building, then the service to the land is very capital intensive that is very expensive in terms of roads, electricity and water. So the whole idea of sites-and-services and upgrading projects was to provide these services to the land for a more widely based housing programmes, which support informal sector construction activities (UNCHS, 1996). Mayo and Angel (1993) writing on the above theme, state that between 1972 and 1990, the World Bank was involved in 116 sites-and-services and slum upgrading projects in 55 countries such as Botswana, Côte d' Ivoire, India, Indonesia, Jamaica, Senegal, and Tanzania, to name but a few, which was deemed as a complete failure. Although, this move represented a step in the right direction, it was nevertheless full of gaps and inadequacies. Firstly, this strategy diverts attention away from what should be the real priority, which is to reform the urban land market so it does not automatically exclude the poor from housing (Hardoy and Satterwaite, 1981; UNCHS, 1996).

Secondly, the projects define where the poor or low-income groups can live. This may and in many cases does miss to match the needs of the target groups. Thirdly, for new settlement sites and in seeking to reduce costs, land for the projects was often acquired on the periphery (far away from job areas and income earning activities), the plots developed and then sold or leased to the poor or low-income households. Such location cost both the primary and secondary wage earners time in getting to work as well as money or lost income. This nullified much or all of the benefits of the new sites, which left the poor in the same position or even worse. Fourthly, the projects suffered poor implementation due mainly to lack of proper institutional framework. For these reasons, many sites-and-services and upgrading projects found difficulties in meeting their set goals, especially improving living conditions for lower-income households like those in informal settlements.

Similarly, the policy of sites-and-services and upgrading projects failed because it was based on wrong assumptions about the actual life style of the lower-income

households, especially in informal settlements and their ability and willingness to pay for housing (Mayo and Angel, 1993). It was not based on the socio-economic realities obtaining in developing countries like Sierra Leone. This is very true and can be linked to the failure of the low-cost housing scheme at 'Kissy Mess Mess' in Freetown undertaken jointly by the Sierra Leone Brick and Ceramic Company and the State. In this private-public investment scheme out of a planned 500 housing units, only 120 units were almost completed in 1983 and taken into official management by the Sierra Leone Housing Corporation. The 120 units fell far short of housing demand and worst still only those who could afford completing their units became tenants, where majority of low-income groups or the very poor in the housing market were moved on. Likewise, the few middle-income groups who managed to secure units found it extremely difficult or impossible to keep their homes in repairable manner due to low or non income earning power, needless to say the overcrowding caused by the widely practised extended family relationship. Thus, the 'Kissy Mess Mess' scheme deteriorated into a slum as a consequence of severe overcrowding and almost total neglect with regard to building repair and maintenance of basic services' (Doherty, 1985).

However, Pugh (1992) gave his reason for the failure of World Bank programmes as they were conducted on a learning-by-doing basis.

4.4.1 Affordability

According to Freeman (2003), affordability has increasingly become a critical issue for developers, especially in developing countries and this coupled with inconsistent government policy could lead to a reduction in housing development. As already discussed, affordability is a big problem for the urban poor because of lack of employment and job opportunities. For other commentators, the rhetoric of housing policy has switched from needs to affordability (Whitehead, 1991). Yet in reality the true issue of housing needs and affordability have become interlinked. In other words, an analysis of needs can no longer implicitly ignore the cost of accommodation to households (Freeman, 2003; Mayo and Angel,

1993). However, it is only in the 1970s that affordability became a significant issue in the developing countries with regards to housing consumption. From an operational standpoint, through the process of affordability, the cost of housing should be reduced until it is within the affordable limits of low-income households, especially in informal settlements (Mayo and Angel, 1993). Similarly, standards for infrastructure and housing should be within the affordable reach of the urban poor. In other words, affordability is a crucial issue when providing housing for the urban poor and should take into consideration their income levels as well as infrastructure requirements. By permitting repayment of the total housing cost over a longer period in countries such as the United Kingdom with highly developed housing finance system, it is rare to produce house purchase loans or mortgages in excess of three times a household's annual income (UNCHS, 1996). Similarly, in most cities, the price of rental housing has great importance to lower-income groups (UNCHS, 1996). Rental housing is not only cheaper because no payment has to be made for the asset and for the security of ownership. It is also because smaller units can be rented rather than purchased, which may not need loan (UNCHS, 1996).

However, loans for upgrading projects, although smaller and more difficult to administer than housing finance loans, it will remain a critical component of Bank lending in the shelter sector for years to come (World Bank, 1993). Indeed, it is an acknowledged fact that in most cities, especially cities in developing countries, the affordability issue or crisis is an income problem as aforesaid and therefore the development of income generating activities is an important aspect of settlement upgrading (Tipple and Willis, 1991; World Bank, 1993). The development of homes and income generating activities are often closely linked, not only because some households will run a business from their homes, but also because increased income reduces poverty and facilitates the repayment of any loans or debts by householders incurred through the upgrading process, as well as accelerating building activities (World Bank, 1993).

Moreover, income-generating activities are particularly important for women, as they are then able to contribute more towards household costs on one hand. On the other hand, development of income generating activities enhances women's roles in the community and can lead them acquiring additional skills, for example, in running savings and credit society (World Bank, 1993).

However, a number of commentators have suggested that affordability is not a housing policy or town planning issue (Tipple and Willis, 1991). Pugh (2000) argued that affordability meant that land and service costs were to be budget-led rather than from the norms of town planning and engineering design standards. In a similar vein, UNCHS (1996) argued that the price and availability of land for housing remains an important influence on house price and affordability in most urban centres. Andrews (1998) argued that affordability is the most vexing problem on housing landscape, seemingly impervious to economic prosperity and American ingenuity. She further argues that for the last two decades, poor families have watched their housing cost rise while their incomes shrank, producing a squeeze that often forces a choice between necessities: housing or food, housing or medical care (Andrews, 1998). Skinner and Rodell (1983) argued that affordability at the local government level should not be a major constraint on settlement improvement strategies although aggregate figures hide a number of difficulties, which need to be resolved before upgrading programmes, can be viewed as a routine municipal responsibility. Stock (1995) suggested that one response by Africans denied access to an affordable, registered building plot has been to erect a house on someone else's land in contravention of planning regulations.

More radically, Friedrichs (1988) in a comparative review of affordable housing and homelessness in a range of countries pointed out that the crisis of affordable housing and shelter for the homeless or the poor is a result of economic changes and it is impossible to solve these problems by urban planning, such as providing homes through transfer payments. Thus as Bramley (1994) has commented, it is

important to identify the diverse range of underlying causes of affordability problem including the economy, demographic changes, income distribution, rising house prices, higher rents and access to land. Pugh (2000) identifies affordability as having three interacting factors.

Firstly, the income of the household and its capacity to save and / or engage in self-help is very important. However, the relevant income is not just current income, but the household should make sustained medium-term income in the few years before and after housing decisions. Nonetheless, housing decision are made in medium-rather than short-term contexts. Medium-term income is sustained better in city-regions where micro-economic frameworks and labour markets exhibit stability and growth. As a result, those who are close to poverty thresholds are constrained to reallocate from housing to food in times of macro-economic fluctuation or periods of labour market disequilibrium.

Secondly, the urban property markets change the terms of price-access among squatter or informal settlement, rental and formal sector homeownership. Thirdly, housing policy development can influence overall housing supply, the availability of credit in housing finance systems, and any provision of subsidies to enhance affordability projects (Pugh, 2000; Freeman, 2003). Thus, upgrading projects have failed generally in cost recovery from beneficiaries to reduce or eliminate house subsidies and in replicability of projects by the private sector (World Bank, 1993).

4.4.2 Cost Recovery and Replicability

It has been established that while affordability was broadly achieved, the great majority of cost recovery and replicability were not achieved (World Bank, 1993). Various reasons have been suggested for lack of cost recovery and replicability, which are briefly and critically analysed below.

4.4.2.1 Cost Recovery

The cost recovery element of the sites-and-services and upgrading programmes required beneficiaries from lower-income groups to pay for improved housing in order to eliminate public subsidies (World Bank, 1993). Often, the criteria for such payment was not based on the existing socio-economic circumstances of the lower-income families. Rather, it was based on several assumptions and misconceptions, which lacked any credible evidence as regards their financial ability to pay for improved housing. Thus, poor households are exposed to costs they could not readily afford (UNCHS, 1996). As a result, many reasons have been attributed to poor cost recovery of projects (World Bank, 1993; Tebbal and Ray, 2001).

Firstly, conventional standards and regulations used in settlement upgrading imposed severe payment burdens on the residents, far beyond their reach and therefore results in poor cost recovery (World Bank, 1993). Indeed, it has been suggested that the World Bank operating under the general principle of 'full cost recovery', consistently insist on reducing planning, design and technical standards of housing and settlement (Mathey, 1992). This is surprising given that in the developed countries the opposite is the case. For instance, it is unheard of for planning, design and technical issues to be compromised even for low-cost housing due to the impact such a move would have on sustainable development.

However, such a move involves huge implications. Mathey (1992) argues that by reducing the technical, moral and social nature of standards to the dictates of 'full cost recovery' would have serious implication for maintenance costs associated with housing. This can be linked with car ownership as is often the case that owning a car is less of a problem than being able to maintain and run the car. Thus, post construction maintenance and the attendant functionality of housing is crucially important to the argument about housing standards. While this criticism may seem valid, others have argued to the contrary. Indeed, cost recovery should be seen as a necessity in the face of the hard realities and dilemmas

confronting governments in developing countries, especially the low capital base (World Bank, 1994).

Notwithstanding the popular notion that full recovery costs brings suffering to the poor, it could actually benefit them. Residents of informal settlements frequently pay much higher prices for infrastructure services, in particular water, because they are not connected to public service networks that have lower costs, and as such do not gain from subsidies to users of public services. Hence, expansion of access made possible by full cost recovery may confer unanticipated benefits (UNCHS, 1996). With this understanding, full cost recovery in settlement upgrading, would be recommended for countries like Sierra Leone where it has never been introduced.

Secondly, one of the highest dilemmas in urban upgrading is displacement of the vulnerable, particularly poor tenants (Gilbert and Gugler, 1992). This is true especially since improvement as a result of upgrading can raise the value of property, making it feasible for landlords to demand higher rents from their tenants. In the case of the developing countries, the consequence is further displacement of low-income tenants, the supposed beneficiaries of the upgrading programmes. On the other hand, improvement strategies financed through cost recovery without recourse to any subsidies are likely to result in displacement of poor property owners unable to meet the upgrading expenditure (Abbott, 2002; Gilbert and Gulger, 1992). This scenario also highlights the dilemma faced by low-income property owners in developing countries.

Thirdly, some of the main reasons for poor cost recovery has been due to delay in provision of services, inadequate collection methods, lack of sanctions for non-payment and absence of political will to enforce payment (Van der Linden, 1986). Such problems are not surprising in the developing countries where institutional structures responsible for underpinning vital economic processes via cost recovery in housing programmes are either absent or dysfunctional (Ebohon and

Field, 1997). In light of this, World Bank programmes such as upgrading, among others, were doomed to fail from the start.

4.4.2.2 Replicability

Replicability brings affordability and cost recovery into a full cycle of interdependent consistency: if costs are recovered because they are affordable, it will be possible to replicate projects (Pugh, 1992). The implication here is that the successful implementation of upgrading projects should facilitate the undertaking of similar interventions in other settlements.

The World Bank's experience suggests that the broader replication of successful settlement upgrading will require more than a larger scale repetition of that which has been done in the past if such projects are to meet future effective demand for housing (Cohen, 1983; 1986). Such being the case, new ways of addressing institutional capacity, public sector finance, and trained manpower must be pursued in developing countries like Sierra Leone in order to introduce appropriate programmes for the first time. The public sector should assist in creating tools, which would facilitate settlement upgrading through the introduction of basic infrastructure leading to better living conditions in informal settlements, and overall improvement of the urban low-income housing stock. It has been argued that the forms, which these tools may take, include organisation, finance, technology, materials and information. Most crucially, public institutions should become agents that would enable rather than frustrate the contribution of settlement upgrading to urban housing delivery. This is a worthwhile point to emphasise because the efficiency and effectiveness of public institutions in developing countries lies at the heart of the success of the housing programmes.

4.5 Public-Private Partnership

The enabling approach to housing relies on the presence of a wide range of non-state actors able and willing to produce and market dwellings and undertake

supporting roles, which are essential to the housing process. This involves facilitating the flow of housing inputs, organising communities and running services (UNCHS, 1993). These non-state actors include the commercial private sector, but more significantly for the urban poor small-scale producers in the informal sector, community organisations, and NGOs. Since each of these actors has a different set of "comparative advantages" in housing, the goal of policy is to develop creative partnerships in which the strengths and weaknesses of each can be counterbalanced. In this way, the contributions of the different sectors, especially in the developed economies such as the UK, has been maximised while simultaneously minimising the costs to particular groups or to the city as a whole. Partnerships are therefore the key to the enabling approach and the achievement of adequate shelter for all (UNCHS, 1993).

Experience shows that markets, firms and individuals are best at producing housing (Mayo and Angel, 1993). But NGOs and community organisations are necessary if low-income groups are to benefit from markets since their market power is too weak without intermediaries. Meanwhile, governments are the key actors in ensuring that there is a legal, regulatory and fiscal framework in place, which enables markets and voluntary groups to do what they do best. Each needs the others to perform effectively, and do so much better through partnership arrangements. By linking low-income borrowers with the informal financial system, for example, NGO credit schemes can scale-up dramatically and achieve much higher levels of sustainability (UNCHS, 1996). At the level of theory this is uncontentious, but partnership is a difficult and demanding approach to put into practice. This is partly because the right mix of public, private and community action varies so much from one situation to another. Moreover, there are no standard prescriptions – and partly because the power and interests of each set of actors are both different and unequal. For instance, markets, depending on the school of thought, tend to short-run economic efficiency, whereas governments and community groups are more interested in long-term objectives such as equity and sustainability. So partnership requires a

high level of equity between partners, but in reality the power and resources of the private sector often outweigh those of state or civil society. In other words, partnership is not a panacea for housing problems, and where it has been tried the results have often been limited in scale and reach (UNCHS, 1993).

To overcome these problems and for partnership to work in developing countries such as Sierra Leone, UNCHS (1993) suggests that:

- Partnerships must involve strong government or non-governmental intermediaries to facilitate interactions between private firms and community groups, who are "unlikely bedfellows";
- Address a broad range of housing and related issues simultaneously rather than land or finance in isolation;
- Deliver concrete benefits to all the parties in terms that they value;
- Address the macro-economic or political factors in the wider context, which affect scale and sustainability; and
- Focus on programmes, policies and reduce flows rather than heavily administered project-based partnerships, which are rarely cost-effective (UNCHS, 1993). The underlying principle in these recommendations is the need for adequate institutional frameworks in developing countries like Sierra Leone, so that the various stakeholders in housing provision can work effectively together.

However, three areas have been suggested as the most productive collaborations in housing (UNCHS, 1993). Firstly, collaboration involving commercial firms in infrastructural development and some areas of service-provision under different forms of contracting-out, but strict accountability enforced by government. Also, transport, water supplies and refuse collection are good examples of community services through public-private partnership (UNCHS, 1993 and 1996; Batley, 1992; Davey, 1993).

Secondly, collaboration involving NGOs as intermediaries in facilitating access among low-income groups to essential housing inputs, especially housing finance, land and construction materials enhance housing development. NGOs do this directly (acting as channels for affordable inputs) or indirectly (representing communities in negotiations with land owners and banks).

Thirdly, collaboration involving community organisations in the direct production and maintenance of housing, though usually with focus on infrastructure and services rather than individual dwellings. It is in everyone's interest to participate in the collective improvement of water and sanitation facilities, whereas the incentives to contribute to other people's houses are usually much smaller. The spectacular and unusual success of the Orangi Pilot Project in facilitating water-borne sewerage in Karachi is a good case in point (UNCHS, 1993). In all these collaboration areas, governments must be careful not to allow private firms or individuals to avoid the necessary risks of partnership while reaping all the gains. As in all areas of housing policy, the benefit of partnership must be equally distributed (UNCHS, 1996). However, holistic, inclusive, participatory approaches have been seen as essential to the implementation of successful shelter programmes and policies. Such approaches formed the basis of what is commonly referred to as good urban governance.

4.5.1 Good Urban Governance

Generally, Africa's crisis including the failures of housing programmes has been identified as one of mainly poor "governance" (Hyden and Bratton, 1992). While this concept is not new, it has gained prominence in the literature on African development. The concept of governance as a process is arguably broader than that of "government", which attributes sole political power and decision-making solely to the state. Governance embraces both the weak state and human agency by acknowledging other societal influence such as civic associations and members of the public (Hyden and Bratton, 1992). Put another way, multilateral

organisations consider governance includes to be the relationship between government, state agencies, communities and social groups (UNCHS, 1996).

Good governance, according to the World Bank, requires more democratic government at the national and local levels. It emphasises decentralisation policies designed to transfer central decision-making to local authorities, such as political leaders and city councils. It also calls for public participation via local community initiatives, aided by NGOs and other voluntary organisations (UNCHS, 1996). The call for good governance is the top-down component to the push for democratisation, while public participation is the bottom-up component. Both components assume that solutions to urban problems will emerge via increased collective self-reliance by local communities. An underlying presumption of good governance is that an effective state necessarily serves the common good, whereas in developing countries, especially Africa states are never separated from the material, political and ideological interests of the ruling class (Fatton, 1992).

Indeed, the self-interest of ruling classes has been linked to policies that perpetuate underdevelopment and the conflicting interests of different classes have been linked to internal discord (Stock, 1995). Some commentators argue that in Africa, the western concept of the state is an irrelevant device imposed by colonial administrators on an enduring indigenous system based on ethnic ties. "Good governance", can be assessed by the extent cities, regional and national governments ensure that people within their boundaries have safe, sufficient water supplies, provision for sanitation, education and health care (UNCHS, 1996). Suggestions are that in the absence of "good governance", cities can be unhealthy and dangerous places in which to live and work. In the sense that each household and enterprise can reduce its costs by passing its environmental problems of solid and liquid wastes and air pollution on to others, especially in informal settlements (UNCHS, 1996).

Given the above discussion, what then is good governance? These are terms that are not even known widely in developed countries, let alone Africa. Again, what is participatory development? Even this participatory development, how do we achieve that in an undemocratic society? In Africa traditionally, it has always been a feudal society. Feudalism is where we have kings who virtually took all decisions involving their subjects without carrying out consultations to sound their opinion on matters affecting their very lives (Stock, 1995). If we are talking about good governance, democracy is not in the African political dictionary, which makes democracy difficult to achieve. Thus, if we want to devise a policy that will work, today, we must first of all devise a policy that blends in with the cultural, social and economic values of the people, which can gradually be assimilated.

4.6 Summary

On the basis of the arguments provided in this chapter, it is clearly evident that policy prescriptions and programme responses to urban poverty and housing problems in developing countries like Sierra Leone still leave a lot of gaps. In other words, despite various housing policies and strategies being proposed to ameliorate the shelter conditions of the urban poor, they have nevertheless been treated in isolation of the wider sector of the economy. As evidenced above, housing and urban problems are well integrated and intertwined with problems associated with economic development.

Indeed, it has been suggested that for these policies to work, they have to take into account the link between housing and overall economic and social development as it obtains in countries with effective and efficient housing sector. In such economies, the property market is well developed and supported with functional construction industry and other vital institutions.

However, a number of shortcomings affect the housing and urban policies in developing countries. Such shortcomings have been identified to include ineffective institutional structures, inadequate infrastructure, ineffective land

delivery system, inadequate financial resources, weak legislation or their implementation, bad governance and inadequate trained manpower. All these tend to exacerbate the problems of the urban poor, especially in both informal market and settlements (World Bank, 1993).

Therefore, for the policies and programmes of multilateral and unilateral agencies to work in Sierra Leone, the shortcomings referred to above have to be overcome. The next chapter presents the chosen research methods employed.

RESEARCH METHODOLOGY

5.1 Introduction

This chapter outlines the methodology necessary to obtain first hand information about the state of the residents of the informal settlements in Sierra Leone. It also rationalises why a combination of research methods is appropriate for our study.

5.2 Chosen Methodology

The multi-methodology approach has been used in the study, which entails the use of a diverse range of research methodologies. However, no general agreement on any particular combination of methods (Sarantakos, 1993). The research methodologies employed within the field of social science fall into two broad categories, qualitative or quantitative methods. These are often used in combination by social researchers, enhanced by methodological triangulation (Patton, 1990). The use of methodological triangulation for a research project is insisted upon by Sarantakos (1993), Patton (1990), Creswell (1994) and Yin (1993) to facilitate further information gathering by means of case studies, which will assist to test existing theory and establish new ones. Similarly for this project, a combination of both the qualitative and quantitative research methodologies has been employed to conceptualise and validate our theoretical framework analysis on informal settlements in Sierra Leone.

Indeed, it has been suggested that triangulation is treated as an approach in which multiple observers, theoretical perspectives, sources of data and methodologies are combined. According to Bryman (1988), researchers have viewed the main message of the idea of triangulation as entailing a need to employ more than one method of investigation and hence more than one type of data. Within this context, it is considered safe to use both the qualitative and quantitative methods as different ways in which we are able to examine the same

research problem for the simple purpose of cross-checking and confirming facts. Thus, by combining both the qualitative and quantitative research methodologies in our current research, the validity of our conclusion would be enhanced in the sense that mutual confirmation can be provided. In other words, combined methods have the capacity or flexibility to triangulate findings, to demonstrate convergence in results, to include an examination of overlapping and different facets, to use the methods sequentially, to find contradictions and new perspectives, and to add scope and breadth to our study (Creswell, 1994). Other benefits or advantages highlighted by combining qualitative and quantitative are briefly discussed below:

Indeed, it has been highlighted that the combination of both the qualitative and quantitative methods can lead to a more reliable data base, which provides a definite "trustworthiness payoff". Accordingly, in this combination or marriage, the quantitative method has enabled us in our study on the one hand to obtain "representativeness" of the population studied in informal settlements in Sierra Leone. On the other hand, qualitatively we have been provided with "contextual linkages", which has enabled us to explain behaviour patterns in our study (Wilson, 2000). Wilson asserts that it often makes sense to think of a combination of a broad shallow study, which provides *representativeness* and one or more deep narrow study, which provide the depth. It has been suggested that such combination may be thought of as providing a table or platform, which may support our research conclusion (Wilson, 2000).

This approach is expected to connect the study objectives and methodologies in the context of a single study or within a planned programme of research in order to access a more comprehensive range of information and experience. For instance, the multidimensional nature of the informal settlement phenomenon in developing countries such as Sierra Leone invites a longitudinal programme of investigation. In other words, abject poverty often entails coping with different aspects of deprivation at different stages of life, which is why in informal

settlement each stage requires understanding in and of its household and in the context of the overall conditions in the neighbourhoods or settlements. In our study, using both qualitative and quantitative research methods can provide essential knowledge of the changing nature of the abject poverty and corresponding experience and needs of residents of informal settlements in Sierra Leone. Such knowledge can only be obtained from accurate information. Accordingly, Pretty (1993) has discerned the following four tests of trustworthiness:

- *Internal Validity or Creditability* – How confident can we be about the truth of the findings?
- *External Validity or Transferability* – Can we apply these findings to other contexts or with other groups of people?
- *Reliability or Dependability* – Would the findings be repeated if the inquiry were replicated with the same or similar subjects in the same or similar contexts?
- *Objectivity or Confirmability* – How can we be certain that the findings have been determined by the subjects and contexts of the inquiry, rather than the biases, motivations and perspectives of the investigators?

According to Wilson (2000), the size of the target population has a bearing on the importance of the four aforementioned tests for a particular study. For example, he explains that external validity plays less of a role where the target population is small. He further explains that, overall, quantitative work has probably most to gain from qualitative in the area of credibility and objectivity, whereas qualitative work, if it is to be generalised, can borrow from quantitative methods to improve external validity. Based on this explanation, it would be helpful at this point to briefly examine some contributions that the qualitative method make to the quantitative method (*vis-à-vis*) in this marriage or combined methodologies. Five such contributions follow:

Firstly, the use of qualitative method in a semi-structured or structured questionnaire format improves the quality of data generated due to its increased flexibility and openness, which allows the questionnaire as a whole to adapt better to particular local environment (Mukherjee, 1995 and Wilson, 2000). This adaptation ranges from contextualising of questionnaires, through use of appropriate locally specific vocabulary to deal with certain types of information within a questionnaire format. To some extent qualitative response is routinely incorporated in many questionnaires, with the inclusion of open-ended questions.

Secondly, qualitative data describes and analyses situations, events, people, interactions and observed behaviours, which are appropriate to make a decision when researching characteristics, cultural patterns, motivations and attitudes.

Thirdly, qualitative understanding informs classification procedures. For instance, based on the survey, qualitative method entails agglomerating the respondents into groups on the basis of *similarity*, with respect to responses to some set of survey questions. The starting point is a choice of *cluster seeds* to which others are then joined in the process of cluster formation. If these seed respondents have been studied intensively and are well understood through qualitative work, clusters formed on the basis of similarity to the seeds will have an understandable character. Ideally, seed respondents are prototypical of what could become effective strata or recommendation domains (Wilson, 2000).

Fourthly, *quantitative* contribution to qualitative method in the combined methodologies, among others, include (Wilson, 2000):

- Quantitative helps to incorporate more structure into a previously unstructured work by using semi-structured questionnaire.
- Quantitative tools help to provide for better triangulation of information and greater acceptability of the results when endorsed as inputs to policy.

- Quantitative procedure helps in coding open-ended questions from qualitative work, since it is less common to code information collected through the later method.
- *Quantitative* enables certain types of information collected during qualitative work to be coded straightaway, and others with rather more careful thought.

Lastly, but not the least, combining both the qualitative and quantitative methodologies enriches information. In other words, *enriching information* means that outputs of different qualitative and quantitative instruments adding value to each other by explaining different aspects of an issue in our study.

5.3 Appropriate Research Method

The case study approach is selected as an appropriate method for our investigation because it allows us, among other things, an opportunity to explore some aspects of the informal settlement in-depth and offers further opportunity to identify the numerous interactive processes at work. Similarly, it affords the opportunity to gather primary data and information in our study (Selltiz et. al, 1976; Bulmer and Warwick, 1983). In other words, a case study is usually selected because it reflects an important current issue and has typically focused upon some significant aspects, which in this case is poverty and the biophysical environment in informal settlements in Sierra Leone (Oliver, 1997). It must be noted that the use of the case study approach does not presuppose, for example, any specific data-collection procedure; for a wide range of methods is traditionally used. Nevertheless, it has been suggested that qualitative methods in general are probably more typically associated with the case study approach than quantitative methods, which are associated with statistical generalisation (Oliver, 1997). A further justification for the use of the case study approach comes from the fact that it embraces the combined qualitative and quantitative methodology technique discussed in section 5.2. More importantly, there would be many instances of case studies in which the use of quantitative data would not only be appropriate, but essential. For instance, let us consider our current

study about informal settlements, it might be very difficult to do justice to such a study without collecting statistical data. Indeed, as Fink (1998) puts it, we should not focus on whether a study is qualitative or quantitative but concentrate instead on its validity and the value of its findings. In our study, we have been able to overcome the argument for and against qualitative and quantitative methods by combining both approaches, improving the trustworthiness of our findings.

However, it has been acknowledged by Sarantakos (1993) that the use of case studies can be both a research model as well as a method of data gathering. The former is applicable to this study. Accordingly, McNeil (1990) has described the case study approach as a detailed study of a single example of whatever it is that the sociologist wishes to find out or investigate. In other words, the case study is 'based on evidence from the real world' as opposed to or in contrast with theoretical, which refers to ideas that are abstract or purely analytical. A case study is an empirical inquiry that investigates any phenomenon within a particular setting or environment by employing multiple sources of evidence (McNeil, 1990; Yin, 1993). In this study, the phenomenon under investigation is the prevalent informal settlements and poverty with the attendant effects on the biophysical environment and quality of life in Sierra Leone.

However, as indicated in the earlier discussion in section 5.2, there are three important criteria which the case study approach has to satisfy in order to be appropriate as research method, these include reliability, internal validity and external validity (Oliver, 1997; Rudestam and Newton, 1992). Firstly, the reliability criterion is concerned with the replication of the study under similar circumstances. In other words, a study undertaken by one person or a group of people when repeated by another person or group under the same circumstances should be able to reach the same conclusions. In this respect, we are of the opinion that our case study approach is reliable and can be repeated by others in the same circumstances, reaching the same conclusions.

Secondly, the internal validity criterion is concerned with the extent to which the method has enabled us to produce findings that reflects the real state of the informal settlement world (Oliver, 1997). We are in no doubt that our case study can fulfil this criterion, because we expect our results to enrich the theoretical perspective of informal settlements. Thirdly, the external validity criterion is the ability of the method to produce findings or results that can be applied to other situations (Oliver, 1997). Our case study results relate to the informal settlement phenomenon in developing countries like Sierra Leone, which is under investigation and as a result, are externally valid.

More importantly, the case study can afford us the opportunity to carry out in-depth analysis of the informal settlement phenomenon in Sierra Leone within a limited time scale (Bell, 1993). It is for us to probe deeply into the informal settlement phenomenon in order to gain better knowledge and understanding.

In spite of this, the case study approach as a research method has its disadvantages or weaknesses. One such weakness is the limited access and availability of respondents (Robson, 1993). This problem was overcome by identifying our study sites and arranging appointments prior to meeting respondents. Another weakness is that responses might not represent the whole phenomenon. For us to overcome this problem, the snowballing technique (a variant of key-informant sampling) was employed (Oliver, 1997; Sarantakos, 1993). Here, each key-respondent is asked to recommend other people relevant to the study. This helped us to establish a chain of subject groups and in the end our sample can have the necessary respondents. Nevertheless, it is important to note that snowball sampling may raise ethical issues, particularly as to whether people recommended should be told the names of the person who has recommended them (Oliver, 1997). In our study, we ensured that all ethical issues were resolved, guaranteeing respondents' confidentiality and maintaining complete anonymity.

Critics of the case study approach point out an additional weakness of the approach, its lack of rigour. In deed, on many occasions, the case study investigator is seen to be weakly sentimental or less romantic in the sense that biased views are permitted to influence the direction of the findings and conclusions (Yin, 1993). Based on the justification of this viewpoint and in order to overcome the bias, our study employs multiple sources of evidence (as previously discussed in section 5.2). In actual fact, this problem is not exclusive to case study approach. Rather, bias can also affect, for example, the conduct of experiments and in employing other research strategies such as designing questionnaires for surveys (Rusenthal, 1966; Sudman and Bradburn, 1982). From the discussion above, it can be argued that although the case study approach carries some disadvantages or weaknesses, it remains a useful method of research investigation.

5.4 Methods of Data Collection

The principle of triangulation is applied in our study, it enables the qualitative and quantitative data to form a strong foundation in order to test the theory against empirical inquiry on informal settlements in Sierra Leone. We strongly believe that it is through combined, sustained and complementary use of qualitative and quantitative research methods that advances in our knowledge or understanding of informal settlement phenomenon can best be attained (Wilson, 2000).

Qualitatively, a literature survey has been undertaken, which provides among other things, a frame of reference in order to lay the foundation of the study, as well as a benchmark for comparing the findings of the study with other findings (Creswell, 1994). This is equally important in establishing the significance of the research for policy and implementation.

Quantitatively, primary and secondary data relating to poverty and biophysical environment in informal settlements, especially from participant groups would be

obtained and analysed. This permits for quantitative measurements and analysis of key variables upon which the various propositions supported are confirmed.

Data gathering can be placed under three categories including primary, secondary and anecdotal. Nevertheless, manifold approaches can be used to gather survey data including observation, informal and in-depth interviews, content analysis, questionnaire and a range of other techniques. The most widely used technique is the questionnaire, which represents a highly structured data gathering technique. The extensive usage of questionnaires as a main device in gathering data testifies to their utility, their flexibility, and the degree to which they are believed to be the best method for data gathering (Oliver, 1997; Moser and Kalton, 1971).

Moreover, the questionnaire is a technique for data gathering that consists of a series of questions, which are based on the literature review (Good, 1963). As stated above, the purpose of our investigation is to test the theory against empirical inquiry in respect of the informal settlement phenomenon in Sierra Leone. An appropriate and effective questionnaire needs advance planning to make sure that data gathering can be objectively analysed at the end (Oliver, 1997; Melville and Goddard, 1996). During the design of the questionnaire, we had to consider the possible issues that might influence the responses given by the respondents such as the content, scope, sequence, question types and sentence building. This ensured that respondents clearly understood each of the questions being asked and did not interpret the question differently, which can adversely affect the result. Furthermore, we pilot-tested the questions to establish that the questions were precise, kept short and simple, unambiguous and easy to answer.

However, based on the nature of our investigation, both closed and open questionnaires are favoured (Oliver, 1997; Fellows and Liu, 1997). Closed questionnaires enable us make provisions for the respondent to answer from

given alternatives, which enhances coding. On the other hand, open questionnaires can enable the respondent to provide information that is not possible with closed questionnaires. In this study, face-to-face questionnaires were administered to the subject groups in each of the three settlements studied covering background information, socio-economic and political aspects, housing and environmental conditions, nutrition, health care and family planning as well as attitudinal aspect. We used closed questionnaires in this survey because of its flexibility and the reasons aforementioned. The main purpose of the survey was to obtain first hand information from residents of informal settlements themselves about life style and living conditions, which formed our primary data. The questionnaire was composed and written in the English Language. The language of administration was, however, the local *lingua franca* in the three settlements, *krio* or *pigeon english*, which is spoken and properly understood by the majority of the residents. Since this involved simultaneous translation, precautions had to be taken to ensure that the words were similar across the interviews and that there was no ambiguity in the concepts and phraseology used as this could have introduced bias (Tipple, 1993). Nevertheless, we included the problem of translation in the issues addressed during a two-day training drill of the survey assistants, which was conducted well before the beginning of the field surveys.

A sound professional relationship is identified by Wilson (1992) as being the best foundation for a good personal relationship between researchers and their assistants. In the present study this was possible, because at the time the fieldwork was conducted, the field survey assistants' team leader, Mr. Alex Coker (a Licensed Surveyor), was the Secretary General of the Licensed Surveyors' Association whose responsibility includes participation and maintenance of Surveying ethics in Sierra Leone, which constitute a key part of Licensed Surveyors' Association activities. The other members of the team, who included Muniru Sandy, Salifu Kamara, Charley Senesie and Winston Martin had gained some experience in fieldwork, having been in the Surveying Profession for over two years. The survey assistants' team members, especially the leader, Mr.

Coker, fulfilled several useful functions, including providing vital contextual knowledge about the three informal settlements under investigation, their historical background and evolution that have been missed altogether. Moreover, the team members were able to get along with elements of the local community, and also had a perceptive intelligence, and were able to screen questions that respondents might have objected to or resented (Wilson, 1992).

Nevertheless, the instruction on the exercise also entailed a briefing of the purposes and objectives of the research, field experience and to ensure that the survey assistants were able to explain to the respondents, in general terms, what the survey was about. They were further briefed about the sample, and given guidance on getting the co-operation of the respondents, the precise meaning of the questions, how to record the answers, and how to probe if the response given was unsatisfactory.

Similarly, we administered open questionnaires (self-completion questionnaires) to the stakeholders in the informal settlements. The main objective in interviewing the stakeholders was to draw opinion from a cross-section of people. This was to gauge their opinion from their individual professional perspective on the problems of informal settlements in order to identify constraints and to look for possible remedies. In particular, we want to know whether the view that each of these, for example, professionals expressed are fundamentally different from within the professional cadre itself, then to compare and contrast that with the views of the residents of informal settlements. It is important to note that by "stakeholders", we mean individuals or groups who are either directly or indirectly involved or exert some kind of influence over informal settlements. For this particular survey, stakeholders interviewed include Professionals (architects, engineers, surveyors and planners), Voluntary agencies (both foreign and local non-government organisations), International funding agencies (United Nations, World Bank, etc.), and Politicians (both from the ruling party and from the opposition).

However, there are advantages and disadvantages attributed to questionnaires during data gathering. The major advantage of the questionnaire is that in many ways, it is quite simple to administer, because of the very fact that the researcher or survey assistant is present and issue arising from the question can be resolved on site (Oliver, 1997). Also, questionnaire extends our power and techniques of observation by insuring response to the same question from all respondents. In order words, questionnaire standardises the observations of different respondents. On the other hand, some of the disadvantages of the questionnaire include cost and time invested, delayed responses and non-returns. Nevertheless, in order to reduce or overcome these drawbacks, we had to make the layout attractive, deliver them as well as do the follow up.

5.5 Data Analysis and Presentation of Results

Data analysis requires that, as researchers, we be comfortable with formulating categories and making comparisons and contrasts (Creswell, 1994). In other words, in our study, data analysis would enable us to bring order, structure and meaning to the mass of gathered data. The analysis of data was undertaken using in combination, qualitative and quantitative methods, enhancing representation of statements about relationships among categories of data (Miles and Huberman, 1993; Patton, 1990).

On completion of the field surveys, the raw data that was gathered by means of the questionnaires was scrutinised for errors, omissions and ambiguities before coding, tabulation and keying into the computer. Coding gives the gathered data the appropriate structure for interpretation. The annotated data was then used to perform the various statistical tests. The data gathered in this study is intended to make valuable contributions to the development of practical policy for poverty alleviation, fostering a better or an improved quality of life of residents in informal settlements, especially those in Sierra Leone.

There are several software programmes available for management and data analysis. In our study, we employed the use of the Statistical Package for Social Sciences (SPSS), which is a versatile programme, very useful and widely used for analysing data in social sciences. The SPSS allows, among other things, cross-tabulation and detailed statistical analysis.

The following sections will cover experiences during fieldwork, questionnaire responses and the summary.

5.5.1 Experiences during Fieldwork

The experiences during the fieldwork can be best described as both positive and negative. Interestingly enough, the most positive experiences were during the structured questionnaire interviews with households in the three informal settlements studied. Generally, once the purpose of the study was explained and understood, appointments arranged with the relevant households, the interviews became a smooth process. Some of the interviews were as early as 7.00 am local time before normal daily activities are started (i.e. 7.30 am on wards). This was to capture the views of those that go to work very early in the morning. In other instances where households were not available in the morning, interviews were conducted in the evenings. However, it is important to state that the author ensured that he was present at the start of the questionnaire process in each settlement to ascertain the level of co-operation of the households and to also see the survey or field assistants at work in the field. In deed, the households of all the three settlements (Kroo Bay, Susan's Bay and Kanikay) showed full co-operation and provided other sources relevant to the Case Study in a typical Snowballing fashion. This gave the author a sigh of relief and great satisfaction, especially when the survey assistants under the supervision of their Licensed Surveyor boss seemed to be equalled to the survey task. As a result, the author or researcher happily left the survey assistants to do the rest of the questionnaires in the three settlements while he concentrated on the stakeholders' questionnaire.

The negative experiences however, were with the stakeholders. During the stakeholders open-ended and self-completion questionnaires, we had to arrange an appointment with someone known to the interviewees' organisations or establishments, who would aid our introduction as well as minimise the time spent waiting to be seen. This was done in accordance with the Sierra Leonean typical kin networks, which makes it easier in most cases to gain access to our target population. However, the questionnaires had to be dropped off at the selected organisations or establishments for the relevant officials to fill out and picked up at an agreed date and time. On the whole, it took an average of ten frustrating visits to receive a completed questionnaire. Reasons given for such undue delays included respondents seeking further clarification from the overall boss, forgetting to fill the questionnaire, misplacing the questionnaire, priority of official duties and ceaseless meetings. In actual fact, the 'ceaseless meeting phenomenon', involving all the selected organisations or establishments was the most bitter experience that we had to go through. For instance, on average we had to wait in most cases until 10.00 pm local time to pick up a supposed completed questionnaire from a Manager or Director who finally returns from a long protracted meeting only for us to be told to make another check the next day. The 'next day' appointments continued unabated and in most cases the questionnaires were not completed as promised. Nonetheless, frequent telephone calls were made to remind respondent stakeholders to complete the questionnaires.

Additionally, it is very important to point out that arranging interviews with stakeholders in both private and public establishments was extremely difficult. Five of the main contributing factors to these difficulties are highlighted and explained below.

Firstly, when appointments with relevant interviewees had been arranged to take place, unexpected or emergency meetings happened, which delayed the appointment or caused it to be rescheduled for another day. When one actually got around to conducting the interview it was often interrupted by, other officials

and telephone or mobile calls, making it difficult for interviewees to concentrate and answer questions to the best of their ability.

Secondly, some heads of organisations or establishments were suspicious of anyone carrying out a research study, resulting in less or non co-operation from staff, especially deputy heads and secretaries. Such scenarios exist because of the erroneous belief that anyone conducting research in any area whatsoever is considered to have received large sums of money from international funding agencies, a share of which should be afforded to would-be respondents or participants. For instance, we were shocked when a student, who was sent to us by his deputy head of department of one of the universities in Sierra Leone, demanded that an 'envelope' (i.e. money) be sent before our questionnaire is completed. What an academic tragedy! This contrasts sharply with the co-operation we got from the poor and the deprived people in the informal settlements, leading one to view corruption as an ill of present day society brought on by the elite and affluent.

Thirdly, most employees in built environment organisations or establishments in Sierra Leone involved are unfamiliar with research study. For example, among a particular body of the built environment practitioners, only one person attempted to fill our questionnaire, which was not fully completed. However, while few professional bodies attempted to complete our questionnaires, others did not. This explains the low priority that is attached to research in Sierra Leone at the moment, which is responsible for the low response rate in our present stakeholders' questionnaires (5.5.2).

Fourthly, some organisations or establishments have a policy of non-co-operation with matters relating to research of any kind, including university students' research work.

Lastly, it required persistent and frequent visits in order to obtain responses during our fieldwork in Freetown, Sierra Leone.

5.5.2 Responses

In total 169 questionnaires were completed out of 180 issued. 13 unstructured interviews were conducted. The detailed breakdown of questionnaires completed (partially or fully) are as stated below.

Kroo Bay Settlement – 52 questionnaires out of 52 issued

Susan's Bay Settlement – 52 questionnaires out of 52 issued

Kanikay Settlement – 52 questionnaires out of 52 issued

Stakeholders – 13 questionnaires out of 24 issued

The low rate of response by stakeholders is due to the difficulties mentioned in section 5.5.1. Nonetheless, in all cases, the top personnel completed the questionnaires and reliance can therefore be placed on the responses as being accurate. As a result, we do not expect the low response rate to affect the conclusion of this study. The list of stakeholders is as follows:

1. Bureaucrats

- Chairman, Freetown City Council
- Director, Central Statistics Office, Freetown

2. Professionals

- Director of Surveys and Lands
- Director of Housing
- Director of Country Planning
- Director of Environmental Planning and Management
- President, Association of Architects and Planners
- Chairman, Licensed Surveyors' Association
- President, Association of Engineers

3. Academics

- Director of the Institute of Population Studies, Fourah Bay College, University of Sierra Leone

- Department of Geography and Rural Development, Njala University College, Freetown

4. International Funding Agencies

- World Bank Officials
- UNCHS (Habitat) Officials

5. Voluntary and Government Agencies

- Action Aid
- Catholic Relief Services (CRS)
- Plan International
- World Vision
- World Food Programme (WFP)
- National Commission for Resettlement, Rehabilitation and Reconstruction (NCRRR)

6. Politicians

- Hon. Minister of Development and Economic Planning
- Hon. Minister of Lands, Country Planning and the Environment
- Hon. Member, Majority Opposition Party
- Hon. Member, Minority Opposition Party

5.6 Summary

In this chapter, we have identified the combination of both qualitative and quantitative methods as appropriate for our investigation. Moreover, the case study was selected as a suitable research method to explore and better understand the state of the informal settlements in Sierra Leone. To obtain the necessary data, we used triangulation in our case study, administering interview questionnaires to subject groups (employing survey assistants) and self-completion questionnaires to the stakeholders. During the data analysis, coding was employed to categorise data, which were then analysed by the use of the computer and SPSS package.

The various obstacles or negative experiences that form part of our fieldwork are typical of developing countries, such as Sierra Leone. As a result, any fieldwork undertaken in Sierra Leone requires persistent telephone calls and frequent personal visits to obtain completed questionnaires. Also, it is very important to have personal contacts and references from family, relatives and friends in order to facilitate questionnaires. The next chapter presents the empirical analysis.

CHAPTER SIX

EMPIRICAL ANALYSIS

6.1 Introduction

The data obtained from questionnaires is analysed using SPSS and shows similarities and differences within and between settlements. Within each settlement, residents appear to have common social characteristics, which combine with the different physical features of the neighbourhood or living environment to produce composite settlement profile.

The empirical analyses presented in this chapter focuses on households of three informal settlements (Kroo Bay, Susan's Bay and Kanikay) and Stakeholders as identified in section 5.4. By household, we mean people who accept the authority of a single head (male or female) and contribute to a single budget to prepare meals and provide other essentials for the home or households (Kandeh and Ramachandran, 1985). In other words, household is not just the nucleus family or husband and wife and their children but other people including the couples' immediate relatives (father and mother), and close relatives (uncle, aunt, niece, nephew, etc.) and sometimes even non related persons. This is the nature of extended family household as practised in most Sub-Saharan Africa. Household head normally lead the household and he or she may be the sole provider for the household, especially in Africa where dependency culture is the norm.

The analysis takes three stages. Stage one covers five sections in which variables employed are divided into five different categories as follows: background information; socio-economic and political aspect; housing and environmental conditions; nutrition, health care and family planning; and attitudinal aspect. Here, analysis is within and between settlements, using descriptive statistics such as frequency distribution to present our result in a readily understandable form.

Stage two presents analysis of responses from the 'stakeholders', which would be compared and contrasted with analysis from stage one to inform our recommendations.

Stage three presents the correlation and simple regression analysis, using only two potentially important variables (income levels and overcrowding), as an example, to examine the degree of correlation that might exist between different variables. The two variables have been used out of a number of variables that were derived from the field survey, simply due to the time frame and scope of the research.

Finally, the results derived from the analysis would be validated against the UNCHS (Habitat) quality of life indicators including health, age, income, civil and political right, quality housing and education, which would inform our contribution to knowledge.

6.1.1 Procedure followed during analysis

Kroo Bay and Susan's Bay would be analysed separately and compared, because both are very old settlements, which have benefited from partial or limited upgrading intervention under the World Bank funded Freetown Infrastructure Rehabilitation Programme (FIRP).

With respect to Kanikay, this would be analysed against both Kroo Bay and Susan's Bay, because it is a relatively new settlement, which has not benefited from any kind of intervention whatsoever. The questionnaire for the three settlements under study is provided in Appendix 1.

It is worth mentioning that households, household members, respondents and residents refer to people living in the informal settlements and would be used in the analysis interchangeably.

6.2 Analysis of Kroo Bay Settlement

Table 6.1 shows the response from households in Kroo Bay Settlement, which totalled fifty-two in all. This clearly shows that all the questions were answered, giving 100 percent response rate.

Table 6.1 Response from Kroo Bay Settlement

No. of questionnaires sent out	No. of questionnaires completed	Valid percent
52	52	100

6.2.1 Background Information: This information establishes the age, sex and marital status, composition or structures of households of Kroo Bay and also educational level attained. This information is particularly important because it forms the demographic component of the informal settlements, which is essential for Sierra Leone's political and socio-economic development and planning purposes as discussed in section 3.2.

a) Age

Table 6.1a Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24 yrs	6	11.5	11.5	11.5
25-29 yrs	2	3.8	3.8	15.4
30-34 yrs	4	7.7	7.7	23.1
35-39 yrs	8	15.4	15.4	38.5
40+ yrs	32	61.5	61.5	100.0
Total	52	100.0	100.0	

From Table 6.1a, the study reveals that of the 52 households surveyed 61.5% are 40 years and above, 15.4% are between the ages of 35-39 years, 11.5% are between the ages of 20-24 years, 7.7% are between the ages of 30-34 years and 3.8% are between the ages of 25-29 years. The age composition in Kroo Bay shows that there are more elderly residents of forty years and above (61.5%) than younger residents of below thirty years (3.8%), which may not be

unconnected with old age poverty, since the former might have lived unaccomplished youthful lives. Nevertheless, the fact revealed by this survey result contradicts the 'life expectancy' claim in the literature of 25.9 years for Sierra Leone not least for informal settlements, as discussed in chapter (2.7.2).

b) *Sex*: The idea here is to establish the sex composition or structure in Kroo Bay. The study reveals that of the 52 households surveyed, 61.5% are headed by males, while 38.5% are headed by females as shown in Table 6.1b below. This result points to the fact that men still dominate the forefront as household heads, which give them the opportunity to lead the decision-making process in the home or household.

Table 6.1b Sex of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	32	61.5	61.5	61.5
female	20	38.5	38.5	100.0
Total	52	100.0	100.0	

c) *Marital status*: The idea here is to establish the marital status composition or structure of Kroo Bay.

Indeed, as Table 6.1c indicates, three-quarters (75.0%) households of the 52 households surveyed are married, 23.1% say they are single, while a tiny 1.9% claim a divorce. The result (high marriage rate) seems to confirm two things. First and foremost, in the African or Sierra Leonean context you will only be considered a serious and respected man or woman if you are married in order to have children for the continuation of the family. On the other hand, couples compliment one and another in the face of the poverty and hardship in informal settlements, which means that marriage could be used as an escape strategy by households.

Table 6.1c Marital status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid married	39	75.0	75.0	75.0
single	12	23.1	23.1	98.1
divorced	1	1.9	1.9	100.0
Total	52	100.0	100.0	

d) *Education:* The question about education establishes the level of education of Kroo Bay informal settlements.

Table 6.1d Educational background

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no formal education	33	63.5	63.5	63.5
primary	6	11.5	11.5	75.0
secondary	13	25.0	25.0	100.0
Total	52	100.0	100.0	

The importance of education in any society or community cannot be ignored. In particular, residents in informal settlements need some amount of education in order to be empowered for effective participatory development. Most importantly, the children in informal settlement need education and basic training in order to prepare them for apprenticeships, careers and job opportunities in order to facilitate poverty alleviation.

Evidently, Table 6.1d shows that of the 52 households surveyed in Kroo Bay, 63.5% have received no formal education and unschooled, while one-quarter (25.0%) attained secondary school level, only 11.5% are educated up to primary school level. It is not surprising that this settlement attracts such a high percentage (63.5%) of unschooled residents, because Kroo bay has been considered the most precarious informal settlement in terms of sanitation. This confirms the dire need for residents' education in informal settlements, especially

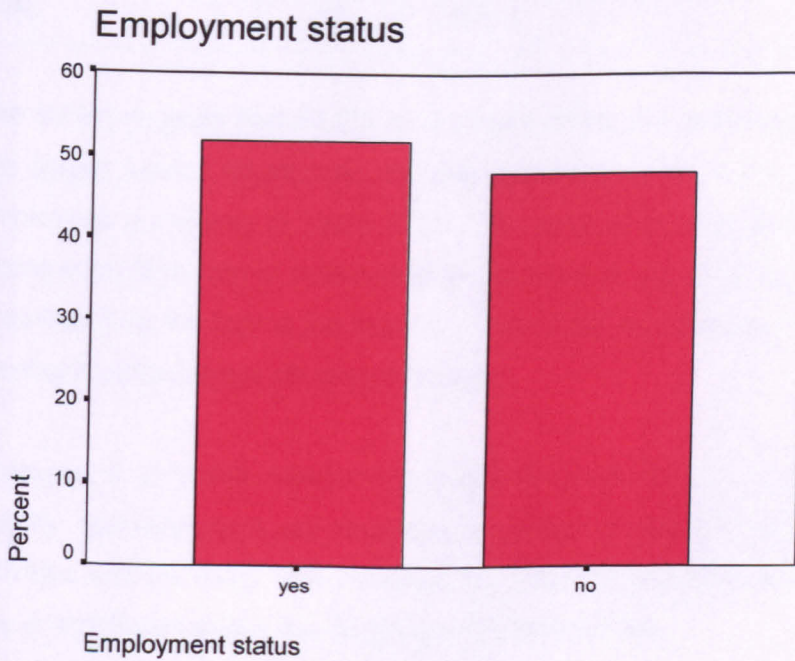
in managing their sanitation, among other things. For more details on Kroo Bay settlement, please see chapter five (section 5.6.1).

6.2.2 Socio-economic and Political Aspect

a) *Employment – are you working?*

This question identifies residents or households that are economically active. In other words, we want to identify households that are actively engaged in work and earning income. This is important in order to measure affordability and post construction maintenance.

Figure 6.1a Bar Chart – Employment status of residents



From figure 6.1, the result shows that just slightly above half (51.9%) of the households are employed, while 48.1% are unemployed. This result confirms the claims made in the literature review, and consistent with previous studies that most residents in the informal settlements are unemployed and lack any income and as a result have difficulty accessing decent housing (Tipple, 1994).

b) *What is the nature of your job?*

This question establishes the area or sector in which the respondent works.

Table 6.2b sector of employment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid civil servant	6	11.5	22.2	22.2
private employee	4	7.7	14.8	37.0
self employed	17	32.7	63.0	100.0
Total	27	51.9	100.0	
Missing System	25	48.1		
Total	52	100.0		

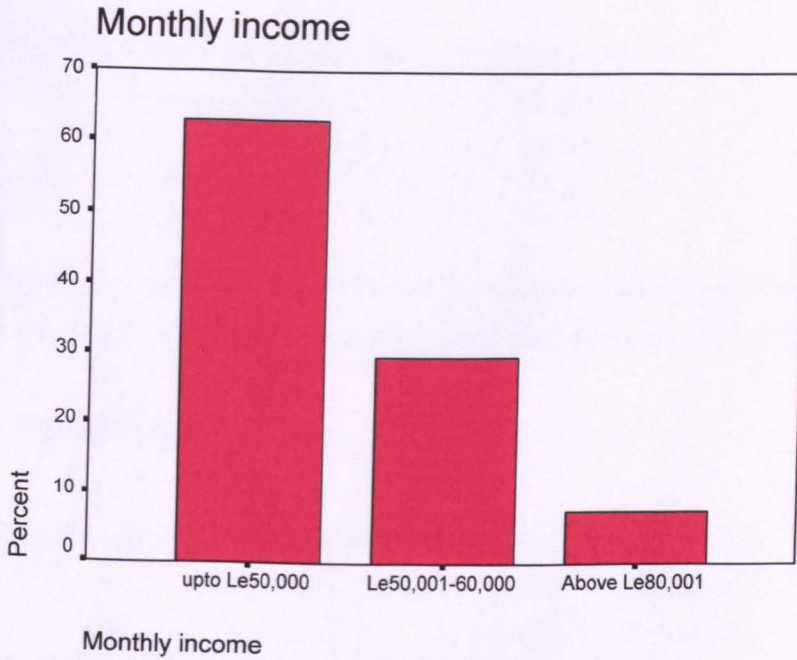
The survey reveals that 63.0% of the households are self-employed, while 22.2% are public sector employees as civil servants, only 14.8% are private sector employees as shown in Table 6.2b. The result is as expected in the sense that where such high rate of residents are unschooled, it is unlikely that they would be absorbed into the formal job market. Most of the residents have not received any training to afford them job opportunities.

However, it is worth mentioning that during the field work, we were able to identify self-employed as residents involved in petty trading, home cottage activities and hawking. Nevertheless, the result shows that residents in Kroo Bay play a significant role in the economy of Sierra Leone.

c) *What is your total monthly income (including the income of other family members)?*

This question determines the monthly monetary income level of households in Kroo Bay.

Figure 6.2c Bar Chart – Household monthly income



As Figure 6.2c indicates, of the 52 households surveyed, 63.0% make a monthly income of up to Le50,000, while 29.6% makes a monthly income of between Le50,001 and Le60,000, only 7.4% makes a monthly income of above Le80,001. These figures confirm that there is income disparity within Kroo Bay as expected with attendant effects on the quality of life.

Are the following facilities or services covered in d to k within your locality and used by your household?

This question establishes as to whether the facilities covered in d to k under discussion are accessed by households in Kroo bay, where such facilities are available within their locality. For the questions on church and mosque, we wanted to establish the social group or religious organisation residents in informal settlements are affiliated to. Nevertheless, it has been suggested in the literature that low-income areas or informal settlements characteristically lack basic facilities or services including those covered in d to k below.

d) *Infant school*

Table 6.2d Availability and use of infant school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	52	100.0	100.0	100.0

The result shows that infant school is available within the Kroo Bay locality and accessed by all (100%) of the 52 households surveyed (Table 6.2d).

e) *Primary school*

Table 6.2e Availability and use of primary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	48	92.3	92.3	92.3
no	3	5.8	5.8	98.1
Do not know	1	1.9	1.9	100.0
Total	52	100.0	100.0	

Table 6.2e shows the availability of primary school and while 92.3% households say they use it, only 5.8% have no access to it or do not use it.

However, it is refreshing to note that contrary to the high illiteracy rate (63.5%) revealed in our study of Kroo Bay, households now use both infant and primary schools as indicated above so that their children can receive at least the basic education they were not privileged to have in their youth.

f) *Secondary school*

Table 6.2f Availability and use of secondary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	2	3.8	3.8	3.8
no	45	86.5	86.5	90.4
Don't know	5	9.6	9.6	100.0
Total	52	100.0	100.0	

According to table 6.2f, while only 3.8% households use secondary school within the Kroo Bay locality, 86.5% do not. 9.6% households do not know as to whether any secondary school exist within their locality. This result seems to suggest that children of most households in Kroo Bay do not go beyond primary education, which is very worrying. It is worrying because its implication for the children is one of lost opportunity, which would minimise their chances to access better employment. However, the suggestion of most children not going beyond primary education in Kroo Bay could be as a result of the cost.

g) *Market*

Table 6.2g Availability and use of market

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	9	17.3	17.3	17.3
no	33	63.5	63.5	80.8
Don't know	10	9.6	9.6	100.0
Total	52	100.0	100.0	

The result reveals that of the 52 households surveyed, only 17.3% use the market within their locality, 63.5% do not, while 19.2% say they are not aware of one (market) within their locality. As expected, this result came as no surprise in

the sense that most residents in informal settlements like Kroo Bay households run their own home markets as discussed in section 5.6.

h) Health centre

Table 6.2h Availability and use of health centre

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	46	88.5	88.5	88.5
no	3	5.8	5.8	94.2
Don't know	3	5.8	5.8	100.0
Total	52	100.0	100.0	

As Table 6.2h indicates, of the 52 households surveyed, 88.5% say they use health centre within their locality, 5.8% say they don't, while another 5.8% say they do not know of the existence of such health facility in the locality.

However, it is not surprising that over three-quarters (88.5%) of households at Kroo Bay use the health centre, given the potential for health hazards and the attendant impact on living conditions in the settlement as earlier discussed.

i) Traditional healer

Table 6.2i Availability and use of traditional healer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	40	76.9	76.9	76.9
no	8	15.4	15.4	92.3
Don't know	4	7.7	7.7	100.0
Total	52	100.0	100.0	

Table 6.2i reveals that of the 52 households surveyed, 76.9% say they use traditional healer within their locality, 15.4% say they don't, while 7.7% say they don't know of traditional healer within their locality. The high number of

households (76.9%) using traditional healer at Kroo Bay suggests that most locals still believe in traditional medicines (herbs) for healing or curing as against the modern medicines. Nevertheless, affordability seems to influence the poor household's choice of traditional medicines over the modern medicines. Put in another way, the reason for seeking the traditional route to healthcare is affordability. In actual fact, as experience shows, most traditional healing is not paid for by cash but by either kola nuts or chicken or both, depending on the seriousness of the illness or disease. However, in some cases or situations where cash is demanded for traditional healing, it is negligible and a mere token.

j) Church

Table 6.2j Availability and use of church

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	45	86.5	86.5	86.5
no	6	11.5	11.5	98.1
Don't know	1	1.9	1.9	100.0
Total	52	100.0	100.0	

Table 6.2j shows that of the 52 households surveyed, over three-quarters (86.5%) use the church within their locality, while 11.5% say they do not use the church, only 1.9% don't know if there is church within their locality. Based on this result, we may conclude that almost 87.0% of the Kroo Bay households are Christians or at least church goers.

k) Mosque

Table 6.2k Availability and use of mosque

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	47	90.4	90.4	90.4
no	5	9.6	9.6	100.0
Total	52	100.0	100.0	

The survey reveals that while 90.4% households use the mosque within their locality, only 9.6% say they don't use the mosque. This result suggests that there are more Muslims or followers of Islam in Kroo Bay than Christians or followers of Jesus Christ. Nevertheless, it is important to state that the Church or Mosque is used for worship or fellowship and as well as for weddings and funerals. In other words, not everyone who uses the church or mosque is a Christian or Muslim.

l) To whom do you go for community problems?

This question establishes the way households in Kroo Bay resolve community disputes. This is very important in the sense that disputes, when taken to court involves money and time and as a result ways must be sought to resolve community problems in a peace way.

Table 6.2l Resolving community problems

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid community leaders	24	46.2	46.2	46.2
religious leaders	5	9.6	9.6	55.8
customary court	14	26.9	26.9	82.7
policy station	9	17.3	17.3	100.0
Total	52	100.0	100.0	

From Table 6.2l, the study reveals that 46.2% of households go to community leaders for community problems, 26.9% go to community courts, 17.3% go to police station, while only 9.6% go to religious leaders. Although people use different ways for different reasons to resolving personal problems, this result suggests that community leaders (46.2%) are preferred by households in Kroo Bay for community problems.

m) Do you support any political party?

This question establishes as to whether households in Kroo Bay associate with any political party.

Table 6.2m political party support

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	34	65.4	65.4	65.4
no	17	32.7	32.7	98.1
Don't know	1	1.9	1.9	100.0
Total	52	100.0	100.0	

The study shows that of the 52 households surveyed, 65.4% do associate with political party, while 32.7% do not associate with a political party, only 1.9% are not sure (Table 6.2m).

n) Which political party do you support?

This question identifies the political party supported by households in Kroo Bay. This is important for the simple fact that individuals must be allowed by authorities to exercise their right of choice.

Table 6.2n political party supported

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ruling party	24	48.2	68.6	68.6
majority opposition party	8	15.4	22.9	91.4
minority opposition party	2	3.8	5.7	97.1
none of the above	1	1.9	2.9	100.0
Total	35	67.3	100.0	
Missing System	17	32.7		
Total	52	100.0		

The result shows that of the 52 households surveyed, 68.6% support the ruling party, 22.9% support the majority opposition party, 5.7% support the minor opposition party and only 2.9% do not support any political party (Table 6.2n). This result confirms that people in Kroo Bay have the freedom to choose a political party they can identify with.

o) What is the main reason for supporting the party chosen?

This question discovers why households in Kroo Bay support a particular party.

Table 6.2o Reason for supporting party

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid my family supports it	9	17.3	26.5	26.5
it promotes the interest of the poor	24	46.2	70.6	97.1
other	1	1.9	2.9	100.0
Total	34	65.4	100.0	
Missing System	18	34.6		
Total	52	100.0		

The study reveals that of the 52 households surveyed, 70.6% support the party chosen because it promotes the interest of the poor, while 26.5% support party because their family supports it, 2.9% do not have any reason for supporting the party chosen (Table 6.2o). This result suggests that political party support in Kroo Bay like most African communities, is driven by emotions rather than based on rationality.

p) Do you vote?

This question establishes as to whether households in Kroo Bay participate in the election process in Sierra Leone. In other words, we want to know whether residents in Kroo Bay exercise their voting rights to elect their political leaders. This is very important because it will give residents in the informal settlements the same opportunity as their fellow Sierra Leoneans in the formal settlements to choose political leaders who can properly represent them in the decision process, which can offer them better quality of life in society as discussed in section 2.7.6.

Table 6.2p Voting status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	32	61.5	91.4	91.4
no	3	5.8	8.6	100.0
Total	35	67.3	100.0	
Missing System	17	32.7		
Total	52	100.0		

The result (Table 6.2p) shows that while 91.4% households exercise their voting rights to elect political leaders of their choice, only 8.6% do not exercise their voting rights, which a very encouraging result for democracy.

6.2.3 Housing and Environmental Conditions

Essentially, decent housing is becoming recognised as a basic human right, in addition to food and clothing, which is inextricably linked to sound or clean environment (World Bank, 1993). Thus, this section gives the households in Kroo Bay the opportunity to assess both their housing and environmental conditions as they experience them.

a) *On what basis did you originally occupy your present building plot?*

This question establishes as to how residents in Kroo Bay occupy the present land or building plot, given the constraints on land availability in Sierra Leone, especially in the urban city of Freetown

Table 6.3a Land occupancy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid via unauthorised possession	11	21.2	21.2	21.2
via the community leaders	6	11.5	11.5	32.7
via relatives/friends	35	67.3	67.3	100.0
Total	52	100.0	100.0	

Table 6.3a shows that of the 52 households surveyed, 67.3% originally occupy their building plot through relatives/friends, 21.2% via unauthorised possession and 11.5% via the community leaders. The result is as expected, especially where relatives or friends, as experience shows, are in the habit of subdividing and allocating (legally or illegally) part of their tiny plots to their loved ones for a mere token in order to promote the extended family culture.

b) Has your building plot been surveyed?

Like in the case of land or building plot occupancy, this question establishes as to whether households or residents in Kroo Bay undertake survey activity in respect of building plots.

Table 6.3b Survey of building plot

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	13	25.0	25.0	25.0
no	39	75.0	75.0	100.0
Total	52	100.0	100.0	

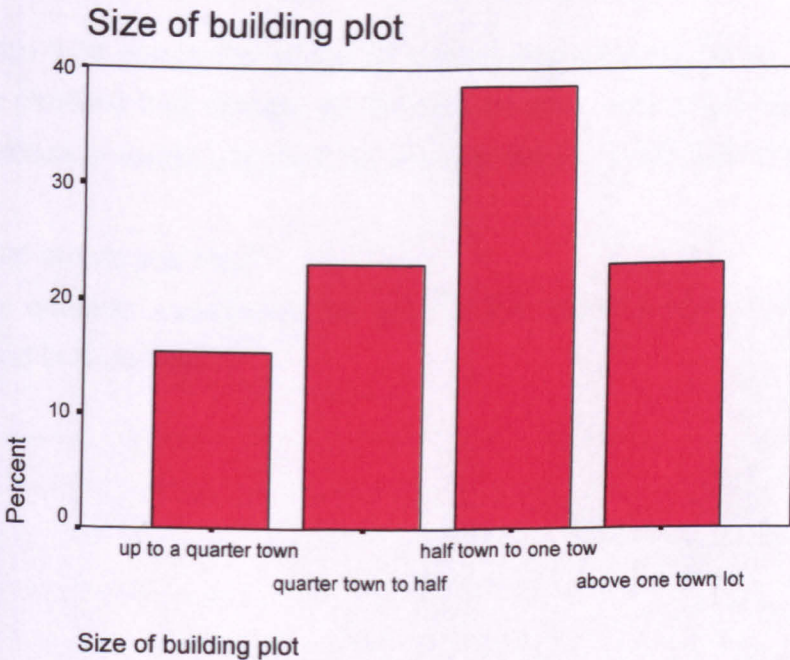
As Table 6.3b illustrates, of the 52 households surveyed, while three-quarters (75.0%) have not undertaken survey activity in respect of their building plots, only one-quarter (25.0%) have surveyed their building plots. This result is as expected because of the high professional fees and other costs that are usually associated

with the survey activity, which are hardly afforded by residents in informal settlements.

c) *What is the appropriate size of the plot?*

This question establishes the size of building plot in Kroo Bay, since lack of building space is one of the many problems that household or residents in informal settlements have to contend with as discussed in chapter three (3.7.1.3).

Figure 6.3c Bar Chart – Size of building plot



According to Figure 6.3c, the size of the building plot of the 52 households surveyed is as follows: 38.5% half town to one town lot, 23.1% above on town lot, another 23.1% quarter town lot and 15.4% up to a quarter town lot. It is worth mentioning that these plot measurements are associated with informal settlements for the reason stated above. Nevertheless, in planning perspective, the size of the plot dictates or determines the size and type of building to be constructed on it.

d) Do you hold title to the plot/land?

This question establishes as to whether residents or households in Kroo Bay hold any titles to the plot/land they occupy.

Table 6.3d Land/plot title

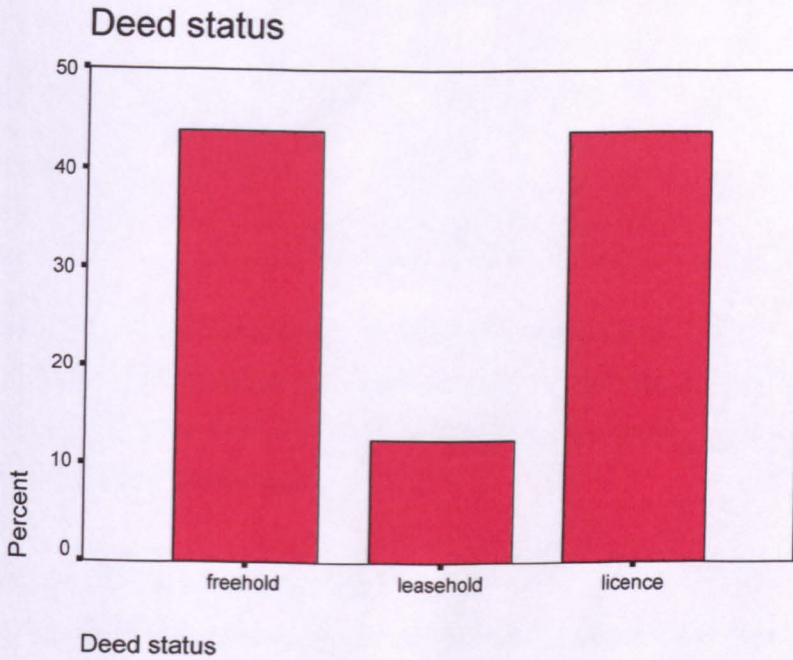
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	16	30.8	30.8	30.8
no	36	69.2	69.2	100.0
Total	52	100.0	100.0	

Table 6.3d shows that of the 52 households surveyed, while 30.8% hold title to the plot/land they occupy, 69.2% hold no titles. This result may be linked to the absence of survey plots in 6.3b, which is the prerequisite for land titles.

What title do you hold?

The question establishes the type of title (land tenure systems) or title deed found in Kroo Bay.

Figure 6.3e Bar Chart – Deed status



As Figure 6.3e indicates, residents or households in Kroo Bay have a mixture of land tenure systems like the formal settlements, which include freehold, leasehold and licence. However, it must be noted that while the formal settlements practice the communal land tenure (mainly in the provinces) in addition to the three already mentioned above, the informal settlements like Kroo Bay do not. However, the title deed status of the 52 households surveyed is as follows (Figure 6.3e): 43.8% freehold, 43.8% licence and 12.5% leasehold. Notably, licence is for the temporary use of the land and is normally granted by the government. The idea here is to avoid or minimise squatting.

f) Describe your house/dwelling status

The idea here is to distinguish tenants from owners-occupiers or landlords in Kroo Bay.

Table 6.3f Dwelling status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid owner-occupier	11	21.2	21.2	21.2
tenant	40	76.9	76.9	98.1
no answer	1	1.9	67.3	100.0
Total	52	100.0	100.0	

Generally, owner-occupiers in informal settlements share their dwelling with tenants to earn income as discussed in the literature (chapter two). Evidently, Table 6.3f shows that of the 52 households surveyed, while 76.9% are tenants, only 21.2% are owner-occupiers.

g) When was this dwelling built?

This question establishes as to whether the existing dwellings in Kroo Bay were built before or after the eleven years (1991 to 2002) civil conflict.

Figure 6.3g Bar Chart – Age of building

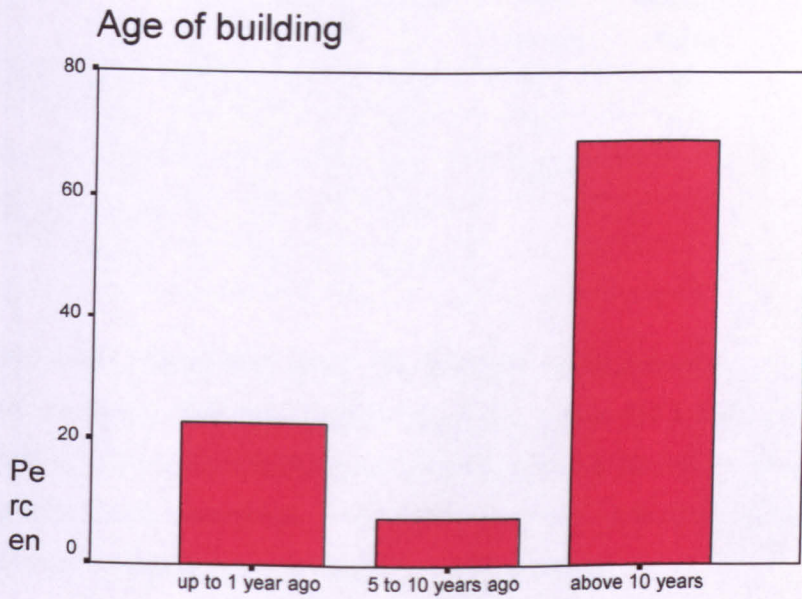


Figure 6.3g shows that of the 52 house holds surveyed the construction period of their dwellings stand at: 69.2% over 10 years ago, 7.7% 5 to 10 years ago and 23% up to 1 year ago. This result suggests that while most of the dwellings existed well before the civil conflict, some were built during the war and few have been built after the end of the civil conflict.

h) Have you extended, improved or altered your present dwelling in any way?

This question establishes as to whether residents or households in Kroo Bay have the capacity to improve their dwellings in any way.

Table 6.3h – Building alteration

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	11	21.2	91.7	91.7
no	1	1.9	8.3	100.0
Total	12	23.1	100.0	
Missing System	40	76.9		
Total	52	100.0		

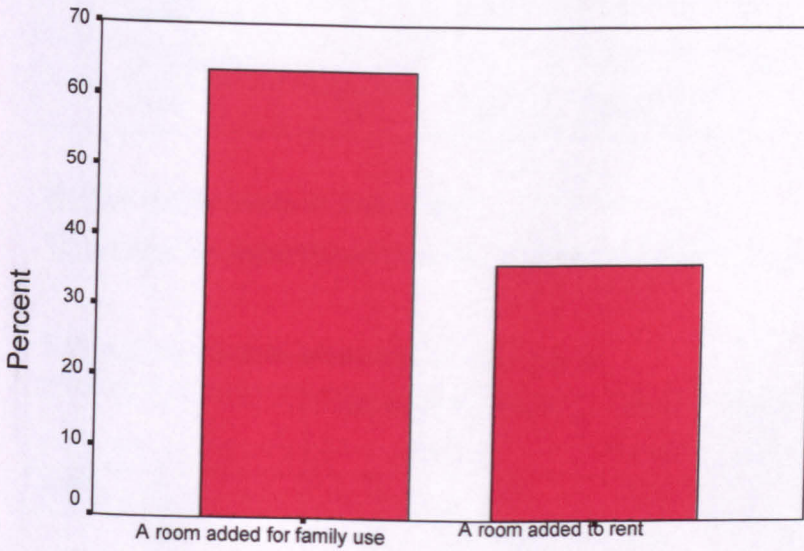
Table 6.3h shows that while the majority of households (91.7%) have altered their dwellings, only few households (8.3%) have not undertaken any alteration of dwelling units. The result shows that majority of the residents in Kroo Bay have upgraded their dwellings, which is consistent with the literature that informal settlement households do upgrade their dwellings.

i) what exactly did you do to your dwelling?

This question establishes as to whether alterations on dwellings normally undertaken by households in Kroo Bay are for either commercial/economic or social reasons.

Inadequate housing can manifest in diverse forms, which may appear singularly or in combination. This may or may not be regarded, especially in the informal settlements as a serious problem as long as residents have a place to pass the night or sleep. Nevertheless, crowding or inadequacy of space either in terms of area or alterations to create separate rooms, is an indication of inadequate housing (UNCHS, 1996) as highlighted in chapter one. Figure 6.3i below shows that of the 52 households surveyed, 63.6% have added a room to dwelling units for family use, while 36.6% added a room to dwelling units for renting purposes.

Figure 6.3i Bar Chart – Exact nature of alteration to dwelling



Exact nature of alteration to dwelling

j) how satisfied are you with your dwelling?

This question establishes the degree to which households or residents in Kroo Bay are satisfied with their dwelling units.

The main concern with size of dwelling is density because of overcrowding, which exposes households to health and physical hazards (Napier et. al, 2002).

Accordingly, of the 52 households surveyed, while 59.6% are satisfied with their dwelling, 32.7% are dissatisfied and only 7.7% are indifferent (Table 6.3j). This result indicates that the degree of dwelling satisfaction within households in Kroo Bay varies considerably as expected.

Table 6.3j Dwelling satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid satisfaction	31	59.6	59.6	59.6
indifferent	4	7.7	7.7	67.3
dissatisfied	17	32.7	32.7	100.0
Total	52	100.0	100.0	

k) How many sleep in one room?

This question establishes the rate of overcrowding in households of Kroo Bay.

Table 6.3k People sleeping in one room

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	4	7.7	7.7	7.7
2	6	11.5	11.5	19.2
3	8	15.4	15.4	34.6
4	12	23.1	23.1	57.7
above 4	22	42.3	42.3	100.0
Total	52	100.0	100.0	

A household's access to only one room has serious impact on health as well as the convenience of those affected. This allows easy transmission of disease within a household occupancy. Additionally, social problems and pathologies are likely to be more acute in a household sleeping more than four people in one room (Tipple and Willis, 1991).

Evidently, Table 6.3k shows the population of one room rented accommodation in Kroo Bay are as follows: above four people (42.3%), four people (23.1%), three people (15.4%), two people (11.1%) and one person (7.7%). It is surprising that in Kroo Bay where space is a premium, almost 8% of households still sleep one person per room.

l) Do you pay any rent for your room?

This question identifies tenants in Kroo Bay who pay rent. This is important because the extended and dependant family culture that exist in the African communities including informal settlements often allow free tenancies.

Table 6.3l Rent payment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	39	75.0	75.0	75.0
no	13	25.0	25.0	100.0
Total	52	100.0	100.0	

Table 6.3l clearly shows that while three-quarters (75%) are rent-paying tenants, a quarter (25%) do not pay rent, which is surprising, given the level of income and unemployment in the settlement.

m) How much rent do you pay per month?

This question establishes the rent level in Kroo Bay on one hand. On the other hand, it establishes as to whether the rent level is commensurate with relatively income level in Kroo Bay. This is important because income level in Sierra Leone is generally low, not least in the informal settlements. Moreover, majority residents in informal settlements are not economically active and do not earn any income as discussed in chapter three.

As Table 6.3m below indicates, the amount of rent Kroo Bay tenants pay per month for one room stand at: Le10,000 (76.9%), Le10,001 to Le20,000 (17.9%) and above Le30,001 (5.2%).

Table 6.3m Monthly rent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid le10,000	30	57.7	76.9	76.9
le10,000 to le20,000	7	13.5	17.9	74.4
above le30,001	2	3.8	5.2	79.5
Total	39	75.0	100.0	
Missing System	13	25.0		
Total	52	100.0		

n) Is your accommodation/environment affected by flood?

This question establishes as to whether Kroo Bay's proximity to the sea front coupled with the rains during the rainy season expose their settlement to floods. In order words, the question is set to establish if there is adequate drainage infrastructure.

Table 6.3n Dwelling/environment floods

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	43	82.7	82.7	82.7
no	9	17.3	17.3	100.0
Total	52	100.0	100.0	

It has been suggested that external environmental threats from natural disasters such as floods, among others, affects households of the informal settlements most (Napier et. al, 2002). This makes them vulnerable to environmental hazards of varying kinds and proportion. On the other hand, more general threats are harder to cope with and have greater physical and socio-economic impacts on people living in poverty in informal settlements, as discussed in chapter two.

The survey reveals that 82.7% of households in Kroo Bay are affected by flooding, leaving 17.3% unaffected (Table 6.3n).

o) How often is your accommodation/environment flood?

This question establishes as to when environmental flooding occurs in Kroo Bay.

Table 6.3o Flooding period

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid mostly during the rains	40	76.9	93.0	93.0
mostly during high tides	3	5.8	7.0	100.0
Total	43	82.7	100.0	
Missing System	9	17.3		
Total	52	100.0		

As indicated in Table 6.3o, flooding affects households in Kroo Bay during the raining season (93.0%) and also during high tides (7.0%). This result confirms the vulnerability of households in informal settlements to natural disasters as stated above.

p) Which of the following services are within your locality and used by your household?

This question establishes households access to services within their locality.

Table 6.3p Availability and use of services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid water supply	15	28.8	28.8	28.8
electricity	20	38.5	38.5	67.3
none of the above	17	32.7	32.7	100.0
Total	52	100.0	100.0	

It is widely acknowledged that informal settlers or low-income urban communities in developing countries have not, in general, benefited from the investments in urban infrastructure (UNCHS, 1996; Napier et. al, 2002).

Table 6.3p shows that 38.5% of Kroo Bay residents have access to electricity, while 28.8% have access to water supply. However, 32.7% have no access to any service.

q) Have there been any government intervention to improve public services, amenities and infrastructure in your community?

This question establishes as to whether there have been attempts by the government to improve services in Kroo Bay.

Table 6.3q Government intervention

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	29	55.8	55.8	55.8
no	23	44.2	44.2	100.0
Total	52	100.0	100.0	

The fact that residents of informal settlements or low-income households are generally unable to afford the cost of new services, a logical option is for government to ensure that the little that exist is reasonably maintained and used responsibly (UNCHS, 1996).

Table 6.3q, clearly shows that 55.8% have experienced government intervention to improve services, 44.2% say there have not experienced government intervention. However, it is important to note that during the field survey, it was discovered that residents only admit government intervention at improving services in their settlement if their household directly benefited from it.

r) Have there been any private group effort (e.g. community) to improve public services, amenities and infrastructure in your community?

This question establishes as to whether any group effort has been made by residents in Kroo Bay to improve their living conditions or services.

Table 6.3r Private group effort

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	27	51.9	51.9	51.9
no	25	48.1	48.1	100.0
Total	52	100.0	100.0	

Experience shows that where government has not acted at improving living conditions or services in informal settlements, residents attempt to do it by themselves in groups via self-help arrangement. In other words, residents, especially youths undertake fund raising activities and mobilise manpower, which is used to improve or maintain the limited services that exist within their community.

Evidently, Table 6.3r shows that while 51.9% households have experienced group effort at improving services in Kroo Bay, 48.1% households say they have not.

s) Where do you do your cooking?

This question establishes the cooking environment in Kroo Bay settlement. This is vital due to the fact that the outside space for food preparation or cooking and socialising is very cramped, if it is available at all (Stock, 1995).

Disposal of domestic solid waste, including waste from cooking, for example, is a major problem in informal settlements, and has significant bearing on environmental conditions at both the household and neighbourhood levels. Often, many households are not aware of the adverse environmental and health consequences of poor solid waste management.

From Table 6.3s below, it is revealed that 51.9% use outside kitchen for cooking, 46.2% cook in the open place and 1.9% do not cook.

Table 6.3s Cooking place

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no answer	1	1.9	1.9	1.9
outside kitchen	27	51.9	51.9	53.8
open place	24	46.2	46.2	100.0
Total	52	100.0	100.0	

t) *What is the main fuel used for cooking?*

The question establishes the main fuel used for cooking in Kroo Bay.

Table 6.3t Main cooking fuel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no answer	1	1.9	1.9	1.9
wood fuel	25	48.1	48.1	50.0
charcoal	24	46.2	46.2	96.2
kerosene	2	3.8	3.8	100.0
Total	52	100.0		

In informal settlements or low-income settlements, household energy consumption is mainly for cooking, water heating, lighting and small scale uses such as fish smoking or drying, for example.

From Table 6.3t, the 52 households surveyed main cooking fuel is as follows: wood fuel (48.1%), charcoal (46.2%), Kerosene (3.8%) and 1.9% gave no answer. The result shows that wood fuel and charcoal are the main fuels used in Kroo Bay for cooking as against kerosene, which may cost more money to provide. It can be argued that 94.3% of total energy needs of this settlement is based on fuel wood. This has serious implication for environmental sustainability, especially CO₂ emissions and deforestation.

u) Which of the following do you suffer from in the settlement/community?

This question hope to establish the main environmental nuisance suffered by households in Kroo Bay.

Table 6.3u Nuisance causing problem

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid smoke	12	23.1	23.1	23.1
bad smell	27	51.9	51.9	75.0
noise	13	25.0	25.0	100.0
Total	52	100.0	100.0	

As mentioned above, a principal feature of the biophysical environment in which the urban poor live in informal settlement, which is consequential, both in terms of the amelioration of their lot and in terms of general urban environmental problems, is that they are almost never exclusively residential. Nevertheless, nuisance or suffering is subjective and often subject to individual tolerance level.

From Table 6.3u, 51.9% complain more about obnoxious smell, 25.0% complain about noise and 23.1% complain about smoke. Smoke has been known to cause respiratory diseases. However, this result shows that more households (25.0%) suffer from noise than smoke (23.1%), which is very surprising. The reason for the surprise is that smoke is one of a number of environmental problems that can be difficult to control or manage in informal settlements, especially as compared to noise. Notably, the source of the most serious problem of smoke is cooking fire, as a result of commercial activity and burning solid waste.

In deed, It has been suggested that households in informal settlements use rivers to dispose of solid waste or sometimes burning such wastes in the absence of central collection as discussed in section 3.11. Nevertheless, noise has long been recognised as a nuisance, which is increasingly a major community pollution problem (UNCHS, 1996). The health impacts of noise on households in

informal settlements cannot be ignored, even if the precise health and environmental effects are not fully known. However, adverse effect of noise include, sleep disturbance (especially during the night), which has the potential to affect work performance and increase anxiety. High noise levels and repeated exposure can lead to hearing loss, among other things (UNCHS, 1996).

Perhaps not surprisingly, bad smell (51.9%) tends to be what the households in Kroo Bay settlement suffer from most. In deed, the decomposition of organic matter can have powerful effects sufficient to cause nausea. Similarly, such decomposition, as evidenced in the case of rice husks emits huge methane gas, which is a major green house gas and has major impact on global warming.

6.2.4 Nutrition, Health care and Family Planning

a) How many times does the family have meals per day?

This question establishes the level at which residents in informal settlements or Kroo Bay households can afford food per day.

Table 6.4a Times of meal per day

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid once	19	36.5	36.5	36.5
twice	16	30.8	30.8	67.3
thrice	17	32.7	32.7	100.0
Total	52	100.0	100.0	

It has been suggested that poor urban dwellers, especially residents of informal settlements find it extremely difficult to afford square meals per day, among other essentials because food and other essential items cost more in urban areas than in the rural areas. In rural areas, for example, residents with almost no income may be able to meet many of their nutritional and other requirements from crop they grow (UNCHS, 1996). In other words, while poor rural residents have space

(land) for housing and subsistence production, poor urban informal residents hardly have space for subsistence agriculture.

Table 6.4a indicates that 36.5% manages a meal once a day, 30.8% twice a day and 32.7% thrice a day. This result shows that the food intake level is better than anticipated or expected, because of the poverty level in the settlement.

b) What kind of illness does the family generally suffer from?

This question establishes the illness that generally affect households or family members in Kroo Bay.

Table 6.4b Illness generally affecting family

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid malaria	46	88.5	88.5	88.5
diarrhoea	4	7.7	7.7	96.2
respiratory diseases	1	1.9	1.9	98.1
malnutrition	1	1.9	1.9	100.0
Total	52	100.0	100.0	

Residents of informal settlements have been linked with increased incidence of sickness and death, which emanates from poor housing, overcrowding and inadequate or lack of basic services such as safe drinking water and sanitation (World Bank, 1993; UNCHS, 1996) as discussed in section 2.3. Accordingly, diseases that are likely to affect residents of informal settlements, of which children and infants are particularly vulnerable, include diarrhoea and respiratory diseases (Napier et. al, 2002), to name but a few.

As Table 6.4b indicates, the illness mostly suffered by households or family members in Kroo Bay include malaria (88.5%), diarrhoea (7.7%), respiratory disease (1.9%) and malnutrition, which can render one vulnerable to diseases another (1.9%). The result shows that malaria is generally the killer disease that

generally affect Kroo Bay's households. This is hardly surprising, given our findings of inadequate drainage infrastructure.

c) Where do you go for treatment?

This question establishes the place of treatment utilised by households in Kroo Bay.

Table 6.4c Place of treatment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid local clinic	7	13.5	13.5	13.5
health centre	27	51.9	51.9	65.4
general hospital	13	25.0	25.0	90.4
traditional healer	5	9.6	9.6	100.0
Total	52	100.0	100.0	

As shown in Table 6.4c, the place of treatment for Kroo Bay residents include: Health centre (51.9%), general hospital (25.0%), local clinic (13.5%) and traditional healer (9.6%). This result shows that health centre is the most popular place of treatment in Kroo Bay for their treatment more than all the other services. Combined with local clinic shows that 65.4% of residents seek treatment outside hospital. This is not surprising, given the dominant form of illnesses suffered.

d) Have you suffered any child death since moving to this settlement?

Since infants and children in informal settlements are particularly vulnerable to diseases, this question establishes as to whether households or residents have lost any children after settling in Kroo Bay.

Table 6.4d Child death

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	37	71.2	71.2	71.2
no	15	28.8	28.8	100.0
Total	52	100.0	100.0	

Table 6.4d shows that almost three-quarters or 71.2% of households have suffered child death and over one-quarter or 28.8% of households have not suffered any child death. This result is not surprising for the reasons discussed earlier, which confirms the vulnerability of children to diseases and death in informal settlements.

e) How many deaths?

The question establishes the number of household deaths of children in Kroo Bay. The idea here is to cross check and confirm the rate or frequency at which child deaths have occurred per household.

Table 6.4e Number of deaths

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	11	21.2	29.7	29.7
2	12	23.1	32.4	62.2
3	5	9.6	13.5	75.7
over 3	9	17.3	24.3	100.0
Total	37	71.2	100.0	
Missing System	15	28.8		
Total	52	100.0		

As Table 6.4e indicates, the number of household deaths of children in Kroo Bay is as follows: Two (32.4%), one (29.7%), over three (24.3%) and three (13.6%).

f) Do you practice birth control or family planning?

This question establishes as to whether birth control or family planning is being practised in Kroo Bay. This is important, because birth control is necessary to control the population growth and reduce overcrowding, especially in informal settlements. Birth control also makes it easier for upwardly mobile women to combine child rearing with a career.

Evidently, Table 6.4f below shows that only 21.2% practice birth control or family planning, while 78.8% do not. This result is as expected, which may be connected to religious reasons where most members are discouraged to participate in birth control.

Table 6.4f Birth control or family planning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	11	21.2	21.2	21.2
no	41	78.8	78.8	100.0
Total	52	100.0	100.0	

6.2.5 Attitudinal Aspect

a) Why did you particularly choose to live in this settlement?

This question establishes the rationale behind the choice of settlement by Kroo Bay residents.

Table 6.5a choice for settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid knew people there	6	11.5	11.5	11.5
had no option	32	61.5	61.5	73.1
cannot afford housing in the formal settlement	14	26.9	26.9	100.0
Total	52	100.0	100.0	

Experience suggests that people's choice of shelter is influenced by many factors, including location, taste and affordability.

Table 6.5a shows that households or residents chose to live in Kroo Bay because: they had no option (61.5%), they cannot afford housing in formal settlements (26.9%) and they knew people already there (11.6%). This is in line with established literature that informal settlers are forced into their respective locations in the absence of other alternatives. This is particularly the case, given the lack of affordability to access decent housing in the formal sector.

b) Are you willing to pay for utility services such as water, electricity, drainage, if introduced on your plot?

This question gauges the opinion of residents or households at Kroo Bay as regards their willingness and ability to pay for utility services if introduced on their plots. This is necessary given the widely acknowledged view in the literature that informal settlers are unwilling to pay for services.

Table 6.5b Payment for utility services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	37	71.2	71.2	71.2
no	5	9.6	9.6	80.8
not sure	10	19.2	19.2	100.0
Total	52	100.0	100.0	

From Table 6.5b, 71.2% of Kroo Bay residents are willing to pay for services, while 19.2% are not sure, only 9.6% are unwilling to pay for services.

c) Which other place would you like to go if you were to leave this place immediately?

This question is motivated by the desire to see whether Kroo Bay residents would contemplate voluntary emigration to the village given the deplorable informal housing.

Table 6.5c Immediate place to go

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no idea where to go	7	13.5	13.5	13.5
settlement with better facilities	43	82.7	82.7	96.2
to the village	2	3.8	3.8	100.0
Total	52	100.0	100.0	

Table 6.5c reveals that 82.7% would like to go to settlements with better facilities, while 13.5% have no idea where to go and only 3.8% would like to go back to their rural villages.

d) *What is your impression about different government attitudes towards your settlement?*

This question establishes opinions formed by residents of informal settlements about the attitudes of present and successive governments towards their living conditions.

Table 6.5d Different government attitude

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no answer	1	1.9	1.9	1.9
no previous government helped	9	17.3	17.3	19.2
previous governments tried to help	8	15.4	15.4	34.6
present government has done nothing	12	23.1	23.1	57.7
present government has promised to help	22	42.3	42.3	100.0
Total	52	100.0	100.0	

As Table 6.5d indicates, opinions indicate that the present government has promised to help (42.3%), present government has done nothing (23.1%), no previous government helped (17.3%), previous government tried to help (15.4%) and household who gave no answer (1.9%). The result reveals that the opinions of households in Kroo Bay about present and successive governments at improving their settlement and poor living conditions are divided and varied considerably. This is as expected, given the fact that support for most African governments, is motivated by associations rather than good governance or deliverance of essential goods and services to communities.

e) *What do you think is the solution to the problem of informal settlement?*

This question establishes what residents in informal settlements would consider as the best solution to their problems.

From Table 6.5e below, 48.1% of Kroo Bay residents shows that the solution to the problems of informal settlements, among others, should include upgrading, 30.8% however prefers demolition and re-housing of occupants, while 21.2% prefer information and education to empower themselves towards improving their environment.

Table 6.5e Solution to informal settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid upgrading	25	48.1	48.1	48.1
demolition and re-housing of occupants	16	30.8	30.8	78.8
Information and education to empower residents	11	21.2	21.2	100.0
Total	52	100.0	100.0	

6.3 Analysis of Susan's Bay Settlement and in comparison with Kroo Bay Settlement

Table 6.6 shows the response from households in Susan's Bay Settlement, which totalled fifty-two in all. This is a clear evidence to show that all the questionnaires were completed, giving 100 percent response rate.

Table 6.6 Response from Susan's Bay Settlement

No. of questionnaires sent out	No. of households completed	Valid percent
52	52	100

6.3.1 Background Information: This information establishes the age, sex and marital status composition or structures of households of Susan's Bay and also educational level attained.

a) Age

From Table 6.6a below, the study reveals that 34.6% are between the ages of 25-29 years, 30.8% are above 40 years, 17.3% are between the ages of 20-24 years, 9.6% are between the ages of 35-39 years and 7.7% are between the ages of 30-34 years. This result shows that Susan's Bay have more young residents in the 25-29 years age. Comparing this result with Kroo Bay (Table 6.1a), it shows that Susan's Bay has more younger residents, of below the age of 30 years (34.6%) than older residents of 40 years and above (30.8%). The concentration of the young and energetic population at Susan's Bay may be connected to the supply wharf and the activity around it as discussed in section 3.11.2.

Table 6.6a Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24 yrs	9	17.3	17.3	17.3
25-29 yrs	18	34.6	34.6	51.9
30-34 yrs	4	7.7	7.7	59.6
35-39 yrs	5	9.6	9.6	69.2
above 40 yrs	16	30.8	30.8	100.0
Total	52	100.0	100.0	

b) Sex: The study reveals that of the 52 households surveyed, there are 82.7% males and 17.3% females in Susan's Bay (Table 6.6b), compared with 61.5% and 38.5% in Kroo Bay (Table 6.1b). This result shows that household heads vary by gender in Kroo Bay and Susan's Bay settlements, which points to the fact that men still dominate the forefront as household heads.

Table 6.6b Sex of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	43	82.7	82.7	82.7
female	9	17.3	17.3	100.0
Total	52	100.0	100.0	

c) *Marital status*: The idea here as well is to establish the marital status in Susan's Bay.

Table 6.6c Marital status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid married	46	88.5	88.5	88.5
single	6	11.5	11.5	100.0
Total	52	100.0	100.0	

Indeed, as Table 6.6c indicates, four-fifths (88.5%) of the 52 households surveyed are married and only 11.5% are single in Susan's Bay as against 75.0% and 23.1% in Kroo Bay. Nevertheless, while Kroo Bay records a 1.9% divorce, Susan's Bay has or records none. The high percentage of married households in Susan's Bay is significant given the fact that the population consists of young people and may desire children to continue the family, which is a high premium in Africa.

d) *Education*: The question about education establishes the level of education attained by residents of Susan's Bay.

Table 6.6d Educational background

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no formal education	18	34.6	34.6	34.6
primary	10	19.2	19.2	53.8
secondary	24	46.2	46.2	100.0
Total	52	100.0	100.0	

Table 6.6d shows that 46.2% of residents in Susan's Bay have attained secondary school level education, while 34.6% have no formal education, only 19.2% are educated up to primary school level. This result shows that there are differences between Susan's Bay and Kroo Bay. For instance, almost two-thirds (63.5%) of households or residents in Kroo Bay are unschooled, compared with 34.6% in Susan's Bay. At the extreme, a remarkable 46.2% of residents have received secondary education in Susan's Bay, exceeding the comparable 25.0% for Kroo Bay. Similarly, 19.2% of households or residents have attained primary level education in Susan's Bay, compared with 11.5% in Kroo Bay.

6.3.2 Socio-economic and Political Aspect

a) Employment – are you working?

This question identifies residents or households that are economically active. In other words, we want to identify households that are actively engaged in gainful employment.

Figure 6.4a Bar Chart – Employment status of residents



From figure 6.4a, the result shows that over half (53.8%) of the households are unemployed, while 44.2% said they are employed. As can be seen from this result, there is variation between settlements with employment opportunities. For example, in Susan's Bay 44.2% of respondents are gainfully employed compared to 51.9% in Kroo Bay. Also, Susan's Bay appears to have more unemployed residents.

b) What is the nature of your job?

This question establishes the area or sector in which the respondent works.

Table 6.7b sector of employment

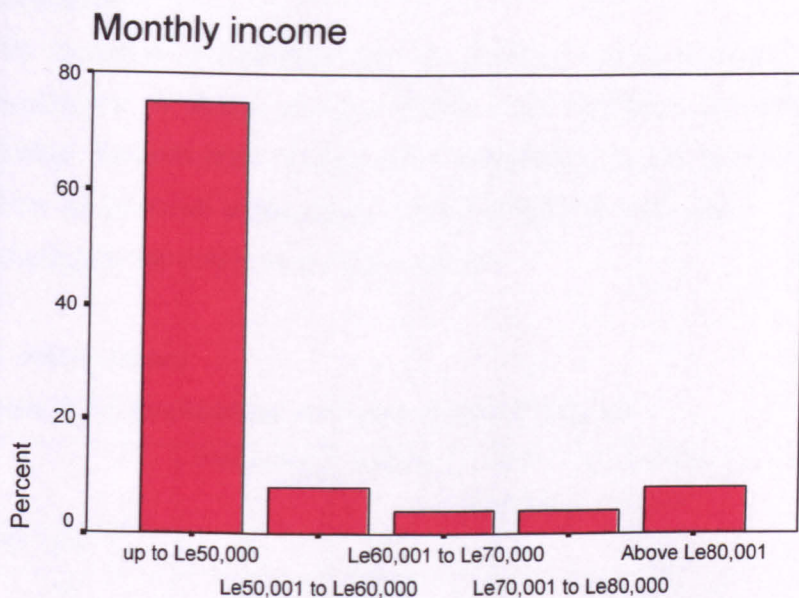
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid civil servant	4	7.7	16.7	16.7
private employee	2	3.8	8.3	25.0
self employed	18	34.6	75.0	100.0
Total	24	46.6	100.0	
Missing System	28	53.8		
Total	52	100.0		

The survey reveals that three-quarters (75.0%) of the households are self-employed, while 16.7% are public sector employees as civil servants, while 8.3% are private sector employees as shown in Table 6.7b. Notably, most households or residents are engaged in different employment, which keeps them economically active as discussed in chapter three (3.11). As expected, a good number of residents or households are self-employed. However, 75.0% of households are self-employed in Susan's Bay, compared with 63.0 in Kroo Bay. Fewer households in each settlement tend to be public and private sectors employees.

c) What is your total monthly income (including the income of other family members)?

This question determines the monthly monetary income level of households in Susan's Bay or informal settlements.

Figure 6.4c Bar Chart – Household monthly income



Monthly income

As Figure 6.4c indicates, three-quarters (75.0%) make a monthly income of up to Le50,000, 8.3% makes a monthly income of between Le50,001 and Le60,000, while another 8.3% makes a monthly income of above Le80,001, 4.0% makes between Le60,001 to Le70,000 and Le70,001 to Le80,000 respectively.

There seems to be a significant difference between household income in Susan's Bay and Kroo Bay. 75.0% of households make a monthly income of up to Le50,000 at the lower end of the scale and 8.3% make above Le80,001 at the upper end of the scale in Susan's Bay, compared with 63.0% and 7.4% in Kroo Bay. Similarly, 29% of households make a monthly income of between Le50,001 and Le60,000 in Kroo Bay, compared with 8.3% in Susan's Bay. These figures confirm that there is income disparity between informal settlements as expected.

Are the following facilities or services within your locality and used by your household?

This question establishes as to whether basic facilities are accessed by households in Susan's bay, where such facilities are available within their locality. Nevertheless, it has been suggested in the literature that low-income areas or informal settlements characteristically lack basic facilities or services including those covered in d to k below.

d) *Infant school*

Table 6.7d Availability and use of infant school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	11	21.2	21.2	21.2
no	41	78.8	78.8	100.0
Total	52	100.0	100.0	

Table 6.7d shows that infant school is available within the Susan's Bay locality and while accessed by only 21.2% of the 52 households surveyed, over three-quarters (78.8%) do not access it. This result shows that there is a significant difference between Susan's Bay and Kroo Bay in accessing infant school. 100% of households say they access infant school in Kroo Bay compared to only 21.2% in Susan's Bay.

e) *Primary school*

Table 6.7e below shows the availability of primary school and while 51.9% of households say they use it, 48.1% have no access to it or do not use it. This may be as a result of low unemployment and income generating opportunities in Susan's Bay compared to Kroo Bay.

Similarly with infant school, there is difference between each settlement in accessing primary school. A remarkable 92.3% of households access or use primary school in Kroo Bay compared to 51.9% in Susan's Bay.

Table 6.7e Availability and use of primary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	27	51.9	51.9	51.9
no	25	48.1	48.1	100.0
Total	52	100.0	100.0	

f) Secondary school

Table 6.7f Availability and use of secondary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	49	94.2	94.2	94.2
no	3	5.8	5.8	100.0
Total	52	100.0	100.0	

According to table 6.7f, while 94.2% of households seem to know about availability of secondary school within the Susan's Bay locality, 5.8% seems not to know.

Unlike both the infant and primary schools which are accessed or used by appreciable number of households in each settlements, the chances of accessing secondary school seems minimal or very remote. For instance, a tiny 3.8% say they access or use secondary school in Kroo Bay as opposed to nil or none in Susan's Bay. This result may be due to the high cost of secondary education.

g) Market

Table 6.7g Availability and use of market

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	9	17.3	17.3	17.3
no	38	73.1	73.1	90.4
Do not know	5	9.6	9.6	100.0
Total	52	100.0	100.0	

Table 6.7g reveals that 17.3% use the market within their locality, 73.1% do not and 9.6% say they are not aware of any market in Susan's Bay, compared to 17.3%, 63.5% and 19.2% respectively in Kroo Bay.

h) Health centre

Table 6.7h Availability and use of health centre

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	24	46.2	46.2	46.2
no	25	48.1	48.1	94.2
Do not know	3	5.8	5.8	100.0
Total	52	100.0	100.0	

Table 6.7h indicates that, of the 52 households surveyed, 46.2% say they use health centre within their locality, 48.1% say they don't, while only 5.8% say they don't know the existence of such a facility.

However, it is surprising that nearly half (48.1%) of households do not access or use the health centre in Susan's Bay, compared to 5.8% in Kroo Bay, which is worrying. Nevertheless, 46.0% of households access or use health centre in Susan's Bay, compared with massive 88.5% in Kroo Bay. Notably, 5.8% of households in both Kroo Bay and Susan's Bay appear not to know about any

health centre in their respective settlements. This indicates the need for rigorous awareness campaign.

i) Traditional healer

Table 6.7i Availability and use of traditional healer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	28	53.8	53.8	53.8
no	18	34.6	34.6	88.5
Do not know	6	11.5	11.5	100.0
Total	52	100.0	100.0	

Table 6.7i reveals that 53.8% say they use traditional healer within their locality, 34.6% say they don't, while 11.5% say they don't know of traditional healer within their locality.

As already discussed in 6.2.2 (d), a good number of residents in informal settlements use mostly traditional healer. 76.9% of households use traditional healer in Kroo Bay (Table 6.2i), compared with 53.8% in Susan's Bay. At the same time, 34.6% of households say they don't use traditional healer and 11.5% seem unaware of it in Susan's Bay, compared with 5.8% and another 5.8% in Kroo Bay.

j) Church

Table 6.7j Availability and use of church

Availability of church

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no	52	100.0	100.0	100.0

Table 6.7j shows that all of them (100%) do not use the church and is not within their locality. This result suggests that 100% of households are Muslims or followers of Islam in Susan's Bay, compared with 86.5% in Kroo Bay. Interestingly enough, experience shows that believers in Islam are always associated with the *Temne tribe*, which is one of the two major tribes in Sierra Leone. The *Temnes* are key players in the informal economy and they dominate the petty trading sector in Sierra Leone, especially the capital city of Freetown.

k) Mosque

Table 6.7k Availability and use of mosque

Availability of mosque

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	52	100.0	100.0	100.0

The survey (Table 6.7k) reveals that all the households (100.0%) at Susan's Bay use the mosque within their locality. This result confirms that 100% of households are followers of Islam or use the mosque in Susan's Bay, compared with 90.4% in Kroo Bay. Notably, this could explain the low secondary or primary secondary. Nevertheless, the concentration of the Muslim population or the *Temnes* in Susan's Bay may be connected to especially the sea trading boom within the settlement's supply wharf as discussed in section 3.11.2.

l) To whom do you go for community problems?

This question establishes the way households at Susan's Bay or informal settlements resolve community disputes.

From Table 6.7I below, the study reveals that almost two-thirds (65.4%) of households go to community leaders to resolve community problems, 28.8% go to the police and only 5.8% go to customary court in Susan's Bay, compared with 46.2%, 26.9% and 17.3% in Kroo Bay. This is consistent with the Muslim tradition. Nevertheless, 9.6% of households go to religious leaders for community problems in Kroo Bay, compared to nil or none in Susan's Bay. This result confirms that community problems are resolved in diverse ways in both settlements.

Table 6.7I Resolving community problems

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid community leaders	34	65.4	65.4	65.4
customary court	3	5.8	5.8	71.2
police station	15	28.8	28.8	100.0
Total	52	100.0	100.0	

m) Do you support any political party?

This question establishes as to whether households in Susan's Bay associate with any political party. This is important as a demonstration of capacity to influence the political system for improved condition.

Table 6.7m political party support

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	36	69.2	69.2	69.2
no	16	30.8	30.8	100.0
Total	52	100.0	100.0	

From Table 6.7m, it is established that 69.2% of households do associate with political party and 30.8% do not associate with any party in Susan's Bay, compared with 65.4% and 32.7% in Kroo Bay.

n) Which political party do you support?

This question identifies the political party supported by households in Susan's Bay or informal settlements.

Table 6.7n political party supported

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ruling party	18	34.6	50.0	50.0
majority opposition party	16	30.8	44.4	94.4
minority opposition party	2	3.8	5.6	100.0
Total	36	69.2	100.0	
Missing System	16	30.8		
Total	52	100.0		

From Table 6.7n, the results show that half (50.0%) of Susan's Bay resident supports the ruling party and 44.4% support the majority opposition party in Susan's Bay, compared with 68.6% and 22.9% in Kroo Bay.

Similarly, 5.6% support the minor opposition party in Susan's Bay as against 5.7% in Kroo Bay, which is very close.

o) What is the main reason for supporting the party chosen?

This question discovers why households in Susan’s Bay or informal settlements support a particular party.

Table 6.7o Reason for supporting party

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid my family supports it	18	34.6	50.0	50.0
it promotes the interest of the poor	18	34.6	50.0	100.0
Total	36	69.2	100.0	
Missing System	16	30.8		
Total	52	100.0		

The study reveals that half (50.0%) of households support the party chosen because it promotes the interest of the poor and another half base their support on family loyalty in Susan’s Bay, compared to 70.6% and 26.5% in Kroo Bay.

p) Do you vote?

This question establishes as to whether households in Susan’s Bay participate in the election process in Sierra Leone. In order words, we want to know whether residents in Susan’s Bay or informal settlements exercise their voting rights to elect their political leaders.

Table 6.7p Voting status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	36	69.2	100.0	100.0
Missing System	16	30.8		
Total	52	100.0		

The result in Table 6.7p shows that 100% of all those who answered the questionnaire exercise their voting rights to elect political leaders of their choice in Susan's Bay, compared to 91.4% in Kroo Bay. Interestingly, this result contradicts the literature where it has been suggested that the poor in Africa are denied the right to participate in the election process of their country (Satterthwaite, 2000; UN, 1976). However, while this may be true for most African countries, it is not true for Sierra Leone. In deed, Sierra Leone has made tremendous improvement in reverting to democratic elections, especially after the protracted civil conflict. The practice of democracy in Sierra Leone appears to have been demonstrated by our survey result.

6.3.3 Housing and Environmental Conditions

Essentially, decent housing is becoming recognised as a basic human right, in addition to food and clothing, which is inextricably linked to sound or clean environment (World Bank, 1993). Thus, this section gives the households in Susan's Bay the opportunity to assess both their housing and environmental conditions as experienced.

a) How did you come about your building plot?

This question establishes as to how residents in Susan's Bay or informal settlements occupy the present land or building plot, given the constraints on land availability in Sierra Leone, especially in the urban city of Freetown.

Table 6.8a Land occupancy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid via unauthorised possession	7	13.5	13.5	13.5
via the community leaders	8	15.4	15.4	28.8
via relatives/friends	37	71.2	71.2	100.0
Total	52	100.0	100.0	

Table 6.8a shows that 71.2% of our households surveyed originally occupy their building plot through relatives or friends and 15.4% occupancy is via the community leaders in Susan's Bay, compared with 67.3% and 11.5% in Kroo Bay (Table 6.3a). Similarly, 13.5% occupancy is via unauthorised possession in Susan's Bay as opposed to 21.2% in Kroo Bay. Judging from this result, it has been established that residents or households in informal settlements (Kroo Bay and Susan's Bay) occupy their building plots through diverse ways.

b) Has your building plot been surveyed?

Like in the case of land or building plot occupancy, this question establishes as to whether households or residents in informal settlements or Susan's Bay undertake survey activity in respect of building plots.

Table 6.8b Survey of building plot

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	20	38.5	39.2	39.2
no	31	59.6	60.8	100.0
Total	51	98.1	100.0	
Missing System	1	1.9		
Total	52	100.0		

As Table 6.8b illustrates, 39.2% of the 52 households surveyed have surveyed their building plots and 60.8% have not undertaken any survey in Susan's Bay, compared to 25.0% and 75.0% in Kroo Bay (Table 6.3b). This result is as expected, because of the high professional cost associating with survey.

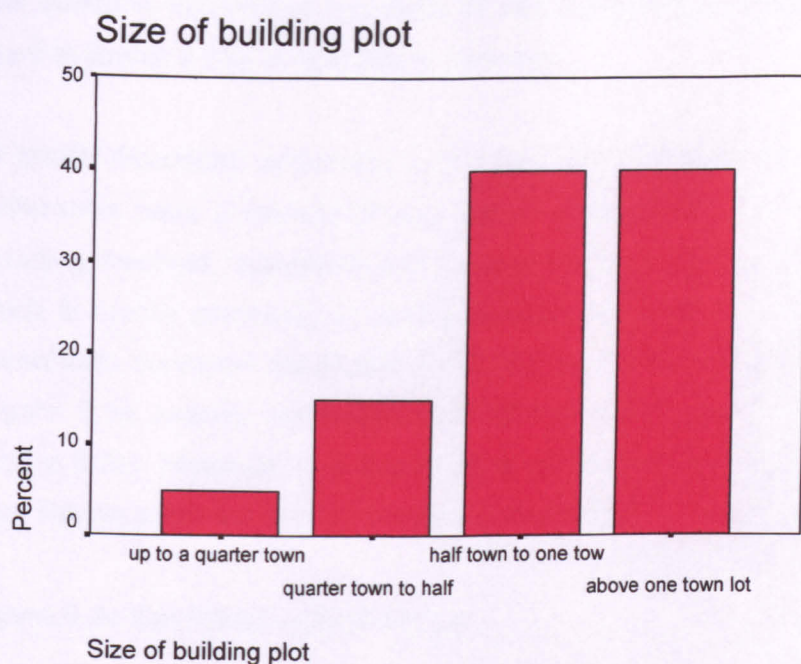
Nevertheless, as experience shows, due to the high professional cost, it is extremely difficult for most people even in the formal settlements to undertake the surveying, conveyancing and registration of building plots in particular and land in general as stated in chapter three (3.7.1.4). The implication is that without survey activity, there would be no title deed or registration and as a result loan cannot be raised on the property.

c) What is the appropriate size of the plot?

This question establishes the size of building plot in informal settlements or Susan's Bay, since lack of building space is one of the many problems that household or residents have to contend with.

In terms of size of building plots, both settlements (Kroo Bay and Susan's Bay) have households with building plots measured, which are similar in sizes. According to Figure 6.5c below, the size of the building plots are half town to one town lot (40.0%), above one town lot (another 40.0%), quarter town to half town lot (15.0%) and up to a quarter town lot (5.0%) in Susan's Bay, compared with 38.5%, 23.1%, another 23.1% and 15.4% in Kroo Bay.

Figure 6.5c Bar Chart – Size of building plot



d) Do you hold title to the plot/land?

This question establishes whether residents or households in informal settlements or Susan's Bay hold any titles to the plot/land they occupy.

Table 6.8d below shows that 46.2% of the 52 households surveyed hold title to the plot/land they occupy and 53.8% hold no titles in Susan's Bay as against 30.8% and 69.2% in Kroo Bay. This result is not surprising because of the reasons given our previously discussed problems of unauthorised occupancy.

Table 6.8d Land/plot title

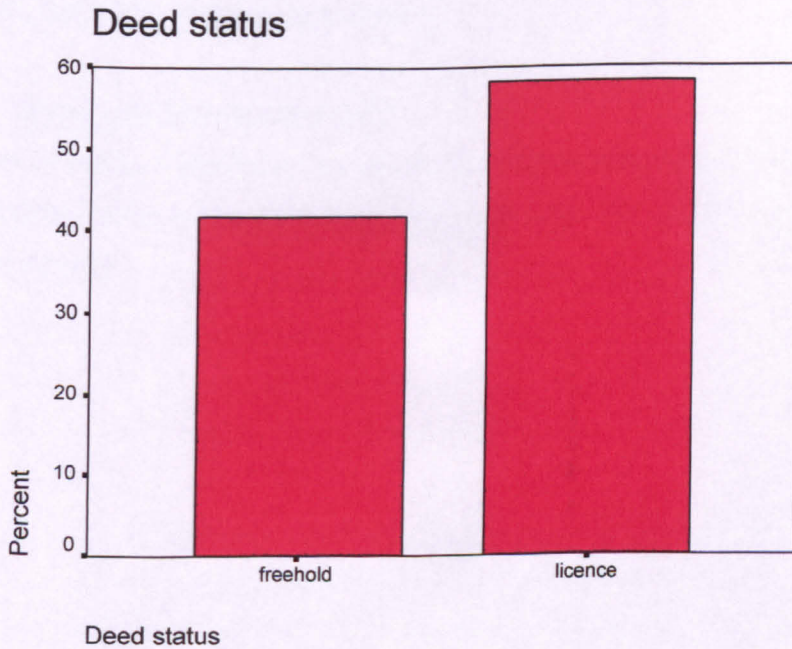
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	24	46.2	46.2	46.2
no	28	53.8	53.8	100.0
Total	52	100.0	100.0	

e) *What title do you hold?*

The question establishes the type of title (land tenure systems) or title deed found in Susan's Bay or informal settlements.

As briefly discussed previously in 6.2.3(e), residents or households in informal settlements have a mixture of land tenure systems like the formal settlements, including freehold, leasehold and licence, but not the communal land tenure, which is mainly practised in most provinces. However, the title deed status of households surveyed are freehold (41.7%) and licence (58.3%) in Susan's Bay (Figure 6.5e below), compared with 43.8% and another 43.8% in Kroo Bay (Figure 6.3e). However, it is important to mention that 12.5% hold leasehold in Kroo Bay as opposed to nil or none in Susan's Bay.

Figure 6.5e Bar Chart – Deed status



f) Describe your house/dwelling status

The idea here is to distinguish tenants from owners-occupiers or landlords in Susan's Bay or informal settlements.

Table 6.8f Dwelling status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid owner-occupier	18	34.6	34.6	34.6
rented/tenant	34	65.4	65.4	100.0
Total	52	100.0	100.0	

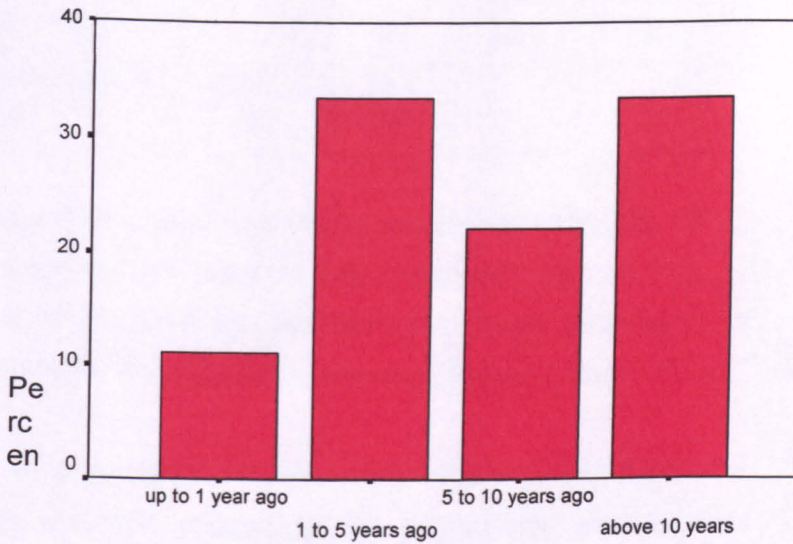
As stated previously in 6.2.3(f), owner-occupiers in informal settlements share their dwelling with tenants to earn income.

Evidently, Table 6.8f shows that 65.4% of households are tenants and only 34.6% are owner-occupiers in Susan's Bay, compared with 76.9% and 21.2% in Kroo Bay. The result is as expected

g) When was this dwelling built?

This question establishes as to whether the existing dwellings in Susan's Bay or informal settlements were built before or after the eleven years (1991 to 2002) civil conflict.

Figure 6.5g Bar Chart – Age of building



Regarding the building period of dwellings in informal settlements in Sierra Leone, most dwellings were built long before the now ended civil unrest started in 1991. Others were built during and just after the end of the civil war, which lasted for eleven years (1991 to 2002).

Figure 6.5g shows that the construction period of dwellings stand at: over 10 years ago (33.3%), 5 to 10 years ago (22.2%) and up to 1 year ago (11.1%) in Susan's Bay, compared with 69.2%, 7.7% and 23.1% in Kroo Bay (Figure 6.3g). Nevertheless, 33.3% of households built their dwellings 1 to 5 years ago in Susan's Bay as against nil or none in Kroo Bay.

h) Have you extended, improved or altered your present dwelling in any way?

This question establishes as to whether residents or households in Susan's Bay or informal settlements have the capacity to improve their dwellings in any way.

Table 6.8h – Building alteration

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	18	34.6	100.0	100.0
Missing System	34	65.4		
Total	52	100.0		

Table 6.8h shows that all the households (100.0%) surveyed have altered their dwelling units in Susan's Bay, compared with 91.7% in Kroo Bay (Table 6.3h). The result shows that residents in informal settlements (Kroo Bay and Susan's Bay) have the capacity to carry out alteration work on their dwelling units.

i) What exactly is the nature of alteration to dwelling?

This question establishes as to whether alterations to dwellings normally undertaken by households in informal settlements or Susan's Bay are for either commercial or economic and social reasons.

As briefly stated in 6.2.3(i), inadequate housing can be manifested in diverse forms, which may appear singularly or in combination. This may or may not be regarded, especially in the informal settlements, as a serious problem as long as residents have a place to rent out or accommodate family members.

Figure 6.5i Bar Chart – Exact nature of alteration to building

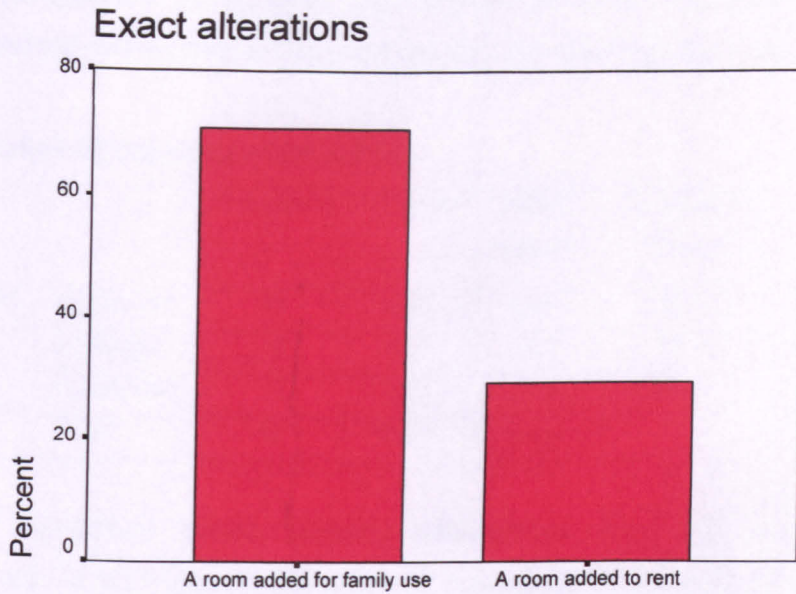


Figure 6.5i shows that 70.6% of all the households surveyed have added a room to dwelling unit for family use and 29.4% added a room to dwelling unit for renting purpose in Susan's Bay, compared with 63.6% and 36.6% in Kroo Bay (Figure 6.3i). This result shows that households in informal settlements (Kroo Bay and Susan's Bay) undertake alterations on dwelling units to add a room for both commercial or economic and social purposes, rather than enhancing the quality of the existing structure, by upgrading its building materials. This partly contradicts views expressed by advocates of informal settlements such as Mangin and Turner (1976) that residents in informal settlements are likely to first and foremost improve on the building materials of their dwelling units as soon as their economic circumstances improve as discussed in chapter two (2.2.2). However, experience shows that residents in informal settlements can improve on the building materials of their dwelling units in the long-term rather than short-term.

j) How satisfied are you with your dwelling?

This question establishes the degree to which households or residents in informal settlements or Susan's Bay are satisfied with their dwelling units.

Table 6.8j Dwelling satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid satisfaction	31	59.6	59.6	59.6
indifferent	10	19.2	19.2	78.8
dissatisfied	11	21.2	21.2	100.0
Total	52	100.0	100.0	

As mentioned before, dwelling satisfaction within and between settlements varies. Accordingly, 59.6% of the 52 households are satisfied with their dwellings, 21.2% are dissatisfied and only 19.2% are indifferent in Susan's Bay, compared with 59.6%, 32.7% and 7.7% in Kroo Bay. This result indicates that the degree of dwelling satisfaction between Kroo Bay and Susan's Bay varies but there are also some similarities (i.e. 59.6% dwelling satisfaction).

k) How many sleep in one room?

This question establishes the rate of overcrowding in households of Susan's Bay or informal settlements.

Generally, a good number of residents in informal settlements share a room to sleep, which causes overcrowding and easy transmission of diseases, as discussed in chapters two (2.3) and three (3.11), especially.

Evidently, as shown in Table 6.8k (below), the people that sleep in one room in Susan's Bay are: above four people (42.3%), four people (30.8%), three people (11.5%) and two people (15.4%), compared to the 42.3%, 23.1%, 15.4% and 11.5% respectively in Kroo Bay. Also, there is 7.7% of one person sleeping in one room in Kroo Bay as opposed to nil or none in Susan's Bay.

Table 6.8k People sleeping in one room

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2	8	15.4	15.4	15.4
3	6	11.5	11.5	26.9
4	16	30.8	30.8	57.7
above 4	22	42.3	42.3	100.0
Total	52	100.0	100.0	

l) Do you pay any rent for your room?

This question identifies tenants in informal settlements or Susan's Bay who pay rent for the room they occupy. This is important because the extended and dependence family culture that is practised in the African communities including informal settlements accommodates tenants rent-free.

Table 6.8l Rent payment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	35	67.3	67.3	67.3
no	17	32.7	32.7	100.0
Total	52	100.0	100.0	

Experience shows that there are two category of tenants, which are rent paying and non-paying tenants in households.

Table 6.8l clearly shows that of the 52 households surveyed, over two-thirds (67.3%) pay rent and 32.7% do not pay rent in Susan's Bay as against 75.0% and 25.0% in Kroo Bay.

m) How much rent do you pay per month?

This question establishes the rent level in informal settlements or Susan's Bay on one hand. On the other hand, it establishes as to whether the rent level is commensurate with income level in Susan's Bay. This is important because

income level in Sierra Leone is generally very low, not least in the informal settlements. Moreover, majority of residents in informal settlements are not economically active and do not earn any income.

Table 6.8m Monthly rent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid le10,000	24	46.2	66.6	66.6
le10,001 to le20,000	9	17.2	25.0	83.3
above le30,001	3	5.8	8.4	91.7
Total	36	69.2	100.0	
Missing System	16	30.8		
Total	52	100.0		

Monthly rent paid for room in informal settlement varies considerably.

As Table 6.8m indicates, the monthly amount of rent paid by tenants per month for the room they occupy stand at, Le10,000 (66.6%), Le10,001 to Le20,000 (25.0%) and above Le30,001 (8.4%) in Susan's Bay, compared with 76.9%, 17.9% and 5.2% in Kroo Bay.

n) Is your accommodation or environment affected by flood?

This question establishes as to whether informal settlements or Susan's Bay's proximity to the sea front coupled with the rains during the rainy season expose their settlement to floods.

Table 6.8n Dwelling/environment floods

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	31	59.6	59.6	59.6
no	21	40.4	40.4	100.0
Total	52	100.0	100.0	

The survey reveals that 59.6% of households are affected by flooding and only 40.4% are not affected in Susan's Bay as against 82.7% and 17.3% in Kroo Bay.

o) How often is your accommodation/environment flood?

This question establishes as to when environmental flooding occurs in Susan's Bay.

Table 6.5o Flooding period

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid mostly during the rains	31	59.6	100.0	100.0
Missing System	21	40.4		
Total	52	100.0		

As indicated in Table 6.8o, 100% of the households, which completed the questionnaire, say flooding mostly affects households during the raining season in Susan's Bay, compared with 93.3% in Kroo Bay. Also, 7.7% of households are affected by flooding mostly during high tides in Kroo bay, compared with nil or none in Susan's Bay. However, the survey result confirms the vulnerability of households in informal settlements (Kroo Bay and Susan's Bay) to natural disasters such as floods and high tides.

p) *Which of the following services are within your locality and used by your household?*

This question establishes households access to the limited services within their locality.

Table 6.8p Availability and use of services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid water supply	17	32.7	32.7	32.7
electricity	18	34.6	34.6	67.3
none of the above	17	32.7	32.7	100.0
Total	52	100.0	100.0	

As aforesaid, limited services exist in informal settlements, which are accessed by few households only.

Table 6.8p shows 34.6% of households use electricity, 32.7% use or access water supply and another 32.7% have no access to any service in Susan's Bay, compared with 38.5%, 28.8% and 32.7% in Kroo Bay. This result confirms that few services such as electricity and water supply exist in Kroo Bay and Susan's Bay.

q) *Have there been any government intervention to improve public services, amenities and infrastructure in your community?*

This question establishes as to whether there have been any government intervention in providing or at improving services in Susan's Bay.

Table 6.8q Government intervention

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	13	25.0	25.0	25.0
no	39	75.0	75.0	100.0
Total	52	100.0	100.0	

From Table 6.8q, it is clearly shown that a quarter (25.0%) of households have experienced government intervention to improve services and three-quarters (75.0%) say they have not experienced interventions in Susan's Bay, compared with the 55.8% and 44.2% respectively in Kroo Bay. This result suggests that there has either been, limited or some kind of government intervention aimed at providing or improving services in both settlements.

r) Have there been any private group effort to improve public services, amenities and infrastructure in your community?

This question establishes as to whether any group effort has been made by residents in informal settlements or Susan's Bay to improve their living conditions or services.

Table 6.8r Private group effort

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	30	57.7	57.7	57.7
no	22	42.3	42.3	100.0
Total	52	100.0	100.0	

As stated in 6.2.3(r), where there is no external or government intervention by way of service provision or maintenance in informal settlements, residents make collective efforts to help themselves.

Evidently, Table 6.8r shows that 57.7% of households have experienced group effort at improving services and 42.3% households have not experienced group effort in Susan's Bay, compared with the 51.9% and 48.1% respectively in Kroo Bay.

s) *Where do you do your cooking?*

This question establishes the cooking environment in Susan's Bay or in informal settlements. This is vital for the reasons already discussed in section 6.2.3 (s).

Table 6.8s Cooking place

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid outside kitchen	36	69.2	69.2	69.2
open place	15	28.8	28.8	98.1
other	1	1.9	1.9	100.0
Total	52	100.0	100.0	

From Table 6.8s, it is revealed that 69.2% of households use outside kitchen for cooking, 28.8% cook in the open place and 1.9% do not cook in Susan's Bay, compared with the 51.9%, 46.2% and 1.9% respectively in Kroo Bay.

It is worth mentioning that it is not unusual for people not to cook as the result (1.9%) above indicates. The truth of the matter is that in the extended family and dependence culture, which is prevalence in Africa including Sierra Leone, whether people cook or not, they are certain of a meal within the household or neighbourhood.

t) *What is the main fuel used for cooking?*

The question establishes the main fuel used for cooking in Susan's Bay.

Table 6.8t Main cooking fuel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid wood fuel	36	69.2	69.2	69.2
charcoal	14	26.9	26.9	96.2
kerosene	2	3.8	3.8	100.0
Total	52	100.0	100.0	

In informal settlements or low-income settlements, household main cooking fuel varies and according to affordability.

From Table 6.8t, the main cooking fuels are wood fuel (69.2%), charcoal (26.9%) and Kerosene (3.8%) in Susan's Bay, compared with the 48.1%, 46.2% and 3.8% respectively in Kroo Bay. The result shows that wood fuel and charcoal are the main fuels used in Kroo Bay and Susan's Bay for cooking as compared to kerosene, which is not surprising, taking the cost factor and affordability into consideration. Thus, the result is as expected and has serious implication for a sustained environment as discussed before.

u) *Which of the following do you suffer from in the settlement/community?*

This question aim to establish the main environmental nuisance suffered by households in Susan's Bay.

As discussed in 6.2.3(u) above, smoke, bad smell and noise are some of the problems or hazards that residents in informal settlements are confronted with in their daily lives.

Table 6.8u (below) reveals that 53.8% of households complain about bad or offensive smell, 26.9% suffer from smoke and 19.2% suffer from noise in Susan's Bay, compared with the 23.1%, 51.9% and 25.0% respectively in Kroo Bay.

Table 6.8u Nuisance causing problem

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid smoke	14	26.9	26.9	26.9
bad smell	28	53.8	53.8	80.8
noise	10	19.2	19.2	100.0
Total	52	100.0	100.0	

6.3.4 Nutrition, Health care and Family Planning

a) How many times does the family have meals per day?

This question establishes the level at which households in informal settlements or Susan's Bay can afford food per day.

Table 6.9a Times of meal per day

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid once	15	28.8	28.8	28.8
twice	26	50.0	50.0	78.8
thrice	11	21.2	21.2	100.0
Total	52	100.0	100.0	

Table 6.9a shows that 28.8% of households afford a meal once a day, 50.0% twice a day and 21.2% thrice a day in Susan's Bay, compared with the 36.5%, 30.8% and 32.7% respectively in Kroo Bay. This result shows that the food intake levels at Kroo Bay and Susan's Bay are better than anticipated or expected, because of the high poverty level in the settlements.

b) What kind of illness does the family generally suffer from?

This question establishes the illness that generally affects households or family members in informal settlements or Susan's Bay.

Table 6.9b Illness generally affecting family

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid malaria	42	80.8	80.8	80.8
diarrhoea	2	3.8	3.8	84.6
respiratory diseases	7	13.5	13.5	98.1
malnutrition	1	1.9	1.9	100.0
Total	52	100.0	100.0	

As discussed in 6.2.4(b), the miserable conditions in which residents in informal settlements live expose them to many diseases and illnesses, affecting children most.

As Table 6.9b indicates, the illness mostly suffered by households or family members in Susan's Bay include malaria (80.0%), diarrhoea (3.8%), respiratory disease (13.5%) and malnutrition, which may cause diseases (1.9%), compared with the 88.5%, 7.7%, 1.9% and another 1.9% respectively in Kroo Bay. The result shows that malaria is generally the killer disease that affects household family members in Kroo Bay and Susan's Bay settlements. This result is worrying but not necessarily surprising because mosquitoes that cause malaria find conditions in informal settlements particularly favourable for their breeding and survival, given our findings of lack of basic services. No wonder malaria is said to be responsible for the deaths of 500,000 African children each year, especially children in informal settlements (Stock, 1995). Nevertheless, the use of mosquito nets and anti-malaria drugs, which residents in informal settlements can hardly afford are the only remedy in the short-term. The long-term remedy would be a nation-wide campaign by government for improved sanitation within the Sierra

Leonean built environment and to eradicate malaria through the assistance of the World Health Organisation (WHO) programmes.

c) Where do you go for treatment?

This question establishes the place of treatment utilised by households in Susan's Bay or informal settlements.

Table 6.9c Place of treatment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid local clinic	4	7.7	7.7	7.7
health centre	17	32.7	32.7	40.4
general hospital	26	50.0	50.0	90.4
traditional healer	5	9.6	9.6	100.0
Total	52	100.0	100.0	

Many health problems affecting poorer groups (as discussed above) are associated with the deplorable conditions in which they live, including both airborne and waterborne diseases or infections. It is, therefore, very important that treatment or health-care services are accessed by residents in informal settlements, especially for treatment and control of diseases.

Table 6.9c indicates that the place of treatment for Susan's Bay residents include general hospital (50.0%), health centre (32.7%), traditional healer (9.6%) and local clinic (7.7%), compared with the 25.0%, 51.9%, 9.6% and 13.5% respectively in Kroo Bay. This result shows that general hospital is the most popular place of treatment by Susan's Bay.

d) *Have you suffered any child death in the family since moving to this settlement?*

Since infants and children in informal settlements are particularly vulnerable to diseases, this question establishes whether households or residents have lost any children after settling in informal settlement or Susan's Bay.

Table 6.9d Child death

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	27	51.9	51.9	51.9
no	25	48.1	48.1	100.0
Total	52	100.0	100.0	

From Table 6.9d, it is established that over half (51.9%) of households have suffered child deaths and below half (48.1%) have not suffered any child death in Susan's Bay, compared with the 71.2% and 28.8% respectively in Kroo Bay. This result is not surprising for the reasons given or discussed, especially in (b) above, which confirms the vulnerability of children to diseases and death in informal settlements.

e) *How many child deaths have you suffered?*

The question establishes the number of household deaths of children in informal settlements or Susan's Bay.

Table 6.9e Number of deaths

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	14	26.9	51.9	51.9
2	4	7.7	14.8	66.7
3	3	5.8	11.1	77.8
over 3	6	11.5	22.2	100.0
Total	27	51.9	100.0	
Missing System	25	48.1		
Total	52	100.0		

As Table 6.9e indicates, the number of household child deaths suffered by residents in Susan's Bay include one (51.9%), two (14.8%), three (11.1%) and over three (22.2%), compared with the 29.7%, 32.4%, 13.5% and 24.3% respectively in Kroo Bay. The result is alarming, but not necessarily surprising for the same reasons discussed above regarding the particular "vulnerability" of children to death in informal settlements.

f) Do you practice birth control/family planning?

This question establishes whether birth control or family planning is being practised in informal settlements or Susan's Bay. This is important, because birth control is necessary to influence the population growth for better socio-economic planning as discussed before.

Table 6.9f Birth control/family planning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	15	28.8	28.8	28.8
no	37	71.2	71.2	100.0
Total	52	100.0	100.0	

Evidently, Table 6.9f shows that only 28.8% of Susan's Bay residents practice birth control or family planning, while 71.2% do not as against 21.2% and 78.8% respectively in Kroo Bay. This result is as expected given the fact that both cultural and religious ties may forbid most couples from participating in birth control or family planning practices. However, it is significantly important to note that in the African societies, where children are wanted and economically valuable, childlessness is considered to be a major tragedy. Nevertheless, birth control or family planning stand very little chance, if any, in traditional Africa, not least in informal settlements.

6.3.5 Attitudinal Aspect

a) Why did you particularly choose to live in this settlement?

This question establishes the rationale behind the choice of settlement by Susan's Bay residents.

Table 6.10a Choice for settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid knew people there	9	17.3	17.3	17.3
had no option	23	44.2	44.2	61.5
cannot afford housing in the formal settlement	20	38.5	38.5	100.0
Total	52	100.0	100.0	

Table 6.10a shows that households or residents chose to live in Susan's Bay because: they had no option (44.2%), they cannot afford housing in formal settlements (38.5%) and they knew people already there (17.3%), compared with the 61.5%, 26.9% and 11.6% respectively in Kroo Bay.

b) *Are you willing to pay for utility services such as water, electricity and drainage, if introduced on your plot?*

This question gauges the opinion of residents or households in informal settlements or Susan's Bay as regards their willingness and ability to pay for utility services if introduced on their plots.

Table 6.10b Payment for utility services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	47	90.4	90.4	90.4
no	3	5.8	5.8	96.2
not sure	2	3.8	3.8	100.0
Total	52	100.0	100.0	

It is an acknowledged fact that in determining the needs and priorities of the beneficiaries of projects, their capacity and willingness to contribute to the cost of the project in the form of money, skills, labour, etc. needs to be assessed (UNCHS, 1996).

In our assessment, Table 6.10b reveals that 90.4% of residents in Susan's Bay are willing to pay for services, while 5.8% are not and only 3.8% are not sure, compared with the 71.2%, 9.6% and 19.2% respectively in Kroo. This result contradicts the literature, which suggests that residents in informal settlements are reluctant to pay for services.

c) *Which other place would you like to go if you were to leave this place immediately?*

This question hope to establish whether residents in Susan's Bay would seize any opportunity that would see them back to the village given the unfavourable conditions in which they are presently living.

Table 6.10c reveals that 88.5% of residents in Susan's Bay would like to go to settlements with better facilities, while 9.6% have no idea where to go and only

1.9% would like to go back to their rural villages, compared with the 82.7%, 13.5% and 3.8% respectively in Kroo Bay.

Table 6.10c Immediate place to go

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no idea where to go	5	9.6	9.6	9.6
settlement with better facilities	46	88.5	88.5	98.1
to the village	1	1.9	1.9	100.0
Total	52	100.0	100.0	

d) What is your impression about different government attitudes towards your settlement?

This question establishes opinions formed by residents of informal settlements about the attitudes of present and successive governments towards their living conditions.

Table 6.10d Different government attitude

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no previous government helped	5	9.6	9.6	9.6
previous governments tried to help	4	7.7	7.7	17.3
present government has not helped	12	23.1	23.1	40.4
present government has promised to help	31	59.6	59.6	100.0
Total	52	100.0	100.0	

As Table 6.10d indicates, the opinions indicate that the present government has promised to help (59.6%), present government has done nothing (23.1%), no previous government helped (9.6%) and previous government tried to help (7.7%), compared with the 42.3%, 23.1%, 17.3% and 15.4% respectively in Kroo Bay. The result reveals that the opinions of households in both settlements about

present and successive governments at improving their living conditions are divided and varied considerably. This is not surprising for the simple fact that political associations, rather than deliverance of goods and services seem to be a big influence on opinions in the African societies, including informal settlements.

e) *What do you think is the solution to the problem of informal settlement?*

This question establishes what residents in informal settlements would consider as the best solution to their problems.

Table 6.10e Solution to informal settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid upgrading	32	61.5	61.5	61.5
demolition and re-housing of occupants	9	17.3	17.3	78.8
Information and education to empower residents	11	21.2	21.2	100.0
Total	52	100.0	100.0	

It has been widely acknowledged that solution to informal settlements has received a huge variety of responses over the last half century (Napier et. al, 2002). These responses have been discussed in great details in chapter four.

Table 6.10e indicates that 61.5% of residents in Susan's Bay suggest that the solution to the problems of informal settlement, among others, should include upgrading, 17.3% however prefer demolition and re-housing of occupants, while 21.2% prefer information and education to empower themselves towards improving their living conditions, compared with 48.1%, 30.8% and 21.2% respectively in Kroo Bay.

6.4 Analysis of Kanikay Settlement and in comparison with Kroo Bay and Susan's Bay Settlements

Table 6.11 shows the response from households in Kanikay Settlement, which totalled fifty-two in all. This is clear evidence to show that all the questionnaires were completed and returned, giving 100 percent response rate.

Table 6.11 Response from Kanikay Settlement

No. of questionnaires sent out	No. of questionnaires completed	Valid percent
52	52	100

6.4.1 Background Information: This information establishes the age, sex and marital status composition or structure, of households of Kanikay and also educational level attained.

a) Age

Table 6.11a Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24 yrs	10	19.2	19.2	19.2
25-29 yrs	8	15.4	15.4	34.6
30-34 yrs	15	28.8	28.8	63.5
35-39 yrs	8	15.4	15.4	78.8
above 40 yrs	11	21.2	21.2	100.0
Total	52	100.0	100.0	

From Table 6.11a, the study reveals that 28.8% are between the ages of 30-34 years, 21.2% are 40 years and above, 19.2% are between the ages of 20-24 years, while 15.4% are between the ages of 25-29 years, another 15.4% are between the ages of 35-39 years. The age composition at Kanikay shows that the bulk of the residents are young people below 40 years of age, similar to Susan's Bay, but differ from Kroo Bay where the majority of residents are old and

aged 40 years and above. However, while Susan's Bay young population is prevalence in the 25-29 age group (34.6%), Kanikay's young population is prevalence in the 30-34 age group (28.8%). The concentration of the young population in Kanikay, for example, may be connected to the settlement's strategic location, which is in the Cline Town Catchment Area, housing Queen Elizabeth 11 Quay and other offices. The Quay and the surrounding offices provide casual jobs for able and willing workers as discussed in section 3.11.

b) *Sex*: The idea here is to establish the sex composition or structure in Kanikay.

Table 6.11b Sex of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	32	61.5	61.5	61.5
female	20	38.5	38.5	100.0
Total	52	100.0	100.0	

Table 6.11b reveals that there are 61.5% males and 38.5% females in Kanikay similar to Kroo Bay, but differ from Susan's Bay where 82.7% of households are males and 17.3% females. This result points to the fact that men still dominate the forefront as household heads.

c) *Marital status*: The idea here is to establish the marital status in Kanikay.

Table 6.11c indicates that while almost four-fifths (78.8%) of the 52 households surveyed are married, only 21.2% are single in Kanikay. In comparison, four-fifths (88.5%) are married and 11.5% are single in Susan's Bay, compared with three-quarters (75.0%) and 23.1% in Kroo Bay. The result (high marriage rate of between 75.0 and 88.5 percent) in the three settlements seems to be confirming a kind of strategy to minimise the impact of poverty on households as highlighted in section 6.2.1(c).

Table 6.11c Marital status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid married	41	78.8	78.8	78.8
single	11	21.2	21.2	100.0
Total	52	100.0	100.0	

d) *Education:* The question about education establishes the level of education of Kanikay informal settlement.

Table 6.11d Educational background

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no formal education	25	48.1	48.1	48.1
primary	9	17.3	17.3	65.4
secondary	16	30.8	30.8	96.2
graduate level	2	3.8	3.8	100.0
Total	52	100.0	100.0	

Table 6.11d shows that of the 52 households surveyed in Kanikay, 48.1% have no formal education, 17.3% have primary education level, while 30.8% attained secondary school level, only 3.8% are educated up to graduate level. This result shows that differences exist between Kanikay, Susan's Bay and Kroo Bay. For instance, 48.1% of residents in Kanikay are unschooled, compared with 63.5% and 34.6% in Kroo bay and Susan's Bay respectively. At the extreme, 30.8% have received secondary school education in Kanikay, compared with 46.2% and 25.0% in Susan's Bay and Kroo Bay respectively. Similarly, 17.3% of residents have attained primary education level, compared with 19.2% and 11.5% in Susan's Bay and Kroo Bay respectively. Notably, 3.8% of residents have attained graduate level education in Kanikay as against nil or none in both Susan's Bay and Kroo Bay. Nevertheless, the rate of unschooled households or residents (34.6 to 63.5 percent) in the three settlements is still high, which confirms the dire

need for residents' education in informal settlements to enable them participate in national development.

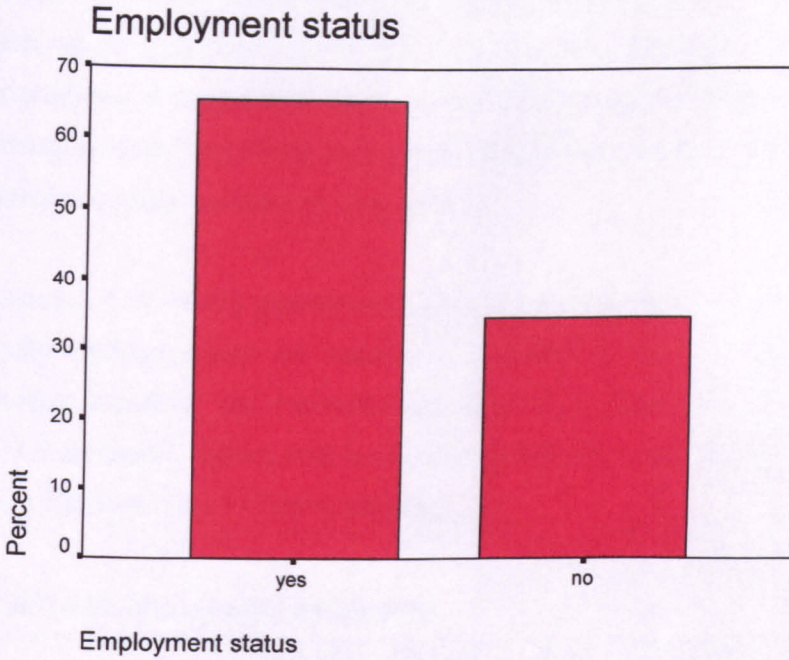
6.4.2 Socio-economic and Political Aspect

a) Employment – are you working?

This question identifies residents or households that are economically active. In other words, we want to identify households that are actively engaged in gainful employment.

From figure 6.6a, the result shows that while almost two-thirds (65.4%) of the households are employed, 34.6% said they are unemployed in Kanikay, compared to 44.2% and 53.8% in Susan's Bay and 51.9% and 48.1% in Kroo Bay respectively. This result reveals that variations exist between household members in the settlements in their employment status. For instance, in Kanikay 65.4% of residents earn income, compared to 44.2% and 51.9% in Susan's Bay and Kroo Bay respectively. Similarly, while Susan's Bay appears to have more unemployed residents (53.8%), both Kroo bay (48.1%) and Kanikay (34.6%) have less respectively. This result confirms the claims made in the literature review and agrees with previous studies that most residents in the informal settlements are unemployed and makes no income and as a result cannot afford decent housing (Tipple, 1994).

Figure 6.6a Bar Chart – Employment status of residents



b) *What is the nature of your job?*

This question establishes the area or sector in which the respondent works.

From Table 6.12b, the survey reveals that 67.6% of the households are self-employed, while 17.6% are private sector employees, only 14.7% are public sector employees as civil servants in Kanikay. As can be seen from this result, economically active residents in informal settlements are engaged in different employment. As foreseen, a good number of residents are self-employed. Nevertheless, 67.6% of residents are self-employed in Kanikay, compared to 75.0% and 63.0% in Susan's Bay and Kroo Bay respectively. Few other residents tend to work in both private and public sectors, 17.6% work in the private sector in Kanikay, compared to 8.3% and 14.8% in Susan's Bay and Kroo Bay respectively. Similarly, 14.7% work in the public sector as civil servants in KaniKay, compared to 16.7% and 22.2% in Susan's Bay and Kroo Bay respectively. The result is as expected in the sense that where such high rate of

residents are unschooled, it is not surprising that they would be unlikely absorbed into the formal job market. Most of the residents have not received any training, which would give them more job opportunity in the civil service, for example. Nonetheless, it seems that the majority of residents revealed by our survey to be working in both the private and public sectors are ordinary labourers rather than trained and skills workers or employees.

However, it is worth mentioning that during the field work, we were able to identify self-employed as residents involved in petty trading, home cottage activities, hawking, etc. Nevertheless, the result of self-employed residents (63.0 to 75.0 percent) shows that residents in informal settlements play a significant role in the economy of Sierra Leone.

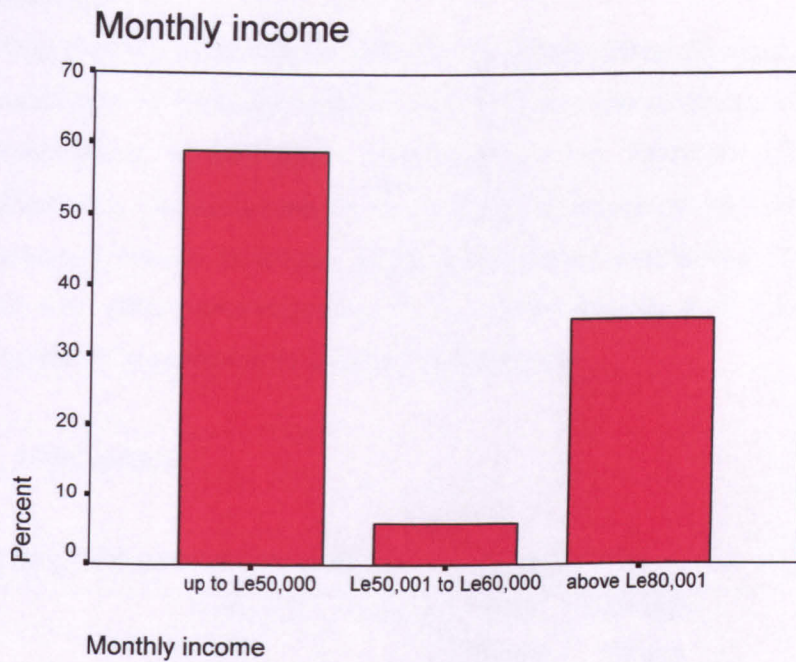
Table 6.12b Sector of employment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid civil servant	5	9.6	14.7	14.7
private employee	6	11.5	17.6	32.4
self employed	23	44.2	67.6	100.0
Total	34	65.4	100.0	
Missing System	18	34.6		
Total	52	100.0		

c) *What is your total monthly income (including the income of other family members)?*

This question determines the monthly monetary income level of households in Kanikay.

Figure 6.6c Bar Chart – Household monthly income



As Figure 6.6c indicates, 58.8% makes a monthly income of up to Le50,000, while only 5.9% makes a monthly income of between Le50,001 and Le60,000, 35.3% makes a monthly income of above Le80,001 in Kanikay. These figures show that there is income disparity between residents in informal settlements. For instance, 58.8% of residents make monthly income of up to Le50,000 at the lower end of the scale and 35.3% make above Le80,001 and above at the upper end of the scale in Kanikay, compared to 75.0% and 8.3% in Susan's Bay and 63.0% and 7.4% in Kroo Bay respectively. Similarly, 5.9% of residents make a monthly income of between Le50,001 and Le60,000 in Kanikay, compared to 8.3% and 29.6% in Susan's Bay and Kroo Bay respectively. This result seems as expected but a bit surprising in the sense that a reasonable number of households (35.3%) fall in the upper end of the income scale in Kanikay, which has not benefited from any upgrading intervention.

Are the following facilities or services within your locality and used by your household?

This question establishes whether the facilities under discussion are accessed by households in Kanikay, where such facilities are available within their locality. Nevertheless, it has been suggested in the literature review that informal settlements characteristically lack basic facilities or services including those discussed below. However, experience shows that where basic facilities exist, they are either underdeveloped or malfunctioning and are not accessed by majority of households in informal settlements.

d) Infant school

Table 6.12d Availability and use of infant school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	47	90.4	90.4	90.4
no	5	9.6	9.6	100.0
Total	52	100.0	100.0	

Table 6.12d shows that infant school is available within the Kanikay locality and accessed by over fourth-fifths (90.4%), while 9.6% do not access it. The result shows that there are significant differences between settlements in accessing infant school. For instance, 90.4% of residents access infant school in Kanikay, compared to 21.2% and 100.0% in Susan's Bay and Kroo Bay respectively.

e) *Primary school*

Table 6.12e Availability and use of primary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	39	75.0	75.0	75.0
no	13	25.0	25.0	100.0
Total	52	100.0	100.0	

Table 6.12e shows the availability of primary school in Kanikay and while three-quarters (75.0%) of households say they access it, only a quarter (25.0%) say they don't. In comparison, while 51.9% of households access primary school, 48.1% do not in Susan's Bay, compared to 92.3% and 5.8% in Kroo Bay. This result suggests that, like the infant school, there are differences between settlements in accessing primary school, which could be down to the age of the children in the household. In other words, if the children are above primary age, then the household will not access these schools, or maybe they have no kids.

However, it is refreshing to note that contrary to the high illiteracy rate (34.6 to 63.5 percent) revealed in our study, households now use both infant and primary schools as indicated above so that their children can receive at least the basic education they were not privileged to have.

f) *Secondary school*

Table 6.12f Availability and use of secondary school

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	3	5.8	5.8	5.8
no	47	90.4	90.4	96.2
Don't know	2	3.8	3.8	100.0
Total	52	100.0	100.0	

According to table 6.12f, while only 5.8% of households use secondary school within the Kanikay locality, 90.4% do not. 3.8% households don't know if there is secondary school within their locality. In comparison, 3.8% of households use secondary school within the Kroo Bay locality and 86.5% do not, compared to 0.0% and 94.2% within the Susan's Bay locality. Similarly, 3.8% of households don't know of any secondary school within Kanikay locality, compared to 5.8% and 9.6% for Susan's Bay and Kroo Bay respectively. From our comparable evidence, it is established that unlike infant and primary schools that are accessed or used by appreciable number of households in the three settlements, the chances of accessing secondary school appears to be limited or very remote. This result seems to suggest that children of most households in the three settlements do not go beyond primary education, which could be as a result of the high cost attached to education in Sierra Leone.

g) Market

Table 6.12g Availability and use of market

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	3	5.8	5.8	5.8
no	46	88.5	88.5	94.2
Don't know	3	5.8	5.8	100.0
Total	52	100.0	100.0	

Table 6.12g reveals that only 5.8% of households use the market within their locality, 88.5% do not, while another 5.8% say they are not aware of any market within Kanikay. There is remarkable variation in the use of market between settlements. For example, 5.8% of households use the market within the locality in Kanikay, compared to 17.3% and another 17.3% in Susan's Bay and Kroo Bay respectively. Similarly, 88.5% of households do not use the market within the locality in Kanikay, compared to 73.1% and 63.5% in Susan's Bay and Kroo Bay respectively. Nevertheless, 5.8% of households say they don't know about a market within the locality in Kanikay as against 9.6% and 19.2% in Susan's Bay and Kroo Bay respectively. As expected, this result came as no surprise in the sense that our findings have established that most households in the three settlements run their own home markets.

h) Health centre

Table 6.12h Availability and use of health centre

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	6	11.5	11.5	11.5
no	44	84.6	84.6	96.2
Don't know	2	3.8	3.8	100.0
Total	52	100.0	100.0	

As Table 6.12h indicates, of the 52 households surveyed, only 11.5% say they use health centre within their locality, while 84.6% say they don't, 3.8% say they do not know of the existence of such health facility in the locality. This is a clear demonstration that there are vast differences between household members in the use of the limited facilities or services like health centre that are available within the locality of or in settlements. For instance, 11.5% say they use health centre and remarkable 84.6% say they don't in Kanikay, compared to 46.2% and 48.1% in Susan's Bay and 88.5% and 5.8%% in Kroo Bay respectively. Similarly, 3.8% of residents say they don't know about the existence of health centre in Kanikay, compared to 5.8% and another 5.8% in Susan's Bay and Kroo Bay respectively.

However, it is very surprising that over fourth-fifths (84.6%) of household members particularly in Kanikay do not use the health centre. The use of health centre is necessary because both health hazards and potential damage to living conditions are very high in the informal settlements, including Kanikay. Nevertheless, non accessibility or use of the health centre services by such a large section of the sample households (84.6%) seems to do with affordability of cost, due to lack of income or passive poverty in informal settlements, as discussed in chapter two, especially.

i) *Traditional healer*

Table 6.12i Availability and use of traditional healer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	20	38.5	38.5	38.5
no	20	38.5	38.5	76.9
Don't know	12	23.1	23.1	100.0
Total	52	100.0	100.0	

Table 6.12i reveals that of the 52 households surveyed, 38.5% say they use traditional healer within their locality, while another 38.5% say they don't, 23.1% say they don't know of any traditional healer in the locality. In comparison, 53.8% of household members use traditional healer, while 34.6% don't in Susan's Bay as against 76.9% and 15.4% in Kroo Bay. Similarly, 23.1% of residents don't know of any traditional healer in Kanikay, compared to 11.5% and 7.7% in Susan's Bay and Kroo Bay respectively. The number of household members (38.5 to 76.9 percent) using traditional healer in the three settlements show that most locals still believe in traditional medicines (herbs) for healing or curing as against the modern medicines. Nevertheless, affordability seems to influence the poor household's choice of traditional medicines over the modern medicines as discussed previously.

j) *Church*

The information about the church or mosque is relevant given that good religious education shape the morals of individuals for peaceful co-existence, which can promote effective community participatory development.

Table 6.12j shows that of the 52 households surveyed, while 69.2% use the church, 30.8% say they don't in Kanikay. This suggests that household members are affiliated to different social or religious groups in informal settlements. For

example, 69.2% of households use the church in Susan's Bay, compared to 86.5% and 0.0% in Kroo Bay and Susan's Bay respectively. Similarly, 30.8% of households say they don't use the church in Kanikay, compared to 100.0% and 11.5% in Susan's Bay and Kroo Bay respectively. This result suggests that while a good number of households in Kanikay and Kroo Bay are Christians or use the church (69.2 to 86.5 percent), all the households (100.0%) that answered the questionnaire in Susan's Bay are non Christians or do not use the church.

Table 6.12j Availability and use of church

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	36	69.2	69.2	69.2
no	16	30.8	30.8	100.0
Total	52	100.0	100.0	

k) Mosque

Table 6.12k Availability and use of mosque

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	52	100.0	100.0	100.0

Table 6.12k indicates that all the households (100.0%) that answered the questionnaire use the mosque within their locality in Kanikay, compared to 100.0% and 90.4% in Susan's Bay and Kroo Bay respectively. This result confirms that there are more Muslims or followers of Islam in the three settlements (90.4 to 100 percent) than Christians or followers of Jesus Christ, which is very surprising. Nevertheless, as indicated earlier in our findings, the concentration of Muslims (or *Temnes*) and the young population in both Susan's and Kanikay settlements may be connected to their strategic locations and the informal sector business boom (see chapter three, sections 3.11.2 and 3.11.3).

l) To whom do you go for community problems?

This question establishes the way households in Kanikay resolve community disputes. This is important in the sense that disputes resolve in the community informally and through peaceful means would not only save money and valuable time, but would seem to also promote love, peace, unity and good neighbourhood.

Table 6.12I Resolving community problems

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid community leaders	40	76.9	76.9	76.9
customary court	1	1.9	1.9	78.8
policy station	11	21.2	21.2	100.0
Total	52	100.0	100.0	

From Table 6.12I, the study reveals that 76.9% households go to community leaders for community problems, while 21.2% go to police, only 1.9% go to religious leaders in Kanikay. Based on this result there is clear indication that household members use different ways for different reasons to resolve community problems in informal settlements. For instance, 76.9% go to community leaders for community problems in Kanikay, compared to 65.4% and 46.2% in Susan's Bay and Kroo Bay respectively. Similarly, only 1.9% go to customary court, while 21.2% go to police station in Kanikay, compared to 5.8% and 28.8% in Susan's Bay and 26.9% and 17.3% in Kroo Bay respectively. Notably, 9.6% of household members go to religious leaders for community problems in Kroo Bay as opposed to none in Susan's Bay and Kanikay respectively. Nevertheless, our survey result suggests that the bulk of the household members (46.2 to 76.9%) use the community leaders' channel for community problems more than all the other channels in the three settlements.

m) Do you support any political party?

This question establishes as to whether households in Kanikay associate with any political party.

From Table 6.12m, the study shows that 84.6% do associate with political party, while 13.5% do not associate with political party, only 1.9% are not sure in Kanikay. In comparison, 69.2% of households do associate with political party and 30.8% do not in Susan's Bay, compared with 65.4% and 32.7% in Kroo Bay. Similarly, 1.9% of households are not sure of political party association in Kanikay as against another 1.9% in Kroo Bay.

Table 6.12m political party support

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	44	84.6	84.6	84.6
no	7	13.5	13.5	98.1
not sure	1	1.9	1.9	100.0
Total	52	100.0	100.0	

n) Which political party do you support?

This question identifies the political party supported by households in Kanikay.

Table 6.12n political party supported

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ruling party	26	50.0	59.1	59.1
majority opposition party	16	30.8	36.4	95.5
minority opposition party	1	1.9	2.3	97.7
not sure	1	1.9	2.3	100.0
Total	44	84.6	100.0	
Missing System	8	15.4		
Total	52	100.0		

The result in Table 6.12n shows that 59.1% of Kanikay residents support the ruling party, 36.4% support the majority opposition party, while 2.3% support the minor opposition party, another 2.3% are not sure of their support for any political party. In comparison, 50.0% of households support the ruling party and 44.4% support the majority opposition party in Susan's Bay, compared with 68.6% and 22.9% in Kroo Bay. Similarly, 2.3% support the minor opposition party in Kanikay, compared to 5.6% and 5.7% in Susan's Bay and Kroo Bay respectively. This result suggests that majority of households (50.0 to 68.6 percent) support the ruling party, followed by the majority opposition party (22.9 to 44.4 percent) in the three settlements, which is as expected. Incidentally, these two parties (ruling and majority opposition) are the main power sharing political parties in the country (Sierra Leone), which control large followings from mainly the two largest tribes or ethnic groups (*Temnes* from the North and *Mendes* from the South-East). In other words, as experience shows, the support for these parties by people is unfortunately based on tribal basis, rather than performance or sound economy policies for a better quality of life, especially in informal settlements.

o) What is the main reason for supporting the party chosen?

This question discovers why households at Kanikay support a particular party.

Table 6.12o Reason for supporting party

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid my family supports it	19	36.5	43.2	43.2
it promotes the interest of the poor	25	48.1	56.8	100.0
Total	44	84.6	100.0	
Missing System	8	15.4		
Total	52	100.0		

Table 6.12o indicates that 56.8% of households support the party chosen because it promotes the interest of the poor and 43.2% base their support on family loyalty. As stated above, the support for political party in Sierra Leone, including informal settlements is more or less based on tribal lines. However, 56.8% say they support the party chosen because it promotes the interest of the poor in Kanikay, compared to 50.0% and 70.0% in Susan's Bay and Kroo Bay respectively. Similarly, 43.2% of households support is based on family loyalty in Kanikay, compared to 50.0% and 26.5% in Susan's Bay and Kroo Bay respectively. This result suggests that residents' support for political party based on its promoting the interest of the poor is higher (50.0 to 70.0 percent) than that based on family loyalty (26.5 to 50.0 percent) in the three settlements. This result is suspicious and is not as expected. It appears as if there is a cover-up and residents have concealed the truth about reasons for political party support in their settlements. The reason for the 'suspicion' is based on the fact that, had the politicians promoted the interests of the poor genuinely (as it were), the housing, living conditions and in deed the quality of life of residents in informal settlements, especially would have improved considerably by now. But sadly, housing and living conditions remain woeful in the informal settlements, which had been made worse by eleven years of civil war. Alternatively, there may not be a cover up, it could be argued that residents in informal settlements are sold the political party based on it defending their needs, as an ethnic group.

p) Do you vote?

This question establishes as to whether households at Kanikay participate in the election process in Sierra Leone. In other words, we want to know whether residents in Kanikay exercise their voting rights to elect their political leaders.

Table 6.12p shows that 100.0% of households, which completed the questionnaire exercise their voting rights to elect political leaders of their choice in Kanikay, compared to 100.0% and 91.4% in Susan's Bay and Kroo Bay respectively. This result shows that remarkable majority of households (91.4 to

100.0 percent) exercise voting rights in the election process of their political leaders in all the three settlements. Interestingly, this result is inconsistent with the literature, which suggests that the poor in Africa, including Sierra Leone are denied the ability to exercise, for example, the right to participate in the election process of their country (Satterthwaite, 2000; UN, 1976).

Table 6.12p Voting status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	44	84.6	100.0	100.0
Missing System	8	15.4		
Total	52	100.0		

6.4.3 Housing and Environmental Conditions

Essentially, decent housing is becoming recognised as a basic human right, in addition to food and clothing as earlier stated. Thus, this section gives the households in Kanikay the opportunity to assess their housing and environmental conditions as experienced.

a) How did you come about your building plot?

This question establishes as to how residents in Kanikay occupy the present land or building plot, given the constraints on land availability in Sierra Leone, especially in the urban city of Freetown.

Table 6.13a Land occupancy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid via unauthorised possession	7	13.5	13.5	13.5
via the community leaders	8	15.4	15.4	28.8
via relatives/friends	37	71.2	71.2	100.0
Total	52	100.0	100.0	

Table 6.13a shows that 71.2% of households originally occupy their building plot through relatives or friends, 15.4% through the community leaders and 13.5% through unauthorised possession. Residents of informal settlements occupy land or build plots through diverse ways. For instance, 71.2% of households occupy building plot through relatives or friends in Kanikay, compared to another 71.2% and 67.3% in Susan's Bay and Kroo Bay respectively. Similarly, 15.4% of households occupy building plot via community leaders in Kanikay, compared to another 15.4% and 11.5% in Susan's Bay and Kroo Bay respectively. Nevertheless, 13.5% occupy building plot via unauthorised possession in Kanikay, compared to another 13.5% and 21.2% in Susan's Bay and Kroo Bay respectively.

Judging from these results, it has been established that residents or households occupy building plots mostly through relatives or friends (67.3 to 71.2 percent) and via unauthorised possession (13.5 to 21.2 percent) in all the three settlements. Nevertheless, it is vital to note that relatives or friends may not have the legal authority to allocate building plots given that most of them are illegal occupants as our findings have revealed. Such allocations, however, as experience shows, are deliberately made to bring in more people into the settlements as reinforcement strategy against any attempted evictions by the authorities.

b) Has your building plot been surveyed?

Like in the case of land or building plot occupancy, this question establishes as to whether households or residents in Kanikay undertake survey activity in respect of building plots.

Table 6.13b Survey of building plot

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	17	32.7	32.7	32.7
no	35	67.3	67.3	100.0
Total	52	100.0	100.0	

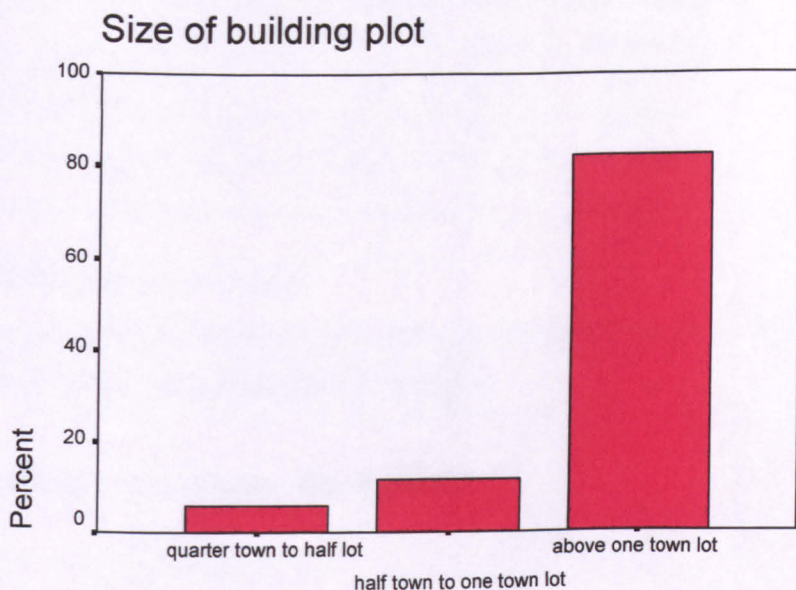
As Table 6.13b shows, while over two-thirds (67.3%) of households have not undertaken survey activity in respect of their building plots, only one-third (32.7%) have surveyed their building plots in Kanikay. In comparison, 60.8% of households have not undertaken survey of building plot, only 39.2% have done so in Susan's Bay as against 75.0% and 25.0% in Kroo Bay. This result is as expected, because of the high professional cost that is associated with survey activity.

c) What is the appropriate size of the plot?

This question establishes the size of building plot in Kanikay, since lack of building space is one of the many problems in informal settlements.

According to Figure 6.7c, the size of the building plots are as follows: above one town lot (82.4%), half town to one town lot (11.8%) and a quarter to half town lot (5.9%) in Kanikay. In comparison, households building plots include: above one town lot (40.0%), half town to one town lot (another 40.0%) and a quarter to half town lot (15.0%) in Susan's Bay, compared with the 23.1%, 38.5% and another 23.1% in Kroo Bay. Similarly, households building plot is up to a quarter town lot (5.0%) in Susan's Bay as against 15.4% in Kroo Bay.

Figure 6.7c Bar Chart – Size of building plot



b) Do you hold title to the plot/land?

This question establishes as to whether residents in Kanikay hold any titles to the plot/land they occupy.

Table 6.13d shows that of the 52 households surveyed, while only 30.8% hold title to the plot/land they occupy, 69.2% hold no titles in Kanikay. In comparison, while 46.6% households hold titles to plot/land they occupy, 53.8% hold no titles in Susan's Bay, compared with 30.8% and 69.2% in Kroo Bay.

This result is not surprising because of the reasons given above, among other things such as unauthorised occupancy, for example.

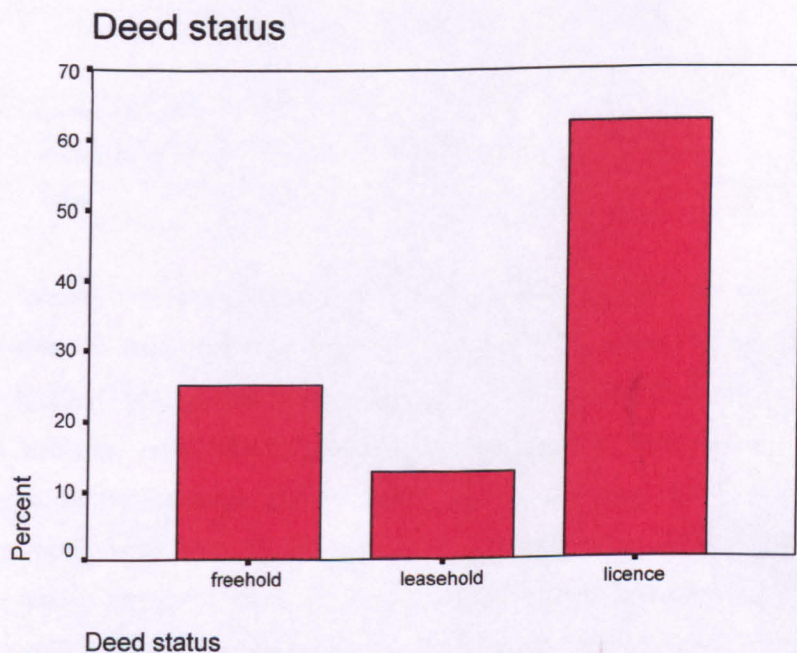
Table 6.13d Land/plot title

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	16	30.8	30.8	30.8
no	36	69.2	69.2	100.0
Total	52	100.0	100.0	

e) *What title do you hold?*

The question establishes the type of title (land tenure systems) or title deed found in informal settlements or Kanikay.

Figure 6.7e Bar Chart – Deed status



As Figure 6.7e indicates, residents or households in Kanikay have a mixture of land tenure systems like the formal settlements, which include freehold, leasehold and licence. However, it must be noted that while the formal settlements practice the communal land tenure (mainly in the provinces) in addition to the three already mentioned above, the informal settlements like

Kanikay do not. However, the title deed status of the 52 households surveyed includes freehold (25.0%) and licence (62.5%) in Kanikay, compared to 41.7% and 58.3% in Susan's Bay and 48.3% and another 48.3% in Kroo Bay respectively. Similarly, households title is leasehold (12.5%) in Kanikay as against another 12.5% in Kroo Bay. Notably, licence is for the temporary use of the land and is normally granted by government officers. Please see detail discussion on land tenure system in chapter three (3.7.1.1).

f) Describe your house/dwelling status

The idea here is to distinguish tenants from owners-occupiers or landlords in Kanikay.

Table 6.13f Dwelling status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid owner-occupier	12	23.1	23.1	23.1
rented/tenant	40	76.9	76.9	100.0
Total	52	100.0	100.0	

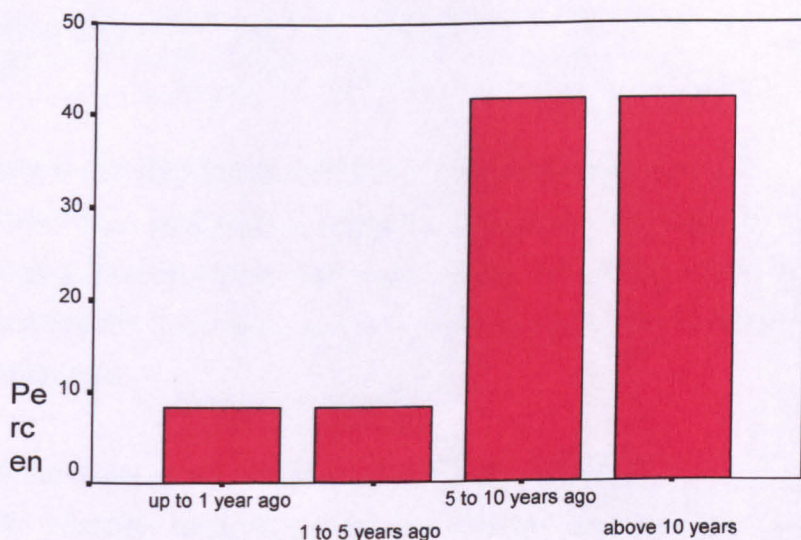
Generally, owner-occupiers in informal settlements share their dwelling with tenants to earn income as discussed in the literature review (chapter two). Evidently, Table 6.13f shows that of the 52 households surveyed, while 76.9% are tenants, only 23.1% are owner-occupiers in Kanikay. In comparison, while 65.4% of households are tenants, only 34.6% are owner-occupiers in Susan's Bay, compared with 76.9% and 21.2% in Kroo Bay. This result shows that there are more tenants (65.4 to 76.9 percent) than owner-occupiers (21.2 to 34.6 percent) in the three settlements. This result seems to be suggesting that there are absentee landlords in the informal settlements. In other words, it may be argued that more affluent people in society may be directly or indirectly involved in the constructing of sub-standard housing in informal settlements for money making venture out of the misery of the poor. Nevertheless, a further research is

required into the matter of absentee landlords in the informal settlements of Sierra Leone in order to establish the truth.

g) When was this dwelling built?

This question establishes as to whether the existing dwellings in informal settlements or Kanikay were built before or after the eleven years civil conflict (1991 to 2002).

Figure 6.7g Bar Chart – Building age



It has been suggested that the construction time for dwellings vary considerably in informal settlements. For instance, the construction period of household dwellings stand at: over 10 years ago (41.7%), 5 to 10 years ago (another 41.7%) in Kanikay, compared to 33.3% and 22.2% in Susan's Bay and 69.2% and 7.7% in Kroo Bay respectively. Similarly, construction period of household dwellings stand at: 1 to 5 years ago (8.3%) and up to 1 year ago (8.3%) in Kanikay, compared with 33.3% and 11.1% in Susan's Bay. This result suggests that while most of the dwellings existed well before the civil conflict in Kroo Bay,

some were built during the war and few have been built after the end of the civil conflict in Susan's Bay and Kanikay.

h) Have you extended, improved or altered your present dwelling in any way?

This question establishes as to whether residents or households in Kanikay have the capacity to improve their dwellings in any way.

Table 6.13h – Building alteration

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	12	23.1	100.0	100.0
Missing System	40	76.9		
Total	52	100.0		

Table 6.13h shows that 100.0% of households who answered the questions have altered their dwellings in Kanikay, compared to another 100.0% and 91.7% in Susan's Bay and Kroo Bay respectively. The result shows that majority of the residents (91.7 to 100.0 percent) have upgraded their dwelling units in the three settlements.

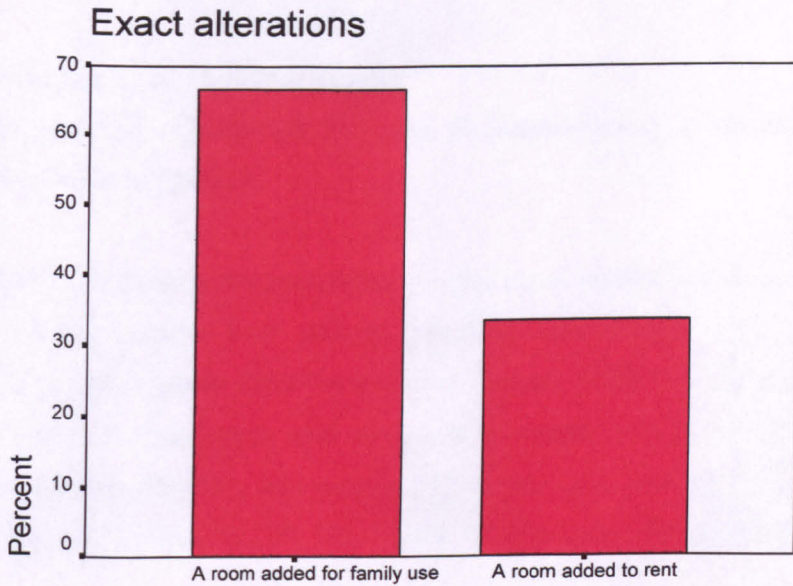
i) What is the exact nature of alteration to dwelling?

This question establishes as to whether alterations on dwellings normally undertaken by households in informal settlements or Kanikay are for either commercial, economic or social reasons.

Figure 6.7i shows that 66.7% of households have added a room to dwelling unit for family use, while 33.3% added a room for renting purpose in Kanikay, compared to 70.6% and 29.4% in Susan's Bay and 63.6% and 36.6% in Kroo Bay respectively. This result shows that households upgraded dwelling units by adding a room for both commercial or economic (29.4 to 36.0 percent) and social (63.6 to 70.6 percent) purposes rather than improve on the building materials of existing structure for better housing in the three settlements. This is partly

consistent with the views of Margin and Turner (1976) that residents in informal settlements do undertake upgrading of their dwellings.

Figure 6.7i Bar Chart – Exact alteration on building



j) How satisfied are you with your dwelling?

This question establishes the degree to which households or residents in informal settlements or Kanikay are satisfied with their dwelling units.

Table 6.13j Dwelling satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid satisfaction	26	50.0	50.0	50.0
indifferent	13	25.0	25.0	75.0
dissatisfied	13	25.0	25.0	100.0
Total	52	100.0	100.0	

Table 6.13j indicates that while half (50.0%) of households are satisfied with their dwelling, a quarter (25.0%) are dissatisfied in Kanikay, compared to 59.6% and 21.2% in Susan's Bay and 59.6% and 32.7% in Kroo Bay respectively. Similarly, a quarter (25.0%) of households is indifferent in Kanikay, compared with 19.2% and 7.7% respectively in Kroo Bay. This result indicates that the degree of dwelling satisfaction in the three settlements varies considerably as expected.

k) How many sleep in one room?

This question establishes the rate of overcrowding in households in informal settlements or Kanikay.

Table 6.13k shows the population in one room rented accommodation in Kanikay as follows: above four people (34.6%), four people (19.2%), three people (17.3%), two people (25.0%) and one person (3.8%). In comparison, the people that sleep in one room and above four people (42.3%), four people (30.8%), three people (11.5%), two people (15.4) and one person (0.0%) in Susan's Bay compared, with 42.3%, 23.1%, 15.4%, 11.5% and 7.7% in Kroo Bay.

Table 6.13k People sleeping in one room

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	2	3.8	3.8	3.8
2	13	25.0	25.0	28.8
3	9	17.3	17.3	46.2
4	10	19.2	19.2	65.4
above 4	18	34.6	34.6	100.0
Total	52	100.0	100.0	

l) Do you pay any rent for your room?

This question identifies tenants in Kanikay who pay rents. This is important because the extended and dependence family culture that exist in the African communities including informal settlements often allow rent-free tenants.

Table 6.13l Rent payment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	40	76.9	76.9	76.9
no	12	23.1	23.1	100.0
Total	52	100.0	100.0	

Table 6.13l clearly shows that while over three-quarters (76.9%) are rent-paying tenants, less than a quarter (23.1%) do not pay rent in Kanikay, compared to 67.3% and 32.7% in Susan's Bay and 75.0% and 25.0% in Kroo Bay respectively. This result suggests that the bulk of the tenants (67.3 to 76.9 percent) pay rent in the three settlements as expected, because most are gainfully employed.

m) How much rent do you pay per month?

This question establishes the rent level at Kanikay, which is very important because income level in Sierra Leone is generally low at the minimum monthly wage of Le50,000.

As Table 6.13m indicates, the amount of rent per month for one room stand at: Le10,000 (67.5%) in Kanikay, compared to 66.6% in Susan's Bay and 76.9% in Kroo Bay respectively. Similarly, rent per month for one room is Le10,001 to Le20,000 (25.0%) in Kanikay, compared with 25.0% and 17.9% in Susan's Bay and Kroo Bay respectively. Nevertheless, 2.5% of households pay a rent above Le30,001 in Kanikay, compared to 8.4% and 5.2% in Susan's Bay and Kroo Bay respectively.

Table 6.13m Monthly rent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid le10,000	27	51.9	67.5	67.5
le10,001 to le20,000	10	19.3	25.0	87.5
le20,001 to le30,000	2	3.8	5.0	92.5
above le30,001	1	1.9	2.5	95.0
Total	40	76.9	100.0	
Missing System	12	23.1		
Total	52	100.0		

n) Is your accommodation or environment affected by flood?

This question establishes whether Kanikay's proximity to the sea front coupled with the rains during the rainy season expose their settlement to floods. In other words, we want to establish if there is adequate drainage infrastructure.

Table 6.13n Dwelling/environment floods

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	26	50.0	50.0	50.0
no	26	50.0	50.0	100.0
Total	52	100.0	100.0	

It has been suggested that external environmental threats from natural disasters such as floods, among others, affects households of the informal settlements most (Napier et. al, 2002). This makes them (residents of informal settlements) vulnerable. They are vulnerable because settlements are often located in hazardous situations, among other things as aforesated.

In Table 6.13n, our survey reveals that while half (50.0%) of households in Kanikay is affected by flooding, the other half (50.0%) is not affected, compared to 59.6% and 40.4% in Susan's Bay and 82.7% and 17.3% in Kroo Bay respectively.

o) How often is your accommodation/environment flood?

This question establishes as to when environmental flooding occurs in informal settlements or Kanikay.

Table 6.13o Flooding period

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid mostly during the rains	12	23.1	46.2	46.2
mostly during high tides	14	26.9	53.8	100.0
Total	26	50.0	100.0	
Missing System	26	50.0		
Total	52	100.0		

As indicated in Table 6.13o, flooding affects households mostly during rainy season (46.2%) in Kanikay, compared to 100.0% and 93.0% in Susan’s Bay and Kroo Bay respectively. Similarly, 53.8% of households are affected by flooding mostly during high tides in Kanikay as against 7.0% in Kroo Bay. This result confirms the vulnerability of households in informal settlements to natural disasters such as floods, among many others.

p) Which of the following services are within your locality and used by your household?

This question establishes households access to the limited services within their locality.

Table 6.13p shows that 59.6% of Kanikay residents have access to electricity, while 26.9% have access to water supply, compared to 34.6% and 32.7% in Susan’s Bay and 38.5% and 28.8% in Kroo Bay respectively. Similarly, 7.7% of Kanikay households have no access to any service, compared to 32.7% and another 32.7% in Susan’s Bay and Kanikay respectively. This result is not as expected and springs a few surprises. Firstly, Kanikay that has not benefitted from upgrading intervention seems to have more service (electricity) (59.6%)

accessed by households than Susan's Bay (34.6%) and Kroo Bay (38.5%), which have benefitted from upgrading intervention. Secondly, while Kanikay has less households (7.7%) that have no access to any service, Susan's Bay (32.7%) and Kroo Bay (another 32.7%) have more. Nevertheless, our survey result suggests that few inadequate services exist within the three settlements, which is consistent with the literature.

Table 6.13p Availability and use of services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid water supply	14	26.9	26.9	26.9
electricity	31	59.6	59.6	86.5
drainage	3	5.8	5.8	92.3
none of the above	4	7.7	7.7	100.0
Total	52	100.0	100.0	

q) Have there been any government intervention to improve public services, amenities and infrastructure in your community?

This question establishes as to whether there have been attempt by government to improve services in Kanikay.

Table 6.13q Government intervention

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	6	11.5	11.5	11.5
no	46	88.5	88.5	100.0
Total	52	100.0	100.0	

Table 6.13q clearly shows that 88.5% of households have not experienced government intervention to improve services, while 11.5% have experienced government intervention to improve services in Kanikay. In comparison, 75.0% of households say no government intervention has happened, 25% say intervention has happened in Susan's Bay, compared with 55.8% and 44.2% in Kroo Bay.

However, it is important to note that during the field survey, it was discovered that residents only admit government intervention at improving services in their settlement if their household directly benefit from it. Nevertheless, it has been widely acknowledged that Kanikay has not received any intervention by way of either partial upgrading or improvement in services. Thus, the government intervention claim made by few households (11.5%) in Kanikay remains questionable.

r) Have there been any private group effort to improve public services, amenities and infrastructure in your community?

This question establishes as to whether any group effort has been made by residents in Kanikay to improve their living conditions.

Table 6.13r Private group effort

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	14	26.9	26.9	26.9
no	38	73.1	73.1	100.0
Total	52	100.0	100.0	

Experience shows that where government has not acted at improving living conditions or services in informal settlements, residents attempt to do it by themselves as already stated in the previous discussions.

Evidently, Table 6.13r shows that while only few households (26.9%) say they have experienced group effort at improving services, the majority households (73.1%) say they have not in Kanikay. In comparison, while 57.7% of households have experienced group intervention, 42.3% have not in Susan's Bay as against 51.9% and 48.1% respectively in Kroo Bay.

s) Where do you do your cooking?

This question establishes the cooking environment in Kanikay settlement. This is vital due to the fact that the outside space for food preparation could be tight and subjected to environmental problems.

Table 6.13s Cooking place

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid outside kitchen	42	80.8	80.8	80.8
open place	10	19.2	19.2	100.0
Total	52	100.0	100.0	

From Table 6.13s, it is revealed that while 80.8% of households use outside kitchen for cooking, only 19.2% cook in the open place in Kanikay. In comparison, 69.2% of households cook in outside kitchen and 28.8% cook in the open place in Susan's Bay, compared with 51.9% and 46.2% respectively in Kroo Bay.

t) *What is the main fuel used for cooking?*

The question establishes the main fuel used for cooking in Kanikay.

Table 6.13t indicates that the main cooking fuel used includes, wood fuel (76.9%), charcoal (17.3%) and Kerosene (5.8%) in Kanikay. In comparison, main cooking fuel used includes wood fuel (69.2%), charcoal (26.9%) and kerosene (3.8%) in Susan's Bay, compared with wood fuel (48.1%), charcoal (46.2%) and kerosene (3.8%) in Kroo Bay. The result shows that wood fuel (48.1 to 76.9 percent) and charcoal (17.3 to 46.2 percent) are respectively the main fuels used for cooking as opposed to kerosene (3.8 to 5.8 percent) in the three settlements, which is not surprising, taking the cost factor and affordability into consideration. Thus, the result is as expected, but not without implication for the environment.

The implication, as experience shows, is that the mangrove trees that slow down the rate of flooding in informal settlements like Susan's Bay and Kanikay, for example, are being cut down for fuel for home consumption and trade as briefly highlighted in chapter three (3.11.3). As a consequence, residents remain exposed to rapid flooding and smoke, which emanates from charcoal production, among many other hazards.

Table 6.13t Main cooking fuel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid wood fuel	40	76.9	76.9	76.9
charcoal	9	17.3	17.3	94.2
kerosene	3	5.8	5.8	100.0
Total	52	100.0	100.0	

u) *Which of the following do you suffer from in the settlement/community?*

This question hope to establish the main environmental nuisance suffered by households in Kanikay.

From Table 6.13u, 63.5% of households complain more about obnoxious smell, 28.8% suffer from smoke and 7.7% complain about noise in Kanikay. In comparison, 53.8% complain about obnoxious smell, 26.9% suffer from smoke and 19.2% complain about noise in Susan's Bay, compared with 51.9%, 23.1% and 25.0% respectively in Kroo Bay. This result shows that majority households suffer from bad smell (51.9 to 63.5percent) and smoke (23.1 to 28.8 percent) most in the three settlements, which is as expected. For more details on *bad smell, smoke and noise*, please see section 6.2.3 (u).

Table 6.13u Nuisance causing problem

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid smoke	15	28.8	28.8	28.8
bad smell	33	63.5	63.5	92.3
noise	4	7.7	7.7	100.0
Total	52	100.0	100.0	

6.4.4 Nutrition, Health Care and Family Planning

a) *How many times does the family have meal per day?*

This question establishes the level at which households or families in Kanikay can afford meals per day.

Table 6.14a Times of meal per day

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid once	14	26.9	26.9	26.9
twice	21	40.4	40.4	67.3
thrice	17	32.7	32.7	100.0
Total	52	100.0	100.0	

Table 6.14a indicates that 26.9% affords a meal once a day, 40.4% twice a day and 32.7% thrice a day in Kanikay. In comparison, 28.8% affords a meal once a day, 50.0% twice a day and 21.2% thrice a day in Susan's Bay, compared with 36.5%, 30.8% and 32.7%) respectively in Kroo Bay. This result shows that the food intake levels are better than anticipated or expected, because of the high poverty level that is normally found in informal settlements. For instance, a good number of households can afford meals twice (30.8 to 50.0 percent) and thrice (21.2 to 32.7 per cent) per day respectively, in the three settlements. Nevertheless, other households (26.9 to 36.5 percent) can only afford meal once a day in the three settlements, which confirms our findings that residents face poverty at different levels.

b) What kind of illness does the family generally suffer from?

This question establishes the illnesses that generally affect households or family members in informal settlements or Kanikay.

Residents of informal settlements have been linked with increased incidence of sickness and death, which is as a result of poverty, poor and inadequate housing, overcrowding and lack of basic services such as safe drinking water and sanitation as already discussed earlier on.

From Table 6.14b, it is revealed that the illness mostly suffered by households or family members in Kanikay include malaria (90.4%) and respiratory disease (9.6%), compared to 80.8% and 13.5% in Susan's Bay and 88.5% and 1.9% in Kroo Bay respectively. Similarly, households are generally affected by diarrhoea (3.8%) and malnutrition, which may cause illness (1.9%) in Susan's Bay, compared with 7.7% and 1.9% respectively in Kroo Bay. The result shows that malaria (80.8 to 90.4 percent) is the killer disease, which generally affect households most in the three settlements. This result is worrying but not necessarily surprising because of the reasons already discussed in section 6.2.4 (b).

Table 6.14b Illness generally affecting family

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid malaria	47	90.4	90.4	90.4
respiratory diseases	5	9.6	9.6	100.0
Total	52	100.0	100.0	

c) Where do you go for treatment?

This question establishes the place of treatment utilised by households in Kanikay.

Table 6.14c Place of treatment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid local clinic	7	13.5	13.5	13.5
health centre	4	7.7	7.7	21.2
general hospital	40	76.9	76.9	98.1
traditional healer	1	1.9	1.9	100.0
Total	52	100.0	100.0	

As shown in Table 6.14c, the place of treatment for Kanikay residents includes general hospital (76.9%), local clinic (13.5%), health centre (7.7%) and traditional healer (1.9%). In comparison, treatment for households in Susan's Bay includes general hospital (50.0%), local clinic (7.7%), health centre (32.7%) and traditional healer (9.6%), compared with (25.0%), (13.5%), (51.9%) and (9.6%) respectively in Kroo Bay. This result shows that appreciable number of households (50.0 to 76.9 percent) use general hospital in Susan's Bay and Kanikay than Kroo Bay (25.0 percent). Similarly, other households (7.7 to 13.5 percent) use local clinic for treatment in the three settlements. Nevertheless, few households (1.9 to 9.6 percent) use traditional healer in all the settlements, which is very significant for the poor who cannot afford payment for hospital, clinic or health care treatment as discussed in 6.2.2(i) above.

c) *Have you suffered any child death in the family since moving to this settlement?*

Since infants and children in informal settlements are particularly vulnerable to diseases, this question establishes as to whether households or residents have suffered child death after settling in Kanikay.

Table 6.13d indicates that while half (50.0%) of households has suffered child death, the other half has (50.0%) not suffered any child death in Kanikay. In comparison, while 51.9% households have suffered child death, 48.1% have not suffered any in Susan's Bay, compared with 71.2% and 28.8% respectively in Kroo Bay. This result suggests high rate of child deaths (50.0 to 71.2 percent) in the three settlements, with Kroo Bay on top (71.2%), which confirms the vulnerability of children to diseases and death in informal settlements and consistent with the literature.

Table 6.14d Child death

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	26	50.0	50.0	50.0
no	26	50.0	50.0	100.0
Total	52	100.0	100.0	

e) *How many child deaths have you suffered?*

The question establishes the number of household deaths of children in Kanikay.

Table 6.14e Number of deaths

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	10	19.2	38.5	38.5
2	6	11.5	23.1	61.5
3	4	7.7	15.4	76.9
over 3	6	11.5	23.1	100.0
Total	26	50.0	100.0	
Missing System	26	50.0		
Total	52	100.0		

As Table 6.14e indicates, the number of household deaths of children in Kanikay include one (38.5%), two (23.1%), three (15.4%) and over 3 (23.1%). In comparison, household deaths of children include one (51.9%), two (48.1%), three (11.1%) and over three (22.2%) in Susan's Bay, compared with 29.7%, 32.4%, 13.5% and 24.3% respectively in Kroo Bay. The result suggests that while a household death of one child is high (29.7 to 51.9 percent), a household death of two children is low (14.8 to 32.4 percent). Similarly, household deaths of over three children (22.2 to 24.3 percent) seems higher than household deaths of three children (11.1 to 15.4 percent), which makes this result alarming. Nevertheless, this result is not necessarily surprising for the same reasons discussed above, which explains the particular "vulnerability" of children to death in informal settlements.

f) *Do you practice birth control or family planning?*

This question establishes as to whether birth control/family planning is being practised in informal settlements or Kanikay. This is important, because birth control is necessary to control the population growth and reduce overcrowding as earlier discussed.

Table 6.14f Birth control/family planning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	15	28.8	28.8	28.8
no	37	71.2	71.2	100.0
Total	52	100.0	100.0	

Evidently, Table 6.13f shows that only 28.8% of households practice birth control or family planning, while 71.2% do not in Kanikay, compared to 28.8% and 71.2% in Susan's Bay and 21.1% and 78.8% in Kroo Bay respectively. This result reveals that almost 28.8 percent of households practice birth control or family planning in both Kanikay and Susan's Bay as opposed to 21.2 percent in Kroo Bay, which may be connected to the age of residents. In deed, as discovered in our study, while Kroo Bay harbours more ageing residents, Susan's Bay and Kanikay harbour more of the young residents. However, the result is as expected given cultural and religious ties, which could forbid most couples from participating in birth control or family planning practices.

6.4.5 Attitudinal Aspect

a) Why did you particularly choose to live in this settlement?

This question establishes the rationale behind the choice of settlement by Kanikay residents.

Table 6.15a choice for settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid knew people there	17	32.7	32.7	32.7
had no option	17	32.7	32.7	65.4
cannot afford housing in the formal settlement	18	34.6	34.6	100.0
Total	52	100.0	100.0	

Table 6.15a shows that residents chose to live in Kanikay because, they cannot afford housing in formal settlements (34.6%), they had no option (32.7%) and they knew people there already (32.7%). In comparison, residents chose to live in Susan's Bay because: they cannot afford housing in formal settlements (38.5%), they had no option (44.2%) and they knew people there already (17.3). This is compared with residents in Kroo Bay who are there because: they cannot afford housing in formal settlements (26.9%), they had no option (61.5%) and they knew people there already (11.5%). This result suggests that the bulk of the residents live in informal settlements because they are left with no option (32.7 to 61.5 percent), since they cannot afford housing in formal settlements (26.9 to 38.5 percent). This result is as expected and briefly discussed in section 6.2.5 (a).

b) Are you willing to pay for utility services such as water, electricity and drainage, if introduced on your plot?

This question gauges the opinion of residents or households in Kanikay as regards their willingness and ability to pay for utility services if introduced on their plots.

Table 6.15b Payment for utility services

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	45	86.5	86.5	86.5
no	3	5.8	5.8	92.3
not sure	4	7.7	7.7	100.0
Total	52	100.0	100.0	

Table 6.15b shows that 86.5% of households are willing to pay for services, while 7.7% are not sure, only 5.8% are unwilling to pay for any services in Kanikay. In comparison, 90.4% are willing to pay, while 3.8% are not sure, 5.8% are unwilling to pay for any services in Susan's Bay, compared with 71.2%, 19.2% and 9.6% respectively in Kroo Bay. The result reveals that a huge majority of households

(71.2 to 90.4 percent) are willing to pay for utility services, compared with minority households (5.8 to 9.6 percent) who are unwilling to pay for any services in the three settlements. Nevertheless, some residents (3.8 to 19.2 percent) are not sure whether to pay or not for services.

c) Which other place would you like to go if you were to leave this place immediately?

This question is motivated by the desire to see whether Kanikay residents would volunteer to go back to the village, considering the unpleasant conditions in which they are living.

Table 6.15c Immediate place to go

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no idea where to go	8	15.4	15.4	15.4
settlement with better facilities	40	76.9	76.9	92.3
to the village	4	7.7	7.7	100.0
Total	52	100.0	100.0	

Table 6.15c reveals that 76.9% would like to go to settlements with better facilities, while 15.4% have no idea where to go and only 7.7% would like to go back to their rural villages in Kanikay. In comparison, 88.5% would like to go to settlements with better facilities, while 9.6% have no idea where to go and only 1.9% would like to go back to their rural villages in Susan's Bay, compared with 82.7%, 13.5% and 3.8% respectively in Kroo Bay. The result reveals that the bulk of the households (76.9 to 88.5 percent) in the three settlements would like to go to settlements with better facilities should the need arise. Nevertheless, while few residents (1.9 to 7.7 percent) would like to back to their rural villages, others (9.6 to 15.4 percent) say they have no idea where to go.

d) *What is your impression about different government attitudes towards your settlement?*

This question establishes opinions formed by residents of informal settlements about the attitude of present and successive governments towards their living conditions.

Table 6.15d Different government attitude

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no previous government helped	7	13.5	13.5	13.5
previous governments tried to help	3	5.8	5.8	19.2
present government has not helped	6	11.5	11.5	30.8
present government has promised to help	35	67.3	67.3	98.1
other	1	1.9	1.9	100.0
Total	52	100.0	100.0	

From Table 6.15d, opinions indicate that present government has promised to help (67.3%), present government has done nothing (11.5%), no previous government helped (13.5%) and previous government tried to help (5.8%). In comparison, opinions in Susan's Bay indicate that present government has promised to help (59.6%), present government has done nothing (23.1%), no previous government helped (9.6%) and previous governments tried to help (7.7%). Comparing further, opinions in Kroo Bay indicate that present government has promised to help (42.3%), present government has done nothing (23.1%), no previous governments helped (17.3%) and previous governments tried to help. The result reveals that the opinions of households in the three settlements about present and successive governments at improving their living conditions are divided and varied considerably. This is not surprising given that political associations or tribal lines influence opinions in the African societies, including informal settlements.

e) *What do you think is the solution to the problem of informal settlement?*

This question establishes what residents in Kanikay would consider as the best solution to their problems.

Table 6.15e Solution to informal settlement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid upgrading	30	57.7	57.7	57.7
demolition and re-housing of occupants	11	21.2	21.2	78.8
Information and education to empower residents	11	21.2	21.2	100.0
Total	52	100.0	100.0	

Table 6.15e clearly shows that 57.7% of Kanikay residents would like upgrading, compared to 61.5% and 48.1% in Susan’s Bay and Kroo Bay respectively. Similarly, 21.2% would like demolition and re-housing of occupants in Kanikay, compared to 17.3% and 30.8% in Susan’s Bay and Kroo Bay respectively. Nevertheless, further 21.2% would like information and education to empower themselves in Kanikay towards improving their living conditions, compared to 21.2% and another 21.2% in Susan’s Bay and Kroo Bay respectively.

6.5 Correlation and Simple Regression Analysis

6.5.1 Introduction

This stage of the analysis utilises the information on two variables only. One explanatory or independent variable, namely income levels, and one dependent variable, namely room occupancy rates (i.e. number of people sleeping in one room per household). This is a test to confirm or reject the hypothesis that there is no direct causal link between poverty and overcrowding in informal settlements in Sierra Leone.

Nevertheless, it is worth reminding our-selves that there are different types of poverty as explained in section 2.4. Such different types of poverty, among others include income poverty and knowledge poverty. The former is employed in this analysis and it can be advanced that knowledge poverty has more direct link to poverty than income poverty. This is because, knowing how to get out of knowledge poverty situation is more important than income poverty as explained or suggested in section 8.3.

However, in compliance with the theoretical framework, poverty and overcrowding would be measured through the surrogates of income levels and room occupancy respectively. Nevertheless, in generic terms, incomes in informal settlements have been classified as low. The classification has been based on a combination of factors, which among others include informal activities where incomes are both irregular and mostly unrecorded. Similarly, most illiterates who are employed in informal sector activities would normally belong to the low-income group, and by implication, would be classified as poor.

The Two-tailed Pearson correlation test was carried out in order to determine the degree of linear relationship or association that might exist between our explanatory or independent variable (poverty) and a response or dependent variable (overcrowding)

Additionally, a statistical significance (F-test) was undertaken to further ascertain as to whether any significant relationship between the two variables referred to above exist. In other words, a statistical significance (F-test) was used to test significant mean differences. A value of 0.05 probability level was used as criteria for significance.

To avoid too many tables only the analysis of Kroo Bay Settlement is included in the text, while tables for Susan's Bay and Kanikay Settlements are included in Appendix 3. Kroo Bay is chosen over the two settlements, because in real life

situation, it is the worst settlement in terms of overcrowding or environmental degradation in Freetown and presents all the symptoms of extreme poverty.

6.5.2 Correlation and Simple Regression Analysis for Kroo Bay Settlement

It is possible to measure or calculate the extent to which two variables are correlated, and this involves measuring or calculating the correlation coefficient. These vary from + 1.0, in the case of a perfect positive correlation, to - 1.0 in a perfect negative correlation. A coefficient of 0.0 indicates no correlation exist between the variables studied (Oliver, 1997).

From Table 6.16a, it is established that the correlation coefficient $r = - 0.140$ and a Two-tailed p -value = 0.485 (i.e. $p > 0.05$). This result shows that the value for the coefficient correlation tend towards zero, which implies no significant relationship or association between poverty and overcrowding.

For further comparative analysis, a statistical significance test (F-test) was carried out to test significance differences.

Table 6.16a Pearson Correlation Two-tailed P-value Test for Kroo Bay Settlement

Correlations			
		Monthly income	People sleeping in room
Monthly income	Pearson Correlation	1.000	-.140
	Sig. (2-tailed)	.	.485
	N	27	27
People sleeping in room	Pearson Correlation	-.140	1.000
	Sig. (2-tailed)	.485	.
	N	27	52

Table 6.16b Regression Statistical Significance F-test for Kroo Bay Settlement

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.919	1	.919	.501	.485 ^a
	Residual	45.822	25	1.833		
	Total	46.741	26			

a. Predictors: (Constant), Monthly income

b. Dependent Variable: People sleeping in room

From Table 6.16b, an F-ratio of 0.501 (i.e. Regression Mean Square 0.919 divided by Residual Mean Square 1.833) and 25 degrees of freedom (df) was obtained. Since the value for F is less than 2 (or critical $F_{\alpha} > F$), which is normally accepted as reasonable level of significance, this suggests that there is no strong linear relationship or association between poverty and overcrowding. Put in another way, the regression analysis could be interpreted as indicating that poverty is not necessarily the only factor responsible for overcrowding in Kroo Bay or informal settlements.

Similarly, correlation and regression analysis for both Susan's Bay and Kanikay settlements (Tables A3.1a&b and A3.2a&b in Appendix 3) respectively, show that there is no strong linear association between poverty and overcrowding.

Nevertheless, it is worth noting that regression analysis for Susan's Bay predicts that poverty may directly cause overcrowding in informal settlements. The apparent difference between the findings for Susan's Bay and Kroo Bay may be explained by the levels of difference in affluence and levels of income generating opportunities. It is widely established that in the face of overwhelming poverty, households are very resourceful and sharing is one obvious strategy.

Thus, we may conclude that the Poverty – Overcrowding nexus, as far as the Low-income Informal Communities or Settlements in Sierra Leone are

concerned, is a complex issue altogether, which can be attributed to many factors. Such factors, among others, include traditional or cultural way of life, such as the extended family relationships where generations of families prefer living together. Such family bond, most of the time, overrides the need for space and privacy. This problem is more pronounced now at any given time given the protracted civil war, which lasted eleven years causing the displacement of millions of Sierra Leonean.

6.6 Summary of empirical analysis

The empirical analysis presented thus far in this chapter focuses on households of three informal settlements (Kroo Bay, Susan's Bay and Kanikay).

The findings supported or validated most of the theoretical discussion about the horrible or unpleasant state in which residents of informal settlements live, including, especially unemployment and lack of income, poor nutrition, poor housing, lack of or inadequate basic services, low or poor education and health, overcrowding and environmental hazards. The unemployment and lack of income, and poor nutrition in informal settlements theorised in the literature review and found to be prevalent in cities of developing countries, especially in Sub-Saharan Africa were found to be less severe in the case of Sierra Leone. In Sierra Leone, between 63 to 75 percent of residents in informal settlements are actively engaged in various income-earning activities, which is why they may not be experiencing starvation or food deprivation. In other words, informal residents appear to be earning reasonably enough from their self-employment activities to at least meet their calorific needs. Notably, their (residents') nutritional level is reasonably good, as evident in the findings that majority (30.8 to 50.0 percent) can afford meals at least twice a day compared to the minority (21.2 to 32.7 percent) that can afford food three times a day. It is not surprisingly, therefore, that we have seen from our findings that children are dying more from other causes such as malaria (80.8 to 90.4 percent) than malnutrition (only 1.9 percent).

Nevertheless, inadequacy of infrastructure and deficient basic services, which precipitate degraded living environments and poor health conditions are a paramount problem in the three settlements. This is despite the upgrading intervention in both Kroo Bay and Susan's Bay under the funded World Bank Freetown Infrastructure Rehabilitation Projects. In actual fact, as evidenced in our findings, 32.7 percent of households in both Kroo Bay and Susan's Bay have no access to services such as water and electricity compared to 7.7 percent in Kanikay, which has not benefited from any upgrading intervention. This may be explained by emigration to these settlements following the upgrading. As a result, the upgrading projects in Kroo Bay and Susan's Bay seem to have done little to improve general households living condition and overall environmental conditions in the settlements. As a matter of fact, the ablution facility, which is the main component of the upgrading project aimed at ameliorating environmental condition in the two neighbourhoods is a major source of environmental nuisance. Nevertheless, households in both Kroo Bay and Susan's Bay unquestionably have better access to toilet facilities than their counterparts in Kanikay who use the dangerous hanging latrine, which is depicted in Figure 3.6.

However, we have seen that socio-economic characteristics of settlements vary by gender (61.5 to 82.7 percent males), age, ethnicity and work patters of households. For instance, while Kroo Bay (the oldest settlement of the three) have a large concentration of the ageing residents or population (40 and above years old), both Susan's Bay and Kanikay have the largest concentration of the young population (below 40 years old). The concentration of the young population in both Susan's Bay and Kanikay may not be unconnected to their strategic locations (supply wharf and water quay) and the vibrant economic activities that take place around the clock.

Similarly, residents are divided by ethnicity, religion, education and occupation. For example, residents of both Susan's Bay and Kanikay who are associated

with the ethnic *Temne* group appear to have strong religious link, as is evident in the 99.9 percent residents who are predominantly Muslims.

Importantly, we have seen that informal settlers exhibit similar strategies for coping with increasing poverty. For instance, dwelling units are altered or extended to add rooms for both renting to make income and accommodating family members to reduce overcrowding, with between 35 to 42 percent of households having four or more persons sleeping in one room. On the whole, dwellings are mostly in poor physical conditions as they have not been adequately maintained. Nevertheless, owner and tenant households in the settlements have similar level of satisfaction of their dwelling units and majority would be willing to pay for utility services on their plots as opposed to the minority. In deed, there is a commitment to remain in the city, as evident in the findings that most residents would like their settlements upgraded on one hand. On the other, while majority of residents would like to go to settlements with better facilities only minority would like to go back to the village.

Nevertheless, in the correlation and simple regression analysis it was found to be no strong linear association between income levels (poverty) and overcrowding.

In the following section Responses of stakeholders are analysed and compared.

6.7 Responses of the Stakeholders

6.7.1 Introduction

The objective of the interviews, interviewing technique, contents and structure of interviewing the 'Stakeholders', and interviewees have already been discussed in chapter five, sections 5.4 and 5.5.2 respectively. The questions upon which the interview was based is provided in appendix 2.

The questions were in the form of self-completed questionnaires and categorised into eight different sections, which are presented below.

6.7.2 Causes of informal settlements in Freetown

Referring to the causes of informal settlement in Freetown, the majority of the bureaucrats, professionals and non-government organisations (NGOs) who were directly or indirectly involved believe that the causes of informal settlements include mainly poverty, high cost of land, land tenure system, inadequate housing, high rent and rural-urban migration. For instance, on the question of land tenure system one professional remarked that the present land tenure system has not been able to adequately deliver land for affordable housing. Another professional remarking on the rural-urban migration said that: 'People migrated from the rural areas to the city to secure jobs and where they are unable to secure jobs and affordable housing settle in informal settlements, because they are unable to pay rent in formal settlements'.

6.7.3 Policy measures to improve the conditions of the poor

Stakeholders were asked about policy measures to improve the conditions of the poor for which a number of policy measures have been suggested. Majority of the professionals suggested the setting up of a mechanism, which would make serviced land available in sufficient quantities at appropriate locations and at affordable prices. Some suggested the development of non-conventional housing finance system to support housing, especially in informal settlement. Nevertheless, a common policy measure emerging from the majority of the NGOs was the introduction of low-cost housing schemes and the relocation of residents in informal settlements to healthier environments. Other suggested the creation of jobs and more feasible reforms so as to raise income levels. Similarly, the academics and bureaucrats suggested the need for poverty alleviation strategies and the provision of basic health and educational infrastructures.

6.7.4 Government's efforts towards upgrading informal settlements

When asked about government's efforts towards upgrading informal settlements, almost all the stakeholders were critical of government in this area and example of some of their comments include:

- a) *Professionals* – Government's efforts towards upgrading informal settlements has been minimal.
- b) *Professional* – Moves by government to improve informal settlements are almost nil.
- c) *Bureaucrats* – Government's efforts towards upgrading in informal settlements is too little, too late in some cases.
- d) *NGO* – To the best of my knowledge, government has not made any reliable move to upgrade informal settlements, because residents are only advised to abandon these settlements in the sense that they are dangerous environments.
- e) *Academics* – The government lacks adequate institutional capacity to formulate and maintain appropriate policies and strategies that would address the issue of upgrading in informal settlements.

Notwithstanding the above comments and in a face saving move for government, the politicians commented that: 'By improving basic sanitary conditions and encouraging NGOs to undertake community based development projects are laudable efforts'.

6.7.5 International funding agencies' efforts at improving informal settlements and residents

Generally, the majority of the stakeholders (for example, academics, bureaucrats and professionals.) appreciate the efforts of the international funding agencies, but some pointed out the lack of co-operation and co-ordination of and amongst different agencies, which restricts the operation of an integrated programme. Some feel that these agencies prefer to deal directly with the authorities rather

than the beneficiaries or low-income residents themselves, who can better prioritise their needs. One respondent was of the opinion that basically few funding agencies have or undertake programmes or projects to address the key issues found in informal settlements. She suggested that: 'Agencies should be informed and very well too, on the problems, issues and concerns of residents in informal settlements'.

Academics seem to be apprehensive about the role of the funding agencies. Although they appreciate their efforts, they feel that, because these are not incorporated with official policy, their participation becomes futile or unsuccessful in the end. One respondent opened another dimension, the cultural aspect, and expressed concern that such projects do not suit the informal sub-culture. Questions were raised on issues like co-education, communal toilets, for example, by people who feel the funding agencies perception of life is quite different to the informal settlers, which is partially or totally ignored. One fears that once they withdraw, these projects become difficult to sustain or maintain. For example, a case in point here is the ablution facility, which has become an environmental nuisance in both Kroo Bay and Susan's Bay as discussed in chapter three (section 3.11).

Interestingly, the bureaucrats have been critical of funding agencies and remarked that: 'Their actions are minimal or negligible compared to demands'. One respondent feels that the funding agencies have focused attention on rural communities in the provinces rather than the urban informal communities. Nevertheless, this has to be put against the express desire by these agencies to give priority to post-war rehabilitation war-ravaged communities.

Nevertheless, politicians did not seem to be happy with the efforts of the funding agencies in informal settlements. They complained that government and agencies should collaborate towards upgrading informal settlements in order to avoid waste of funds. For instance, they commented that: 'While government is

to relocate residents, a funding agency should not be planning to construct social amenities'. This statement may be argued as an amplified call by politicians for 'stakeholders' to work together in totality towards improving the quality of life of residents of informal settlements in Sierra Leone.

6.7.6 How could international funding agencies perform better?

Various opinions were expressed with respect to international funding agencies' efforts to act better at improving informal settlements and residents.

Professionals feel that informal settlement communities should be organised, adequately financed, and empowered or encouraged to participate in the initiation and implementation of projects. The reason given is that, as a result, residents could take ownership of such projects. One respondent feels that projects should be tailored to suit the cultural setting of people in informal settlements, which should be equally supported by income generating activities.

Academics are keen to see that residents in informal settlements receive up to date information about their sanitation and environment through educational campaigns, using the appropriate means that can quickly enhance their full or total understanding.

Bureaucrats want to see a mechanism put in place for the construction of low-cost housing complexes and the introduction of mortgage system, which would be based on local or non-conventional conditions for the benefit of the very poor, especially in informal settlements.

Nevertheless, the politicians believe that funding agencies need to work with government in formulating and implementing policies and strategies that would improve informal settlements and residents.

6.7.7 Constraints on informal settlement upgrading programmes

When asked to identify the constraints on informal settlement upgrading programmes, the groups who were directly or indirectly involved, like the professionals, now believe that the lack of understanding of the informal settlement phenomenon itself poses a constraint to any practical upgrading. Also, some complained that informal settlements have no priority in the Government. 'Not to mention informal settlements, even housing in general has no priority in the Government, as shown in annual budget appropriation or estimates', commented a senior civil servant. The key problem they face is that of affordability. The majority of the professionals are convinced that the low-income communities, though few residents work and earn income, are too poor to afford any meaningful scheme. Others mentioned the lack of decision of the Government, scarce land and other resources.

Members of the NGOs who are most involved with low-income communities indicated their difficulty in motivating residents of informal settlements towards taking care of themselves. One of the difficult areas is preventive health techniques, which was found to be a difficult one to convey. Their general impression is that people at the very bottom do not try hard. They are as some described, apathetic and do not like experiments. Some organisations were found to be quite frustrated with the upgrading programmes. Their experience was that community participation was very low compared to the rural sector. NGOs thought this may be due to lack of security of tenure. There is also the view that, as these people live near or within the city, the struggle to survive takes priority over community participation in development programmes. They found that it was not possible to change this mentality of the urban poor in informal settlements, compared to the people in the villages. One local organisation lamented that they have what he described as a 'relief mentality' and therefore prefer organisations that pay money.

The academics are of the opinion that the location of settlements is the main problem. The other constraint they consider is the attitude of the Government. They do not agree that financing is a major problem, but rather a lack of good intentions on the part of the authorities acts as a main obstacle. General concern is expressed in terms of motivation for these kinds of projects (upgrading) from all sectors through good governance.

6.7.8 How could these constraints be overcome?

Majority of stakeholders such as the politicians and Bureaucrats strongly support the government's current plans to undertake decentralisation programme, which they think will create jobs in the rural sector. They strongly feel that this action will discourage migrating or at least minimise the rate of rural-urban migration. About micro level policies, they suggested the reduction of public housing standards, which they reckon should be helpful to low income groups, if not the lowest. One respondent politician (an ex-minister in the appropriate ministry) gives a rather pessimistic picture. Drawing from his own experience he recalls making rural areas (provincial towns) attractive is difficult, land reform in particular is a complicated issue and thus not a quick process. He recollects that his government's attempted 'unified land tenure system' to help national development, especially in the provinces was a failure.

There is a sense of pessimism among professional groups too. Looking from a professional point of view they support the notion of non-feasibility of any urban project, on the account of scarce buildable land and high land prices. Some went even further, saying that developing low-lying land is not viable, as the reclamation cost is very high. They are absolutely convinced that no project could be made totally affordable for such target groups (poor residents in informal settlements) and therefore wonder if retaining them at present sites with some service facilities, is the better solution. In general, they support retaining the people in the urban environment, provided the appropriate policies and strategies are put together to alleviate their poverty and improve the built environment.

Due to the fact that there is no adequate information about informal settlement, the academics find it difficult to suggest concrete recommendation towards upgrading programmes. Also, they are not sure how far the proposed government decentralisation programme is going to be effective (if it takes off from the cabinets office), as they understand (as it were) it may be merely administrative rather than resource decentralisation.

NGOs have reservations about national policies. One narrates from her experience that she had found for countries like Sierra Leone policies are adopted, but never adapted and implemented. They are in favour of specific projects from a tactical point of view. They also feel the Government makes very generalised policy statements and no details. The problem is how to transfer these generalised words into action. About residents in informal settlements, one respondent feels that the Government should officially recognise them, regularise land titles and plan the settlements so as to stimulate substantive housing development. This he thinks may induce some kind of control amongst informal settlers themselves. The NGOs seem to be quite optimistic, and feel strongly that there are still ways of utilising urban land with minimum resources. One local NGO suggested the possibility of persistently and effectively persuading land owners and producers of and dealers in building materials to reduce prices, which could be achieved through government's tax concessions, for example.

6.7.9 Which informal settlements in Freetown do you rank as a priority for upgrading programmes?

Majority of the stakeholders such as the professionals strongly believes that all the informal settlements should be upgraded. One respondent remarks that: 'Almost all the informal settlements are in a deplorable state and need to be totally changed and cost of changing them will be too expensive'. Relocations to healthier environment was suggested.

Nevertheless, other stakeholders such as the Bureaucrats, NGOs and Politicians favour upgrading of the following informal settlements:

1. Kroo Bay – this settlement recently benefited from the Freetown Infrastructure Rehabilitation Projects under the World Bank, but fall far short of meeting residents' needs. Kroo Bay's proximity to the sea front and its deplorable conditions within a stone throw from important offices and government hospital such as Connaught Hospital is seen as the catalyst for upgrading because of the attendant urban sprawl.
2. Susan's Bay – this settlement has also received an unsuccessful upgrading, which is located near the sea, less developed and has higher incidence of poverty.
3. Kanikay – this settlement is threatened by the sea, less or no basic facility like toilet, has high poor population makes it more important for upgrading.
4. Kissy Brook, George Brook and Sorie Town – All on hilltops and require upgrading.
5. Others that need upgrading include Portee and Rokupa, Red pump and the mountain areas around Freetown.

6.8 Summary of Stakeholders' Responses

Although many other related issues were highlighted, only the key issues have been discussed. Probably two aspects should be discussed to summarise the responses from the interviews. These include the perception of the problem and roles, and limitations of the stakeholders.

While analysing the responses of the 'stakeholders', it was felt that there does exist a difference of opinion in the perception of the problem of informal settlement. For example, there is a good deal of debate about the causes of informal settlements in Freetown. Majority of respondents point to poverty, high cost of land, land tenure system, high rent and lack of adequate housing as major factors that could explain the proliferation of informal settlements. Some

however put this to 'push' factor from the rural areas. Some have notions that since the capital acts as a primate city it is due to the 'pull' exerted by the cities.

However, differences of opinions also exist regarding the critical conditions. It appears that many respondents failed to have a comprehensive understanding of the informal settlement phenomenon in the country. The lack of understanding of the poor, particularly as perceived by the bureaucrats and the professionals has been attributed to social gaps between different groups. Additionally, lack of adequate information and research into the matter, which is a subject of neglect, may also be blamed on stakeholders' ignorance of informal settlement problems.

Nevertheless, it does not matter as to what the difference of perception or feelings are, probably it is more important to know the respondents' roles and limitations towards informal settlement development programmes. Through these interviews the bureaucrats revealed that voluntary organisations' activities are very limited by financial resources, which restrict the undertaking of any sizeable project. Academics are quite willing to carry out research, but feel that they are not able to contribute to programme implementation. However, they blamed government's lack of 'political will' as a major problem towards upgrading projects rather than lack of financial resources. Other matters of concern, among others, included inappropriate policies and lack of co-ordination among key players in the informal settlement problem.

Nonetheless, as it appears from stakeholders' responses, it may be concluded that the solution to the problem of informal settlements in Sierra Leone, requires adequate knowledge of the problem, financial resources, political will and co-ordination.

The next chapter presents the findings and recommendations of the study.

FINDINGS AND RECOMMENDATIONS

7.1 Introduction

This chapter presents the findings and recommendations flowing from the empirical analysis performed in chapter six. However, additional findings have been presented in chapters two and four, which made several important contributions to knowledge, where some new insights have emerged from the empirical analysis carried out as part of this study. In addition to this, policy recommendations have been made which on the whole can reduce or alleviate poverty, especially in informal settlements and improve the quality of the built environment in Sierra Leone.

7.2 Main Findings from the Empirical Analysis

The empirical analysis has clearly shown us more understanding of the nature of residents of informal settlements in Sierra Leone in many ways, some of which have particular policy implications. These findings are as follows:

7.2.1 Poverty, corruption, mismanagement, inequality and migration

Sierra Leone suffers from poverty, corruption, mismanagement, inequality and rural-urban migration. The country's corruption and extremely poor management condition, with respect to resources, combined with an unequal distribution of resources and income, result in large-scale poverty and landlessness in both the rural and urban sectors. Notably in the rural sector, for example, majority of the country's labour force, are engaged in the agricultural sector. However, a growing number are also being driven out of agricultural jobs as many become landless and left with no option but to migrate to the cities in search of jobs. Given the absence of necessary skills and few employment opportunities, these migrants end up in informal settlements or squatter settlements.

7.2.2 Unbalanced urbanisation and incompatible housing policy

Due to sustained high fertility and declining mortality levels, there has been rapid population increase in Sierra Leone. The lack of any national urban policy and increased public sector investment in few urban centres, coupled with the protracted civil war has resulted in a highly unbalanced urban pattern, which is more pronounced in the capital Freetown. The nature of this urban growth is that immense pressures are exacted on existing infrastructures in most towns and cities. Freetown is experiencing the highest growth and has been the most affected.

Similarly, the lack of effective housing policy and the low priority accorded infrastructure development and provision has led to inadequate and poor housing conditions, especially in informal settlements. The government's policy of subsidising housing has not favoured access to decent and affordable housing by the poor. Instead, the middle-income civil servants have been the main beneficiaries. No effective measures have been put in place to cater for the housing need of the overwhelmingly low-income communities or informal settlements.

The absence of effective intervention by the Government in the housing market has created an institutional vacuum, making it very difficult for private sector initiatives necessary to augment government efforts.

7.2.3 Socio-economic conditions of residents in informal settlements

The perception of emigrants that they can easily access jobs and earn more income relative to what obtains in rural areas is completely erroneous as we found in our study, which was confirmed by the stakeholders' survey. As often is the case when emigrants come to the urban cities such as Freetown, they discover that they lack the necessary skills and experience for available jobs. Lacking the skills and experience, not having the income and not been able to access secured and training opportunities, they end up in informal settlements or

squatter settlements, which are already overcrowded. This exerts tremendous pressure on housing and infrastructure, which when combined with the exploitation of the limited natural resources such as mangrove trees used for wood fuel in the settlements leads to environmental degradation and environmental pollution. It is worth mentioning that mangrove trees, which act as hedges against floods and high tides, are cut down and used for wood fuel domestically and as well as commercially (the latter is depicted in Figure 3.16 on page 123).

Nevertheless, we found that between 63.0 to 75.0 percent of residents in informal settlements of Kroo Bay, Susan's Bay and Kanikay are actively engaged in various income-earning activities. Put in another way, they are self-employed, but the income is low and can hardly buy a full bag of 40kg rice, which is the country's staple food and daily requirement of households. In actuality, income levels are very low and this affects affordability of informal settlements.

Nonetheless, those that are not economically active seem to be most affected by the already poor economic conditions in the settlements.

7.2.4 Housing and environmental conditions

Our research has established that housing and environmental conditions in informal settlements in Sierra Leone are grossly inadequate and poor. The majority of residents in all the three settlements surveyed were found to live in deplorable conditions, where a household of more than four people are forced to sleep in one room. In most cases, residents share their dwellings with pigs as captured on photograph and depicted in figure 3.4b on page 108. Residents in informal settlements are susceptible to diseases and environmental problems. As the three settlements under study are built on low-lying lands or sea fronts, during the raining season and high tides, dwellings are flooded. This adds more misery to the already impoverish lives of residents. Generally their dwelling units are too weak to withstand severe elements, which render them vulnerable to

storms or strong winds and floods. These problems persist due to the fact that, there seems to be no strategic policy initiative by the government to try to rectify them.

Environmental conditions are equally poor, and sanitary facilities, solid waste management systems, health infrastructure and safe drinking water facilities are grossly inadequate. For instance, toilet and bathing facilities, especially in Kanikay settlement are death traps as depicted in figure 3.6 on page 110. All these emanate from poverty and make housing and environmental degradation an important consideration.

7.2.5 Residents need priorities

In terms of the biophysical or physical environment the priority need among the residents was found to be provision of drinking water, toilet facilities and electricity.

The issue of upgrading the settlements with the view to improving the poor housing and environmental conditions was also established. Between 48.1 and 61.5 percent of all the households surveyed would like their settlements upgraded as discussed in section 6.5.5. Some residents wish to have some kind of security of tenure, which was also recommended by the stakeholders such as the professionals. Nevertheless, building or dwelling unit alterations was found to be a common survival strategy among the residents in the three settlements. They added at least a room, which was either rented out for income purposes or used to accommodate family members in order to reduce overcrowding. Notably, significant variation was observed in the size of building plots, and the few titles recorded include freehold, leasehold and license. It is important to mention that land occupancy in all the settlements was done mostly through relatives, friends or community elders.

7.2.6 Kinship and family associations

Significant percent of households are found to survive through relatives and friends or some kind of arrangement. This is explained by the fact that our research found that between 67.3 and 71.2 percent of residents occupy building plots through friends or relatives in informal settlements on the one hand. On the other, a good number of residents support political parties through family loyalties. All this suggests that kinship and family or other association play an important role in meeting the political, socio-economic, cultural and other needs of residents in informal settlements, which should be taken into consideration in terms of urban and housing policy formulation.

7.2.7 Health and family planning

Despite the deteriorating conditions in which residents of informal settlements live, the household food intake levels in all the three settlements of Kroo Bay, Susan's Bay and Kanikay appear to be reasonably good. Our research established that between 30.8 and 50.0 percent in these settlements reported having an average of two meals a day compared to between 21.2 and 32.7 percent having an average of three meals a day.

Among the diseases, malaria was found to be most common among residents as compared with starvation or malnutrition, which may cause diseases and child deaths. Nevertheless, the incidence of child deaths was found to be high in all the three settlements, with Kroo Bay reporting the highest deaths of 71.2 percent, which may be connected, among other things, to the huge filth attracted by this settlement.

The average household size is not improving, which means the lack of birth control relative to the population structure. This may be connected to religion, which does not encourage birth control. If this is the case, then, there have to be an innovative way of getting the message across to the people that population increases exert tremendous pressure on the biophysical environment of informal

settlements. For example, this is becoming apparent in Susan's Bay with overcrowding.

7.2.8 Education

Education take up is very low, lower than the national average, especially secondary school. The implication is that it becomes difficult to implement upgrading and development policies where people are not sufficiently empowered. In this regard, they are unable to effectively participate and take ownership of development programmes without basic education. Without this, all these policies are going to be inadequate.

Nevertheless, our research found that parents appear to be keen to provide education for their children, but are limited by poor economic conditions, which can only be addressed through all embracing or well-ventilated policies, especially targeted at poverty alleviation.

7.3 National policies for shelter and urban environment

We have found that national policies for shelter and urban environment do not exist or if they exist, they exist only on paper. These include national policies, which have a *direct or indirect* influence on housing the lowest-income groups, especially residents in informal settlements.

The country's development plans and sectorial policies such as urbanisation and housing policies are significantly important. As discussed in chapter 3, section 3.5, Sierra Leone's lack of comprehensive planning and effective urban housing policies, for example, have resulted in disfunctioning low-income housing systems.

Similarly, lack of development incentives in the rural sector, particularly in the non-agricultural sector, and the absence of an urbanisation policy has resulted in unbalanced urban growth and poverty.

Indeed, without having effective national policies to glue up international policies or efforts together, all urban development initiatives will fail. It is not surprising, therefore, that international policies or efforts by multilateral and unilateral organisations have failed in most developing countries like Sierra Leone as discussed in chapter four.

7.3.1 The roles, limitations and the performance of the stakeholders

Our research study found that the lack of planning, defined objectives or clear vision and co-ordination resulted in clashes and duplications in the roles and activities of the stakeholders.

Essentially, lack of adequate understanding of the informal settlement problem was observed among many members of the stakeholders as discussed in chapter 6, section 6.7.7. The absence of research and monitoring of the informal settlements in the country may be partially responsible for the stakeholders' ignorance of the problem. As a result, there seems to be a negative attitude, growing pessimism and apathy towards informal settlements.

Regarding policies for rural development programmes, the politicians seem to be doubtful of any immediate success of the rural development programmes because of the complex mechanism involved. Bureaucrats find very little scope in making any contribution towards solutions to the problems of informal settlements because of their complex nature. Professionals complain about the lack of allocation of resources to urban poor housing sector, which poses a constraint towards development of a comprehensive programme. Similar kinds of attitudes seem to persist with the academics, who do not find enough incentives and cooperation to pursue research on urban poor, especially for the formulation and implementation of appropriate poverty alleviation policies.

7.4 Policy Recommendations

The recommendations presented in this section are based on our empirical analysis and findings. Essentially, in chapter six all possible aspects of, and implications for, policy formulation were discussed in detail. Thus, for policy formulation and implementation that would alleviate or reduce poverty in informal settlements and improve the built environment in Sierra Leone, we put forward the following proposals:

7.4.1 Alleviate or Reduce poverty.

Poverty and environmental degradation are inextricably linked and any attempt to resolve the environmental problems of informal settlements must start with poverty alleviation. Therefore, any practical policy to deal with informal settlement problems should first be aimed at eradicating or reducing the overwhelming poverty and inequality that exist in Sierra Leone and most Sub-Saharan African countries.

In order to alleviate or reduce poverty and attain equity, the following strategies or policy measures are recommended for adoption:

- Government should create sustainable employment and income generating opportunities. However, such policies would have to be targetted at both rural and urban areas to stem the flow of rural-urban migration, which we found to be influenced by lack of income and employment opportunities in rural areas.
- Government must be prepared to give recognition to the informal settlements and the informal sector of the economy. The informal sector possesses the dynamism and the potential to generate employment opportunities. As shown in our study between 63.0 and 75.0 percent of residents surveyed are self-employed. However, the fact that informal sector is outlawed in many countries has greatly limited the opportunities to regularise and direct investments into the informal settlements.

- Government should be prepared to undertake Rural Development Programmes to create massive job opportunities in the rural sector. This has the potential to ameliorate poverty in the rural sector and at the same time reduce the rate of rural-urban migration and fuelling overcrowding in informal settlements.
- Government should put in place the necessary institutions to facilitate credits to landless households, small producers and artisans and petty traders in poor urban communities and their rural counterparts to encourage enterprise and facilitate reduction in poverty.

7.4.2 Increase land supply to enhance housing affordability

The complex problems resulting from the steady growth of informal settlements in the city cannot be ameliorated unless an adequate amount of land is made available for housing the urban poor. It has been discussed in section 3.5.2 but suffice to indicate that public housing has been accorded lower priority in Sierra Leone where annual budget allocation to the housing sector had not exceeded 0.05 percent over the years.

Nevertheless, the high standard of the public housing ensures that the poor are generally unable to afford access. Therefore, it may safely be concluded that the housing need of the lowest-income group cannot be met by public housing construction, as it presently exists. This is due to the fact that usually, land cost in Sierra Leone is normally 40% of development cost. As a result, property developers use such land to build houses, which usually turns out to be above the reach of the poor. As a result, this thesis strongly recommends that any genuine attempt to improve the housing of the poor in both formal and informal settlements' residents must be oriented towards increasing the supply of land at affordable price or cost for them. Government can achieve this by operating a land bank, which can be developed using vacant lands, which can be increased through compulsory acquisition orders where necessary. Compulsory acquisition

of land in the public interest is already widely practised in Sierra Leone by development authorities or government. Unfortunately, and in practice these measures have been exercised only with regards to road construction and for other public utilities. It is, therefore, essential that the application of such measures be widened to include land for housing the poor, especially in informal settlements.

Another important measure towards increasing the supply of land for the urban poor is the land pooling system. Government should enter into partnership with the private land-owners to pool their vacant and undeveloped lands together to be surveyed, planned and serviced. The Government should be able to use this land as housing subsidy, which should be made available to the very poor at affordable cost to enhance housing development. Also, government should sell some land to those who can afford it at current market price to recover the money spent to develop or service the land and the remaining land should be returned to the original owners. To increase revenue from the land, a taxation of development value of the land should be introduced. Similarly, a capital gains tax should be introduced and properly enforced as a means of raising revenue from gains of sales of land or property already developed. This will help government to further subsidize housing or undertake other development programmes, especially in low-income communities.

7.4.3 Reform housing policy

As discussed in chapter three section 3.5.2 regarding the current housing policy, the idea of government monopoly of housing provision through the creation of the Sierra Leone Housing Corporation (SALHOC) has woefully failed to solve the housing problem of the poor. In addition, the traditional policy or practice for private sector developers to provide high-cost housing has only benefited a privileged few, while the majority urban poor continue to face an acute shortage of housing, particularly in the capital city of Freetown.

Similarly, many of the few public housing units meant for the low-income communities are sold or rented out to middle-income households by the low-income recipients to provide extra income. As a consequence of all these, government should reform its housing policy to enhance housing affordability.

The centre core to reforming the housing policy is the government vacating the monopoly of housing provision. The government should realize its limit in terms of financial and human resources. For example, the government lacks the financial capacity to compete with private property developers and engage in speculative housing development. This is so because of the fact that government is facing competing demand from other sectors of the economy. Also, the government has not got enough information upon which to decide what type of house, dwelling size and preferred location for households. Only the market has the capacity to effectively allocate resources within the housing sector.

In view of the foregoing, the government should create an enabling environment for property market and property market institutions to evolve, underpinned by a functional financial institution. Also, the government should ensure that property right is developed, respected and guaranteed, contracts are enforced and enforceable, leaving government with the role to manage the market in such a way that it is not overly disadvantaged to the poor. For example, in Sierra Leone presently, there is only one mortgage financial Bank (SALHOC Bank), no other financial institutions are empowered or allowed to lend against real estate properties.

Similarly, even if financial institutions were going to lend to households for property consumption, the transactions costs are excessive. These include the cost of identifying land ownership because there is no land registry, the cost of verifying individuals' employment status to verify sources of income. It is worth stating that property rights and land registry are very important and beneficial. The benefits of registering property rights, among others, include using title as

collateral to obtain housing finance, increases investment in housing and giving occupants of land or house security on the one hand. On the other, the benefits of land registry, includes easy identification of land or property ownership and protection of property rights. Government should establish land registry system and such system need to be started with freehold titles, but extended to titles that can be upgraded to freehold titles in the course of time.

Essentially, there are things that government can put in place that are not directly related to the property sector, but can enhance the property sector and housing policy. The government should move away from direct provision into subsidising housing where necessary. It is crucially important to mention that there are different types of subsidies, which can take the form of direct grants for public housing construction, the provision of infrastructure services, the provision of free public land for housing, the upgrading of or the provision of land titles on public land to informal settlements (World Bank, 1993).

Although the government plays an enabling role, the government has to be careful so that 'it does not throw out the baby with the bath water'. By this we mean that the government does not destroy market efficiency. This means that the government only intervenes to correct market anomalies to make housing affordable. Also, the government can create employment to enhance income-generating opportunities.

7.4.4 Urban planning policy to cater for the needs of the low-income communities

As already discussed in section 3.7.1.2, especially, 'master plan' or 'land-use plan' does not exist in Sierra Leone. This has made forward planning difficult, especially with regard to urban development. Additionally, the land-use control or the Town and Country Planning Act (TPA) of 1946, which controls or regulates planning and development activities has neither proved to be effective nor equitable in operation. The high-standard building codes and the zoning laws

have the effect of harassing or intimidating the low-income communities, particularly those in informal settlements. Therefore, in order to put the scarce urban land into efficient and equitable use, the Government of Sierra Leone, as a matter of priority, should undertake the preparation of a comprehensive *Land-use Plan or Master Plan and Updating the Mapping System* throughout the country. Moreover, to cater for the needs of an overwhelming urban poor community, priority should be given to a *Mixed-Land-use* rather than continuing to uphold strict zoning laws.

Nonetheless, it is absolutely necessary for the 'land-use-plan' system to be replicated in the rural communities or the provinces. Here, the mining activities are not only causing tremendous environment degradation or hazards to the rural population affected, they are equally being deprived of fertile agricultural lands, which have provided them with decent living as discussed in chapter 2, section 2.6. Thus, this thesis recommends that Government Mining Policy should now include rehabilitation of all mining sites, payment of realistic compensation to all affected families, creation of job opportunities for community residents and undertaking community development programmes in all mining communities through private-public partnership arrangement. A monitoring committee should be formed with the mined towns or villages fully represented to ensure that mining companies strictly adhere to the 'policy' or 'agreement'. Mining Companies that do not fulfil all the conditions in the lease agreement should forfeit their mining rights after appropriate notice.

7.4.5 Informal settlement upgrading

Our study reveals that the basic problems of residents in informal settlements are social and economic problems. Therefore, any pragmatic approach towards ameliorating problems of informal residents should begin with improving socio-economic conditions, which must be targeted at poverty reduction. There is no area where such a strategy should begin other than the built environment, especially poor housing infrastructure and conditions. It comes, as no surprise that our study reveals in chapter 6 that majority of households surveyed would very much like to see their settlements upgraded.

Thus, for an effective upgrading strategy, the Government should provide an enabling environment part of which must be the establishment of an Urban Informal Settlement Development Authority (UISDA). This authority should be set up as an independent establishment to function autonomously of the constraints of government, especially political interference that often stifles initiative of this nature. Nevertheless, the government, including national and local governments should be represented on the board of the authority. Relevant government bodies to be targeted for membership include National Commission for Social Action - NaCSA, Anti-corruption Commission Prevention Department – ACC and the Sierra Leone Housing Corporation - SALHOC. Also to feature are the private sector, professional bodies, civil societies and Non Government Organisations - NGOs.

Poverty alleviation should be made the primary function of UISDA and informal settlement upgrading should be its main priority. The goals should include but not limited to:

- Security of tenure - This would encourage residents to invest in their local communities and commit to the upgrading process, channeling investment to housing and infrastructure and enhancing their living conditions.

- **Community land trusts** – This is an alternative to private individual tenure, which can enhance the regularisation of informal settlements and at the same time prevent residents from selling their land or home.
- **Create gainful and sustainable employment opportunities** around skills available in the informal settlements and emphasis should be placed on women given their predominance amongst heads of households.
- **Introduce micro-credit schemes** to facilitate small-scale businesses and local entrepreneurship.
- **Effective logistics** to be put in place to facilitate an effective procurement regime, which is necessary to avoid delays and minimise cost.
- **Those involved in upgrading** should be sensitized to prevailing social situation and be capable of integrating social factors into upgrading policies.
- **Affordability and Cost Recovery**, including the cost of land, where applicable and replicability are applied to upgrading as discussed in chapter 4, section 4.4.

The Upgrading Programme should include the following improvements:

- **Empowerment** – To empower the residents through basic education about the upgrading programme and the chosen implementation strategy. Education about the biophysical environment and personal hygiene is essential.
- **Solid waste collection centres** – Creating solid waste collection centres would reduce the accumulation of garbage and improve environmental health.
- **Drainage system** – Construction of drainage system would reduce flooding in most areas, thereby slowing the spread of waterborne diseases.

- **Water supply system** – Improved water supply system and making home connections would improve sanitation.
- **Public toilet facilities** – Rehabilitating existing toilet facilities and introducing new ones, especially in Kanikay Settlement where no safe toilet system exists, would not only improve sanitation, but would save lives as well.
- **Streets or Footpaths** – Paved streets or footpaths would improve access to settlements and as well encourage small businesses to locate in areas previously used to dump garbage and human waste.
- **A settlement plan** – Prepare a plan for each settlement before programme commences, considering option for a re-settlement within the settlements for residents whose homes may have to be demolished in order to bring essential infrastructure facilities into the settlement.

Procedure for the Upgrading Programme

As a starting point, a survey is very essential and has to be carried out by USIDA, which should involve the identification of community leaders in each settlement to be upgraded, household heads and stakeholders discussion to reach agreement on principles and scope of the upgrading programme.

This should be followed by the planning and design stage, which should include the development of functional standards, an assessment of infrastructural facility needs and labour cost to arrive at the approximate cost estimation, as well as the potential for community involvement during the implementation process or stage.

At this stage, a further discussion should be held in order to seek the agreement of residents or their representatives and stakeholders to the programme content and make room for any modifications to preliminary proposals for the implementation of the programme. This should lead to the preparation of detailed programme plans, bid documents and final cost estimates.

Under the auspices of *UISDA*, joint management committees should be formed in each settlement to be upgraded. They should include technical teams and community groups. Such groups should comprise of community leaders, youth groups, women groups and religious groups. Also, in each participating settlement, *UISDA* should endeavour to have a Project or Programme Support Team, consisting of a Surveyor, Building inspector, a Sanitary officer and Accounting officer to help with the coordination and monitoring of the different settlements.

The Upgrading Programmes should be funded by the Sierra Leone Government in partnership with the Private Sector and supported by the International Community. Contractors should be engaged to carry out the main works, utilising paid community labour.

7.4.6 Institution building capacity for low cost construction industry

At present existing institutions in Sierra Leone do not effectively cater for the provision of affordable housing. The building material industry in the country is not well developed and while only few people who carry out the building construction practice are trained, qualified and experienced, the majority are 'cowboy' builders. As a result, this has posed several implications. Two of such implications are briefly discussed below.

Firstly, lack of sufficient and skilled manpower for construction activities often cause construction costs to rise. Labour cost rises in such a way that construction skills are put far beyond the reach of the poor. As a result, they engage in 'do it your self' construction practices with little skills' input and with huge health and safety implications. Although statistical data are scarce, anecdotal evidence shows a growing trend of fatalities on construction sites and from collapsing structures.

Secondly, the industry is fragmented and disorganised and this does not allow effective skills development. As a result, the government should ensure that the industry is organised to enhance skills and construction developments for housing affordability.

Similarly, it is necessary to set up an inter-disciplinary research programme on the socio-economic and design aspects of construction methods. At present there is a government trade centre at Kissy Dockyard in Freetown whose main thrust is the technical aspect of construction, neglecting socio-economic factors such as affordability.

7.4.7 Training, research and monitoring of informal settlements

The study shows that residents in informal settlements do not have priority in government thinking, which means the absence of research and evaluation of informal settlements.

For effective management of the informal settlement problem, there is strong need to set up a training, research and monitoring institution to gather knowledge on informal settlements. Training is required to educate both the 'stakeholders' and the informal settlers, to make them aware of the problem, identify the magnitude of the problem, the constraints towards development, the scope of development and their roles in the developmental process. The purpose of research and monitoring should be to, provide better understanding of the problem, analyse the present situation and provide periodic review or appraisal of the developmental programmes along with their impact on universal or macro Socio-economic fields. The research unit should be the arm of the "Authority" proposed above in section 7.4.5.

7.4.8 Reduce dependence on foreign assistance and development of self-reliance

This is perhaps one important area where government needs to reappraise its policy of foreign assistance. We found in this research that the government of Sierra Leone has, as indeed many other developing countries have, abdicated their responsibilities to the international community by failing to develop indigenous capacity to deal with issues of urbanisation, informal settlement, poverty, unemployment and environmental degradation. There is a tendency now that leaders of developing countries jump on the plane visit head of states in western countries and request multilateral and unilateral organisations to take on the role of effecting a robust sustainable urban settlement programmes in their respective countries. As a result of this, local skills are not developed. Even where knowledge is transferred from the developed to the developing countries, the absorption of such knowledge is limited.

The solution to this is that government should use foreign assistance strategically to develop domestic capacity. This in the sense that projects can become environmentally and financially and administratively sustainable after

donor assistance, that in the developing countries most initiatives, especially in housing and environmental upgrading tend to die as donor countries are leaving.

Therefore, to attain self-reliance Sierra Leone should be prepared to carry out developmental programmes without external assistance. In this regard, this thesis suggests the following:

- Government should make the completion of the Bumbuna Hydro Project as a priority in order to achieve energy efficiency nation-wide, which can make it possible for Sierra Leone to start processing its raw resources or materials locally. This will create tremendous job opportunities and at the same time generate wealth for the country.
- Government should ensure that self-sufficiency in rice, which is the country's staple food and other essential items is attained
- Government should promote reliance on domestic resources.
- Government should encourage the development of institutions appropriate to the country's political, socio-economic needs and responsible leadership at all levels of the Sierra Leone Society. Corruption should be discouraged and eradicated completely.
- Government should encourage participation by all Sierra Leoneans both at home and abroad in productive work. Since the Human Resource is crucially important in our effort to attain Self-Reliance, this thesis strongly recommends that Sierra Leone adopts Dual Citizenship in the Constitution without delay, which will help to tap our professional brothers and sisters abroad to their full potential for productive work.

7.5 Summary

A number of important points have emerged in this chapter. The most obvious is that there is a wide gap between government's promises and performance or delivery. It can be seen that when it comes to translating proposals or programmes into action, various obstacles manifest themselves. The slow pace

of the bureaucracy, misplaced priorities, ignorance and insensitivity towards the need of the poor have resulted in failure to reduce the incidence of poverty, poor housing and degraded biophysical environmental in informal settlements of Sierra Leone.

Also, there remains an inherent problem relating to policy formulation and implementation because, like many developing countries, there are contradictions between several objectives of national and regional housing policies in Sierra Leone. However, for housing policies to be realistic and effective, they will have to be consistent with the country's political and socio-economic conditions.

Nevertheless, for the Government of Sierra Leone to meet the political and socio-economic needs of its citizens including housing and to attain self-reliance, the existing institutions and structures have to be upgraded on one hand. On the other hand, well functioning property markets, which are supported by equally developed financial institutions and effective and functional infrastructure have to be established.

The next chapter presents conclusions and the summation of the study.

CHAPTER EIGHT

CONCLUSIONS

8.1 Conclusions

Given our findings, it is no exaggeration to suggest that this study has made useful contribution to existing knowledge on informal settlements in developing countries. This is particularly the case given the main objective of the thesis, which is to explore the interface between poverty and environmental degradation in informal settlements of Sierra Leone. The result confirms a simultaneous causal relationship between the biophysical environment and poverty, validating the findings for other countries. For example, it was shown that residents in informal settlements live on marginal land in overcrowded rented single-roomed dwellings and lacking in basic services. The environmental consequences continue to manifest in polluted rivers, deforestation, and the attendant environmental floods and erosion. A huge proportion of residents are poorly educated, lacking basic skills and are engaged in low-income economic and subsistent activities.

The combination of these factors often results in environmental exploitation with huge negative impacts on the health of informal residents, which becomes a vicious circle of poverty and environmental degradation, as depicted in Figures 3.4b, 3.6, 3.13 and 3.16.

The second objective, which is to validate the quality of life in informal settlements against the UNCHS (Habitat) indicators for better quality of life within the built environment, has also been empirically validated for Sierra Leone. Within the context of the UNCHS indicators for better quality of life of residents in the built environment, individuals have the right to good quality of life defined by access to adequate food, clothing, housing and health and social services (UNCHS, 1996).

Validating the quality of life in informal settlements of Sierra Leone against the UNCHS indicators provided *new insights*, which differ from previous findings for other developing countries. Our study finds that the food intake in informal settlement households is of good nutritional standard and that the massive infant mortality rates previously attributed to poor food intake amongst other factors is caused mostly by malaria rather than starvation or malnutrition. Nevertheless, the poor environmental conditions of informal settlements provide breeding grounds for mosquitoes.

However, while the UNCHS indicators proposed social, cultural and health needs to include healthy, and safe and secure shelter within a good neighbourhood with provision for piped water, sanitation, drainage, transport, healthcare, education and living environment protected from environmental hazards, this is not the case in the informal settlements. Our findings show that shelters in informal settlements are unhealthy, unsafe and insecure and with poor infrastructure such as poor sanitation, unsafe drinking water and open drainage sewers. This is consistent with the literature and depicted in Figure 3.5, which shows residents meeting their needs from polluted river

The final objective of finding solutions to informal settlements by proposing a set of strategies has also been satisfied. The thesis afforded an opportunity to review the strategies prescribed over the years for alleviating housing problems and urban poverty with special focus on informal settlements or low-income residents in developing countries.

In deed, the choice of strategy towards resolving the problems of informal settlements of developing countries like Sierra Leone had been an issue of intense national and international debate. However, in recent years, the dominant strategy of tackling the problem has been that of demolition or upgrading.

Nevertheless, it has to be recognised that the choice to demolish or upgrade an informal settlement will have to be weighed against the peculiar circumstance and political and socio-economic development objective of the country. In this regard, and since Sierra Leone is just recovering from the ashes of a long and protracted civil war, the choice to 'demolish' as a solution to the informal settlement problem will result in huge displacement of people, which may trigger another civil conflict. This is particularly the case given the revelation in our study that informal residents locate on the basis of ethnicity, religion and physical geography. Thus, if the Head of State or the head of the implementing Agency was to derive from a different ethnic or religious groupings to informal resident population, demolition could be regarded as ethnic cleansing. This is why upgrading which allows residents to stay put in their geographical location while development takes place is particularly favoured.

Thus, the appropriate strategy to tackle the informal settlement problem in Sierra Leone is 'upgrading', which can be implemented under the auspices of the Urban Informal Settlement Development Authority as the central coordination authority, following the procedure suggested in 7.4.5. As a complementary strategy, an equitable distribution of resources, income generating and earning opportunities, equitable access and outcome of enhanced living opportunities are necessary to empower informal sector residents. These policy recommendations have been tendered in section 7.4.

Nevertheless, the following is an overall summation of this study:

8.2 Overall Summation of Study

The research problem and the theoretical framework regarding the informal settlement phenomenon in developing countries like Sierra Leone was presented in chapter one. In particular, the study has shown that the source of the informal settlement phenomenon, among other things, lies in deep-rooted poverty and inequality that exist in society, especially in Sub-Saharan Africa. Unfortunately,

the 1950s and 1960s dominant approach to the informal settlement phenomenon, based for the most part on experience in the North or propounded in the Latin American context, which was demolition and replacement by public housing failed to solve the problem. Similarly, settlement upgrading, which has in recent times been recognized as a solution to the informal settlement problem, has not gone without criticism. It has now been realized that the choice to upgrade or demolish an informal settlement entirely depends on the socio-economic characteristics of the country.

Initially, existing knowledge of informal settlements was reviewed in chapter two. This review provided a broader context against which the particular objectives of the thesis can be set. However, its contribution to the thesis extended beyond this. More importantly, the review laid the foundation, which shaped the research agenda. In particular, section 2.2 presented the theoretical platform for the informal settlement and the attendant low-income housing debate, which had been distinguished between three periods in developing countries namely, the period 1945 to 1970 (2.2.1), the 1970s (2.2.2) and from mid-1980s to present (2.2.3). These subsections discussed the key periods involving various perceptions of and responses to the housing problems in developing countries. This was followed by subsection on urban policy and programme / projects (2.2.4) where the World Bank advocated for broad institutional reforms with the view to enhancing sustainability in terms of housing finance, social development and environmental improvement, especially in informal settlements. The focus then moved to the main characteristics of informal settlement (2.3), which led to sections on urban poverty and informal settlement (2.4), urban environment and informal settlement (2.5) and poverty and environmental degradation (2.6). Regarding the later section (2.6), this study has shown that the poverty-environmental degradation nexus is a complex matter altogether as far as the poor, especially residents in informal settlements, are concerned and do seem to have direct causal effect. In other words, although this study has shown that there is a strong link between degraded biophysical environment, informal

settlements and poverty, the urban poor (including residents in informal settlements) are more of victims than principal agents of environmental degradation, which is detrimental to their wellbeing or quality of life. Nevertheless, this led to the UNCHS (Habitat) indicators for quality of life within the built environment (section 2.7), which also had subsections on health (2.7.1), life expectancy (2.7.2), income distribution (2.7.3), education and health (2.7.4), urban environment and housing quality (2.7.5) and civil and political rights (2.7.6). These subsections discussed the constituents of wellbeing or quality of life as well as determinants of wellbeing, especially for comparison with residents of informal settlements' current or existing quality of life.

Chapter three discussed the urban poverty and the biophysical environment in informal settlements in Sierra Leone, which affirmed that Sierra Leone is characterized by the dynamic situation of unprecedented rates of urbanization and rapid urban growth. In particular, the urbanization and demographic trends, combined with the protracted civil war have not only precipitated a massive urban housing deficit (3.2), but have also engendered escalating rural and urban poverty (3.3). This situation had made it practically impossible for a large proportion of the urban population to afford decent housing in Freetown or Sierra Leone and similar developing countries. Thus, the housing situation in Sierra Leone was assessed in section 3.4, which also had subsections on housing need (3.4.1), housing demand (3.4.2) and housing supply (3.4.3). These subsections discussed, among other things, the distinction between housing need and housing demand as well as the supply-side distortions that had come from policies, which had affected the major components of the housing process.

The focus then moved to the housing policy, national housing strategy and programme (3.5), which also had subsections on government policies responses (3.5.1), housing policy of Sierra Leone (3.5.2), housing policy, strategies and programmes in development plans (3.5.3), 1974/75 to 1978/79 national development plan (3.5.4) and national strategy for Sierra Leone (3.5.5). These

subsections discussed the formulation of policies, strategies and programmes aimed at addressing the housing plight of the low-income majority who are most affected by the shelter situation in the urban areas. This prompted the discussion on the institutional framework (3.6), which is essential for policy formulation and implementation, especially in housing the urban poor. Nonetheless, constraints to an effective housing supply (3.7) were examined, which also had a subsection (s) on land (3.7.1), land tenure, land administration and land use (3.7.1.1), urban land use policy and management (3.7.1.2), land for residential use and low-cost housing (3.7.1.3) and informal land market for housing development (3.7.1.4). These subsections discussed the provision of land for housing the urban poor as a major constraint in which case the informal system had performed better than the legal system.

The discussion then focused on other areas that support housing, including access to urban services and infrastructure (section 3.7.2) and housing finance (3.7.3). This was followed by the discussion on the legal and regulatory framework for housing in Sierra Leone (3.8), which also had a subsection on building by-laws and planning regulations (3.8.1) that discussed building acts, codes and regulations and as well as standards and specifications. The essence here is to control all development activities and to also ensure safety and health in the built environment. This led to the discussion on formal housing sector performance (3.9), which also had subsections on public sector housing in Sierra Leone (3.9.1), private sector housing in Sierra Leone (3.9.2) and the World Bank and NGO housing projects in Sierra Leone (3.9.3). On the other hand, we discussed the urban informal sector in Sierra Leone (3.10), which equally had subsection on the role of the informal sector in housing for the urban poor in Sierra Leone (3.10.1). These subsections discussed the performance by both the formal and informal sectors regarding the supply of housing for the lowest-income groups in Sierra Leone, which seemed to suggest that the latter had outperformed the former. This led to the discussion on development of positive structures or institutions in Sierra Leone (3.10.2). The structures or institutions

discussed included the Special Court for Sierra Leone war crimes, the Truth and Reconciliation Commission to bring healing, reconciliation and reintegration. Three other structures or institutions, especially for socio-economic reforms and development discussed included the Anti-Corruption Commission, National Commission for Social Action and National Commission for Privatisation.

On the other hand, section 3.11 presented the physical characteristics of the study sites, which included Kroo Bay (3.11.1), Susan's Bay (3.11.2) and Kanikay (3.11.3).

Following on, chapter four discussed the policies and programmes prescribed over the years for alleviating urban poverty and housing problems in developing countries, which were applied to the Sierra Leone situation. To start with, section 4.2 showed how slum clearance and public housing had relocated the poor from informal settlements to a more relatively adequate shelter in some developing countries compared to Sierra Leone, where demolition of unfit dwellings did little to cure the overall informal settlement problem. The failure of slum clearance and public housing led to self-help (4.3), which is an existing practice, especially in Africa. However, this study has shown that self-help policy also failed because it lacked employment package or economic activity package. Nevertheless, the sites-and-services and upgrading programmes (4.4) have been cited as vital means of improving the housing of the poor but point to a number of cardinal issues to be addressed, which included affordability (4.4.1), cost recovery (4.4.2.1) and replicability (4.4.2.2). These sections discussed target groups' ability to pay for services through the cost-recovery practice and the possibility for projects to be replicated. The shortcomings from these projects led to the public-private partnership (4.5) and good governance (4.5.1). Overall, these sections had affirmed that the failure of policies are due to shortcomings such as, for example, inappropriate institutions, which had to be overcome if the said policies are to work in Sierra Leone, especially in providing housing for the poor in informal settlements as the summary (4.6) shows.

Chapter five dealt with the research methodology. In section 5.2, both the combined qualitative and quantitative methods were chosen to best present the state of the informal settlements in Sierra Leone. Moreover, the case study was selected as an appropriate research method (5.3) to explore and better understand the state of the informal settlements in Sierra Leone. The principle of triangulation was applied in the study for the purpose of *double or cross checking* the empirical evidence and to overcome the shortcomings of the research method, the snowballing technique was employed. Structured questionnaires and interviews (self-completion questionnaires) were employed as a method of data collection (5.4) and the computer software package (SPSS) was used to analyse the data.

Section 5.5.1 covered the experiences during the fieldwork, while section 5.5.2 presented the actual number of questionnaire responses and interviews during the field work in Freetown, Sierra Leone.

Chapter six presented the empirical analysis of data collected in Sierra Leone. In section 6.2, the data on Kroo Bay was analysed, the data on Susan's Bay was analysed and compared with Kroo Bay (6.3) and the data on Kanikay was analysed and compared with both Susan's Bay and Kroo Bay (6.4). Also, the correlation and simple regression analysis for Kroo Bay, Susan's Bay and Kanikay were carried out (6.5) and the summary followed (6.6). The responses of the *stakeholders* featured in section 6.7, which equally had subsections on causes of informal settlements in Freetown (6.7.2), policy measures to improve the conditions of the poor (6.7.3) and Government's efforts towards upgrading informal settlement (6.7.4). Also, international funding agencies' efforts at improving informal settlements and residents (6.7.5), how could international agencies perform better? (6.7.6), constraints on informal settlement upgrading programmes (6.7.7), how could these constraints be overcome? (6.7.8), ranking informal settlements in Freetown according to priority for upgrading programmes (6.7.9) and the summary followed (6.8).

Chapter seven was where the discussion of the main findings and policy recommendations took place. In section 7.2 the main findings from the empirical analysis were presented, particularly shown us a more clear understanding of the nature of residents of informal settlements in Sierra Leone. They include:

- Poverty, corruption, mismanagement, inequality and migration
- Unbalanced urbanisation and incompatible housing policy
- Socioeconomic conditions of residents in informal settlements
- Housing and environmental conditions
- Residents need priorities
- Kinship and family associations
- Health and family planning
- Education
- National policies for shelter and urban environment
- The roles, limitations and the performance of the stakeholders

Meanwhile, the proposals put forward for policy formulation and implementation that would alleviate or reduce poverty in informal settlements and improve the built environment in Sierra Leone (7.4) were based on our empirical analysis and findings, and are as follows:

- Alleviate or reduce poverty and corruption
- Increase land supply to enhance housing affordability
- Reform housing policy
- Urban planning policy to cater for the needs of the low-income communities
- Informal settlement upgrading and UISDA as the central coordinating body
- Institution building capacity for low cost construction industry
- Training, research and monitoring of informal settlements
- Reduce dependence on foreign assistance and develop self-reliance

The final section 7.5 presented the summary.

Finally, there is no doubt from our findings that the thesis has contributed to existing knowledge on informal settlements, particularly in relation to the interface between poverty and the biophysical environments, which has been confirmed for Sierra Leone.

8.3 Future Research

This study has clearly established that Sierra Leone does not only lack research in areas of urban development, particularly informal settlement upgrading, but also lacks effective solutions to urban environmental degradation.

Nevertheless, this study has been able to 'contribute to existing knowledge' and assisted in improving the understanding of informal settlements in developing countries, especially Sierra Leone. As a result, in the absence of any official, comprehensive documentation on informal settlements in Sierra Leone, this study provides a foundation for future research. It guides towards finding solutions for housing the very poor or the lowest-income groups in Sierra Leone and in other similar Sub-Saharan African countries.

This research has examined the environmental aspects of low-income communities or informal settlements in Sierra Leone and the role played by poverty. Nevertheless, I am advancing the theory that poverty of knowledge, especially in low-income informal communities or settlements has more direct link to poverty than income poverty, which is an essential area of future research. As the Biblical adage goes, those communities or nations without knowledge or vision perish.

Essentially, 'poverty of knowledge' is one of the many findings of this research that we would have liked to pursue had there been time and financial resources to further explore the nexus between poverty of knowledge and environmental degradation, especially in the low-income communities. This is particularly the case given our assertion that poverty of knowledge can better explain the

incidence of biophysical environmental deterioration as opposed to income poverty.

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APPENDICES

**APPENDIX 1: Questionnaire for Households of Informal Settlements
(Kroo Bay, Susan's Bay and Kanikay)**



**DE MONTFORT
UNIVERSITY**

LEICESTER · MILTON KEYNES
BEDFORD · LINCOLN

September 2003.

Dear Sir / Madam,

Consent to participate in Informal Settlement Research Survey.

This study explores the interface between poverty and the biophysical environment in the informal settlements in Sierra Leone. It is carried out as a partial fulfilment of the requirements for the researcher's Ph.D. in the Built Environment at De Montfort University, Leicester in the United Kingdom.

There are no foreseeable risks involved with this research. The main potential benefit of this study is to be able to make effective and efficient policy recommendations for poverty alleviation, especially in informal settlements for better quality of life within the built environment. No costs or payment are associated with participating in the study. If any discomfort or doubts should arise regarding issues addressed in the study, participants are at liberty to ask the researcher / surveyor questions or discusses their feelings.

I agree to take part in this research project and I fully understand that:

1. The time required for this survey is about 55 minutes.
2. The nature of any participation involves a questionnaire consisting of sections 1 – 5.
3. My participation is entirely voluntary and I may withdraw from taking part at any time without penalty or prejudice.
4. All information supplied are confidential, used for research purposes only and will be destroyed within five (5) years after completion of the study.

Name of Researcher: William L. Farmer

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Participant (Sig.).....Date:.....Researcher (Sig.).....Date.....

Cc: Dr. O. John Ebohon.

Questionnaire for Informal Settlements – Subject Groups: Answer all questions from sections 1 to 5.

Section 1: Background information. Please mark (x) against your answers.

1. Age: A (20-24) ...; B (25-29) ...; C (30-34) ...; D (35-39) ...; E (40+)
2. Sex: A (Male) ...; B (Female)
3. Status: A (Married) ...; B (Single) ...; C (Other – specify)
4. What is your educational background?
A (No formal education)
B (Primary level)
C (Secondary level)
D (Graduate level)
E (Other – specify)

Section 2: Socio-Economic and Political Aspects: Please mark (x) against your answers.

5. Employment – are you working? A (Yes) ...; B (No)
a) if no, please go to question 8.
6. What is the nature of your work?
A (Civil Servant or Public Employee)
B. (Private Employee)
C. (self-employed)
D. (Other – specify)
7. What is your total monthly income (including the income of other family members)?
A (Up to Le50,000)
B (From Le50,001 to Le60,000)
C (From Le60,001 to Le70,000)
D (From Le70,001 to Le80,000)
E (From Le80,001 and above)

Are the following within your locality and used by your household

8. Infant School? A (Yes) ... B (No) ... C (Don't know) ...
9. Primary School? A (Yes) ... B (No) ... C (Don't know) ...
10. Secondary School? A (yes) ... B (No) ... C (Don't know) ...
11. Market? A (Yes) ... B (No) ... C (Don't know) ...
12. Health Centre/Clinic? A (Yes) ... B (No) ... C (Don't know) ...

- 13. Traditional Healer? A (Yes) ... B (No) ... C (Don't know) ...
- 14. Church? A (Yes) ... B (No) ... C (Don't know) ...
- 15. Mosque? A (Yes) ... B (No) ... C (Don't know) ...

- 16. To whom do you go for community problems?
 - A (Community Head/ Leaders) ...
 - B (Religious Leaders) ...
 - C (Customary Court) ...
 - D (Police Station) ...
 - E (Other – specify)

- 17. Do you support any Political Party?
 - A (Yes) ... B (No)... C (Not sure) ...
 - a) if no, please go to question 21

- 18. Which Political Party do you support?
 - A (Ruling Party)
 - B (Majority Opposition Party)
 - C (Minor Opposition Party)
 - D (None of the above)
 - E (Other – specify)

- 19. What is the main reason for supporting the Political Party you have chosen?
 - A (Because my family supports it)
 - B (Because it promotes the interest of the poor)
 - C (Other – specify)

- 20. Do you vote? A (Yes) B (No)

Section 3: Housing and Environmental Conditions: Please mark (x) against your answers

- 21. How did you come about your building plot?
 - A (Through unauthorized possession)
 - B (Through the community leaders)
 - C (Through my relatives/friends)
 - D (Other – specify)

- 22. Has your building plot been surveyed?
 - A (Yes) ... B (No)
 - a) if no, please go to question 24

- 23. What is the approximate size of the plot?
 - A (Up to a quarter town lot)
 - B (From a quarter town lot to half town lot)
 - C (From half town lot to one town lot)

D (From one town lot and above)

24. Do you hold title to the plot/land?

A (Yes) ... B (No) ...

a) if no, please go to question 26

25. What title do you hold?

A (Freehold) B (Leasehold) C (Licence) D (Other – specify)

26. Describe your house / dwelling

A (Owner-occupier)

B (Rented / Tenant)

C (Other – specify)

If tenant, please go straight to question 30

27. When was this dwelling built?

A (Up to 1 year ago)

B (From 1 to 5 years ago)

C (From 5 to 10 years ago)

D (From 10 years and above)

28. Have you extended, improved or altered your present dwelling in any way?

A (Yes) B (No) If no, please go to question 30

29. What is the exact nature of alteration to dwelling?

A (A room was added to accommodate family members)

B (A room was added to rent out)

C (Quality of building materials was improved)

D (Other – specify)

30. How satisfied are you with your dwelling unit?

A (Satisfied) B (Indifferent) D (Dissatisfied)

31. How many people sleep in one room?

A (1) B (2) C (3) D (4) E (Above 4)

32. Do you pay rent for your room?

A (Yes) B (No) If no, please go to 34

33. How much rent do you pay per month?

A (Le10,000)

B (From Le10,001 to Le20,000)

C (From Le20,001 to Le30,000)

D (From Le30,001 and above)

34. Is your accommodation / environment affected by flood?

A (Yes) B (No) If no, please go to 36

35. How often is your accommodation / environment flood?

A (All the year round)

B (Mostly during the raining season)

C (Mostly during high tides)

D (Other – specify)

36. Which of the following services are within your locality and used by your household?

A (Water supply) B (Electricity) C (Drainage) D (Garbage collection) ...

E (Non of the above) F (Other – specify)

37. Have there been any government intervention to improve public services, amenities and infrastructure in your community?

A (Yes) B (No)

38. Have there been any private group effort to improve public services, amenities and infrastructure in your community?

A (Yes) B (No)

39. Where do you do your cooking?

A (Outside kitchen) B (Open place) C (Other – specify)

40. What is the main fuel used for cooking?

A (Wood fuel) B (Charcoal) C (Kerosene) D (Electricity/Gas)

41. Which of the following do you suffer from in the settlement/community?

A (Smoke) B (Bad smell) C (Noise) D (Other – specify)

Section 4: Nutrition, Health Care and family Planning: Please mark (x) against your answers

42. How many times do the family have meal per day?

A (Once) B (Twice) C (Thrice) (Other – specify)

43. What kind of illness do the family generally suffer from?

A (Malaria) B (Diarrhoea) C (Respiratory Diseases) D (Malnutrition)

E (Other – specify)

44. Where do you go for treatment?

A (Local Clinic) B (Health Centre) C (General Hospital) D (Traditional

Healer) E (Other – specify)

45. Have you suffered any child death in the family since moving into this settlement?
A (Yes) B (No) If yes, please go to question 46

46. How many deaths?

A (1) B (2) C (3) D (Over 3)

47. Do you practice family planning/birth control?

A (Yes) B (No)

Section 5: Attitudinal Aspect: Please mark (x) against your answers.

48. Why did you particularly choose to live in this settlement?

A (Because I knew people there)

B (Because I had no option)

C (Because I cannot afford housing in the formal settlement)

D (Other – specify)

49. Are you willing to pay for utility services such as water, electricity, drainage and so on if introduced on your plot?

A (Yes) B (No) C (I am not sure)

50. Which other place would you like to go if you were to leave this place immediately?

A (I have no idea where to go to)

B (To another settlement with better facilities)

C (To the Village)

D (Other – specify)

51. What is your impression about different government attitudes towards your settlement?

A (No previous government did anything to improve our conditions)

B (Previous governments attempted to improve our conditions)

C (Present government has done nothing to improve our conditions)

D (Present government has promised to improve our conditions)

E (Other – specify)

52. What do you think is the solution to the problem of informal settlements?

A (Upgrading)

B (Demolition and Re-housing of occupants)

C (Both information and education to empower residents improve themselves)

D (Other – specify)

APPENDIX 2: Questionnaire for "Stakeholders"



**DE MONTFORT
UNIVERSITY**

LEICESTER · MILTON KEYNES
BEDFORD · LINCOLN

September 2003.

Dear Sir / Madam,

Participation in Informal Settlement Research Project.

I am currently involved in a research project addressing issues related to the Built Environment (Property Management) and Informal Settlements in Sierra Leone. The study explores the interface between poverty and the biophysical environment in informal settlements to be able to make effective and efficient policy recommendations for poverty alleviation. The study or project is performed as a partial fulfilment of the requirements for my Ph.D. in the Developing World Built Environment Research Unit at De Montfort University, Leicester, in the United Kingdom. Your participation in this project will provide useful information about the identification of constraints and the search for remedies to poverty alleviation, especially in informal settlements for better quality of life within the Built Environment.

Participation in this study is strictly voluntary and as such participants may withdraw from the study at any point without prejudice. Your contribution to this study will be added to others and no one will have access to any information you have volunteered, nor shall any use of the information you supply be accredited to you in publication. Complete confidentiality is assured, hence the anonymity.

The questionnaire consists of eight (8) questions only and will take about 30 minutes to complete.

Many thanks for your assistance.

Yours faithfully,

W. L. Farmer.

.....
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Cc: Dr. O. John Ebohon.

Questionnaire for Informal Settlements – Concerned Groups or Stakeholders:

Please answer all questions (1 – 8) to the best of your ability and use additional sheets if space provided cannot accommodate all your answers.

1. What in your opinion are the causes of informal settlements in Freetown?

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2. What policy measures should be taken to improve the conditions of the poor?

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3. What do you think of the government’s efforts towards upgrading informal settlements so far?

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4. What do you think of the international funding agencies’s efforts at improving informal settlements and residents?

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5. How could the international funding agencies act better?

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6. What in your opinion are the constraints on informal settlement upgrading programmes?

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7. How could these constraints be overcome?

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8. Which informal settlements in Freetown do you rank as a priority for upgrading programmes? Please rank according to priority and offer reasons.

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This is the end of the questionnaire. Thank you for your assistance and participation.

**APPENDIX 3: Correlation and Simple Regression Analysis for
Susan's Bay and Kanikay**

Appendix 3: Correlation and Simple Regression Analysis for Susan's Bay and Kanikay Settlements

Table A3.1a Pearson Correlation Two-tailed P-value Test for Susan's Bay Settlement

Correlations

		Monthly income	People sleeping in one room
Monthly income	Pearson Correlation	1.000	.361
	Sig. (2-tailed)	.	.083
	N	24	24
People sleeping in one room	Pearson Correlation	.361	1.000
	Sig. (2-tailed)	.083	.
	N	24	52

From Table A3.1a:

Coefficient of correlation $r = 0.361$

Two-tailed p-value = 0.083

This result shows $P > 0.05$, which suggests no linear association between poverty and overcrowding.

Table A3.1b Regression Statistical Significance F-test for Susan's Bay Settlement

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.827	1	3.827	3.301	.083 ^a
	Residual	25.506	22	1.159		
	Total	29.333	23			

a. Predictors: (Constant), Monthly income

b. Dependent Variable: People sleeping in one room

From Table A3.1b:

Regression Mean Square 3.827

Residual Mean Square 1.159

= 3.301 = F-ratio

Therefore, $F > 2$ or $F_u < F$, which predicts that poverty has higher chance to likely cause overcrowding.

Table A3.2a Pearson Correlation Two-tailed P-value Test for Kanikay Settlement

Correlations

		Monthly income	People sleeping in one room
Monthly income	Pearson Correlation	1.000	-.024
	Sig. (2-tailed)	.	.892
	N	34	34
People sleeping in one room	Pearson Correlation	-.024	1.000
	Sig. (2-tailed)	.892	.
	N	34	52

From Table A3.2a:

Coefficient of correlation $r = -0.024$

Two-tailed p-value = 0.892

This result shows $P > 0.05$, which suggests no linear association between poverty and overcrowding.

From Table A3.2b:

Regression Mean Square 3.302E-02

Residual Mean Square 1.765

= 0.019 = F-ratio

Therefore, $F > 2$ or $F_u < F$, which predicts that poverty has lesser chance to likely cause overcrowding.

Table A3.2b Regression Statistical Significance F-test for Kanikay Settlement

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.320E-02	1	3.320E-02	.019	.892 ^a
	Residual	56.467	32	1.765		
	Total	56.500	33			

a. Predictors: (Constant), Monthly income

b. Dependent Variable: People sleeping in one room