

SUSTAINABILITY OF BUI RESETTLEMENT SCHEME IN GHANA

By

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DECLARATION

I hereby declare that this submission is my own work towards the attainment of Master of Science in Development Policy and Planning and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

With much joy I dedicate this thesis to my wife, Mrs. Gifty Bewaale Miine and my lovely daughter Anasthasia Somola-ang Miine. They have been my inspiration

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ABSTRACT

Ghana has undertaken many resettlement schemes as a result of development projects; for example Weija, Asuofuah, Tema Manhean, Akosombo and Kpong resettlement schemes. The Akosombo resettlement was built in 1962 by the VRA as a result of the Akosombo dam construction which displaced about 80,000 people living along the river. The same VRA had the opportunity to build the Kpong Dam and to resettle the displaced people around the Dam catchment area that will be inundated after the dam construction. These past resettlement experiences of the country were characterized by repeated failures and it is expected that the Bui Dam resettlement will be successful and sustainable. The research therefore seeks to find out how sustainable this particular resettlement is, given the planning process undertaken to implement this Resettlement Planning Framework and best international practices as well as the effect of the resettlement of persons in and around the Dam.

To achieve these objectives, various literatures were reviewed which helped in the selection of variables such as health, education, population for sustainability assessment. Qualitative and quantitative approaches of data collection was designed and applied in conducting this study. The qualitative approach includes in depth interviews, focus group discussions and direct observation of operations, which are important to obtain unintended and unanticipated data on the subject under study. The quantitative approach helped to provide numerical results, which were reported in tables, graphs and charts stating the proportion and the trends of events and occurrences.

The results of the findings indicate that, the people fully participated in the resettlement planning process but the ability to influence decision making concerning their own lives was weak. Though the resettlement initially adopted the participatory planning process, it was abandoned along the way and this posed a threat to the resettlement. For example monitoring and evaluation appears absent in the implementation of the resettlement Planning Process. The result of this has brought serious negative consequences on the resettled people. Some of these are compensation lands are of poor quality, new farmland preparation assistance insufficient, crop compensation has not been paid, host communities do not know how much of their lands have been acquired to know the compensation due them, LEP has not started, no optional ground for fishing and many more. However the resettlement appears to have learnt lessons from previous resettlement in the country such that the provision of

infrastructure and social amenities are satisfactory as compared to their old settlement. These positive effects stand the chances of been derailed because of the loss of livelihood. Some of the recommendation for sustainability of the resettlement is the immediate restoration of livelihood support programmes and well as community empowerment programs. Also effective monitoring and evaluation of the resettlement need to be undertaken by the Bui Power Authority.

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LIST OF ACRONYMS

ADB	Asian Development Bank
BPA	Bui Power Authority
CDC	Communal Development Committees
CHIPS	Community-Based Health Planning and Services
DP	Displaced person
EIA	Environmental Impact Assessment
ERM	Environmental Resources Management
KG	Kindergarten
KVIPs	Kumasi Ventilated Improved Pits
LEP	Livelihood Empowerment Program
LEP	Livelihood Enhancement Programme
NGO	Non-Governmental Organization
RAP	Resettlement Action Plan
RPF	Resettlement Planning Framework
RPF	Resettlement Planning Framework
SIA	Social Impact Assessment
UNHCR	United Nations High Commissioner for Refugees
WCD	World Commission on Dams
WCD	World Commission on Dams
WCED	World Commission on Environment and Development

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background of Study

Sustainability is not only one of the principles of engagement in development planning process but also a challenge in most developing countries. In planning circles the notion of development is often equated to sustainable development, which is simply seen as development for the present without comprising that of the future generation (Bruntland, 1987). This notion has guided the development of projects worldwide including large dams and the resettlement of its affected people. To this extend the World Commission on Dams considers that the end of any dam construction must be sustainable improvement of human welfare (WCD, 2000). In Ghana for instance, issues of sustainability has become an important language among development practitioners and a critical ingredient in planning and designing of development projects.

The Sustainability of resettlement has one underlying goal of reinstating affected inhabitants quickly into their old lives (cultural, economic and physical aspects), and if possible more improved and lasting situations. Achieving this goal comes with implicit and explicit challenges that arise because of land acquisition, compensation and integrating resettles into their new home through community participation. In the process, housing, community structures and systems, social networks, and social services can be disrupted as in the case of the Akosombo and the Kpong resettlement schemes (Raschid-Sally.et al, 2008).

In Ghana, the issue of the Sustainable Dam resettlement became more pronounced during the construction of the Akosombo Dam in 1964; creating the need for various inhabitants within the catchment area, such as villages of the Kete Krachie District, Afram Plains and the Akosombo Township, to be resettled (Chambers, 1970). Subsequently other similar project such as the Bui Dam construction has come with resettlement package for the affected communities. In the case of the Bui resettlement package eight (8) communities with a total population of 1,216 people has been resettled (BPA, 2008). As a result of this development, a Resettlement Planning Framework (RPF) was developed by the Bui Power Authority to ensure successful resettlement of the affected communities. The main elements of the

Resettlement & Community Support Program include: New resettlement townships with Communal Facilities such as Community Centre, Nursery, Place of worship, Boreholes, KVIPs, houses, compensation for loss of economic trees at Land Valuation Board rate, Grants (GH100 for relocation, GH50 to till new farm), income support (GH 100/month/household for one year) and more importantly livelihood enhancement programs to boost economic activities (BPA, 2008). These elements are expected to turn the people around in terms of poverty alleviation, job creation and enhanced standard of living. The people participation in the whole process is also critical to the sustainability of the resettled lives.

1.2 Problem Statement

Ghana's history of dam construction for irrigation and hydropower dates back to the early 60's with many dams being constructed for irrigation and electricity purposes. However, it was only with the construction of the Akosombo Dam on the Volta River that the problems around resettlement emerged. The dam required resettlement of 80,000 persons but even today 40 years after the construction there has not been complete resolution of the issues which has threatened the sustainability of the project (Raschid-Sally et al., 2008). Considering the experience from the Akosombo resettlement project and other resettlements projects, it is expected that the Bui resettlement project provide a replacements for the affected people, as well as ensure a continuous link between the generations of the families. This would consciously address issues relating to the prevalent socio-cultural and economic dimensions of the victims' lives as well as persistent and potential environmental challenges.

Unfortunately, scholarly assessment of the Bui resettlement has critiqued a number of issues; paramount among them are issues of participation, compensation, livelihood and the level of infrastructure development. (Sutcliffe, 2009). In fact Sutcliffe (2009) concludes that, it may only be a matter of time before communities begin to desert resettlement as it happened in Akosombo.

Perhaps the cost required for implementation of resettlement programme could exceed the financial capacity of the country or may be the planning process involved in the resettlement was not properly managed and implemented. Some other outstanding problems that could affect the resettlement are the absence of social infrastructure in the settlement sites. For example in the absence of schools, health facilities, motorable roads, communication

networks, etc., could make the life of resettles burdensome. Problems associated with these and similar other factors could create a challenge not only on the target group but also on the country's economy, host communities and the natural environment.

Cernea (1999:17-18) argues that resettlement causes landlessness, marginalization, food insecurity, increased morbidity and mortality, loss of access to common property and social disarticulation. Resettlement schemes could be examined critically in terms of these socio-economic processes, land, climate, infrastructure and political environments in which they are found (Oberai, 1992).

In describing the sustainable threat of the resettlement of the Bui area, Sutcliffe (2009), concluded that,

“the Bui Dam, which is an outcome of industrial development for the local people’s future livelihoods is still very much an unknown quantity. On the whole, the local population is not against the Bui Dam project, but that the authorities risk losing the valuable support of the local population if they do not alter their exclusive practices and recognize the local people as major stakeholders in the development process”.

The research therefore is inclined at examining some of the factors that has caused these gaps to ensure sustainability of the project for future generation.

1.3 Research Questions

1. What were the processes involved in the planning and implementation of the Bui resettlement scheme and how they affect its sustainability?
2. What are the effects of the resettlement scheme on the lives of the project affected people?
3. How can the resettlement scheme be made sustainable or maintained?

1.4 Main Objective

The aim of the research is to assess the sustainability of the Bui resettlement scheme in line with the socio-economic, cultural and environmental needs of the beneficiaries and the host communities.

1.5 Specific Objective

1. To examine the processes involved in the planning and implementation of the Bui resettlement scheme and how have they affected its sustainability.
2. To examine the effects of the resettlement scheme on the lives of the resettles.
3. Find out the extent to which the resettlement can be made sustainable or maintained.

1.6 Scope

The study will be based in the seven resettled communities, namely Brewohodi, Dam site, Agbegikuro, Lucene, Bui village, Bator/Akanyakrom, Dokoyina, that have been divided between two districts (Bole and Tain), two host communities (Gyama and Bongase) and two regions. (see appendix IV).

1.7 Justification of the Study

Dam Resettlement and its social issues are important aspects of sustainable development. The overall objective of every resettlement scheme is to empower beneficiaries in order to enable them live their normal life after the project implementation (WCD, 2000). What is significant to note is that, the inhabitants affected in the resettlement package of the Bui dam are largely in the poverty bracket. It is important that any development intervention does not further impoverish them or make them worse off in future (Sutcliffe, 2009). These circumstances need to be turned around to ensure sustainability of any resettlement scheme especially that of Bui resettlement scheme. In addition, there is the need to assess the sustainability of the Bui resettlement project to inform policy makers about development gaps that need to be filled to make it successful.

Moreover, the construction of the Bui Dam is likely to bring along with it a sudden economic and infrastructural boom in the area. The success of the resettlement project has a potential of representing the basis of future development agenda in the area. It is also to ensure that the communities are adequately prepared for preventive and not corrective measures against the impact of the development of the Bui Dam in its social, spatial and local economic planning schemes.

Finally, the research undoubtedly would provide guidelines and policy lessons for the government as well as all planners to actively consider cultural and socio-economic needs of

the inhabitants as well as prevalent environmental challenges in the area and ensure that further developments stand the test of time.

1.8 Research Methodology

The method adopted in the research can be seen at three levels. The first stage involved all the preparation for field survey. These include determination of sampling units and frame and procedure, pre-test of questionnaires and determining variables. The second stage looks at moving to the field for actual data collection. And the last stage involves data analysis and presentation of data.

Qualitative and quantitative approaches of data collection was designed and applied in conducting this study. This is because qualitative method helps to choose certain individuals and elicit detailed and comprehensive information that is in line with different research questions. The qualitative approach includes in depth interviews, focus group discussions and direct observation of operations, which are important to obtain unintended and unanticipated data on the subject under study (Bouma, 2000; Raj, 1988)

The other important method in this study is the quantitative approach. This method helps to provide numerical results, which can be reported in tables, graphs and charts stating the proportion and the trends of events and occurrences. In addition to this, quantitative method is necessary to obtain data for making predictions and generalizations (Bouma 2000; Selltiz, et.al, 1959; Raj, 1988).

In order to achieve the objectives of the study, both primary and secondary data was elicited from primary and secondary sources. Primary data was obtained through a questionnaire survey whereas secondary data was largely collected from published and unpublished literature.

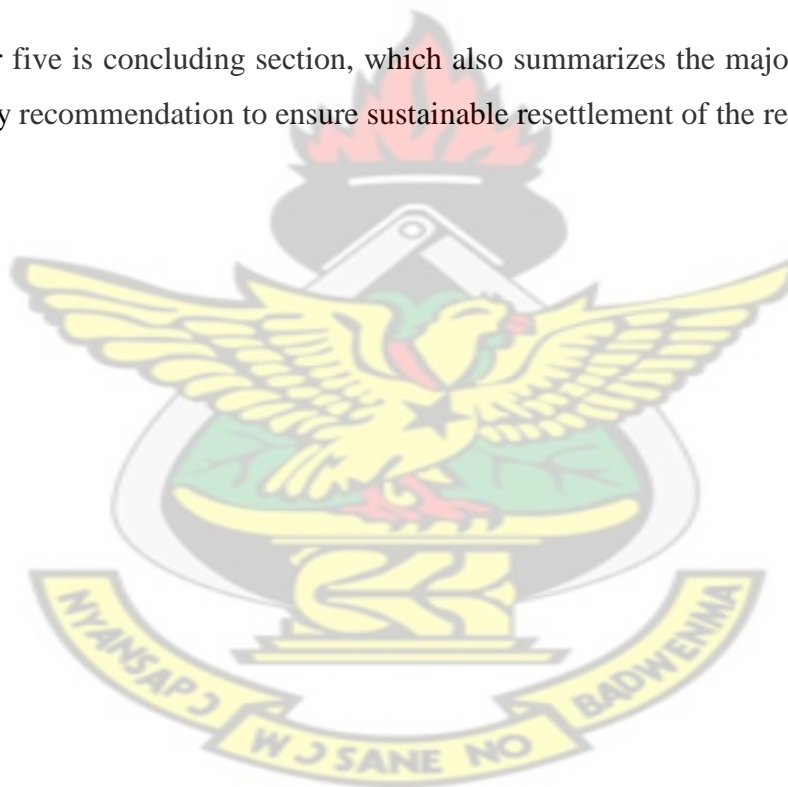
1.9 Organization of Study

The thesis is organized into five chapters. Chapter one is the introductory part, which discusses historical background of the study, statement of the problem, significance of the study, limitations and scope of the research paper, objectives of the study, research questions.

The second chapter is a brief overview of the conceptual framework and review of relevant literature.

Chapter three comprise the methodology applied in achieving the objectives set out in the study while chapter four centre on major finding and analysis of data.

Finally, chapter five is concluding section, which also summarizes the major findings of the study and policy recommendation to ensure sustainable resettlement of the resettles.



CHAPTER TWO

RESETTLEMENT AND SUSTAINABLE DEVELOPMENT: A CONTEXTUAL REVIEW

2.1 The Concept of Resettlement

The concept resettlement lends itself with numerous names and definitions such that it becomes difficult for one to establish a comprehensive meaning to the concept. Various authors have attempted to explain the concept. For example Woldeselassie, (2002) defines resettlement as the movement of communities from one environment to the other, and changes or modifications of the physical and social environment in which resettles find themselves in and adapt to, he further explains the concept as a variety of migration types. This perhaps explains why some writers refer to the concept in other terms such as ‘population resettlement’, ‘population relocation’, ‘forced migration’, ‘population redistribution’, ‘transplanted population’, ‘displaced people’, ‘evacuees’ and ‘refugees’.

Historically, Pankhurst, (1992), suggest that the term resettlement has been used mainly to convey the idea of people returning to an area they had, or supposed to have lived in previously from the eighteenth century onward. This is emphasized by the African Union (2009) report on resettlement; where it actually referred to the situation as internal displacement and goes further to define it as involuntary or forced movement, evacuation or relocation of persons or groups of persons within internationally recognized state borders. This is also not different from the UNHCR report (2011) where there term is used to mean the selection and transfer of refugees from a State in which they have sought protection to a third State which has agreed to admit them – as refugees – with permanent residence status. This is emphasized by El-Hinnawi (1985) when he first describes resettles as environmental refugees and went on to further describe them as people who have been forced to leave their natural habitat, temporarily or permanently, due to a marked environmental disruption (natural and/or triggered by people) that seriously jeopardizes their existence and/or seriously affected the quality of their lives. Kassahun (1997) introduces a similar dimension to the debate when he sees resettlement as an activity of population removal and the reconstruction of social and economic systems, and that if used as a noun, it will refers to the people or the group summation of a displaced population. This is not far from the view of Mulugeta and Woldesemait (2011) who defines resettles as persons or groups of persons who are forcibly

or voluntarily forced to flee or leave their places of habitual residence in order to avoid the effects of natural and/or human-made disasters and resettle within internationally recognized state borders.

A close look at the various definitions indicates that resettlement is simply a movement or transfer of human population from one location to another whether voluntary or involuntary. Also two different dimensions pops up in the various definitions, these are that resettlement could be voluntary or willing by the people due to the effect of the development project and involuntary if the people are forced out. However even though issues of sustainability appears to be missing in the definitions given, implicit in them is the idea that people who are affected by resettlement, need to restore their original lives back in their new settlement and also need to be empowered economically, socially and to ensure the sustainability of the resettlement scheme.

2.2 Types of Resettlement

According to Woube (2005) there are four types of resettlement schemes in any given country namely: Spontaneous, emergency, forced, voluntary, and involuntary resettlement. This according to him may be grouped into Non-planned resettlement including spontaneous and emergency, and forced resettlement and planned resettlement comprising voluntary and involuntary resettlements. What is important in this typology of resettlement is that, they are not mutually exclusive to each other. This means that depending on the factors affecting the process of planning and implementation of a resettlement scheme it could be described as planned or unplanned. For example if factors such as historical, socio-political, economic, physical, technology and cultural are not properly handled by the institutional framework set up to manage the effect of the resettlement, it could affect a resettlement planning process such that a planned resettlement could actually lead to an unplanned resettlement especially when that planned resettlement proves to be unsustainable and vice versa.

Available literature indicates that voluntary resettlement applies to people who on their own will decide to relocate to enjoy better conditions. This is defended much strongly by Thu Yen (2003), who indicated that Voluntary movement of people such as rural-urban migration and transmigration programs organized by governments often aims to stimulate economic growth. Thus the people involved in such movements are likely to be self-selected, young or

middle-aged men that are single or households headed by such men. These resettles are normally dynamic, initiative, and with willingness to take risks and pursue new opportunities and challenges. The Asian Development Bank (1995) reports that for government to achieve sustainable resettlement, it should adopt planned type of resettlement where significant attention is not only to new home sites, but also to new livelihood opportunities, social services, and community organizations and even cultural and religious needs.

Accepting this view of voluntary resettlement implies that involuntary resettlement involves people of all ages and genders, some of whom may be evicted against their desires. What is important here is that many of these people may be risk averse and may lack the dynamism, initiative to move and reestablish in a new location and undertake new avocations. This means that without significant help, people who are involuntarily resettled may become impoverished. To mitigate this effect the ADB (1995) suggest that since involuntary resettlement is unavoidable, it should be well planned and executed so that economic growth is enhanced and poverty reduced, especially for such vulnerable people. If the effect is not well managed then it will fit well into Phoneprasuth (2012) description of the situation as to development induced displacement or forced migration or internal displacement.

2.3 Effects of Resettlement Schemes on the Lives of the People

A review of available literature provides two distinct effects of resettlement schemes in developing countries. These are safely grouped into positive and negative effects. For example Brightmer (1983) reported that, apart from little displacement effects; there were positive changes in socio-economic and physical structures, as well as, income and landscape development. Such changes according to him are, the growth of communities, increased population, and building of public institutions, improved standard of living, and promotion of inter community relations among others. Further, Olawepo (1997, p. 73) opined that the Kainji resettlement scheme was one of the most successful efforts of resettlement in developing countries because it had made the resettles better off than where they were originally located. According to him the resettlement provided social infrastructures, settlement growth and socialization. This means that if resettlement are properly planned and implemented, then it has some benefits to the community been resettled.

On the other hand, other studies have revealed that despite the positive effects of resettlement, negative effects cannot be ignored. Cernea (1998) found out that resettlement normally results in the loss of people livelihood and income sources such as arable land, common property resources such as forests, grazing land, ground and surface water, fisheries and changed access to and control of productive resources. Cernea (1998) further argue that the loss of economic power with the breakdown of complex livelihood systems results in temporary or permanent, often irreversible, decline in living standards of the people leading to marginalization.

In addition, according to Walter Kalin (2000), involuntary resettlement should be avoided or minimized where feasible by exploring all viable alternative project designs. This means that the effects of resettlement are so strong that the resettlers find it difficult to recover. Again, Mulugeta and Woldesemait (2011) claimed that resettlement experience is usually unproductive, ineffective, catastrophic, grievous, and environmentally detrimental to the people involved.

Alula (2009) introduce a social dimension to the effects of resettlement by concluding that it leads to loss of people livelihood and income sources such as arable land, common property resources, and sometimes involves abuse of human rights. Also the works of Mengistu (2005), Gebre (2009) and Wolde-Selassie (2009) also vividly depict the absolute failure, harsh and ruinous life experience of resettles in Ethiopia over previous decades. According to Cernea (2000) sociological studies has increasingly revealed the psychological and socio-cultural stress, high mortality and morbidity associated with involuntary resettlement. According to Cernea (2000), the result of result of involuntary resettlement in most part of the world are that farming system were destroyed, arable lands and social support networks are dismantled leaving many small and medium families impoverished. Ayanda (1988) posits that involuntary resettlement affects the organization and structure of local market, different from the previous patterns. To conclude Cernea (2000) mentions eight risks affecting displaced people, pointing out, however, that this classification is not exhaustive;

1. Landlessness –The problem of landlessness might take the form of loss of whole or part of previously inhabited land and/or lack of access to common property resources. The consequence of lack of access to resources that communities depend on is a

decline in the economic productivity of entire communities, coupled with negative social changes.

2. Joblessness –As the author noted, this problem is present among both rural and urban populations. Within the rural space joblessness or underemployment is primarily the consequence of the loss of land, while in urban areas, displaced people experience great difficulty in finding jobs.
3. Homelessness –All categories of displacement are associated, at the minimum, with long-time loss of shelter. In many cases, it might mean persistent homelessness affecting whole families.
4. Marginalization –The author pointed out three categories of marginalization facing displaced people: economic, social, and psychological. Economic marginalization is primarily caused by slow or sudden displacement of those in a currently lower economic position. As an example, he noted the economic marginalization of small farmers.
5. Increased morbidity and mortality –Health risks affecting displaced people are the consequence of malnutrition, inadequate sanitation, and lack of access to the water supply. Inadequate sanitation may cause the transmission of epidemic diseases such as diarrhea, dysentery, etc. The author also drew attention to the negative psychological consequences of displacement.
6. Food insecurity –Decrease in the level of human security caused by displacement may be a temporary or permanent problem. Very often, it is a consequence of landlessness and reduced access to common resources. Particularly at risk of food insecurity and malnutrition are women and young children.
7. Loss of access to common property–(bodies of water, forests, grazing lands). The use of local shared resources is an important economic strategy for many indigenous communities. These resources enable people to carry out many of their daily economic activities: fishing, collecting firewood and food.

These effects are very important in assessing the sustainability of a resettlement such as that of Bui because when they do occur and are not properly managed, then it could make them leave the resettlement site or at worse lead to high level of poverty with health, social and environmental ramifications.

2.4 Sustainable Resettlement Planning Process

During resettlement, the indigenous population loss land, houses, economic trees, resources and other assets the resettled rebuild their incomes and financial assets elsewhere. This requires effective planning, implementation and evaluation of resettlement scheme (ADB, 2010). According to Cernea (2000) a good resettlement plan should embody government responsibility of APs rights, protection of host population or community interest, and environment protection. He observed that although these frameworks are functional requisites for effective resettlement programme, most developing nations including that of Africa lack guidelines, and were there exist lack of experts and policy inconsistency hinders its implementation.

Resettlement plans should therefore be able to define in clear terms entitlements and eligibility of affected persons (APs). Here APs entails all persons who lose or stand to lose physical and non-physical assets as a result of involuntary resettlement. It includes all persons residing in the affected area irrespective of their legal or ownership of titles. It involves squatters and encroachers whose structures, crops and other physical and non-physical assets are destroyed as a result of involuntary resettlement. It include vulnerable groups who are particularly disadvantaged as a result of resettlement; that is the very poor without legal titles to assets; it involves ethnic minorities, pastoralists, indigenous people and households headed by women (ABD, 2010).

Resettlement plans should also take into consideration short-term and long-term income strategies for APs. The short-term income strategies (STIS) should include compensation for land, payment of subsistence allowances, house construction grants, and payment of transportation allowance or cost of removal to new settlement, tax waivers, special assistance to vulnerable group such as widows, the aged, disabled and orphans. The Long-term income strategies (LTIS) include physical and non-physical economic activities that could provide and cater for sustained source of livelihood over a long period of time for all APs. It includes the provision of employment, training for income generating Small And Medium Enterprises (SMEs). It entails the provision of low or no interest loans to APs (ADB, 2010).

Monitoring and evaluation are vital tools in resettlement planning and implementation. Monitoring here entails a continuous process of collecting, analyzing and reporting the

progress of resettlement activities for the purpose of providing information for adjustment and proper implementation of the resettlement plan. Evaluation is a process of judging outcomes with set goals or objectives as entrenched in the master plan of the resettlement programme or scheme. Monitoring and evaluation ensures that entitlements (both physical and non-physical) are delivered to APs (UNHCR, 2004; ADB, 2010).

The planning and implementation of resettlements could also be successful if provision is made for adequate funds and personnel's. Effective participation of APs in the planning and implementation process of resettlement schemes is necessary. APs should be involved in every sphere of the programme. They should be involved in evaluating whether the resettlement programme is going as planned. (Jubril, 2006; ADB, 2010).

Resettlement plans should also be able to define in clear terms, the distinct ethnic, cultural and political attributes of the APs, this requires professional or experts. The social organization of the APs should be catered for in the plan. It involves not only returning the people to their former lives, but enhancing their living standards, welfare and provision of means of sustaining the improved order (Cernea, 2000).

The Asian Development Bank and World Bank provides a comprehensive resettlement planning process for its development project. This can be seen in table 2.1

Table 2.1: ADB resettlement planning process

Topic	Contents
Scope of land acquisition and resettlement	Describe, with the aid of maps, scope of land acquisition and why it is necessary for main investment project. Describe alternative options, if any, considered minimizing land acquisition and its effects, and why remaining effects are unavoidable. Summarize key effects in terms of land acquired, assets lost and people displaced from homes or livelihoods. • Specify primary responsibilities for land acquisition and resettlement.
Socioeconomic information	Define, identify and enumerate people to be affected. Describe likely impact of land acquisition on people affected, taking into account social, cultural, and economic parameters. Identify all losses for people affected by land acquisition. Provide details of any common property resources. Specify how project will impact on the poor, indigenous people, ethnic minorities, and other vulnerable groups, including women, and any special measures needed to restore fully, or enhance, their economic and social base.
Objectives, policy framework, and entitlements	Describe purpose and objectives of land acquisition and resettlement. Describe key national and local land, compensation and resettlement policies, laws, and guidelines that apply to project. • Explain how Bank Policy on Involuntary Resettlement will be achieved. • State principles, legal and policy commitments from borrower executing agency for different categories of project impacts. •

	Prepare an eligibility policy and entitlement matrix for all categories of loss, including compensation rates.
Consultation, and grievance redress participation	Identify project stakeholders. Describe mechanisms for stakeholder participation in planning, management, monitoring, and evaluation. • Identify local institutions or organizations to support people affected. • Review potential role of nongovernment organizations (NGOs) and community-based organizations (CBOs). Establish procedures for redress of grievances by people affected.
Relocation of housing and settlements	• Identify options for relocation of housing and other structures, including replacement housing, replacement cash compensation, and self-selection. Specify measures to assist with transfer and establishment at new sites. • Review options for developing relocation sites, if required, in terms of location, quality of site, and development needs. Provide a plan for layout, design, and social infrastructure for each site. • Specify means for safeguarding income and livelihoods. • Specify measures for planned integration with host communities. • Identify special measures for addressing gender issues and those related to vulnerable groups. • Identify any environmental risks and show how these will be managed and monitored.
Income restoration strategy	• Identify livelihoods at risk. • Develop an income restoration strategy with options to restore all types of livelihoods. • Specify job opportunities in a job creation plan, including provisions for income substitution, retraining, self-employment and pensions, where required. • Prepare a plan to relocate and restore businesses, including income substitution, where required. • Identify any environmental risks and show how these will be managed and monitored.
Institutional framework	• Identify main tasks and responsibilities in planning, negotiating, consulting, approving, coordinating, implementing, financing, monitoring and evaluating land acquisition and resettlement. • Review the mandate of the land acquisition and resettlement agencies and their capacity to plan and manage these tasks. • Provide for capacity building, including technical assistance, if required. • Specify role of NGOs, if involved, and organizations of APs in resettlement planning and management.
Resettlement budget and financing	• Identify land acquisition and resettlement costs. • Prepare an annual budget and specify timing for release of funds. • Specify sources of funding for all land acquisition and resettlement activities.
Implementation schedule	Provide a time schedule showing start and finish dates for major resettlement tasks. • Show how people affected will be provided for before demolition begins.
Monitoring and evaluation	• Prepare a plan for internal monitoring of resettlement targets, specifying key indicators of progress, mechanisms for reporting, and resource requirements. • Prepare an evaluation plan, with provision for external, independent evaluation of extent to which policy objectives have been achieved. • Specify participation for people affected in M&E.

Source ADB,1998

In all this process the Bank requires consultation and participation from affected. The bank further indicates that Consultation with APs is the starting point for all activities concerning resettlement. People affected by resettlement may be apprehensive that they will lose their livelihoods and communities, or be ill-prepared for complex negotiations over entitlements. Participation in planning and managing resettlement helps to reduce their fears and gives APs an opportunity to participate in key decisions that will affect their lives. Resettlement

implemented without consultation may lead to inappropriate strategies and eventual impoverishment. Without consultation, the people affected may oppose the project, causing social disruption, substantial delay in achieving targets or even abandonment, and cost increases. Consultation can be fostered by holding public meetings and identifying focus groups. Planners might draw on participatory problem-solving methods, supplemented by use of the media in scattered or broad areas. Household surveys represent an opportunity for direct consultation.

A simpler one is prescribed by the World Bank Operational Manual (2002) on resettlement planning. In the manual Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component or subcomponent. The scope and level of detail of the resettlement instruments vary with the magnitude and complexity of resettlement. In preparing the resettlement component, the country should draw on appropriate social, technical, and legal expertise and on relevant community-based organizations and NGOs. The Bank recommends that potentially displaced persons should be informed at an early stage about the resettlement, aspects of the project and their views should be taken into account in the project design.

The International Finance Corporation handbook for preparing a Resettlement Action Plan also recommends the following process involved in resettling people. These are

1. the identification of project impacts and affected populations;
2. a legal framework for land acquisition and compensation;
3. a compensation framework;
4. a description of resettlement assistance and restoration of livelihood activities;
5. a detailed budget;
6. an implementation schedule;
7. a description of organizational responsibilities;
8. a framework for public consultation, participation, and development planning;
9. a description of provisions for redress of grievances; and
10. a framework for monitoring, evaluation, and reporting.

In all this resettlement planning process it can be seen that the contribution of various stakeholders in the planning process is very important. Another feature which present itself is the in this planning process is the need to constantly monitor the planning process to make sure that achieve their objectives. Any attempt to sideline this process may result in resettlement failure in the long run.

Koenig (2001) identifies a number of causative factors in the failure of resettlement projects.

These are:

- weak implementing institutions that carry out an unclear mandate in an authoritarian and uncommitted manner,
- a lack of organizational skills,
- a lack of sociological skills that are necessary to oversee, monitor and evaluate the resettlement process'
- the complexities of the resettlement process, and
- Resistance to resettlement.

She proposes that more democratic processes are the solution to many of these weaknesses in resettlement projects. Resettlement projects generally pursue a top down approach, seemingly in the belief that following international guidelines and national policies will ensure that everything goes right. However, the community concerned is composed of a wealth of information on which project developers have only a limited perspective. It is this knowledge which is invaluable for identifying risks and foreseeing the possible consequences of proposed actions (Koenig, 2001).

2.5 Sustainability and Sustainable Development

The concept of sustainability and sustainable development are closely related in development literature. In most cases the two concepts are often used interchangeably to refer to the same meaning. This combination of sustainability and development tries to reconcile economic growth in the neoclassical tradition with a new concern for environmental protection, recognizing the biophysical “limits to growth” (Meadows et al. 1972) as a constraint to economic development (IPCC, 2007, chapter 12.1.2). While the concept is widely accepted

and adopted as a desirable goal by many institutions, governments, businesses, and NGOs; the term sustainable development and sustainability suffer from definitional ambiguity or vagueness (IPCC, 2007, chapter 12.1.2). Various authors have given varied opinions for the meaning of these concepts because of the numerous dimensions development takes. For example according to Gilman (1990) sustainability refers to equity of time and value thus giving equal weight in your decisions for the future as well as the present. In this meaning, sustainability is limited to the timely use of discretion in decision making for generation yet to be born in the course of development. Rosenbaum (1993) on the other hand sees sustainability as a means of using methods, systems and materials that won't deplete resources or harm natural cycles of man or the environment. The acceptance of this definition means that effective systems are a key ingredient in the sustainability of a society. This is supported by the IFAD Strategic Framework 2007-2010 (IFAD 2007j) definition of sustainability as ensuring that the institutions supported through projects and the benefits realized are maintained and continue after the end of the project. Bossel (1999) holds the view that to sustain the means "to maintain; keep in existence; keep going; prolong.

Giving an economic and environmental twist to the meaning of sustainability, Hawken (1993) believes that sustainability is an economic state where in the demands placed upon the environment by people and commerce can be met without reducing the capacity of the environment to provide for future generations. Long and Hutchins (2003) in preparing a toolkit for sustainability rather look at the term in a much simpler but complex way, thus sustainability means people continuing to want to live in the same community and being able to do so, both now and in the future. This means that sustainability means a change in the society lives and also a long term livelihood of the community becoming better with time.

In view of the plurality of these definitions, the environmental and economic context is an important viable to most working definitions of sustainability. It is therefore not surprising that the most popular definition of the sustainability can be traced to the 1987 UN conference report, released by the Brundtland Commission which defines sustainable developments as those that meet present needs without compromising the ability of future generations to meet their needs. That is to say anything that is sustainable has to last for long so that future generations are not disenfranchised. It emphasizes the need for the present generation to engage in development projects but was quick to add that such development need to be done with caution. Given the historical background of this definition one is tempted to believe that

it limited itself to the sustainability of the environment thus the natural environment over the years. This is so because attempts are to link environmental deterioration with other equally important sectors such as economic, social and cultural factors. For example, the rapid population growth that has so profound an impact on the environment and on development in many regions is driven partly by such factors as the status of women in society and other cultural values. It further indicates environmental stress and uneven development can increase social tensions. Also it could be argued that the distribution of power and influence within society lies at the heart of most environmental and development challenges (WECD, 1987). However at the heart of this concept is the belief that over the long term, social, economic and environmental objectives should be complementary and interdependent in the development process. To emphasize this, the second strategy for sustainable livelihood defines sustainability as improving the quality of human settlement while living within the carrying capacity of the supporting ecosystem (IUCN, 1991).

Plessis and Landsman (2002), also introduce a new dimension to the concept of settlement sustainability which are that a sustainable human settlement are those cities, towns, villages and their communities which: enable societies to live in a manner that supports the state of sustainability and the principles of sustainable development, and have institutional, social and economic systems that will ensure the continued existence of those settlements. This dimension gives emphasis to ensuring that the principles of sustainable development and institutional arrangement are obeyed and respected. This gives backing to the Rio Declaration in 1992 where governments from around the world made a commitment to adopt strategies for sustainable development that will harmonize the various sectoral policies and plans operating in the country.

According to the United Nations Habitat Agenda (UNCHS, 1996), the sustainability of human settlements entails their balanced geographical distribution or other appropriate distribution in keeping with national conditions, the promotion of economic and social development, human health and education, the conservation of biological diversity and the sustainable use of its components, maintenance of cultural diversity as well as air, water, forest, vegetation and soil qualities at standards sufficient to sustain human life and well-being for future generations. South Africa's Breaking New Ground (NDOH, 2004) sustainable settlement policy defines sustainable human settlements as well-managed entities

in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity.

2.6 Assessing Sustainability of Resettlement

The wide spread and extensive discussion of the concept sustainability has provided the need for development practitioners to set parameters to measure and indicate whether a particular resettlement scheme is sustainable or not. According to Morse and Bell, (1999:p5) the development of 'indicators of sustainability', is perceived as a first step towards the operationalisation of the concept, and that sustainability is meaningless unless it is been operationalised or implemented. Indicators of sustainability therefore provide a simplified understanding of these concepts by supplying practical information about the numerous issues encompassed in it. These means that these indicators show how far or close a society is from being a 'sustainable society'.

As the task of defining sustainability progressed in response to early economic thinking, so did the task of its assessment. Ever since sustainable development became the catchword in most international discussions, several approaches to its assessment have been developed (Adinyira et al, 2007). According to Lawrence (1997), sustainability assessment is simply applying the broad principles of sustainability to ascertain whether, and to what extent, various actions might advance the cause of sustainability. In addition sustainability indicators are selected parameters or statistics that can measure or represent economic, social and environmental conditions when tracked over time, (CMHC 1996) as indicators.

In doing this assessment in urban areas Adinyira et al, (2007) identifies three methods namely; 'environmental in general' methods which focus on pollution, environmental valuation and the impact of development on the environment, Life cycle assessment methods which attempts to address broader sustainability issues such as environmental limits, social equity concerns and the need for stakeholder participation and sustainability indicator assessment methods which is an improvement of the life cycle assessment method. This methodology employs a wide range of indicators to characterize the different dimensions or aspects of urban development. Under these assessment Adinyira et al, (2007) argue that sustainable resettlement assessment must be sustainable such that people track their progress

towards sustainability. This attempt at assessing sustainability takes its source from environmental sustainability which has proved to be inadequate, because it is most likely that a community attempts at ensuring environmental sustainability could achieve it through social injustice and wide spread inequalities in the society. The life cycle assessment and methodology method is an improvement of the environmental method of assessment of sustainability. In the case of a resettlement scheme which normally happens in rural area (in the case of Bui) it becomes cumbersome to apply this indicator particularly where most of the affected people are the ill-informed and socially excluded.

To improve on the assessment of sustainability, Plessis (2002) in analyzing the sustainability of Human Settlements in South Africa indicated that for a settlement to be declared sustainable it will depend on the interactions of firstly physical structure thus how the settlement sits within the natural environment and therefore responds to the topography, the spatial relationship between the different parts of the city, and the form of the built environment, secondly the use patterns, which are formed by the way the settlement uses its resources and is described by the infrastructure and services provided. Thirdly the social pattern, that is, how people live, learn and work in, and relate to, their settlement, and the opportunities provided by the settlement for meeting these social needs lastly the operational patterns which limits itself on how the settlement functions and is managed. These elements are very important in assessing the sustainability of any resettlement scheme because it touches on all the various aspects of the lives of the affected people.

Arguably, the most comprehensive set of indicators are the Habitat Agenda Indicators, drawn from the United Nations Habitat Agenda, which recognize these indicators; as sustainable patterns of production, consumption, transportation and settlements development; pollution prevention; respect for the carrying capacity of ecosystems; and the preservation of opportunities for future generations (UNCHS, 1996).

Furthermore, Harris (2003) indicated that in order to do an extensive discussion of the concept sustainability and its assessment, three essential element or aspects need to be recognized thus economic sustainability, environmental sustainability, and social sustainability. What this means is that an economically sustainable system or resettlement must be able to produce goods and services on a continuing basis, to maintain manageable

levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production. Also an environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources. Lastly a socially sustainable system must achieve fairness in distribution and opportunity, adequate provision of social services including health and education, gender equity, and political accountability and participation. The goals expressed or implied are multidimensional and need to be integrated to ensure a far assessment of a sustainable resettlement particularly when competing interest come to play. In the case of a resettlement scheme a balance of the three becomes necessary because various aspects of people's lives are affected by the development of another. Elements of all three perspectives – economic, ecological, and social – are essential to an understanding of the requirements for sustainability of resettlement. To support these elements, Becker (1997) agrees that sustainability assessment indicators are better put into economic, ecological and social or holistic interpretation of sustainability.

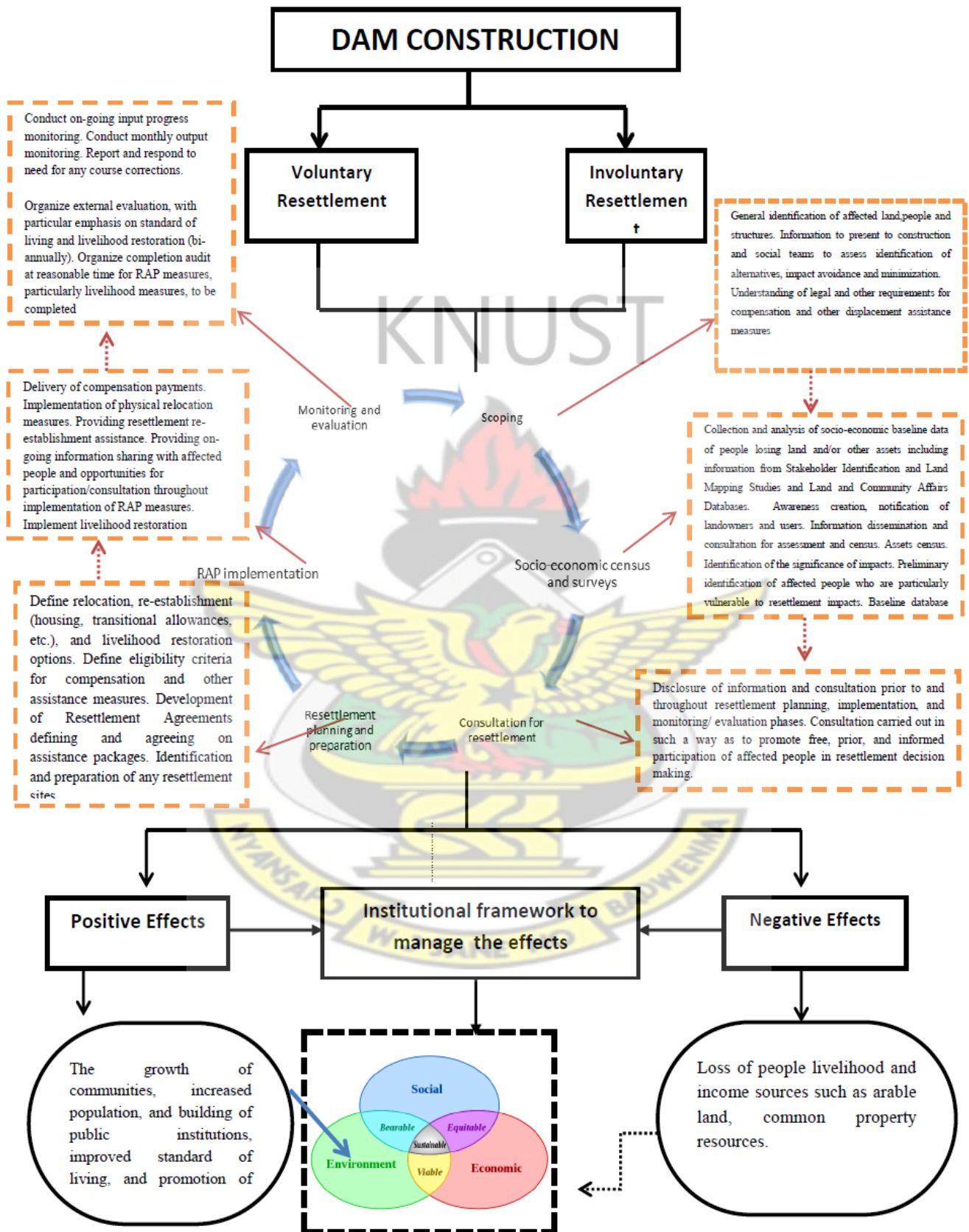
It can be realize that from the above discussion on both the state and trend of sustainability assessment with development projects, three distinct elements are shown-economic, social and environmental. These elements are applicable in the sustainability of resettlement schemes such that a resettlement is said to be sustainable if it satisfy the condition of economic, environmental and social aspiration of the project affected people. it is therefore safe to conclude that an economically sustainable resettlement scheme asses issues of current and past employment and unemployment situation as a result of the scheme, the production and consumption of goods and services in and around, household income, economic value of lost natural resources(forest and fish) as a result of the resettlement of the people. In addition, from the literature reviewed so far, it can also be claimed that a socially sustainable resettlement scheme needs to address issues such as poverty alleviation, compensation, community participation as well as strong institutional mechanism solve problems if they arise, it also include equitable distribution of social infrastructure, decent housing structure to reflect the cultural and economic status of the people and their ability to maintain these structure. Lastly an environmentally sustainable resettlement will look at issues of resource

use and exploitation for local community needs and individual household consumptions, sanitation development to ensure proper waste disposal, rate of soil destruction and loss of forest vegetation for economic reasons. However it is important to recognize that these elements do not exist on their own and measured individually, they are integrated and intertwine especially in the assessment of a resettlement. What is important here is the ability of an effective institution to manage the negative and positive effect of the resettlement scheme, such that it does not result in unplanned resettlement.

Contextually the literature reviewed can be summarized and presented in Figure 2.1.

Conceptually the literature reviewed so far present Dam construction as a necessary evil in an attempt to produce energy for citizenry. This well-intended venture posse a challenge to people whose livelihood depends on this impotent natural resource. The challenge makes it necessary for two types of resettlement to occur; voluntary and involuntary resettlement. In the case of the Bui Dam, the resettlement is involuntary and for that it needs to be planned well. The planning process requires scoping, socio-economic survey, resettlement consultation, plan implementation, monitoring and evaluation. The implementation of the resettlement plan will produces positive and negative effects in the lives of the people that need to be managed to ensure sustainability. The management of the resettlement is done depending on the institutional framework set up during the resettlement planning process.

Figure 2.1: Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY AND PROFILE OF THE STUDY AREA

The objective of this chapter is to describe and discuss the research methodology used for the study based on the objectives set out in the research. The chapter outlines research strategy, approach, and sampling techniques used in conducting the research. It also defines the respondents and statistical technique that has been used in the analysis of the data. The chapter provides a framework for the collection and analysis of data. This section finally described how field data was analyzed for presentation and analysis and the tools used for data presentation and also describe the study area.

3.1 Research Approach

Ghauri et al. (1995), suggest two approaches that can be adopted when conducting a research. These are the quantitative and qualitative approaches. The qualitative methods emphasize understanding, interpretation, observation in the natural setting and closeness to data. The quantitative method consists of the systematic empirical studies which involve quantifying through the assistance of mathematics and statistics (Bryman and Bell, 2007).

According to Carey (1993), quantitative and qualitative techniques are merely tools; integrating them allows us to answer questions of substantial importance. There are several viewpoints as to why qualitative and quantitative methods can be combined. First, the two approaches can be combined because they share the goal of understanding the world in which we live (Haase and Myers, 1988). King et al. (1994) claim that both qualitative and quantitative research shares a unified logic and that the same rules of inference apply to both.

The synergy between qualitative and quantitative research approach in this study are complementary and reinforcing, such that in situation where variables are measured quantitatively, the phenomenon is further explained in details with the help of qualitative data collected. In a survey like this it is necessary to use the two approaches since the opinions; perception and understanding of factors that affect the sustainability of resettlement differ.

The study therefore adopts both the qualitative and quantitative approaches based on its effectiveness in helping to understand the sustainability of the resettlement, and its suitability for the purposes of addressing the research questions.

3.2 Research Strategy or Design

Saunders et al. (2009) discuss some research strategies including experiment, survey, case study, action research, grounded theory, ethnography, and archival research. The research design also represents the road map to conducting the study. The research design is a logical sequence that links the empirical data to the research problems and ultimately to its conclusions. The study uses the survey as a research strategy. A survey is a way to explore an empirical subject by following a set of pre-specified activities and procedures (Saunders et al. 2009). One reason why the researcher uses the survey design is because it helps to establish and make causal inference as to whether the resettlement scheme implemented is sustainable because issues of sustainability cover a wide area. Even though it will be difficult for the people to recollect the past which is one of the challenges of the survey method, the research will rely on the data originally collected for other purpose such as the environmental impact analysis report of the project and the community profile report of the communities in their previous settlement before the resettlement as well as the Resettlement Planning Framework.

3.3 Sampling Design

According to Kothari (2004) there are different types of sample designs based on two factors, thus the representation basis and the element selection technique. On the representation basis, the sample may be probability sampling or it may be non-probability sampling. Probability sampling is based on the concept of random selection, whereas non-probability sampling is 'non-random' sampling. On element selection basis, the sample may be either unrestricted or restricted. When each sample element is drawn individually from the population at large, then the sample so drawn is known as 'unrestricted sample', whereas all other forms of sampling are covered under the term 'restricted sampling'. In the case of this study, the sampling design adopted is the Probability and Non probability. The probability sampling is used to select people in the resettled communities because under this sampling design, every house of the physically resettled community has an equal chance of inclusion in the sample, however, the non-probability sampling is used to identify and select key stakeholders in the

community, official of the Bui Power Authority and the two district that these communities fall. In this selection process the purposive sampling process is most appropriate, where units were selected based on their knowledge on the resettlement scheme.

Also the sampling units in the study include households affected by the resettlement, houses, road network and institutions in the community.

3.3.1 Sample Size Determination

The sample frame included the total number of households within the study area collected during the resettlement period. From the sample frame the study employed a statistical model to settle on the sample size at a 95 percent confidence level with 8 percent margin of error.

$$n = \frac{N}{1 + N(\partial^2)}$$

$$n = \frac{168}{1 + 168(0.08^2)} = 79$$

Where n = the sample size, N = the sample frame (168), 1 = a constant, and margin of error is ∂ = 0.08

Table 3.1: Sample Size of each Community

Name of communities	Number of household	Percentage %	Sample Size	Sample interval
Bator/Akanyakrom (B)	50	30	24	2.08
Bui (B)	32	19	15	2.13
Dam site (A)	5	3	2	2.5
Brewohodi (A)	17	10	8	2.13
Dokoyina (B)	42	25	20	2.1
Lucene (A)	7	4	3	2.3
Agbegikuro(A)	15	9	7	2.14
Total	168	100	79	2.13

Source: Resettlement Planning Framework, 2007.

Using the formula above the total sample of households interviewed is 79. The researcher uses proportion to distribute the sample size for the various communities as shown in Figure above. These proportions were done to ensure representativeness. The researcher uses households because the resettlement was done on household basis. Other sample units such

as stakeholders in the resettlement scheme were also contacted to get their options and the process involved in the resettlement of the people.

3.3.2 Sampling strategy

The sampling strategy employed both Probability and non-Probability sampling strategy to select respondent for the survey. Probability sample strategy included a mixture of Simple Random Sample, systematic sampling and stratified sampling procedure. Probability sample strategy was used in selecting the household for interview. The researcher initially developed a numbered list of all household heads in each resettled community. This was easy to do because the resettlement housing structures were constructed based on households. The list for each community was then arranged alphabetically. Through systematic sampling procedure the researcher selected the sample units. This was done by determining the sample interval needed for the selection of the Nth household from the list. The sample interval was determined by dividing the population or sampling frame by the desired size of the sample needed by each community. For instance Bator/Akanyakrom has a population of 50 households and a desired sample size of 24. Going by the formula provided for sample interval calculation as shown below Bator has a sample interval of 2. This was then applied to each community as shown in table 1

$$\text{Sample interval} = \frac{\text{sample frame (population)}}{\text{desired sample size}}$$

$$\text{Sample interval} = \frac{50}{24} \equiv 2.08$$

After the determination of the sample interval, the household numbers were written on pieces of paper to correspond to the numbered list of household heads initially developed. The pieces of paper, with the numbers written on them were put in a convenient receptacle and well shuffled. One piece of paper was drawn from the receptacle. The selected number represented the first sampled household starting point for the selection on the 2th household. For example if number three was randomly chosen then the first household to be interviewed was household number three on the numbered household list. The next household to be selected on the list will be the household numbered five (thus two counts after three). These steps were followed until the total sample size for that community was met. This process is carried out for each community.

The officers of the Bui Dam site and the various District Assemblies as well as other opinion leaders in the Bui project were selected purposively because they are seen by the researcher to have knowledge about the research objectives.

3.4 Data Collection

This study used qualitative and quantitative primary data collected from the field; with some support from secondary data gathered to enable the researcher assess the sustainability of the resettlement in Bui. Some of the secondary data used are Community Profiles from the District Assembly, Resettlement Planning Framework, and Environmental Impact Assessment Report on the Bui resettlement and other research work done on resettlement.

In collecting primary data various methods such as observation (direct), survey questionnaire and group discussions were used. Direct observation in the study involves taking of photographs showing the effect of the resettlement on the lives of the people, their housing condition and sanitation situation in all the community, it also include a transit walk throughout the communities with a community member in each community.

The survey questionnaire method used in this study involves the use of semi-structured questionnaire, interviewing respondent to elicit information on the sustainability of the scheme. The qualitative aspect of the data collection involves the recording of peoples' opinions and perceptions in responds to questions, and therefore will make more use of open questions where respondents can give their own responses to a set of questions. The frequencies of responses were collated and presented in tables and charts. Also quantitative data such as income source, cost of production, arch rage of farm land, distances from social infrastructure such as school, clinics, water source and the level of housing completion by project implementers.

In interviewing them a semi-structured questionnaire was used to elicit information from the household heads. Each sampled household was faced with a fresh questionnaire and questions were posed to household heads and the respond were filled by the researcher himself. Some questions were open ended to allow respondents express their views, feelings and options about the scheme. For officials who could read and write the questionnaires were administered to them and respondents provided answers without the assistance of the

interviewer. Respondents were given 3 days to complete the questionnaires after which they were returned.

Data collection procedure: in collecting data on the field I used five enumerators at Bui resettlement B and two at Bui resettlement site A (Gyama).

3.5 Reliability and Validity

The validity and reliability of the research depends to a greater extent how properly the questionnaire is designed and administered. Here the questions to be put to respondent were adequate and the objective of the questionnaire was clearly defined. To achieve reliability and validity quality training were given to interviewers to skillfully handle prospective respondents and efficiently administer the survey instrument. Also the survey instrument was pre-tested to enable me correct some of the questions set to make it suitable for collecting the required data.

3.6 Unit of Data Collection and Analysis

Housing: information gathered here were policies on housing, types and the extent of housing compilation and the ability to maintain the housing facility, functional services available, household characteristics and room occupancy.

Agricultural and other occupations: the information gathered were policies on agriculture in the rural areas and the peoples attitude towards it, farming methods, agricultural services incentives, there are also information about workers like fishermen, artisans, salary workers, formal and informal industrial workers etc.

Population: information gathered includes population before and after resettlement and the socio-economic characteristics before and after the resettlement, such as education enrollment, and health records of all the communities. Efforts were also made on establishing the effects of changes in population on the sustainability of the project.

Services: the information covered was on the services of available and provided during the resettlement process. It also covers the spatial distribution of services provided.

Location and site: information gathered included the people's opinion about the location and sitting of the resettlement and their level of involvement in the process.

Environment: information on the effect of the scheme on the environmental sanitation and conservation as well as waste disposal. It also includes their sources of domestic energy and how it impact on the environment sustainability. It also includes issues of adaptation of the people to the resettlement challenges, natural resource utilization, and institutional and legal framework.

Resettlement Planning process: this include primary and secondary data on affected people participation in the planning process, their involvement in decision making process, the events that lead to the actual resettlement of the affected people and their reaction to issues concerning the resettlement planning process and the monitoring of the resettlement by the project implementers.

3.7 Data Processing and Analysis Procedure

Data processing involves editing the questionnaires, coding of responses that could be analyzed quantitatively. The Data were then categorized according to the respective communities and the objective of the study. Appropriate and relevant tools such as affordability, accessibility and community capacity deficiency analysis to examine a household ability to pay for social services and the extent to which community members were capable of ensuring the sustainability of the project. Again community participation in the resettlement process and user satisfaction analysis was under taken to examine and also determine the extent of community involvement in the implementation of the resettlement process and their level satisfaction. This is important because the researcher believes that for any project to be sustainable it will depend on community participation and their level of satisfaction.

In addition quantitative aspects of the data was analyzed and represented in table, charts and Figures. What is important here is that the Quantitative methods look to quantify data and generalize results from a sample of the population of interest. They look to measure the incidence of various views and opinions in a chosen sample.

3.8 Profile of Study Communities

The study area is located in the Bole and Tain district of the Ghana (see appendix VII and appendix V) they are the Gyama resettlement site A and Bui resettlement site B in Bongasi.

Gyama New Settlement is made up of the former communities of Dam site, Lucene, Brewohodi, Agbelikame (North and South) and Agbegikuro. These former communities were migrant communities in the traditional area. These communities have now been settled within Gyama Host Community as Gyama New Settlement (see appendix vii). Being migrants, formerly, they were located at the outskirts of the Gyama Host Community and they paid homage, rent and royalties to the Gyama chief. These communities were categorized as phase A because they were settled in the area the dam was to be constructed. Therefore if they were not resettled, construction work on the dam could not commence. Additionally, these communities were very small, hence, the ease in grouping them as one settlement.

The second resettlement site is located in the Tain district of the Brong Ahafo Region. It is made up of made up of four communities which are

1. Bui,
2. Bator
3. Akayankrom
4. Dokoyina.

The new Resettlement Township is located in Bongase in the Tain District as shown in the appendix III. The planning scheme for Resettlement Part B clearly separates the affected communities into (Bui Village, Bator, Akanyakrom and Dokokyina). All the affected communities had indicated that they would like the arrangement of their houses to reflect the house enumeration exercise carried out by Bui Power Authority in July 2009.

CHAPETER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 INTRODUCTION

This section looks at the presentation of data and the discussion and interpretation of results from the field. In the collection of data there was the administration of questionnaires, personal interview and the extraction of secondary data. The data was analyzed and presented based on objectives set out by the researcher.

4.2 Profile of Respondents

4.2.1 Age and Sex Composition

In all seventy nine (79) sampled household heads were interviewed in all the seven communities that have been resettled. In addition the environmental and resettlement officer of BPA in charge of the resettlement, district assembly and environmental officers were interviewed. The analysis on demographic characteristics of respondent would only cover the 79 household in the seven communities since they are the main focus of the study. For easy understanding and clarity purposes some of the data were grouped on community basis.

There were a total of 472 people recorded in the entire household (79) surveyed. There were variations in the population size according to communities shown in Table 4.1, because of the proportionate distribution of household selected for the survey.

Table 4.1: Sex distribution by communities

Name of community	Female	Male	Total
Agbegikuro	32	27	59
Bator	63	56	119
Brewohodi	22	19	41
Bui	47	38	85
Dam Site	17	15	32
Dokokyina	59	48	107
Lucene	13	16	29
Total	253	219	472

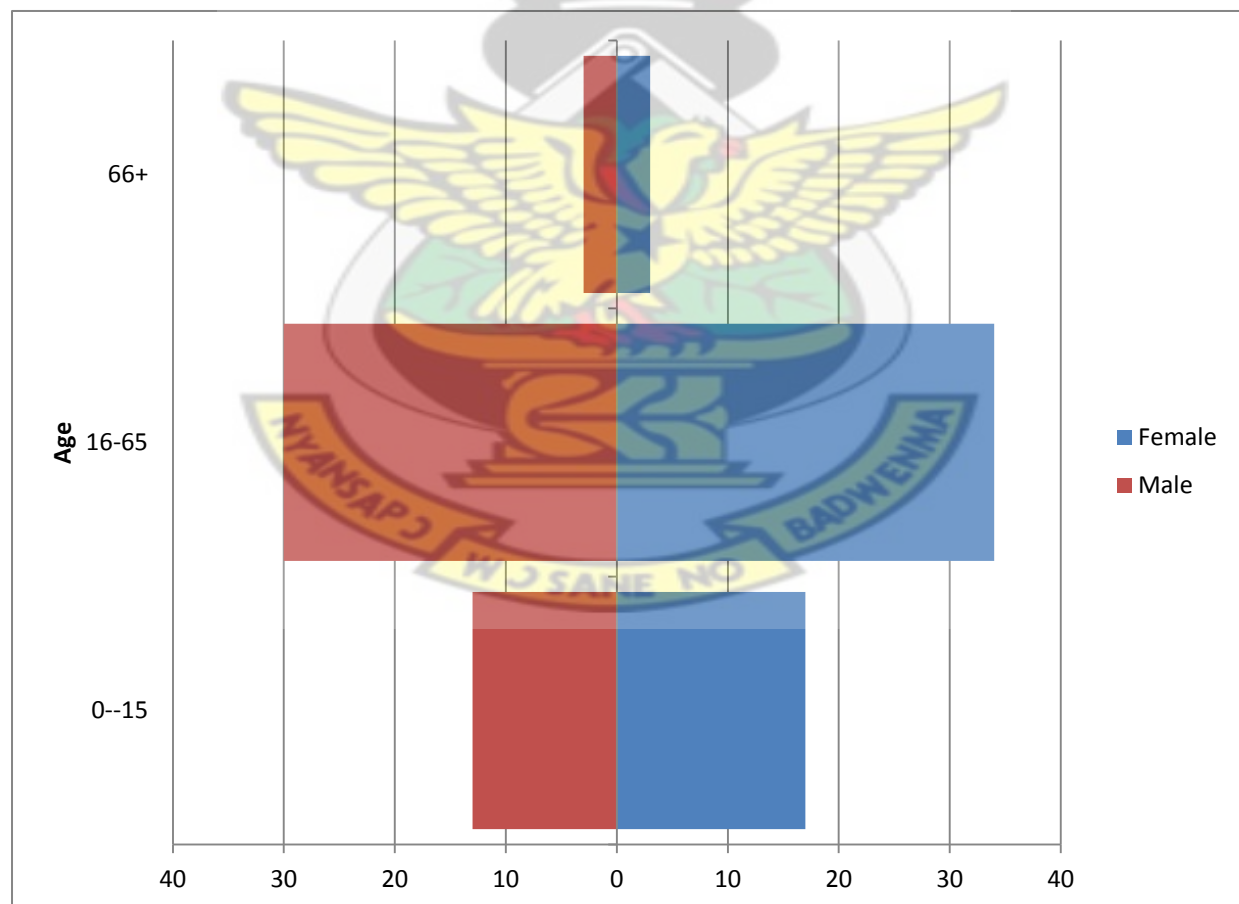
Source: Field Survey, 2014

The age distribution of the population is showed in the population pyramid in Figure 4.1. A population pyramid graphically displays a population's age and sex composition. Horizontal bars present the numbers or proportions of males and females in each age group. The sum of all the age-sex groups in the population pyramid equals 100 percent of the population.

The Figure shows higher children (0-15) and much youthful population with ages (16-65). The structure of the pyramid therefore represents a Rapid growth because a large percentage of people are in the younger ages

The implication of this to the sustainability of the resettlement is that, there is need to emphasis on educational training for children of school going age and placing much importance of skills training for the youth to create employment.

Figure 4.1: Population Pyramid of households



Source: Field survey, 2014

The people in the ages 16-64 are considered Labour force because they are those who are eligible and available for work or employment. While 0-15 and 64 plus are considered dependent because they are those who are mostly in the basic schools and weak to do work. The age structure is important because it forms the basis for determining the dependency ratio of the population.

The age-dependency ratio is the ratio of people in the “dependent” ages (those under age 15 and ages 65 and older) to those in the “economically productive” ages (15 to 64 years) in a population. The age-dependency ratio is often used as an indicator of the economic burden the productive portion of a population must carry—even though some people defined as “dependent” are producers and some people in the “productive” ages are economically dependent.

The age-dependency ratio in study is 60. This means that there were 60 people in the dependent ages depend on every 100 people in the working ages and this means that a less burden is on the average adult. This is because few people would depend on the rest of the adult population. This also means that for every 10 working adults there are 6 people that need to be supported, be it through education, health social security. The lower dependency ratio is better for local economic development such as skills training. Not only does it mean more people in the workforce are contributing to productivity, but also that more resource can be directed towards investment in the community.

$$\text{Age Dependency Ratio} = \frac{\text{children (under 15)} + \text{old age (65+)}}{\text{working population (16 – 64)}}$$

$$\text{Age Dependency Ratio} = \frac{147 + 27}{300} = \frac{174}{300} = 0.573333 \approx 0.6 \times 100 \equiv 60$$

In terms sex distribution females are more than the males in households surveyed. Females constitute about 52 percent while males make up the 48 percent. This reflects the national pattern of sex distribution where women are more than males but the most marginalized. Though females are more than males, males are traditionally the heads of households. The role of males and females in households are clearly defined. Women are not mostly consulted in decision making in the household and the communities as a whole. The lack of

opportunities for women, particularly in decision-making processes, has a negative impact not only on their lives but detrimental to sustainability of communities.

Empowering women to participate fully in economic life is essential to building strong affective local economies; creating more stable and just societies; achieving national agreed goals for development, sustainability and human rights; and improving the quality of life of women, and consequently, that of communities. For the sustainability of resettlement, the impact of greater gender equality and women's empowerment would be highly beneficial to the resettled communities.

4.2.2 Ethnicity and religion

There are three (3) main religious beliefs/groups in the two Resettlement sites (Bui and Gyama). They are Islamic, Christianity and African traditional Religion (see Table 4.2). The most dominant is Christianity which covers 92% of the entire Sample Survey, followed by the traditional who takes 6%, then Islam Religion being the less dominant with a percentage of 2. This also means that complains about the construction of worship centre for the resettlers need to be taken seriously to promote good interpersonal relationship among settlers and BPA.

Table 4.2: Distribution of Religion by community

Community	Christianity	Islam	Traditional	None	Total
Agbegikuro	47	7	5	0	59
Bator	103	2	6	8	119
Brewohodi	32	0	3	6	41
Bui	60	6	7	12	85
Dam Site	24	0	0	8	32
Dokokyina	99	1	3	4	107
Lucene	15	0	6	8	29
Total	380	16	30	46	472

Source: field survey, 2014.

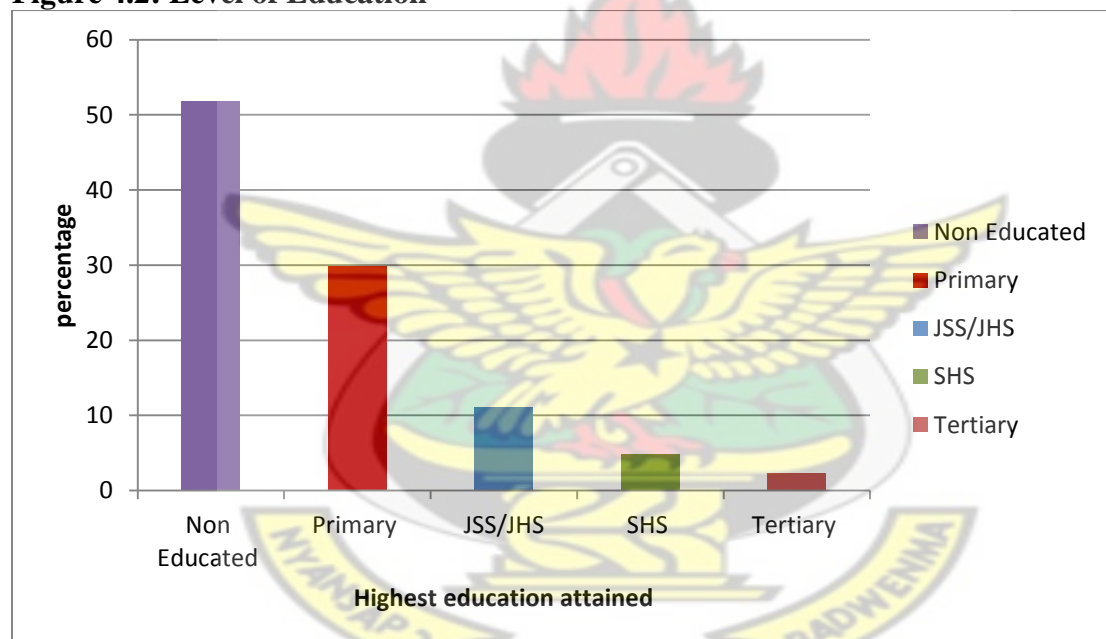
Ewes, Mo, Dagaare, Banda, and Akan are the most common ethnic groups in the entire resettlement site. Other characteristics of the people of Resettlement sites are mostly of the patrilineal descents. Polygamy is not common and perhaps this explains why they are Christian dominated. The diversity of ethnicity and religion in the resettlement site is a good

sign for peace which can impact positively on the sustainability of the resettlement communities.

4.2.3 Educational Background of Households

The educational background of households surveyed shows that about half of the population has not attained any form of formal education (see Figure 4.2). The rest however have attained various level of formal education. Educational background was generally low. The low level of education means implies is that there is the need for Agric extension officers to help farmers restore their lost livelihood at their new settlement since most of them are into agricultural activities.

Figure 4.2: Level of Education



Source: Field Survey, 2014

4.2.4 Literacy status

Literacy has traditionally been defined as the ability to read and write, with understanding, a short, simple statement about one's everyday life (UN 2008). The level of literacy can enhance the sustainability of the resettlement because they will be able to understand documents presented to them, it will also help them to know their rights and responsibilities.

The survey revealed that literacy rate in the various communities is generally low. Among household heads, literacy is very low (table 4.3). The low literacy rate (or high illiteracy rate) suggests the community members in the past have not received any literacy programmes that will enabled a large proportion of the population to acquire the ability of using the written word (and making simple arithmetic calculations) in daily life. It also confirms the number of people who have any form of formal educations. The low literacy rate among household could affect settlement sustainability because it will affect their understanding of issues and the also affect their self-esteem in decision making concerning their lives.

Table 4.3: Literacy status of household heads

Community	Can you read and write English		Can you read and write in the Local Language	
	YES	NO	YES	NO
Agbegikuro	0	7	0	7
Bator	2	22	1	23
Brewohodi	1	7	0	8
Bui	0	15	0	15
Dam Site	0	2	0	2
Dokokyina	0	20	0	20
Lucene	0	3	0	3
Total	3	76	1	78
Percentage	4%	96%	1%	99%

Source: Field survey, 2014.

4.2.5 Household Size

Households and families are the basic units in which most people live. Trends in the number, type, and composition of households are important to sociologists, planners, and policymakers. For example, municipal services are provided to households, not to each individual. A household in this study is defined as one or more people who occupy a single housing unit. Households consist of unrelated people or people related by birth, marriage, or adoption

The household size represents the number of people living together as one unit in a house and sharing common property and resources. The communities were resettled according to the household found in the old settlement site. From the surveyed households the current average

household size is 6, this higher than the national average of 4 (PHC 2010) and the household size before resettlement.

$$\text{Household size} = \frac{\text{Total Number of households members}}{\text{Total number of household surveyed}} = \frac{472}{79} = 5.97 \approx 6$$

What it means is that on the average, each household contains six people. This represents an increase in the household size since resettling five years ago. Before resettlement the average household size was 4 however after resettlement the average household is 6. The increase in household size implies that household heads have much greater responsibility in ensuring quality education for children, health and food security.

4.3 Effects of the Resettlement on the Lives of the People

4.3.1 Population change and control

Population control is vital to achieving the sustainable vision of resettled communities. An increase in the population at the resettled site as a result of migration could improve economic activities and promote a sustained source of income for residents. On the other hand it could result in increase in crime and serious environmental challenges if not checked or controlled. In addition an expansion in numbers can increase the pressure on resources and slow the rise in living standard in areas where deprivation is widespread.

From the survey conducted it was realized that at the initial stage of the resettlement people were moving into the community in search of jobs during the construction of the Dam (see table 4.4).

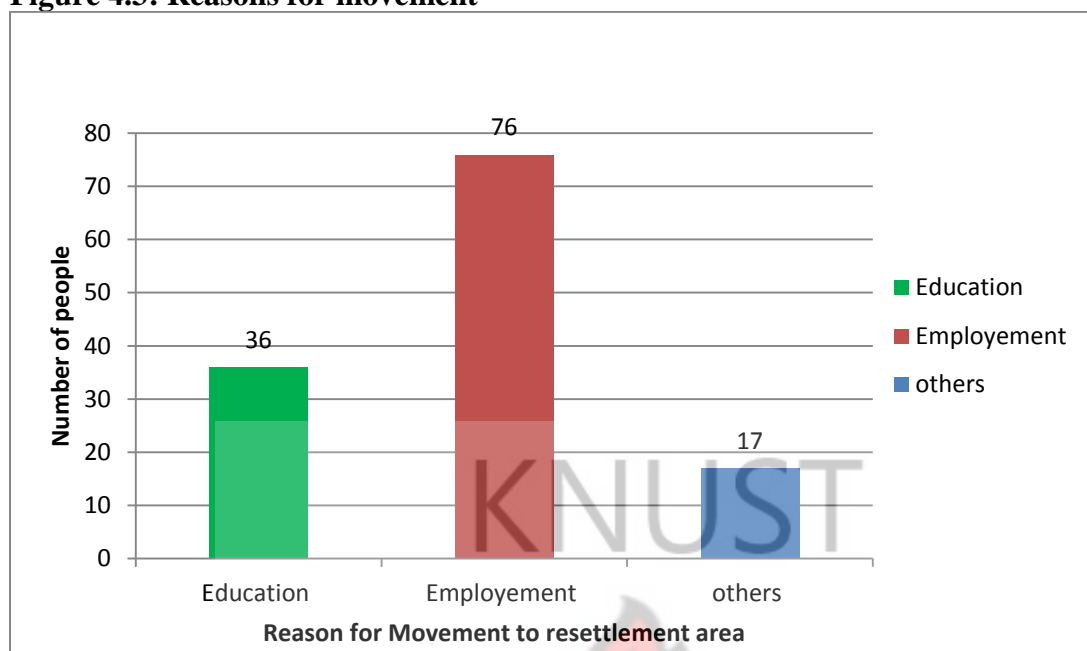
Table 4.4: Number of new people moving into household since resettlement and Region of origin

Community	Region of origin				
	Brong Ahafo	Volta	Upper West	Northern	Total
Agbegikuro					
Bator	12	4	5	3	24
Brewohodi	13	10	15	2	40
Bui	15	3	3	5	26
Dam Site	1	0	1	0	2
Dokokyina	19	0	0	2	21
Lucene	3	0	0	6	9
Total	63	17	24	18	122

Source: Field Survey (2014).

Brong Ahafo recorded the highest number of people moving into the resettled area. Few of them moved from the Volta (17), Upper west (24), and Northern (18) regions. This is mainly because of the proximity of the project site to the surrounding communities which are mainly located in the Brong Ahafo, Upper west, Volta, Northern Regions respectively. Most of this people were coming from towns like Wenchi, Kintampo, Bui, Banda Nkwnata, Bongasi, Bamboi, Bole, Banda, Kanka. In addition, most of this people were relatives who were located in other parts of the country. The main reason for the migration of people into resettled community was to search for jobs (see Figure 4.3).

Figure 4.3: Reasons for movement



Source: Field Survey, 2014.

During the construction of the Bui Dam, people mostly relatives moved to the area because of the employment opportunities that were available at the Dam site. People who came into the community because of education or schooling were mostly children of relatives who lived in surrounding communities that did not have schools for their wards to attend. It was also observed that such school children were brought into the household because of the compensation that was given each household member as part of the resettlement package. Even though these children were not beneficiaries of the resettlement package, they could not be turned away by close relatives who were household heads.

There were also reports of people moving into the resettled communities to trade and for employment with BPA. This increase also resulted in an emerging land Lords-Tenant system, where most of the rooms that were constructed for the resettled households were rented out to causal workers of BPA engaged in the Dam construction and also to traders. There are also instances where the host communities were also beneficiary of renting of rooms to “new comers”. The rents charges and the rules engaged in renting were not backed by any law and not monitored by any agencies. This growing phenomenon in the resettled communities were based mainly on mutual respect and understanding of the two parties. These new trend resulted in an increase in the demand for rooms by causal workers of BPA and other financial institutions established in the dam site. As a result of this, most household heads rented out their rooms which increased the number of children occupying a room. This is because in

most case children were put in one room which had serious health implications on them. Some of the household heads also made attempts to increase the number of rooms constructed for them by BPA. At the time of the survey very few houses had finished extending their houses.

The increase in household size presented a fine opportunity for increase in Agric products and the upsurge of economic activities such as trade. It also provided an opportunity for skills training. This would have gone a long way to set alive a vibrant community of economic activities for investment.

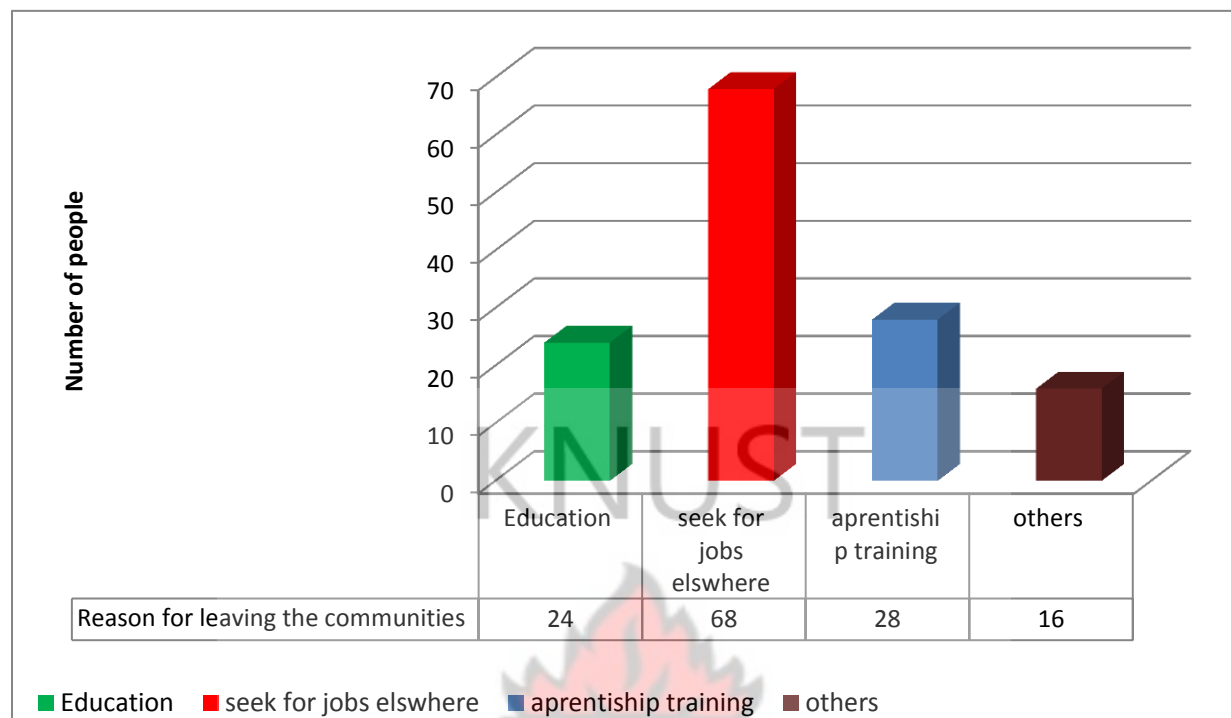
However this effect failed to occur as the migrants left the community after they were laid off by BPA. They moved to other parts of the country for various reasons (see table 4.5 and Figure 4.4).

Table 4.5: Number of people moving out of the households since resettling

Community	Region of origin				Total
	Brong Ahafo	Volta	Upper West	Northern	
Agbegikuro	7	19	0	3	29
Bator	10	2	3	2	17
Brewohodi	15	4	11	1	31
Bui	11	1	3	4	19
Dam Site	3	0	1	0	4
Dokokyina	20	1	0	1	22
Lucene	4	0	3	7	14
Total	70	27	21	18	136

Source: Field Survey, 2014

Figure 4.4: Reasons for leaving the community



Source: Field Survey, 2014.

Even though some of expressed their desire to stay in the community to farm and fish, they faced difficulties in getting land and the distance travelled to get to the river for fishing. This situation is different from their old settlement because the access to land was not a challenge there. Some of them recount that at their old settlement, they could farm any acreage of land that they wanted, however this is absent from this new place. They therefore indicated that if it was their old resident this people would not have left. This has affected the growth of economic activities with some financial organizations threatening to leave the dam site because of low savings. The decrease in the number of people living the community is a threat to the sustainability of the resettlement. There are fears that if these trends continue the community in the long run will become a deserted community.

In addition to population change is the relatively low birth and death records in households since resettling in the community as shown in the table below

Table 4.6: Number of Births and Deaths recorded in the surveyed households

	Number of Birth recorded	Number of death Recorded
Community	Respondents	Respondents
Agbegikuro	10	2
Bator	17	4
Brewohodi	4	0
Bui	10	1
Dam Site	6	0
Dokokyina	13	0
Lucene	4	3
Total	64	10

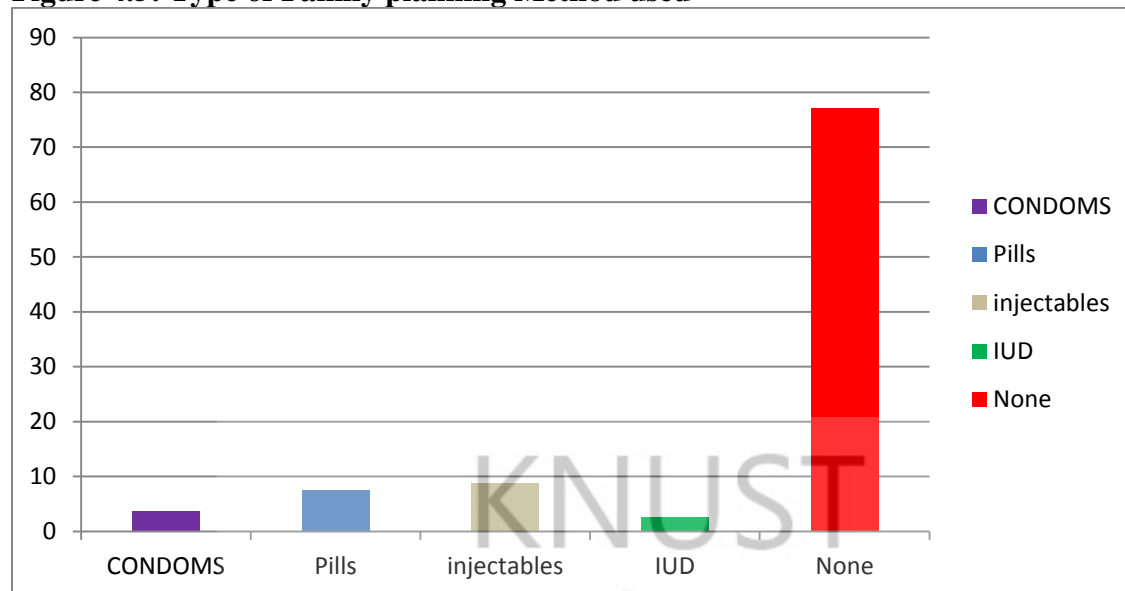
Source: Field Work, 2014.

Table 4.6 above shows a relatively high birth recorded among households since resettling in the community but a relatively low death rate in the community. This reflects an improvement in the health services of the people.

In addition to the population dynamics, it was revealed that awareness of family planning methods was high with 55 of household heads indicating that they had knowledge about the use of family planning methods but they could not confirm that they are practicing any of the methods.

Household heads further indicated that that they were aware of family planning mainly through public health professional (35%) who visited them in their old settlement site and their new resettlement site as well. Other sources of information on family planning were through (friends 24%) and the media (10%). However their awareness did not translate in usage of as shown in the Figure 4.5.

Figure 4.5: Type of Family planning Method used



Source: Field Survey, 2014.

About forty six percent of respondents, even though aware of family planning were reluctant to indicate which method they were using because they were shy. They however confirmed that they used one of the methods to prevent pregnancy. Another revelation that came out of an interview with health professionals stationed at the resettlement Clinic and CHIPS Centre was the high usage of the family planning methods by the women who used it without the knowledge of their husbands. They however revealed that after resettlement most women have discontinued the use of family planning methods because a woman reportedly had a strange disease and attributed it to the use of family planning measure. The news of this woman spread in the entire resettled community discouraged them to adopt family planning again. This posed a great threat to population control measures which will affect the sustainability of households and the resettlement as a whole.

The trend in population growth from the survey shows an increase in the population of the resettled communities and the host community. This present a good opportunity for developing a sustainable resettlement, On the other hand if not properly managed it could lead to further reduction in the population of resettled community resulting in a ghost community. There is therefore the need for Bui Power Authority and the District assembly to introduce sustainable measures such as local economic development and skills training in order to stimulate investment in the area.

4.3.2 Access to health care

Access to health care represents one of the significant changes that have occurred in the lives of the resettled people. Before resettlement none of the communities had a clinic located in their settlement. However, their major source of orthodox health service during that period was the clinic and health centre located at Bungase and Gyama. The distances traveled to these facilities were on the average of 1-2 hours as compared to the current average of 30 minutes walking distance. See table 4.7 and 4.8

Table 4.7: Accessible health Facility and the time used to cover to get to such facility (before resettlement)

Health Service Patronised before Resettlement	Travelling Minutes to the Facility before Resettlement			Total	Percentage
	0-30mins	1-2hrs	3-4hrs		
Health Centre	0	5	9	14	19
Clinics	0	33	3	36	48
Chemical /pharmaceutical Shop	0	2	0	2	3
CHIPS	0	2	0	2	3
Traditional healers	5	12	4	21	28
Total	5	54	16	75	100

Source: Field Survey, 2014.

During the survey, it was also observed that before resettlement community members of various settlements had serious challenges in accessing health service.

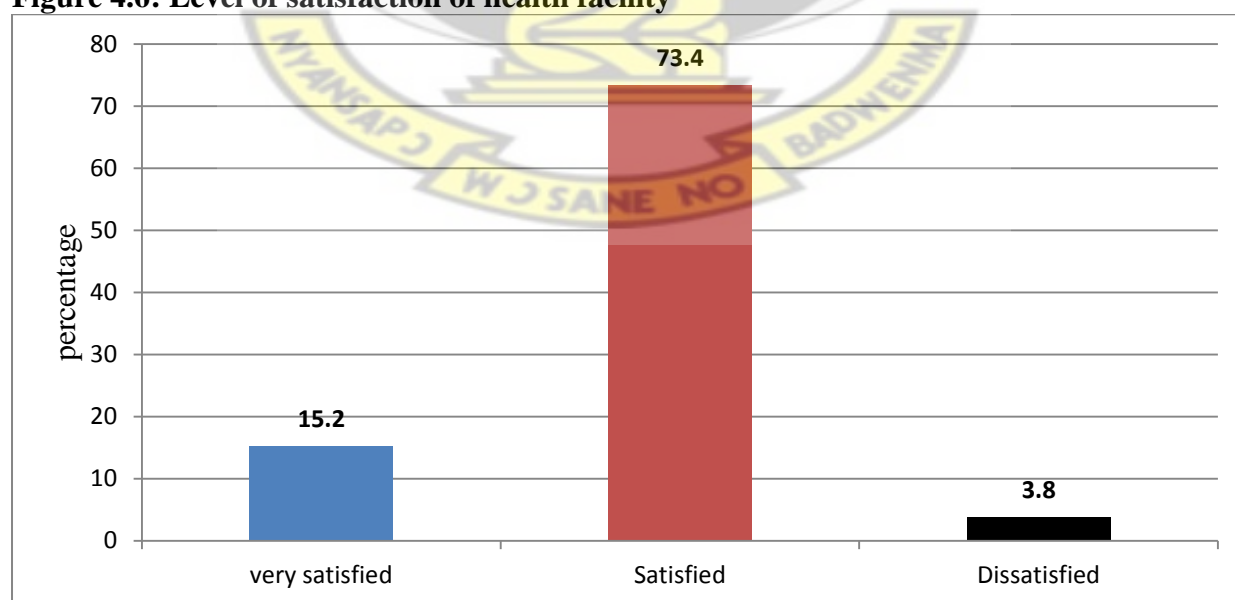
Some of these challenges include long distance travelled poor road network, and financial difficulties. Some of these challenges no more exist in the new resettlement community. It is therefore not surprising that ninety six (96%) of people now have access to health care service from the both clinic and CHIPS compound all in the community as shown in table 4.8.

Table 4.8: Accessible health facility (after resettlement)

Health Service Patronised after resettlement	Travelling Minutes to the facility after resettlement			Total	Percentage
	0-30mins	1-2hrs	3-4hrs		
Health Centre	0	0	0	0	0
Clinics	22	0	0	22	16
Chemical /Pharmacuetical Shop	0	0	0	0	0
CHIPS	60	0	0	60	80
Traditional healers	3	0	0	3	4
Total	75	0	0	75	100

Source: Field Survey, 2014.

From the two tables 4.7 and 4.8, it can be seen that the situation after resettlement has improved especially with distance travelled by resident to the nearest health centre. About 74 respondents before resettlement indicated that the distance has reduced travelled from 1-4 hours before resettlement to 0-30 minutes. However there is shift from the use of the clinic to the health access the use of CHIPS by the people because that what the community have been provided improvement in access is as a result of the construction of a new CHIPS compound at resettlement B (Bui) and the rehabilitation of health centre in Gyama. The quality of health care provided is also another important component in the sustainability of every resettlement community. The survey therefore sought to fine the level of satisfaction about the services provided as seen in Figure 4.6.

Figure 4.6: Level of satisfaction of health facility

Source: Field Survey, 2014.

Generally the level of satisfaction has been high and this is because they now have easy access to health facility and the quality of healthcare delivery. The high level of satisfaction expressed by the people is an indication that, the resettlement has resulted in quick and efficient health care.

In addition to the measure of quality are the facilities available at CHIPS and clinics in resettlement site B and A respectively. The health facilities in the two resettlement sites now have Maternity Ward, Dispensary, and freezer for storing vaccine, outpatients department, an antenatal unit, a family planning unit (see plate 1).

Plate 1: Resettlement CHIPS Compound



Source: Field Survey, 2014.

In addition to this, the people now have easy access to health professional stationed in the communities. For resettlement site B they can now boast of a Midwife, three Community

Health Nurses which did not exist at their old settlement site. Also the Banda District Hospital is the referral point for this CHIPS facility for resettlement site B which is just a thirty minutes' drive from the resettled community while the Bole District Hospital is the referral point for resettlement A. In the case of resettlement site A, Bui Power Authority renovated the clinic to improve quality and easy access to health service in Gyama. They also have a midwife, four community health nurses.

4.3.3 Access to education

Education in every sense is one of the fundamental factors of sustainable resettlement development. This suggests that education plays a great role in the sustainable development of resettled communities and it can be seen as central to their economic growth and social transformation. This role is explained in how education helps nations to have enhanced life quality and a better standard of living. For this reason it was important to conduct a survey of the resettled community.

Resettlers before resettlement did not have easy access to educational facilities. With the exception of Bator and Dokoyina who had only primary schools, Agbegikuro and Bui could only boast of a kindergarten (KG). The rest which are Brewohodi, Dam site and Lucene had no educational facilities and their pupils traveled to neighboring community. (See table 4.9). Some of the reasons why access to education was low in these communities are because these communities did not meet the threshold to be given a school facility.

Table 4.9: Educational facilities before resettlement

Agbegikuro:	1 preschool, no primary school. Pupils continue at Gyama.
Bator:	1 primary school, established 1951, Pupils continued at Bui Camp.
Brewohodi:	No schools, pupils go to Bui Camp or Gyama
Bui:	1 preschool, Pupils continued at Bui Camp.
Dam Site:	No schools, pupils go to Agbegikuro and Bui Camp.
Dokoyina:	1 primary school, established 1996. Pupils continued at Gyama or Bui Camp.
Lucene:	No school, pupils continued at Gyama Pupils travel to Gyama or Bui Camp to attend primary/junior school.

Source: Field survey, 2014.

After the resettlement all the communities have access to educational facilities from the pre-school to junior high school level. Each resettlement site has a primary school and a junior high school as seen in the plate below.

Plate 2: Educational facilities at resettlement site



Source: Field survey, 2014

The communities express satisfaction to the easy access they have for their wards; they however indicated that the school is faced with lack of teachers, computer laboratory and Text books as well as teaching and learning materials (see table 4.10). A visit to the schools in the resettlement site reveled similar problems. Resettlement site A had four qualified trained teachers in primary school and three qualified trained teachers in the JHS. The rest of the teachers were just secondary school leavers who doing pupil teaching but were not receiving salary. In resettlement B they could only boast of two trained teachers at the primary school and two trained teacher at the JHS.

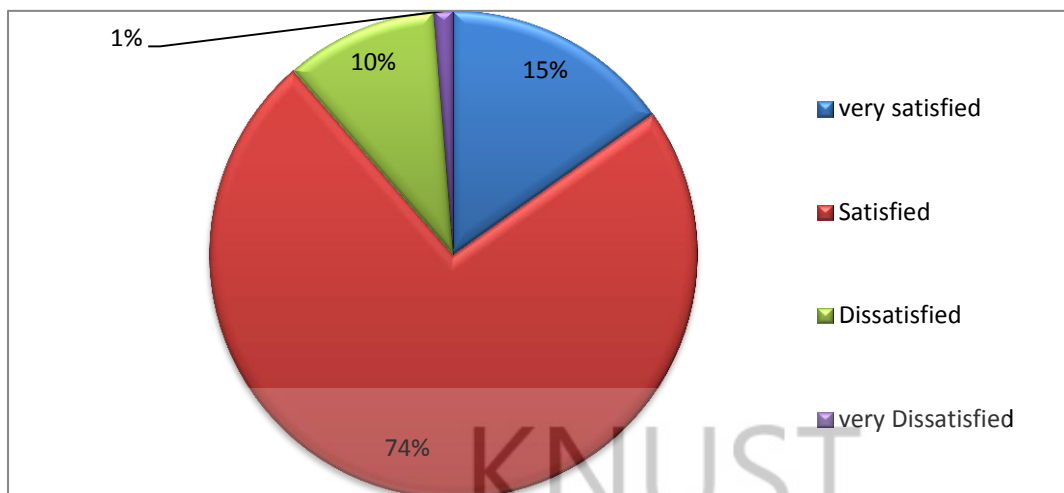
Table 4.10: Major Educational Challenges experienced before and after resettlement

Difficulties experienced before resettlement with Schooling			Difficulties experienced after resettlement with schooling		
	Frequency	Percent		Frequency	Percent
Poor Teaching	18	22.8	Poor Teaching	6	7.6
Facilities in bad condition	11	13.9	Facilities in bad condition	12	15.2
Inadequate teachers	24	30.4	Inadequate teachers	24	30.4
Inadequate furniture	4	5.1	Inadequate furniture	19	24.1
Overcrowding	3	3.8	Inadequate Books/Supplies	13	16.5
Long Distance travelled	14	17.7		0	0
Others	5	6.3	Others	5	6.3
Total	79	100	Total	79	100

Source: Field Survey, 2014.

However resettled respondents expressed their satisfaction in the state of education as compared to their old settlement area. This is shown in Figure 4.7; the reason for their satisfaction is that irrespective of all this challenges their children do not need to travel distance to acquire basic education.

Figure 4.7: Level of satisfaction in education



Source: Field Survey, 2014.

4.3.5 Housing

According to Cerney (2003), Duan and Mc Donald (2004), the provision of secure shelter is one of the most important components of physical infrastructure essential for the development of sustainable resettlement, as it provides the people with protection, security and a place to live and work. Hence, reconstruction of the resettles houses is crucial to reestablishment of their lives.

Housing conditions has improved when compared to their old site of resettlement as shown in plate 3. All the opinion leaders and interviewed household heads express satisfaction at the housing facility given them by BPA as a result of the resettlement. Many of them explained that their rooms in the old communities were inadequate and the conditions were usually very poor. Since resettlement, for many of the households, improved housing is regarded as the primary infrastructure necessary for them to rebuild their lives and livelihood. However many respondents could not express their strong sense of control and ownership of their new home, this was confirmed by the resettlement officer when he indicated that they are yet to present the documents to the houses to the community leaders. Though they were involved in the site selection they were not involved in the construction process and this some extend has deflated their sense of ownership. It was however not surprising that most of the household heads did not maintain the house since resettling.

Plate 3: Housing before and after resettlement



Source: Field Survey, 2014.

Physically the houses show no visible sign of cracks in all the houses constructed after three years. The facilities in the various houses are bathroom, toilet, kitchen and electricity. These facilities were not present in their old settlement sites. The sustainability of these housing facilities and structure depends on the maintenance of the houses. However when asked if they do maintain their houses since resettling, about 70 percent of respondents indicated that they have never maintained the house since resettling while 30 percent responded to the affirmative. Some of the reasons why they were not maintaining the houses are the lack of

funds and the problem they have with the ownership of the houses. Upon further probing it was realized that the resettled did not have ownership documents to prove their ownership of the houses. They therefore did not see the need to maintain the houses that officially did not belong to them.

Out of the 30 percent of household head who responded that they have ever maintained the house, about 92 percent had their source of funds for maintenance from their own savings. According to them they had the money from the monthly allowances that was paid them for resettling. However since the allowance has stopped it has been difficult for them to maintain the houses. About eight percent had their money for maintenance from rent charges. Housing structures provided to these communities after resettlement has been very satisfactory, however the ability of the communities to maintain these house for a long period cannot be guaranteed considering the fact that they do not have any source of finances for maintenance. The sustainability of these houses provided is therefore questionable.

4.3.6 Road and communication networks

Other form of Physical asserts such as road and communication networks are also considered important for the development of sustainable resettlement. McDonald (2006) suggested that the length of road in each area is an indication of whether resettlers have access to markets to sell produce or find work. The resettles use of roads and specifically transport vehicles along routes can also reveal their capacity to access markets (McDonald, 2006).

In the case of resettlements at Bui, the availability and accessibility of roads prior to the resettlement project appeared to be very minimal. The baseline data indicated that the communities were historically remote. Most of them had no access to roads, and some were accessible only by boat. During the wet season, the roads were virtually inaccessible, which made it difficult for communities to access market or other public facilities such as a school.

However this has changed after the resettlement since the two resettlement sites now have easy access to neighboring communities to trade. Roads has been constructed to link the resettled and the Dam project site as shown in plate 4 and other district capitals. In resettlement site B there is ongoing road construction to link the District capital Banda Nkwanta. In the case of resettlement site A the roads are tired both to Bamboi and Bole. This

has provided a unique opportunity for the development of trade with other surrounding communities.

Plate 4: Road network



Source: Field Survey, 2014.

4.3.7 The effects of the resettlement on the environment

The state of the environment is very important in the sustainability of both the resettled community and the safety of the Bui Dam. The environmental effect of the resettlement cannot be overestimated. Its effects if not properly managed could negatively affect the Health and soci-economic lives as well as the resource development of the communities and the nation as a whole.

From the survey it was released that since the resettlement has come with it a lot of environmental challenges that need to be managed well. Some of the issues that were observed are the changing land use pattern, the pollution of the water and the continuous threat on the natural reserve, deplorable waste disposal and drainage system.

Land use pattern in all the resettled communities as well as the host communities has changed over the years. In a discussion with opinion leaders they indicated that farmers use to practices shifting cultivation and could cultivate any acreage of land, however the situation is different in their new settlement site because most of the land are owed by the host community and getting access to extra land is a major challenge. This situation has been very difficult to adapt and has affected crop yield. It has therefore put intense pressure on household to look for other sources of livelihood such as charcoal burning and galamsy and pouching at the reserve. This is to supplement the produce from the farm. These activities have created pressure on the natural environment and the resources base of both resettled and Host community. These could affect the sustainability of resettlement in future, because the vegetation will be destroyed and the affect the already poor rainfall pattern of the area.

In the case of the charcoal and firewood, it serves major sources of fuel for household cooking see table 4.11.

Table 4.11: Major source of household energy

Type of fuel	Frequency	Percentage
Firewood	60	76
LPG	1	1
Charcoal	18	30
Total	79	100

Source: Field survey.

From the table, it can be seen that the major source of fuel for cooking is charcoal and fuel wood. This trend has been the same even in their old settlement site. The challenge is that, if the trend continues, the vegetative cover around the dam will be depleted. This can lead to the reduction in the water level, which will affect the generation of electricity.

Another activity that has been increasing since resettlement is mining in the national reserve. Data gathered in the survey showed that illegal mining started just after the resettlement was completed. In a discussion with some opinion leaders and informants, it was observed that

most of the youth in the resettled community started the mining because they were unemployed. They believe resettlement has caused this evolving activity of illegal mining site in plate 5.

Plate 5: Illegal mining site developed after resettlement



Source: Field Survey, 2014.

The game and wildlife authority expresses worry about the turn of events at the national reserve after the resettlement but indicated that they did not have the logistics and weapons to go to the mining site. Currently as at the time of the research it was estimated that about three thousand (3000) people are in the reserve and the possibility of developing a secondary

settlement in the reserve is possible since part of Dokoyina refused to be resettled. The situation poses a threat on the "renewable" resources (land, water and air) on which the peoples livelihood depends and a challenge on environmental sustainability.

Waste disposal is also another area that has not received much attention to ensure sustainability. Each resettlement site (A and B) has been given one dumping site as shown in plate 6

Plate 6: Waste disposal site at resettlement A and B



Source: Field Survey, 2014.

Even though the disposal of waste has improved as compared to their old resettlement site, its sustainability has remains a challenge since they do not pay a fee for the disposal of the site. During the field survey the waste disposal container was full (see plate 6) such that waste was been deposited around the containers. The Assembly men and opinion leaders of the two

resettled communities expressed their frustration at the turn of events. According to them, the District assembly is responsible for the disposal of waste. The Assembly however has failed because they do not have fuel to get the truck to the community. The events shows how communities over depend on the district assembly for support. It also reflects the low mobilization capacity of the two resettled community. This calls for local empowerment programmes to deal with internal community problems. Another worrying trend is the current location of the waste disposal container at Bui resettlement. The container is located by in the middle of the road and close to household. This pose a threat on resistance health. The drainage system in the communities has not been fully developed as shown in plate 7.

Plate 7: Drainage at resettlement site B



Source: Field survey, 2014.

The construction of the drainage was stopped in resettlement B for lack of funds. In resettlement site A does not have any sign of drainage construction. The communities only count it as one of Bui power Authority failed promises. They explained that the lack of drainage in the community causes diseases and in future might cause flood. This is expressed passionately by a farmer in Dokoyina:

“Even though since resettling here, we have not experienced flood as our old place, we do not know what will happen in future, so we wish BPA had completed this construction work”

4.3.8 Major economic activities

The analysis of economic effects of the resettlement on the lives of the people is best understood by examining the economic lives before resettlement and after resettlement and the factors responsible for these changes.

The major economic activities of the people are crop farming, fishing, livestock rearing and other minor ones such as trading. Farming before resettlement was mostly done by communities that were not close to the river and livestock rearing was the next preferred activity. There were also reports of the presence of Fulani's who were involved in nomadic cattle rearing in their old settlement. Fishing was done commonly by communities that were very close to the river these communities were predominantly Ewes speaking people. It is important to mention here these activities were not exclusively done by household heads but some relatives in the house, they indicated during the survey, that they sometimes engaged in other activities. See table 4.12

Table 4.12: Major Economic activity before resettlement

Community	Activity				Total
	Farming	Livestock Rearing	Fish farming	others	
Agbegikuro	2	1	4	0	7
Bator	6	3	14	1	24
Brewohodi	4	2	2	0	8
Bui	10	2	3	0	15
Dam site	1	0	1	0	2
Dokokyina	14	2	4	0	20
Lucene	2	0	1	0	3
Total	39	10	29	1	79

Source: Field survey, 2014.

In some occasions some household heads in addition to farming engaged in the cultivation of cashew on a large scale. These were all livelihood support systems that helped in the survival of families. Cashew was mainly cultivated on commercial bases and sold out to prospective buyers at the farm gate and in some situations on market days.

The survey on economic activities before resettlement showed that most of the harvest was mainly for household consumptions and in some few cases sold out to the women in neighboring communities. During the fishing season fish was mainly sold to market women who come around from other parts of the country.

These trends of event they recount belong to the past, according to them; they are now faced with monumental challenge in reestablishing their livelihood back. Livelihood after resettlement has not been the same as shown in table 4.13. The resettled now have shifted to crop Farming with numerous challenges. Some communities that were known for fishing are now farmers with a few still hanging on to Fishing. This is because fish yield has reduced because of the Dam construction. Couple with this problem is the long distance fishermen have to travel in order to get to demarcated area allowed for fishing and the cost of purchasing premix fuel for boats.

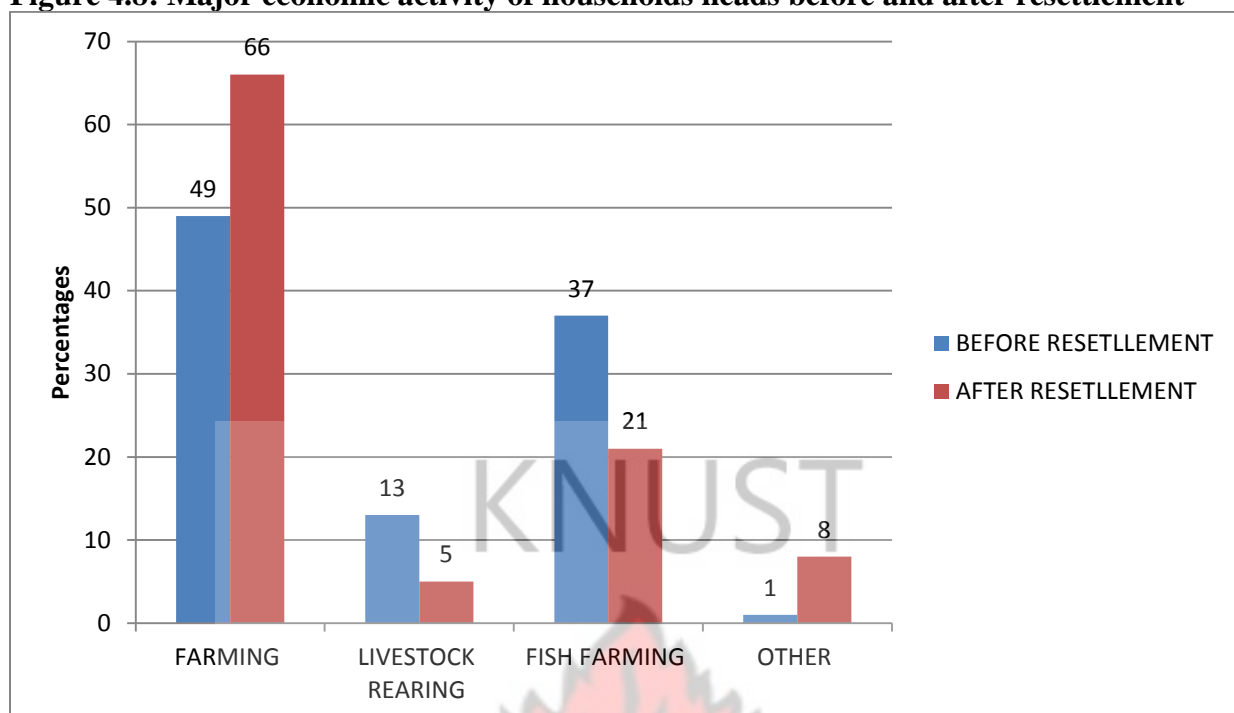
Table 4.13: Major economic activity engaged in after resettlement

Community	Farming	Livestock Rearing	Fish farming	others	Total
Agbegikuro	3	1	2	1	7
Bator	10	2	10	2	24
Brewohodi	8	0	0	0	8
Bui	11	1	2	1	15
Dam site	2	0	0	0	2
Dokokyina	15	0	3	2	20
Lucene	3	0	0	0	3
Total	52	4	17	6	79

Source: Field survey, 2014.

Further analysis shows that after resettling the communities there is a changing pattern of major economic activity especially among the Bator/Akanyakrom and other fishing community. The overall effect of this is clearly showed in Figure 4.8.

Figure 4.8: Major economic activity of households heads before and after resettlement



Source: Field Survey, 2014.

It can be seen in Figure 4.8 that before resettlement fish farming has reduced by 16% while farming has increase by 17%. These changes have occurred because of fishermen challenges faced in fishing as compared to farming. Some of these challenges include among others long distance travelled to get to demarcated fishing site, cost of premix fuel, low yield and disappearance certain fish species.

This implies that the sustainability of the resettlement will depend largely on how these positive effects are used as prospects and opportunities for its sustainability, while the management and control of the negative effects could provide an opportunity for settlement sustainability.

Summarily the effects of the Bui resettlement scheme can be grouped into two. These are positive and negative. Some of the positive effects are the improved access to quality health care, education, and housing, drainage and water.

The negative effects of the resettlement identified are the loss of fertile Agriculture Land for farming, the gradual degradation natural environment through illegal mining and the loss livelihood by resettlers. In all it appears the sustainability of the settlement will depend

largely on the restoration of the livelihood of the resettlers because the positive effects identified above can be consolidated if the resettlers are empowered economically.

4.4 Resettlement Planning Process and Implementation

It is believed that the sustainability of every resettlement depends largely on the planning and implementation process involved in the displacement of people. This section of the analysis seeks to examine the planning and implementation process of the resettlement in line with the objectives set out in the Resettlement Planning Framework for Bui and the World Bank Operational Policy on Involuntary Resettlement and the World Bank involuntary resettlement sourcebook. Efforts are made to examine what was planned and the actual implementation of the resettlement schemes as experienced by the resettles.

According to the resettlement planning framework which is in line with the World Bank operational policy on resettlement, the objective of the resettlement is to improve people's economic opportunities and living conditions and minimizes adverse impacts while also providing remedial measures for those adverse impacts that are unavoidable, particularly among the communities most directly affected by resettlement either through physical displacement or loss of economic resources. These objective is achieved only when the proper planning process are fully followed and considered during implementation.

Initially all communities were informed about the intended dam construction and the potential physical effects it has on the resettlement communities. The education took place through radio discussion and community foura organised by Bui power Authorities (BPA). This was confirmed by the various community leaders who took part in the process. They however indicated that after they were informed about the resettlement they were told the negative effects of the resettlement and the dam construction. This limited their choice of resettlement and site selection.

During the education of the communities, there was also a survey of the communities' baseline through household Data collection by Environmental Resource Management contracted to undertake the baseline data. This was confirmed by the community leaders in a focus group discussion. Though they said it was Bui Power Authority, the resettlement Officer indicated that it was conducted by Environmental Resource Management (ERM).

The exhibiting gap between the communities and BPA as to who conducted the survey reflects weak education that was carried out at the initial stage of the project. Data collected was analyzed in the following report

1. Environmental and Social Impact Assessment.
2. Environmental and Social Management Plan.
3. Resettlement Planning Framework.

From a focus group discussion, the people present said they did not know what was contained in the various report, others even said they have never seen such reports. This is further explained by the low educational levels and the high illiteracy rate recorded during the survey. After the survey the selection of resettlement sites began.

Site selection was conducted by both opinion leaders and BPA authorities. There was disagreement and misunderstanding between the two parties (resettled community and Bui Power Authority). To some community members this stage marked the beginning of hostilities between BPA and communities leaders.

Temporary structures were constructed at Gyama for Agbegikuro, Brewohodi, and Lucene communities as Resettlement A. Later on they were relocated to their permanent site. In the course of movement from their old site, the people were involved in various activities such as the ritual to carry the dead to their new resettled site. The construction of houses in resettlement site B was done later because they were the last group of communities to be resettled.

The process of valuation and Compensation was also prepared by the land valuation board and submitted to the affected people for study, after corrections and inputs were made, the compensation was paid. From my discussion with household heads, they felt cheated during the valuation of their properties and the compensation given. One of the reasons was the fact that money was paid a year after the valuation and in some case after two years.

The last phase of the resettlement according to the resettlement officer was the ceremonially handing over of the resettled communities to the various Districts Assembly that they fall under :

These were the steps that were taken to ensure the sustainable implementation of the resettlement scheme. There are some factors that have affected the success or otherwise planning and implementation of the resettlement schemes. Among some of the issues coming up from the survey are

1. Consultation and Community participation in the entire planning process.
2. Managing the expectation deficit.
3. Livelihood restoration.
4. Community empowerment to maintain housing and community facilities.
5. Conflict resolution and grievance mechanism.
6. Continuous monitoring and evaluation methods.

4.4.1 Community participation in the entire planning process

According to the World Bank Operational policy (OP) 4.12, displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs (para.2b). From the survey it was revealed that participation in the project planning took three forms. These were dissemination, consultation and collaboration.

In dissemination, which is a one way transfer of information, resettlers confirmed that news about the construction of the Bui dam was head on the mass media particularly in the radio as shown in table .

Table 4.14: Initial source of information on Dam construction

Source of initial information about Dam construction	Questionnaire
Television	5
Radio	60
News peppers	0
Community information van	10
Bill board or Sign Post	4
Total	79

Source: Field Survey 2014.

This was further explained by the resettlement officer that news about the Dam construction generated debate in the media and issues of resettlement were raised by radio presenters and panelist. Further clarifications were made by some radio stations this information provided early and accurate information to Displaced Persons (DPs) which allayed fears displaces misconceptions, and built trust, providing a foundation for collaboration between DPs and BPA. This implies that in the planning of resettlement site early accurate information provides a basis for the sustainable implementation of the project.

The establishment of resettlement offices at BPA was a fertile ground for consultation which refers to two-way transfer of information or joint discussion between project staff and the affected population. Systematic consultation implies a sharing of ideas. Consultation yielded the best resettlement alternatives, fruitful procedures for continued participation, and independent information on actual conditions or implementation. This was good for the sustainability of the resettlement because it provided some of the details that planners could foresee. Some of the details helped to identify impacts, sources of possible vulnerabilities, and the people and groups likely to be affected. In this dimension of decision making both BPA authorities and opinion leaders confirmed that they used to have regular meetings with the resettlement officers.

The last form of participation had divided opinions and serves as a great threat to the sustainability of the resettlement, this is participation by collaboration which refers to joint decision making through membership in committees, tribunals, or other formal or informal bodies. The DPs and their representatives not only are consulted but also have a voice in decision making. While the BPA maintains that decisions were made with the people at every stage of the resettlement, the people express an opposite view during the research. Even though resettles agreed that they were consulted during the resettlement they indicated that their opinions were not considered in the decision making process (see table 4.15)

Table 4.15: Consultation and Decision Making

Community	Where you consulted during the resettlement		Did you take part in decision making during the resettlement		Impression about the entire resettlement participatory process		
	Yes	No	Yes	No	Very Satisfied	Satisfied	Dissatisfied
Agbegikuro	5	2	2	5	0	1	6
Bator	16	8	5	19	0	4	20
Brewohodi	5	3	2	6	0	1	7
Bui	13	2	2	13	0	2	13
Dam Site	0	2	0	1	0	0	2
Dokokyina	17	3	1	19	0	2	18
Lucene	1	2	0	3	0	0	3
Total	57	22	12	66	0	10	69

Source: Field Survey, 2014.

It can be realized that from the table that 57 percent of the household heads interviewed responded that they were consulted during the resettlement process. For example the chief of the Agbegikuro had indicated that since they will be inundated by the construction of the dam, they should be allowed to relocate at the banks of the river where the flood will not occur during the rainy season. This was to allow them to continue fishing. This was however according to him not considered in the decision making.

Interestingly they agreed that they participated in the location of their present site after various alternatives were turned down by Bui Power Authority. It was released that the resettlers lacked technical expertise to assess and assist site selection.

4.4.2 The expectations deficit of resettlers

Sometimes, during resettlement, the mobilization process could be exaggerated and mask the actual realities at the resettlement sites. This exaggerated mobilization creates wrong expectations in the resettlers mind about the sites where they will move to and what benefits they can expect on settling. The consequence of exaggerated mobilization is high rate of returnees shortly after their arrival at the resettlement sites. In the case of the Bui dam during the mobilization process a lot of promises were made to the project affected people, of which according to them has not been fulfilled. Among some of the promises is an irrigation facility for all year round farming, an aqua culture development facility for fishermen, a university, secondary school, free electricity bills etc. even though these items were not documented in a

piece of contract for the resettles it was raised in all discussions I had with youth groups and women in the community. The failure to fulfill these promises by BPA has dashed their hopes and they wish they did not agree to the resettlement like some of the Dokoyina people did and are in court. This has created mistrust among the communities and BPA.

Table 4.16 Shows respondents' judgment of what they have heard about the existing realities at the resettlement sites and what they actually felt on their arrival.

Table 4.16: Expectation of Resettlers

Expectations and reality at resettlement	Respondents	Percentage
Much better than what I have heard	12	15%
Just the same as what I have heard	15	19%
Below what I have heard	52	66%
Total	79	100%

Source: Field Survey, 2014.

About 66% of the sample respondents indicated that the realities they encountered at the resettlement sites on their resettling were below their expectations and different from what they heard before leaving their original place. About 19% of the respondents confirmed that the realities at the resettlement during their arrival were similar to what they heard before their departure. The remaining 15% of respondents indicated that existing realities at the resettlement sites were much better than what they had heard.

The mismatch between what the sample resettles heard before they left their origin and what they are witnessing on their arrival is severe for settlers. In a discussion with resettlement officer he explained that there is a concept of Bui city project which remain a concept and that is what the resettlers are confusing with the resettlement package which according to him has been delivered. This development has raised issues of returnees and the development of new settlement towns in the near future.

With respect to returnees few of the sampled respondents (25%) indicated their willingness to go to their old site or even abandoning their resettled site. However there exists the development of new settlement site called the Gyama Nsuo ano as shown in plate 9 which is point of departure and arrival from Dokoyina and Galamsy site in the national reserve.

Plate 8: New settlement Development (Gyama Nsuo ano)



Source: Filed Survey, 2014

4.4.3 Livelihood of Resettlers

According to the resettlement Planning Framework and the environmental resource management report the Bui resettlement scheme has a planned assistance for the displaced persons as follows

1. Fishing: The key principle is to ensure that fishermen and women are given access to equivalent or improved fishing grounds. This includes establishment of fishing association, business planning, micro-credit, storage, transport and processing refrigeration facilities as well as development of alternative livelihoods. The

alternative livelihoods include agricultural development, development of small service enterprises, artisanal workshops and appropriate skills training for other livelihoods that are identified and for which there is a demand.

2. Farming: Includes business planning, land preparation, extension services, micro-credit, crop packages and land access assistance.
3. Trading: Includes access to markets, six month support to help traders identify new customers and suppliers as well as business planning and micro-credit and the construction of market stalls.
4. Grazing, hunting and forest product collection, which have been identified as supplementary income sources especially during the low season of farming and fishing will be restored by giving affected households suitable lands or forest for grazing, hunting and forest product collection (ERM, 2007).

This, in no doubt, is in line with best international practices such as the World Bank operational policy on resettlement and the 1992 constitution of Ghana which requires that resettlement should be done on suitable alternative land with due regard for the economic well-being and social and cultural values of the displaced persons.

From the survey and the discussion so far on issues bordering on livelihood support system it can be released that these assistance has not been fully fulfilled as summarized in the table below

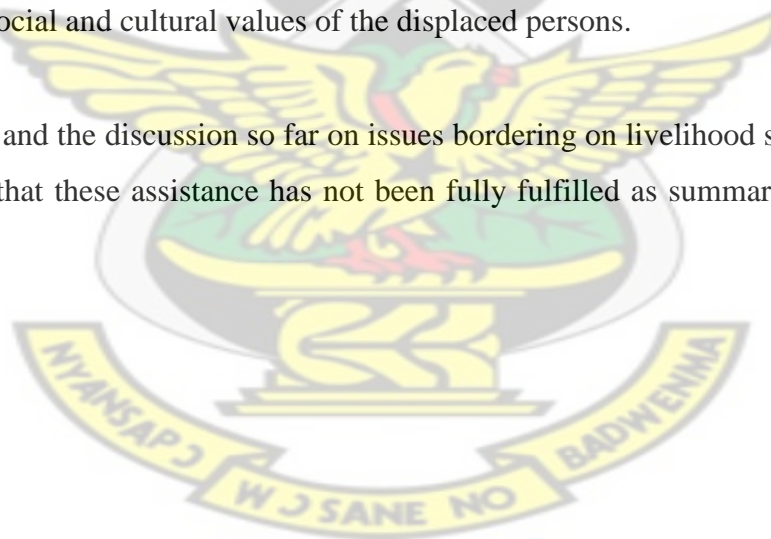


Table 4.17: State of summarized livelihood support system expected to be provided at resettlement site

FISHING	Status
Establishment of fishing association	Non existent
Business planning	Non existent
Micro-credit	Non existent
Transport and processing refrigeration facilities	Non existent
Storage	Non existent
Development of small service enterprises	Non existent
Artisanal workshops and appropriate skills training	Non existent
FARMING	
Business planning,	Non existent
Land preparation	Provided but insufficient at market price (50 GH¢)
Extension services	Not provided
Micro-credit,	Non –existent
Crop packages	Was not provided
Land access assistance.	Non existent
TRADING	
Access to markets,	Existing
Six month support to help traders identify new customers and suppliers	Was not provided
Business planning	Non existent
Micro-credit facility	Non existent
The construction of market stalls	Existing but not utilized in resettlement B.

Source: Field Survey, 2014.

Form the table above it can be realized that No businesses have been planned for the farmers, fishermen, and few traders, the support for land preparation was reported insufficient because the 50GH¢ provided was negotiated two years ago to reflect the market prices, however when they were been paid they still paid the 50Gh when prices of insecticide and labour had been increased. No extension service has been given to the farmers, and neither has micro-credit or crop packages been executed.

In the case of the fishing none of the facilities have been provided to the fisher folks. In fact according to the fishermen they not been fishing for some time now because they do not have money to rent and buy cannons. They also complained that they have to travel long distance from the community to fish. In addition to this challenge the complained that they have witness the disappearance of certain spices of fish which was common before the construction of the dam. This was confirmed by experts who explain that, there are some species of fish that flow in running waters so when the river is dammed those species are

likely to disappear. This worrying development has serious implication on the sustainability of the resettlement as far as adaptation is concern. Trade is also heavily affected by challenges that the farming and the fishing sector face. Though a market stall was built for resettlement B as shown in plate 9 the resettles are not using it because they had nothing to sell.

Plate 9: Abandoned Market Stalls at Bui resettlement site B



Source: Field Survey, 2014

Another sustainability mechanism that is supposed to ease the suffering of resettles is the Livelihood Enhancement Programme (LEP). LEP is to provide a “safety net” for those households for whom the disruption of economic and social networks may heighten the risk of vulnerability and increase the incidence of poverty, with all its negative consequences. This will be done through an NGO overseen by the LEP Committee, which will comprise

traditional authority, representative of the organization responsible for implementing the Resettlement Action Plan (RAP), the Resettlement Coordinator, and a representative of the Livelihoods NGO (ERM, 2007, p.96). The LEP targets include farming, fishing, trading, grazing, hunting and collection of forest products. From the survey nothing of such a sought has been done at the time of the survey and no there was no indication that there are no plans in place for such a facility.

To this extend, where it is not feasible to avoid resettlement, resettlement activities are conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefit.

From the discussion so far it has been established that one of the major pillars upon which the resettlement is sustainable is the livelihood support system for the resettles. This has not been implemented as planned and efforts to restore livelihood of resettles remains a serious challenge to the sustainability of resettlement. These fears are much more serious because the resettled area has been officially handed over to the Banda District Assembly who has no plan of restoring the lives of the resttlers.

4.4.4 Conflict resolution and grievance mechanism

According to the World Bank Involuntary Resettlement Policy (4.12) which is also captured in the RPF, resettles and host communities should have affordable and accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms. The resettlement planning framework provided the establishment or appointment of a grievance officer who was to work before, during and after the resettlement. This mechanism was difficult to find in the communities since most of structures that were stated in the RPF were nonexistent at the time of the study. There was no grievance officer at the time of the survey as required by the RPF. The communities however indicated that they did not have serious problems with the host communities and that their problems were with BPA who had resettled them. It was also released that the resettled communities had internal traditional mechanism of settling challenges in each community. The chiefs of various communities are the point of contact if they had problems with the

resettlement. Some of them also contacted the assembly man and others went straight to the resettlement officer for redress. The importance of a grievance officer is stated in the RPF (page 6.2 of RPF) because a poor grievance process can disrupt the RAP process, and lead to the resettled community feeling resentful and dissatisfied, which will affect resettlement sustainability.

4.4.5 Continuous Monitoring and Evaluation

According to the Resettlement Planning Framework there should be a Monitoring and Evaluation (M&E) mechanism which provides the basis to assess the overall success of the resettlement and the effectiveness of the various processes and measures. This mechanism is expected to be in two components:

- Internal monitoring – undertaken by the appointed NGO; and
- External evaluations – undertaken by an external agency.

These two processes are to run simultaneously – the internal monitoring process runs as part of day to day resettlement activities and used to ensure that the resettlement is meeting the objectives outlined in this RPF and the completed RAP. The external evaluations are designed to provide a third party, objective assessment to ensure that the project is meeting international standards for resettlement, by restoring and where possible improving livelihoods of the resettled population.

The objectives of internal monitoring is to identify suitable indicators for issues to be monitored; measure progress against indicators at appropriate intervals, and analyse data against a pre-resettlement baseline; and set up a system to regularly respond to M&E findings by adapting existing measures or by modifying implementation processes. At the time of the survey these internal mechanism did not exist and this was confirmed by the community leaders who indicated that they were not aware of any monitoring mechanism of the resettlement. These were confirmed because efforts to get reports from the working group proved unsuccessful.

The external monitoring did not also exist because there communities did not have any knowledge about the issues of monitoring. Officials of the BPA a responds to the monitoring

the resettlement said there was nothing like that. Perhaps the reason for the lack of monitoring is because of financial constraints by BPA and the misunderstanding between BPA and the resettled communities during the planning and implementation of the resettlement scheme.

This aspect of the resettlement could be said to be a window dressing for financial support and to comply with international standards only. The actual implementation of this part of the RPF has not been done and it becomes difficult for BPA itself to monitor the progress of the resettlers. The absence of the monitoring and evaluation of the resettlement threatens the sustainability of the resettlement because the results provide baseline information for the improvement of the lives of the projected affected people.



CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter looks at the summary of findings and recommendations based on the field survey and the review of theories surrounding sustainable resettlement development. The recommendations reflect the problem statement, objectives and findings of the study while drawing important lessons from the literature. The recommendations also include concrete and clearly formulated suggestions for policy formulation and planning.

5.2 Summary of Findings

The study reveals that the effects of resettlement to the people are both Negative and Positive. Positive effects are the improved access to quality health care, education, and housing conditions of the resettlers. This improvement is as a result of the provision and rehabilitation of infrastructure by BPA such as Schools to improve literacy and skills training as well as educational levels of the people, clinics to improve health care delivery system, boreholes which give reliable domestic water, waste disposal containers to improve community sanitation. This confirms what Olawepo (1997, p. 73) writes about the benefits of resettlement in the review of literature. According to him resettlement can make the resettles better off than where they were originally located through the provision of social infrastructures, settlement growth and socialization of the resettlers.

However the loss of livelihood by the resettlers raises concern about how they can maintain and sustain the community infrastructure provided. This also confirms the world Commission on Dams report on the construction of large dams. According to its report, large dams had aggravated “social inequities” and contributed to “environment destruction, leaving the rich better off and the poor more marginalized and resentful.” Moreover, most resettlement programs had focused “on physical relocation rather than economic and social development of the displaced,” thus failing to realize the promises of modernization. These is the case of Bui and Gyama resettlement sites.

Cernea (1998) also claims that resettlement normally results in the loss of people livelihood and income sources such as arable land, common property resources such as forests, grazing land, ground and surface water, fisheries and changed access to and control of productive resources such as land. Cernea (1998) further argue that the loss of economic power with the breakdown of complex livelihood systems results in temporary or permanent, often irreversible, decline in living standards of the people leading to marginalization. The above assertion was confirmed during the study. The results from the study also revealed that the loss of livelihood is the major negative effect that threatens the sustainability of the Bui resettlement projects. The livelihood of the people from the study is greatly influenced by the constraints on agricultural production (in terms of soil quality, fertilizer availability,); lack of access to credit; absence of storage and/or processing facilities; and the absences of off-farm income generation. Lack of credit schemes has prevented the development of sustainable businesses or income generating activities in the communities. This lack of monetary income has consequences in terms of resettlers' access to food security, health and education in the future. In addition, given the farmers report of poor soil quality and bad weather condition coupled with the lack of agricultural inputs can lead to low productivity, further degradation of soil due to over cropping and an overall critical loss of productive capacity. Other constraints to increased agricultural productivity include: lack of access to credit to buy fertilizers and seeds; distance to markets; and lack of technical assistance. Overall, these conditions have compromised the villagers' abilities to produce sufficient food. The lack of market places acts as a disincentive to the commercialization of agricultural products. Moreover, poor access to transport facilities and the distance from main roads impedes the development of off-farm income generating activities. The long distances traveled to reach the river results in a serious loss to fisherman's time, and discourage fishing. Coupled with this is the loss of some species of fish. The absence of livelihood support system for the resettlers has also environmentally resulted in the development of illegal mining sites at the National forest reserve. The illegal miners pouch at the forest and the wildlife is under threat. The developing trend is worrying because the destruction of the forest reserve in the long run will affect the water level of the Dam for the generation of electricity.

Another observation that has affected the sustainability of the Bui resettlement is the planning process used for the resettlement of the people. From study it was realized that there is a gap between the Resettlement Planning Framework, World Bank Policy on involuntary

resettlement and the actual implementation on the field. The exist a gap has created factors that threaten the sustainability of the resettlement. Some of these are the strong and effective community participation but weak decision making by community members during the planning process. Another factor that can also affect the sustainability is expectation deficit that has been created in the minds of the people. This mistrust will affect communities' future interaction and relationship between development partners in any efforts to provide livelihood support system. In addition livelihood of the resettlers has not been restored because laid down procedures in the RPF and the RAP was not fully followed and adhered to. For instance the restoration of livelihood support programme. It appears BPA was interested in the physical relocation of the people rather than resettling.

Furthermore there was also evidence of the poor collaboration between the BPA and the regional house of chiefs, which would have made the resettlement success. This evidence was adduced when BPA officials admitted that their concern was not in chieftaincy issues but resettlement so chieftaincy dispute as a result of the resettlement they will referred to the Regional House of chief. In addition, the resettlement does not have any institutional framework to address grievances. According to the resettlement office, issues (schools, Health, community development) affecting the people are referred to the appropriate department at the District Assembly. In the case of Gyama the growing feeling of them living in a foreign land and the involvement of the Gyama Chief in every decision making process robs them of their freedom, causes social disarticulation, reduction in right to resources and powerlessness. This loss of power is what leads to almost everything such as conflict. And in the absence of a grievance procedure on matters relating to the resettlement, there is a potential of communal violence.

5.3 Recommendations

From the illustration of above findings of the research, the following conclusions and suggestions have been made. It is hoped that this will contribute to the improvement of Resettlement Plans in hydropower development in Ghana and Bui in particular. The recommendations look at two sections. The first part looks at strategies that can be used for future resettlement planning in the country. The second aspect looks at strategies that can be used to enhance the sustainability of the resettlement projects at Bui.

5.4 Recommendation for Future resettlement Schemes

It is important that EIA including SIA is considered in hydropower planning. The alternatives that can cause negative impacts on the people and environment should be avoided. The appropriate process should be to make hydropower development a suitable development in which social, environmental and economic factors are all taken into account. This will provide the country with opportunity to develop an institutional framework that combines national, international and local knowledge about specific local conditions. This is important since theories on sustainable development, including resettlement, originates from industrialized countries and should be applied in consideration of specific local contexts as a requirement.

It is also recommended that future Resettlement Planning should be done carefully and patiently. It is very important since a small mistake may result in unexpected and long-term consequences. Resettlement plan teams should be composed so as to represent all relevant professionals including, soil scientist, Agric extension officers and sociologist to provide an impartial assessment and responsible planning solutions.

- a) The resettlement plan documents need to be independently reviewed before the final decision is taken. This can improve the environmental impacts statements and the resettlement document and consequently provide a better basis for decision-making.
- b) The planning should be open since such an approach could reduce rejection of the project that otherwise could occur during the construction phase and cause delays. The procedure can also influence the selection of alternatives. The participation of the people is one of the key factors that lead to success of the process. It makes alternatives become reality based on a combination between advance knowledge and actual skills. Local people should be involved as early as possible in the EIA procedure in order to provide important information that otherwise may not be available, but also in order to be informed about the project and active of the coming changes. The arrangement of moving should be done together with the provision of information to ensure that affected people will move to planned sites.
- c) Term of compensation should be based on the results of survey and prices of items. A general survey should be done carefully and in details to identify the number of affected people and land and goods, productive forms and life styles, commune relationships and

cultural customs. The results of the process should be open, understood and agreed by the project affected people. The unit prices of all kinds of lands and goods, and crops should be established based on actual price and regulated in case of inflation. The compensation should be flexible in kind and in time.

The stability of the people in the community depends firstly on the stability of means for living and production. Housing planning should be suited to both physical conditions and traditional customs of living, cultivation, and culture. Models of houses should be selected by people (or rather designed with the participation of the people) to protect identity of ethnologies in term of material culture. Infrastructure should be provided to enable people to have access to commerce, irrigation and communication in their new living life place. Land and land related issues should be carefully studied and solved before resettlement. The planning and implementation of settlement policy should take into consideration the following:

1. Family participation in agricultural production;
2. the transport of harvest;
3. animal husbandry, especially on extensive pasturing;
4. the access to land around the village;
5. the lack of training, extension and technical assistance for income generating activities;
6. Diversification and intensification of production.

It is recommended that the new administrative structures of Communal Development Committees (CDC) with the promotion of Community development Funds should be developed to facilitate the promotion of off farm activities.

Government and local authorities should solve sensitive issues such as land boundary and land use right before resettlement. Extensions of land, diversification of sub crop and supports in transitional time are measures to limit food shortage. Encourage wet or dry cultivation in fixed land to prevent deforestation. Especially, improvement of the soil and provision of information on cultivation practice within the draw down land is important since it helps to prevent people from a decrease of food availability. Credits, skills training are effective measures to increase food security and income.

Also people should be empowered to sustain health care delivery and education in order to gain healthy life styles in resettlement villages. The vocational school for young generation and the special classes to reduce the illiteracy percentage will improve the socio-economic conditions in the long term. As part of the planning process, communities should, to the greatest extent possible, be moved in groups (such as ethnic groups and neighbourhoods) so that the groupings in the new location are similar to those that existed before resettlement.

Resettlement planning officers should recognize the possibility that, within the groups that are moved, conflict may arise as power balances shift as a result of resettlement. Those who had power in the previous structures may be disempowered and may struggle to retain power, while the previously disempowered may seize the opportunities offered by new circumstances. An example of this is the tensions that may arise in a patriarchal society, where the more diverse social structures and economic opportunities of the relocation locality offer women the chance to gain some measure of independent action.

Community groups should be involved in the building of sites for community services and activities. The infrastructure, and the involvement of the community in its development, will make the survival of communal activities and networks more feasible. This involvement of community groups could be extended to involvement in building individual houses.

Finally, a single management body from high to local level is an important factor to gain the success. That is a good way to manage effectively investment sources and bear full responsibility of a project's quality. This body could also receive quickly the feedback from local people and solve flexibly and sensibly problems originating from practice.

5.5 Recommendation for sustaining Bui resettlement

In the case of the Bui resettlement scheme, the results from the field survey suggest that the restoration of livelihood of resttlers represent the only solution to the sustainability of the Resettlement Scheme. Despite the successes achieved in implementing some aspects of the Resettlement Planning Framework and the fulfillment of certain promises. These successes are not sustainable because the continued existence of these facilities depends on the livelihood of the people which has not been provided. For example the ability of people to fully pay their electricity bills, school fees and cost of health care will be a function of the

level of income of the people acquired mainly from farming, fishing and hunting. The restoration of the livelihood of the resettlers is therefore a critical element to the sustainability of the communities. A livelihood here should comprise the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term Chambers and Conway (1992, page 7).

- a) One way of developing sustainable resettlement in Bui is to identify and assess in terms of the contribution, the assert make (or could make) during which it is necessary to explore the vulnerability context in which they exist, very important questions to answer are: what are the trends, shocks and stresses? Thus it is not only a matter of knowing what is happening now but also what the trends are and what could happen in the future. Some of the assets may change little over time (e.g. land and buildings) while others such as cash and social networks can be volatile and depend upon movement of people into and out of the household and the community. Vulnerability to shocks can also vary. A drought for example will impact upon natural capital and in turn reduce crop yields, but may have little if any effect on other capitals. In the longer term, of course, a severe drought could impact on a wide range of capitals, including social and human as people emigrate. Similarly, flooding may damage physical and natural capital while having little impact on the others. Thus the capitals will vary in terms of their resilience to different types of shock and the intensity of that shock.
- b) Another thing that needs to be done, is that BPA should assist the communities to build facilities (church, chief palace) that have not been provided in order to restore the community's religious and cultural activities, and also important for the NGO involved in development to resume their functions of providing targeted help to vulnerable and marginalized members of the community; whose integration into the new settlement is likely to be slower and more painful than that of the rest of the community. The preservation and translocation of the community's shared cultural values will assist the community through a period of hardships before economic wellbeing is restored. This should precede economic restoration.

- c) Furthermore the livelihood support program should include economic recovery of resettlers which is essential to reduce the risks of malnutrition, vulnerability to disease and poor health. Some short-term measures, such as emergency food rations, may be necessary to counteract sudden food shortages. However, the resettlers will have to be given information and skills, and long-term planning is necessary, if food insecurity is to be avoided in the new location.
- d) As many health risks and diseases are caused by poor sanitation and a lack of safe drinking water, every effort should be made to ensure that resettlers maintain the existing community infrastructure, in doing this, Capacity-building need to be provided for the community.
- e) There is the need to develop a grievance redress mechanisms for the resettlement sites. This facility should be administered as far as possible at the local level to facilitate access, flexible and open to various proofs taking into cognizance the fact most people are illiterate requiring a speedy, just and fair resolution of their grievances. Communities and/or farmer groups should be formed and should be in general a party to the contract would not be the best organizations to receive, handle and rule on disputes. Therefore, taking these concerns into account, all grievances concerning non-fulfillment of contracts, levels of compensation, or seizure of assets without compensation should be addressed to the district authorities either in writing or in person. In the meantime BPA should make available all documentation regarding the resettlement to the various household heads and the community stakeholders regarding the ownership of house and other related documents. All attempts should be made to settle grievances.
- f) In addition there is the need for BPA to make immediate arrangements for monitoring the resettlement. This is easily done if a monitoring plan of the entire resettlement is developed with expected monitoring and evaluation guides established and functional in the people's lives. The objective will be to make an evaluation in order to determine if the people who were affected by the project have been affected in such a way that they are now living at a higher standard than before, living at the same standard as before, or they are they are actually poorer than before. The monitoring plan should also indicate parameters to be monitored, institute monitoring milestones and provide resources necessary to carry out the monitoring activities.
- g) In addition each time land is used by the resettlers; the dossier should be updated to determine if the individual or household is being affected to the point of economic non-viability and eligibility for compensation/resettlement or its alternatives. These dossiers

will provide the foundation for monitoring and evaluation, as well as documentation of compensation agreed and paid to, received, and signed for.

5.3. Conclusion

In order to guarantee that resettlement development takes more account of environmental impacts and is performed on sustainable basis, the state and organizations as well as affected people have to do many things. In the field as complicated as resettlement, if not carefully studied and sufficiently prepared, the negative consequence will be quite heavy and long lasting. Therefore, high-level policies on this issue should be revised towards sustainability and the implementation should follow a strict but flexible procedure with full participation of both the affected people and the host people. The Bui resettlement has presented another opportunity for government to prove herself of adhering to international standards and ensuring sustainable livelihood of the affected people. This is very critical to the sustainability of the resettlement project. Form the outcome of the study and the growing trend of economic hardship the people are facing, the Bui resettlement if not checked could in the long run produce a disastrous result far more than that of Akosombo and the Kpong resettlement.



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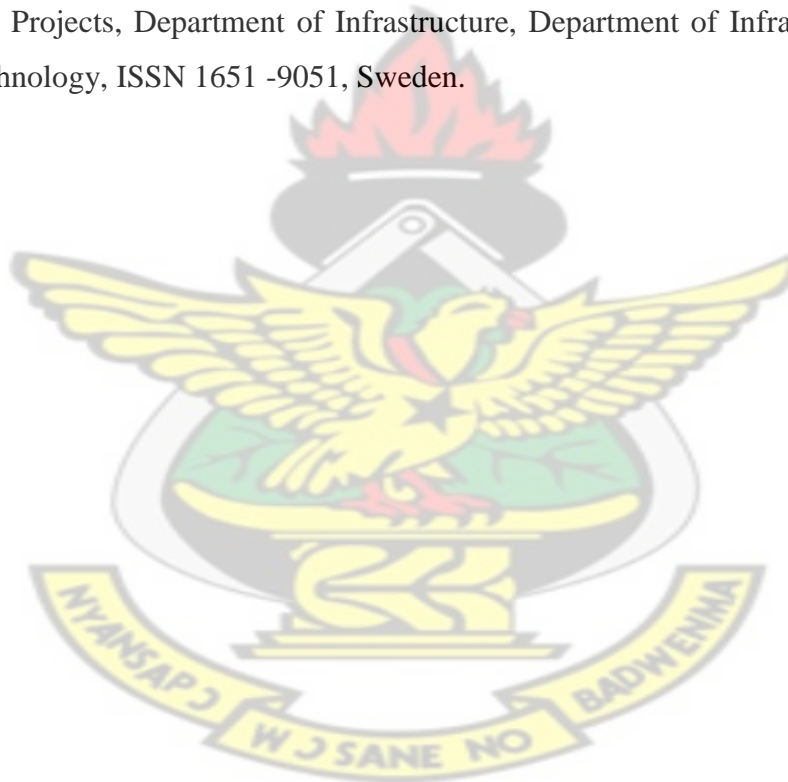
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APPENDICES

Appendix I. Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF ARCHITECTURE AND PLANNING
FACULTY OF PLANNING AND LAND ECONOMY
DEPARTMENT OF PLANNING

Topic: Sustainability of Bui Resettlement scheme in Ghana

Please, answer the questions that follow by ticking the appropriate option (if provided) or writing unrestrictedly for open - ended questions. Please answer all questions freely but objectively.

The information is for academic purposes only and will be treated with the strictest confidentiality as the exercise is guided by the principle of anonymity of the interviewee. Although your names and addressed will not be disclosed to any third party, neither will they used in data analysis. They are to enable use follow –up easily in case of data gaps.

Thank you



Household characteristics (some of the questions are to be answered using the codes underneath the table)

	Q1. Name of household member	Q2. Sex		Q3. Age in years	Q3. Education		Q4. are you employed?		Q5. If employed what is the sector of employment	Q6 Marital status	Q7. Ethnicity	Q8. Religion				Q9. Can You								Q10. Residential Status
		Male	Female		highest level attained	currently in sch (Yes/No)	YES	NO				Christianity	Islam	Traditional	Others	English				Local language				
																Read		write		Read		Write		
																YES	NO	YES	NO	YES	NO	YES	NO	
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								

Codes

Sector of occupation

1. Service
2. Industry
3. Agriculture
4. Student
5. Not applicable

Ethnicity

1. Banda
2. Akan
3. Ewe
4. Ga/ Adangbe
5. Dagarte
6. Bukibabe

7. Mo
8. Others

Education

1. K.G Nursery
2. Primary
3. Middle school/JSS/JHS
4. Tertiary
5. SHS/SS
6. Vocational/Tech
7. Non- formal

Marital status

1. Single
2. Consensus union

3. Married
4. Separated
5. Divorced
6. Widowed

Residential Status

1. Year Round
2. Resident absent for more than three Months
3. Resident absent for more than Six Months
4. Non- resident visitor
5. Non Kin

Others specify

EFFECTS OF RESETTLEMENT ON THE PEOPLE

Population change

11. How many people have joined the household since you resettled in this area?
[.....]
12. Where did they come from?
Community District..... Region
13. How many have moved away from the household since you resettled in this area?
[.....]
14. Why did they move into your house
[] School [] Employment [] Specify
15. How many births and deaths in your household in the past one year?

BIRTHS.....DEATH.....

Population management

16. Are you aware of any family planning Methods?
Yes [] No []
- I. If yes what is/are the source of information?
Friends [] health Officials [] The media [] Other specify
- II. Which method do you use? Condoms [] Pills [] Withdrawal []
Injectable [] IUD [] Specify.....

SOCIAL SERVICES

Education

17. Did you have a school for your wards at your old place before you were resettled?
YES [] NO []
18. Which educational institutions do you patronize currently?

Name of institution	Types of ownership of educational facility		Distance to the school	Means to the school	Reason for the patronage (refer to the code below the table)
	Public(1)	Private(2)			

KM= Kilometers

Codes for reason for patronage: Affordable [1] Proximity to house [2] Performance of students [3] Others (Specify).....

Codes for means to school: By Foot [1] Bicycles [2] Vehicle [3] Motor Bike [4] Others Specify

19. How many of your children of school –going age before resettlement were not in school? *(please refer to table on household characteristics to be specific)*

Name of household member	Reason for not being in School

20. Are they all now in School YES[☐] NO[☐]

21. Does your ward/child or you experience any difficulties with his/her schooling?
YES [☐] NO [☐] *If no go to Q 23 if yes what are they?*

Period	Difficulties
Before resettlement	
After resettlement	

CODES: Poor teaching [1] Facilities in bad conditions [2] Inadequate teachers [3] Inadequate of Furniture [4] Inadequate of Books /supplies [5] overcrowding [6] Other problems specify.....

22. In all are you satisfied with the quality of education at your new site as compared to the old site

YES [☐] NO [☐]

If YES what is the level of satisfaction?

Very satisfied [☐] satisfied [☐] Dissatisfied [☐] Very Dissatisfied [☐] Indifferent [☐]

If No to Q 22 please state your reasons.

.....
.....
.....

23. What suggestion do you have to enhance education of your children?

.....
.....
.....

HEALTH

24. Which health service provider does your household members patronizes before and after resettlement?

Hospital []1 Health Center []2 Health Post []3 Clinic []4 Chemical/
Pharmaceutical Shop []5 CHPS []6 Traditional [].7

Before resettlement		After resettlement	
---------------------	--	--------------------	--

25. Where is the facility located now?

Before resettlement		After resettlement	
---------------------	--	--------------------	--

Codes : Within community [1]

Outside Community [2]

26. How long does take you to get to the facility?

Period	Distance(Km)	Travelling time (Minutes)
After resettlement		
Before resettlement		

27. In all are you satisfied with the quality of Health Services provided by the health service provider?

YES [] NO []

If YES what is the level of satisfaction?

Very satisfied [] satisfied [] Dissatisfied [] Very Dissatisfied [] Indifferent []

28. State reasons for your answer above.

.....

.....

.....

.....

29. What suggestion do you have to enhance the quality of health care in the district?

.....

.....

Water and Sanitation

Purpose	Source	Location	Do you buy the Water		Provider
Drinking			YES	NO	
Other Domestic application					
Commercial					

Codes:

Sources : Pipe borne water [1] Bore –Hole [2] Well fitted with Pump [3] well not fitted with Pump [4] others (specify) [5]

Regularity : Daily [1] Twice a Week [2] Weekly [3] Monthly [4] others (specify)

Provider: D A [1] Individual [2] NGOs [3]

30. How will you rate the quality of your drinking water?

Excellent [] Very Good [] Good [] Poor [] Very Poor []

31. What is your contribution to the maintenance of water facilities in the community?

.....
.....
.....

Sanitation

32. Toilet Facility

Type	Location 1 Outside dwelling 2 Inside dwelling	Amount spent per day	Distance to the Facility (in meters)	Provider

CODES: Type VIP [] 1 Pit Latrine [] 2 water closet [] 3 KVIP [4] Open defecation [5] other (specify)

33. Taking everything into consideration, how do you feel about the condition of place of conveniences

Very satisfied [] 1 satisfied [] 2 Dissatisfied [] 3 Very Dissatisfied [] 4 Indifferent [] 5

What are your reasons for the above Q?

.....
.....

Waste disposal system

Disposal method	Location Inside dwelling Outside dwelling	Distance to the facility (in meters)	Do you pay for disposing off refuse		Amount spent per day (GH¢)	Provider of the facility
			YES	NO		

Codes for methods of disposal: Burying [1] Burning [2] Dumping [3] house to house collection [4] others specify.....

34. What problem is/are associated with your method of refuse disposal?

.....

Housing

35. Complete the table below for the data on housing condition (Kindly observe these characteristics and check appropriate)

Wall	Cracked []1 Not Cracked [] 2
Painting	Painted []1 Not painted []2
Foundation	Exposed []1 Unexposed []2
Roof	Leaking []1 Not leaking [] 2

36. Do you maintain the house?

Yes [] 1 No [] 2

If yes how often?

Weakly [] 1 Monthly [] 2 Quarterly [] 3 others (specify).....

37. How is the maintenance financed?

From tenants' rent [] 1 By land lord but not from the rent [] 2 Individual contribution [] 3

If you do not maintain the house why?.....

38. Are you satisfied with the housing conditions YES [] NO []

39. What do you think should be done about it n do you have the capacity to do it?

.....

Agriculture

40. Are you engaged in any agriculture activities?

YES [] 1 NO [] 2

If yes what type of agricultural activity are you engaged in ?

Crop farming [] 1 if crop farming move to q

Animal rearing []2 if animal rearing, move to q
41. What kind of crops do you cultivate?

Crops types	Location of the farm	How did you acquire the land eg inheritance	Acreage under cultivation	Total output eg 10 bags	Quantity consumed	Quantity sold

42. What is your source of capital?

- a. Family and friends b. personal savings c. Loans d. others(specify)

43. Do you store farm product after harvest Yes [] No []

If yes how do you store your products

Types of produce	Type of storage	How do you preserve before storage (sun/solar drying smoking)

44. Where do you sell your produce? Within the community [] outside the community []

45. Are you a member of a cooperative group/society Yes []1 No []2

If yes what have you gained from joining the group?

.....

If No why.....

46. Do you save? Yes [] No []

If yes how often do you save?

Daily []1 weekly []2 Monthly []4 others specify

47. Where do you save? Bank [] SuSu collectors [] Others specify.....

Livestock

48. Do you or any member of the household keep livestock? Yes []1 No []2

If yes please complete the table below

Types of livestock (eg. Sheep, poultry)	Number of animals kept	How much do you earn per annum (if purpose of keeping them is commercial)

49. What is your source of capital?
 b. Family and friends b. personal savings c. Loans d. others(specify)
50. Do you save? Yes [] No []
 If yes how often do you save?
 Daily [] 1 weekly [] Monthly [] others specify
51. Since resettlement in this community have you seen any remarkable change in your agricultural output as compared to your previous settlement? Yes [] No []
 If yes how
 If no why do you think so.....

Fish Farming

52. Do you or anyone in your family fish Yes[] NO []
53. If yes do you own or rent a canoe Own[] Rent [] No []
54. How often do you fish in a week.
55. What is your source of capital? Family and friends[] b. personal savings[]
 c. Loans[] d. others(specify).....
56. Do you save? Yes [] No []
 If yes how often do you save?
 Daily [] 1 weekly [] monthly [] others specify
57. Since resettlement in this community have you seen any remarkable change in fish as compared to your previous settlement? Yes [] No []
 If yes how
 If no why do you think so.....

Industry

58. Do you have any member of your household undertake industrial activity? Yes [] 1 No[] 2
 If yes please answer the question below
59. What type of industrial activity are you engaged in?
 Agro-Based [] 1 Metal –Based [] 2 wood- based[] 3 Textile [] 4 others specify ...
60. What type of ownership do you practice?
 Sole proprietorship [] 1 partnership [] 2 Joint Stock [] other, specify
61. How many people do you employ in your industry?
apprenticespaid Labour
62. Where do you get your raw materials for production?
 Within the Community [] 1 Outside the community [] 2

Victims of abuse

63. Have any member of your family been treated unfairly before? Yes[] No []
- i. If yes was it any of the following? Verbal assault [] physical assault [] others specify
- ii. Have you reported or ever reported the case? Yes [] No []
- iii. If yes to which institution?
 Chiefs and Elders [] social welfare [] police [] family members [] others specify.....

Implementation of the Resettlement Planning Framework in terms of its objectives.

64. Did you hear about the Bui Dam before resettlement?
a) Yes b) No If yes where did you hear it from and when.....
65. Were you involved in the resettlement process to your present location Yes [] No []
If Yes at what stage were you involved
a) Initial stage b) About completing
66. Have you received all compensation
Yes [] 1 No [] 2 If Yes answer question 67.
If No why.....
67. If Yes what kind of compensation did you receive
Cash [] 1 Housing [] 2 Land [] 3 other Specify
68. How was your compensation valued
.....
.....
.....
69. Were you satisfied with the compensation given Yes [] No []
If No why.....
70. Since resettling here have you considered leaving this community for Good? Yes [] 1
No [] 2
If yes why do you want to leave
.....
If NO why
71. Are you aware of any channel of addressing grievance in the community concerning the resettlement? Yes [] No []
If yes what are they.....
If No how do you address grievance in the community.....
72. What do you think can be done to ensure you continue stay in this community?
.....
73. How do you feel about the resettlement process
Entirely satisfactory [] satisfactory [] Not satisfactory []
74. How many people in this household are employed by Bui power Authority?.....
75. What do you think can be done to make the resettlement of this household sustainable or a success
.....
76. Have you and your household fully integrated yourself into this community since resettling? Yes [] 1 No [] 2
77. In your opinion, how has the standard of living of your household changed over the previous three years Better [] Same [] Worse []
78. In your opinion was the resettlement of this household successful. YES []
NO []

Appendix II: Stakeholders and BPA

1. Sex of respondent: 1. Male 2. Female

2. Age of respondent:

a. Less than 25

b. 25-35

c. 36-45

d. 46-55

e. More than 55

Effect of the resettlement

-2	-1	0	1	2
Negative	Slightly negative	No effect	Slightly positive	Positive

KNUST

-2 -1 0 1 2

<i>Environmental effects</i>						
3	Soil Fertility	[]	[]	[]	[]	[]
4	Soil Erosion	[]	[]	[]	[]	[]
5	Aquatic habitat	[]	[]	[]	[]	[]
6	Flood control	[]	[]	[]	[]	[]
8	Agriculture	[]	[]	[]	[]	[]
9	Aquaculture	[]	[]	[]	[]	[]
<i>Social effect</i>						
10	Public health (i.e. incidence of diseases such as billharzia, cholera, malaria and River blindness).	[]	[]	[]	[]	[]
11	Infrastructure (schools, road, public toilets, clinics, etc)	[]	[]	[]	[]	[]
	Pollution (air, water, noise, dust making)	[]	[]	[]	[]	[]
12	Land tenure system	[]	[]	[]	[]	[]
13	Transportation and rural accessibility	[]	[]	[]	[]	[]
14	Recreation	[]	[]	[]	[]	[]
15	Urbanization (growth of villages into cities)	[]	[]	[]	[]	[]

16 Population size (out-migration or in-migration) [] [] [] [] [] []

Economic Impacts

17 Employment [] [] [] [] [] [] []
 18 Income generation [] [] [] [] [] [] []
 19 Impoverishment [] [] [] [] [] [] []
 20 Conversion of land use [] [] [] [] [] [] []
 21 Water supply [] [] [] [] [] [] []
 22 Electricity and fuel supply [] [] [] [] [] [] []

23. What is your assessment of the level of infrastructure provided to resettled communities?

1 = Entirely satisfactory

2= Satisfactory

3=

Not

Toilet Facilities	
Housing	
Road /Transportation	
Water /sanitation	
Educational	
Electricity	
Health	

24. What is your assessment of the Bui Resettlement by community in relation to the objectives of the resettlement Planning framework which is

*‘To ensure that the Bui Dam project **improves people’s economic opportunities** and living conditions and **minimises adverse impacts** while also providing remedial measures for those adverse impacts that are unavoidable, particularly among the communities most directly affected by resettlement either through physical displacement or loss of economic resources’.*

Entirely satisfactory [1]

satisfactory [2]

Not satisfactory [3]

25. What are some of the reasons assigned to Q24 above?

Name of communities	Responds	Reasons
Bator/Akanyakrom		
Bui		
Dam site		
Brewohodi		
Dokoyina		
Lucene		
Agbegikuro		

25. What is your responds to the following statement

[2]= strongly agree [1] = Agree [0] = not sure [-1] =Disagree [-2]=Strongly Disagree

Statement	Responds	Reasons assigned to responds
The community were involved and fully participated in the planning and implementation of their resettlement		
There was mass education to create awareness regarding the challenges that could arise from the resettlement		
The Public was given adequate time to prepare before the resettlement took place		
Valuation of Compensation was done in consultation with the community members		
Compensation was properly paid to the communities resettled		
There affected people were fully satisfied with the compensation paid to them.		
The resettlement has greatly affected the livelihood of the people negatively		
Grievance procedure whereby local people can lodge concerns and complaints regarding the resettlement have been established and working very well		
There has been a smooth integration with the host communities by the resettles		
Monitoring has stated and done periodically.		

APPENDIX III interview Guide- Focus Group discussion

To examine the implementation of the Resettlement Planning Framework

How was the resettlement carried out?

Discussion topic	Key concepts	Guide Questions
Local laws	<i>Local Laws</i>	Did the resettlement process conflict any traditional and community laws and how was it addressed?
Community participation and consultation	<i>Stakeholders meeting, mass education, community meeting/forum household survey, valuation process. identification of vulnerable group</i>	Was there partisanship and consultation with affected stakeholders at every stage of the resettlement? How?
Integration with Host community	<i>payment of host community,</i>	How was the resettles integrated with the Host community
Grievance procedure.	<i>Affordable and accessible procedures, availability of judicial recourse</i>	Describe the process for addressing grievance arising out of the resettlement
Monitoring and Evaluation	Arrangements for monitoring of resettlement, monitoring indicators to measure inputs, outputs, and outcomes for resettlement	Is the resettlement been monitored? By whom? When and How? What are the indicators to monitor the resettlement

To examine the effects of the resettlement on social, economic and environmental live of the resettles.

Discussion Topic	Key concepts to be explored	Guide questions
Health	Identify diseases in the community that affect them. Their causes, frequency of occurrences in a year, and how they are cured(Clinic, traditional herbs)	i. Since resettling in this community have you experienced any serious disease or there has been an improvement in the health conditions of the people? ii. What do you think is the cause of this health problem iii. How often do you experience this disease iv. How are you able to cure such disease
Infrastructure	Number of schools, Enrolment Road accessibility, marketing of products in and outside the community.	i. Have you noticed any significant improvement in the provision of infrastructure such as schools, clinics, road network since resettling here as compared to your old community? ii. How has the presences/absence of this infrastructure affected the lives of the people in the community? iii. Are you satisfied with the infrastructure so far provided to the community?
Population change	Mass movement of people who were not part of the community into the community after resettlement Mass movement of people outside the community Reasons given for such movement (poor harvest, cost of living, favorable weather condition.	i. Have you witness any migration into the community? ii. Have you witness any migration outside the community? iii. What reasons did they give for their movement? iv. Does this change have any effect on the communities?
Employment	Type of employment, average amount paid, process involved in getting the job.	i. Has the establishment of the Bui Dam brought about the creation of jobs for the proper in this community? ii. Are these employments sustainable?
Agriculture		i. What type of agriculture activity is mostly practice in the community? ii. Have you noticed an increase or a decrease in the activity? iii. What do you think is the cause of this change? iv. Does this change affect the livelihood of the people? v. Since resettling here have you experienced any disaster that affects the activity? vi. What is been done to prevent the occurrence of such disaster
Energy	Energy for cooking and lighting Such as LPG, firewood, charcoal etc	i. What are the sources of energy for the community? ii. Approximately how much do you spend on energy

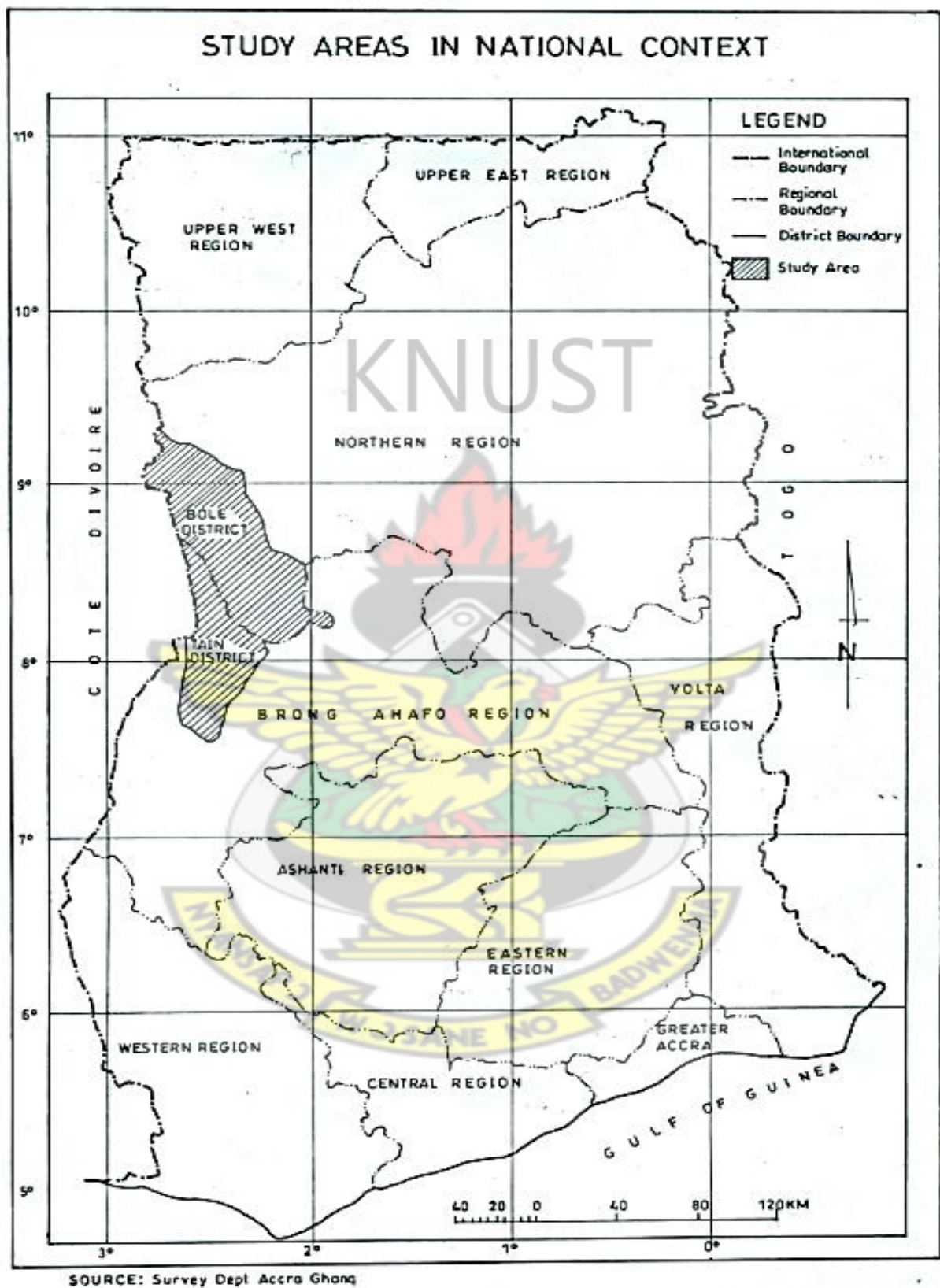
Find out the extent to which the resettlement can be made sustainable or maintained.

Discussion Topic	Key concepts	Guide Questions
Future plans		<ul style="list-style-type: none"> i. How would you like the community to look like? ii. What plans does the community have for the future? iii. Do you think this plans are sustainable. iv. What actions are the community taking based on your plans? v. How confident are you that this plan would become a reality. vi. What capacities do you need for this to happen?
Control over the present	Ability to identify influences and control affecting their lives positively and negatively. Problems faced through resettlement such as disease, Agric output, conflict/peace, sanitation, jobs.	<ul style="list-style-type: none"> i. Describe the things affecting your lives at present as result of the resettlement. ii. Which of these things do you feel are good for you? Why? iii. Which of these things do you feel are good for you? Why? <p>How do you deal with these things?</p>
Conflict prevention and resolution	Incidence and seriousness of conflict in the community e.g from minor disagreement and dispute to serious destructive violent conflicts Local means of conflict resolution and prevention e.g dialogue, mediation, relationship building	<ul style="list-style-type: none"> i. What conflicts are there between different groups or families in the community? ii. Why? How often? Who is involved? iii. Describe the nature of the nature of the conflict. Give examples iv. How are such conflicts resolved and /or prevented in the community? By whom?
Institutional Mechanisms	Ability to identify institutions and their roles	<p>Describe the various institutions in the community. Role of institutions.</p> <p>Have this institutions help in making the community habitable</p> <p>Do leaders in the community serve the purpose of the community members?</p>

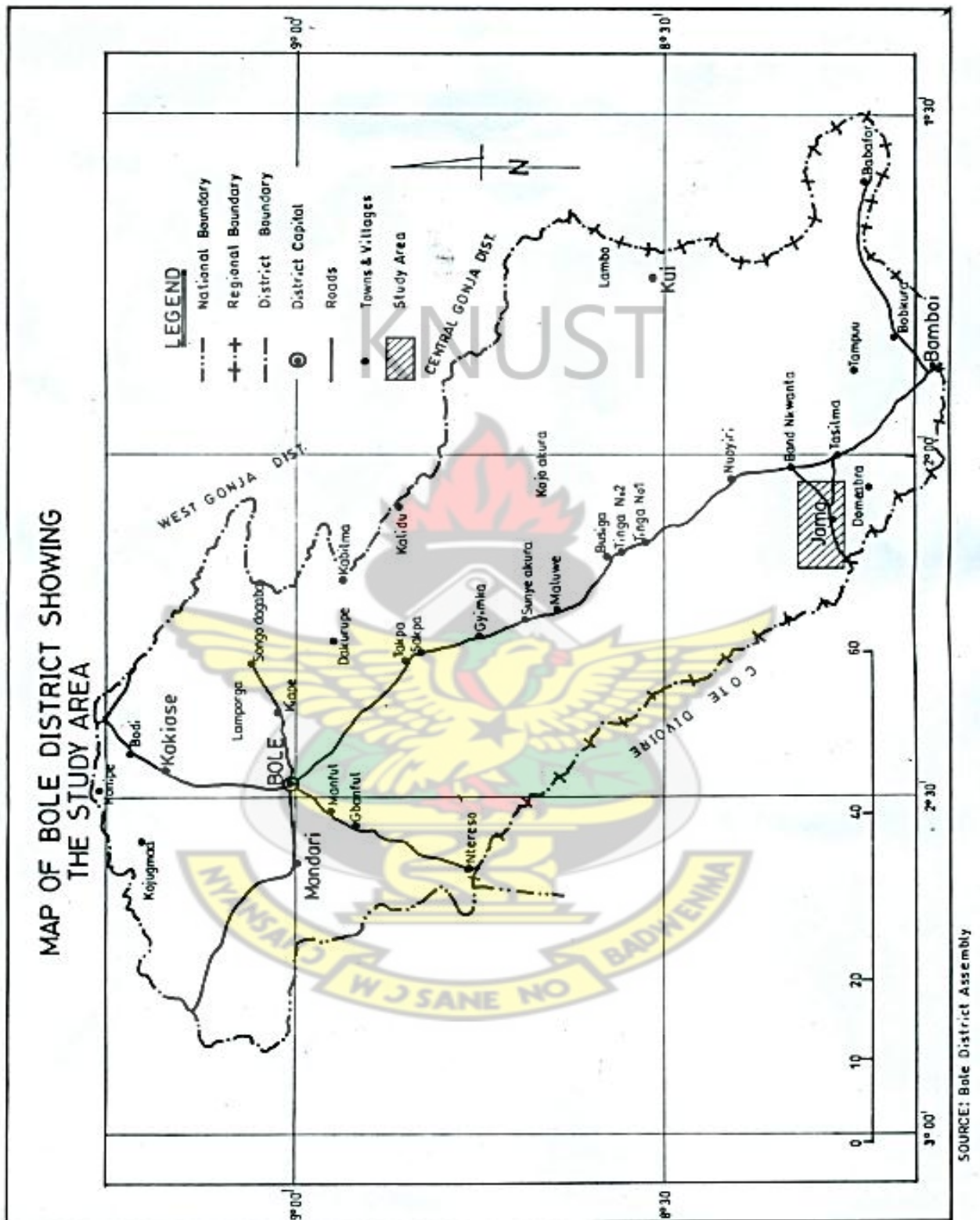
Discussion topic

Key points- <i>covering the full range of options expressed in the discussion, must represent both the most common comments from participant and any significant differences that emerged</i>	Notable Quotes /Examples- <i>comments which best illustrated the key point's memorable individual comments, any important differences of perspectives and opinion that were voiced.</i>
	

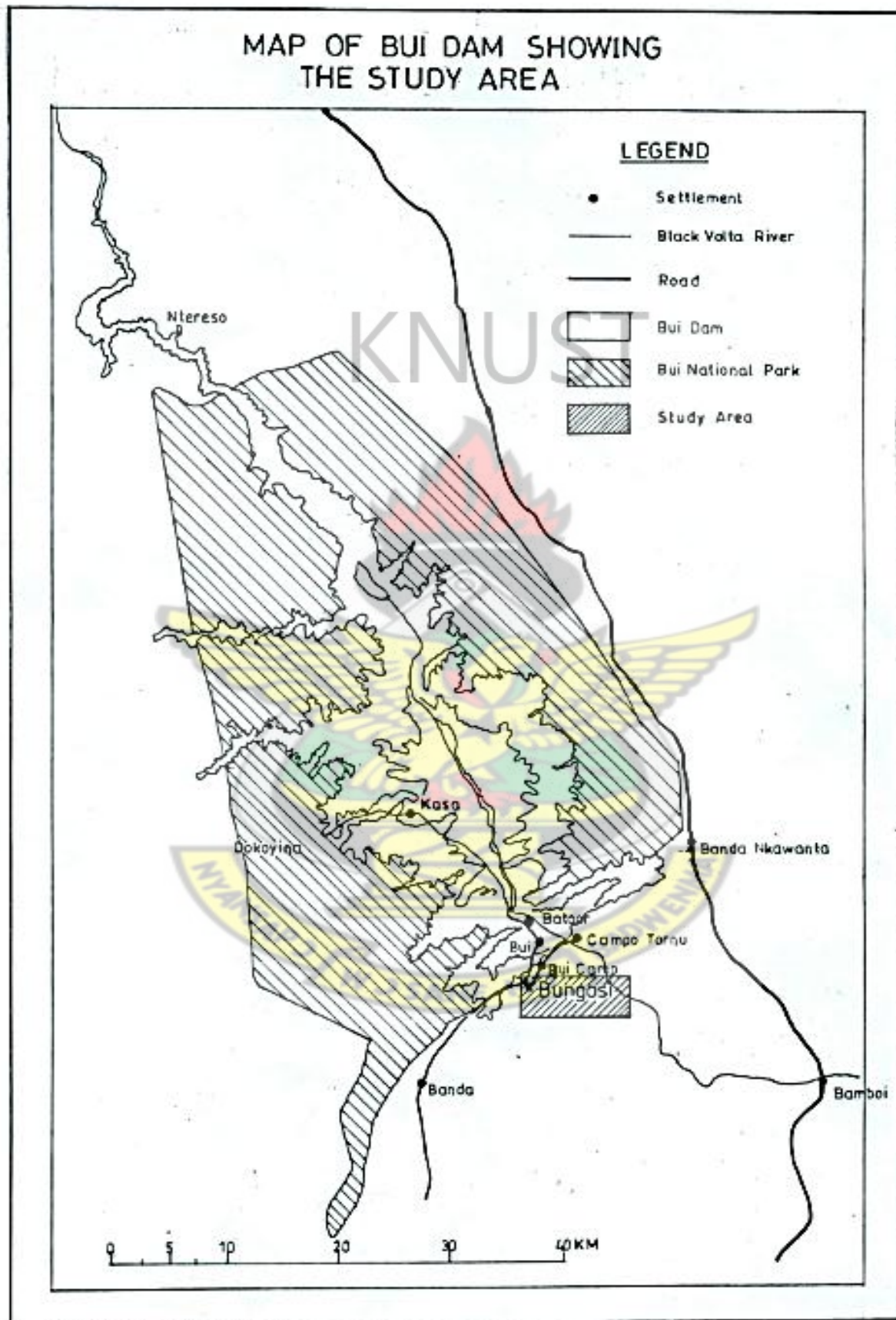
APPENDIX IV: Maps of Study Areas



APPENDIX V: Map of Study Area



APPENDIX VI: Maps of Study Areas



SOURCE: Tan District Assembly

APPENDIX VII: Map Of Study Area

