UNIVERSTIY OF GHANA

PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENT IN GHANA: THE CASE OF BUI DAM PROJECT.

BY

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A LONG ESSAY SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER OF PUBLIC ADMINISTRATION

MAY, 2019

DECLARATION

I hereby declare that this long essay is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have duly been acknowledged.

I bear responsibility for any shortcomings.

…… ……

JESSICA NSIAH DATE

CERTIFICATION

I hereby certify that this long essay was supervised in accordance with the procedures laid down by the University

…… ……

PROF JUSTICE NYIGMAH BAWOLE DATE

(SUPERVISOR)

DEDICATION

This long essay is dedicated to Almighty God for His endless care and protection throughout my education.

ACKNOWLEDGEMENT

I thank the Lord Almighty for protecting me throughout the study period. He has been with me throughout the years for this work to see a successful end.

To begin with, I owe a special debt of gratitude to my supervisor, Professor Justice Nyigmah Bawole for his guidance and direction during the study.

This work could not have been accomplished without the assistance of many other personalities whose contributions I would like to acknowledge. The management and staff of Environmental Protection Agency deserve my profound gratitude for their assistance during field work. I also specially thank the Bui Power Authority, relevant stakeholders and all participants in the seven relocated communities whose input or materials helped in these few years of my graduate studies.

I do also extend my appreciation to my Parents, especially my mum Mrs, Elizabeth Kumi and my dad, Mr. Christian Kumi. To my siblings Junior, Bobby and Matthew, I wish to say thanks very much for the support you provided in the course of my graduate studies.

Finally, I wish to thank all lecturers at the Department of Public Administration and Health Services Management, University of Ghana Business School who helped shape the work in the periodic seminar presentations.

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LIST OF ABBREVIATIONS

BPA	Bui Power Authority
BRAP	Bui Resettlement Action Plan
CSOs	Civil Society Organizations
EIAs	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESIA	Environmental and Social Impact Assessment
IFC	International Finance Corporation
NEPA	National Environmental Policy Act
NGOs	Non-Governmental Organizations
UN	United Nations
UNCED	The United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme

ABSTRACT

The study set out to assess public participation in environmental impact assessment (EIA) processes using the experience of Bui Dam Project in Ghana. The research adopted the case study design within qualitative research approach. A sample size of thirty-five (35) respondents from across different categories were selected for the study. This included five (5) respondents from Environmental Protection Agency; five (5) opinion leaders from the resettled communities, two (2) officials from the local government and Bui Power Authority each and twenty-one (21) households which were affected by the operations of Bui Project. Secondary data involved data already collected and complied for other purpose from books, articles and journals, details from. The study observed both upstream and downstream consultations as well as the use of community opinion leaders to serve as liaison between the conveners and community members. The resettlement process has had mixed results on fishing and farming activities which are the main economic activities of the seven (7) resettled communities. The public participation process as well as the resettlement package which followed the process has been viewed as very remarkable. The study concludes that public participation should be closer to the people in the communities and should be done in a fair and honest manner. EIA process should not be limited to the national headquarters or district capitals but efforts should be made as far as practicable decentralize the process so that households in the communities get access to conveners of EIA which the study calls downstream engagement. The study concludes that 'downstream' engagements are very crucial for the success of EIA projects without which any consultation at the top will be futile.

CHAPTER ONE

GENERAL INTRODUCTION

Introduction

This study assesses the theory and practice of public participation in Environmental Impact Assessment using the experience of the Bui Dam Project in Ghana. This chapter provides a general introduction to the study which covers a background of the study, problem statement, research objectives, the corresponding research questions and significance of the study.

1.1 Background to the Study

Environmental Impact Assessment (EIAs) have assumed a conventional prerequisite to help protect the environment from the adverse impacts of socio-economic development activities (Zhao 2010; Nadeem & Fischer 2011). They are systems and processes designed to ensure environmental issues are given premium considerations in all socio-economic decisions and projects. In other words, EIA is an attempt to strike a balance between developmental activities and socio-ecological losses (Paliwal, 2006). The relevance of the EIA process has been widely acknowledged (Morrison-Saunders & Fischer 2006), it has however been observed that the role and active participation of relevant stakeholders especially the public in EIA systems remains utmost (Nadeem & Fischer 2011).

Public participation is regarded an essential and 'integral' component of all Environmental Impact Assessment (EIA) systems (Ocampo-Melgar et al., 2019; Furia & Wallace-Jones, 2000). Since the United Nations Conference on Environment and Development (1992) and the Aarhus Convention on Access to Information, Public Participation in Decision Making

(1998), the relevance of citizen involvement in environmental decision-making has become deeply acknowledged. According to Sinclair et al. (2018) public participation in environmental issues is essential to enhance potential solutions, and avoid protracted conflicts which may be time-consuming. They explain that an integration of public participation in EIA projects helps to incorporate local knowledge to help optimize processes and outcomes of the process. For public participation in EIA projects to be more relevant to the process, the fundamental objectives and principles of public participation need to be adhered to. The range of stakeholders involved in an EIA typically includes the local people and their leaders, proponents, government agencies, local authorities, non-governmental organizations (NGO's), civil society organizations (CSOs) and academics, among others.

According to Beierle and Cayford (2002), the main goals of engaging stakeholders in EIA projects is to offer the platform for relevant stakeholders to raise their concerns and to have a say in the decision making processes at the preliminary phases of a project. The key objectives for engaging stakeholders at the early phases are to: help educate and sensitize the stakeholders about the said project and its potential impact on the environment and socio-economic lives of communities; seek local and indigenous knowledge from the worldview of local people; reduce conflicts among the participants; enhance transparency and accountability in decision making; and enhancing legitimacy by building trust in the proponents and government agencies (Beierle & Cayford, 2002). To Furia and Wallace-Jones (2000), for public participation in EIA to be deemed successful, one needs to assess the extent to which the objectives of engaging the public have been met. Therefore any

study that seeks to assess public participation in EIA projects needs to match the project realities against the theoretical propositions on the best practices of public engagement in the EIA systems.

Involvement of the public in EIA is usually viewed as a central component of the process. Local community members and groups are interested in what options get proposed; the possible and plausible consequences of those proposals; such that the values are recognized and general; and the propositions they may provide will be carefully considered on their merits. Local stakeholders expect conveners of EIA to give a fair hearing to their concerns (Scott 1991)

The Bui Hydroelectric Power Project, which got inaugurated in the year 2013, is one of the three main hydro-electric power providing plants in Ghana. It is a 400 megawatt hydroelectric plant at Bui constructed on the Black Volta River. The project is a joint-effort between the Government of Ghana and a Chinese construction company, Sino Hydro. Construction on the main dam began in December 2009 and its initial generator was commissioned on 3 May 2013 and the dam was inaugurated in December of the same year[1]. These activities led to the resettlement of many people living along the upstream and downstream along the Volta River whose socio-economic lives were to be affected by the project. The Bui Dam Project was a typical developmental project in Ghana which had varying implications on the environment and socio-economic lives of the local people

[1] https://en.wikipedia.org/wiki/Bui_Dam

(Obour et al, 2016). The project from its inception was believed would have implications on water quality, forest losses, air pollution as well as resettlement of community members which made the stakes very high. This study assesses lessons from the EIA processes that were carried out in the course of the Bui Dam Project in Ghana.

1.2 Problem Statement

The relevance of engaging local people in bigger projects that would have adverse socio-economic impacts on their lives has been well acknowledged. To Reed (2008), involving local communities and groups counterbalance the possible inherent biases that may be associated with project proponents. It may also help the assessment team to know the local resource-use and its imperatives, as well as the use of local value worldview to interpret, evaluate and monitor project impacts on local communities (Li 2009). Others have underscored the relevance of EIA as a public sensitization tool that raises environmental awareness for higher environmental protection standards (Khosravi et al, 2019), legitimacy and sustainability concerns (Arts et al., 2016), and to Sinclair and Diduck (2017) it promotes active citizenship. Yet other scholars contend that public participation promotes transparency in the process and provides legitimacy (Murombo, 2016). Socio-cultural issues and concerns are brought in context when local populations are part of the EIA process (Hanna et al 2016).

In order to make public participation more beneficial and meaningful, it is crucial for the process to be a two-way affair and stakeholders must have a good understanding of the processes and mechanisms by providing them relevant information in the spirit of honesty and transparency (Reed, 2008). However, the involvement as well as participation of local

people in EIAs have been rather rhetorical (Nadeem & Fischer 2011) because their participation have not been forwarded into the operational phases of projects (O'Faircheallaigh, 2007). In other words, although theoretically EIA is viewed to provide the above benefits and positive scores, the actual practice has not often been the case because the relevant stakeholders are not meaningfully and honestly involved in the assessment of project impacts and even where they do, it appears rhetoric and "cosmetic window dressing" (Bawole, 2013). Bawole (2013) observe that developing country context is more prone to been kept in the dark because local institutions and agencies are not well resourced, the local people are largely illiterate and as such mostly do not have the capacity to be heard.

Susskind and Elliott (1983) assess official and unofficial planned participatory processes, governance and institutions and observe evidence of participatory processes strictly controlled and at times manipulated by those in power, whether public or private sector actors. They also find, conflict occurring when citizens independently organize to oppose such a patronage process. Such tendencies do have adverse effect on the EIA process and subsequent phases of the projects. Although the above studies demonstrate the weaknesses in EIA, such studies have not done much involving the marginalized groups in the research process. This is a gap which this current study sought to address by actively engaging with the communities members which got evacuated because of an environmental project.

In developed countries, whilst public participation is often seen to have a moderate influence on the project design and environmental approval conditions of EIA, same cannot

be said of the developing world especially in Africa. Although the Aarhus Convention (1998) on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters obliges member countries to promote public participation in EIAs, much remains to be done in reality as the public in most cases appear to be relegated to the background. Although there have been some studies on EIA (Bawole, 2013; Gebreyesus et al, 2017; Rebelo & Guerreiro, 2017), these studies generally give an overview of the entire process but emphasis is not placed on the community members or local groups who were to be involved in the process. In other words, the local people are usually not allowed to tell their stories on how the EIA processes enabled or prevented them from meaningfully participating.

1.3 Research Objectives

The main objective of the study is to assess public participation in EIA processes using the experience of Bui Dam Project in Ghana. The specific objectives of the study are:

1. To assess the mechanisms and structures that were put in place to foster public participation in the EIA processes of Bui Dam Project
2. To assess the Bui Resettlement Action Project and people's conditions afterwards.
3. To investigate how to optimize public interest to participate in future EIA projects.

1.4 Research Questions

To address the objectives above, the study is guided by the following research questions.

1. What mechanisms and structures were put in place to foster public participation in the EIA processes of Bui Dam Project?

2. What has been effect of the Bui Resettlement Action Project?

3. How can we optimize public interest and participation in future EIA projects?

1.5 Significance of the Study

The main purpose of the study is to assess the nature of public participation and its impact on EIA projects. The significance will be relevant to *policy making, to practice and to the literature* on participation and environmental processes. With respect to its relevance for policy making, the study findings and recommendations could provide a basis for informed decisions by various stakeholders and the public in terms of the policies they make with regards to EIA process. The implications and lessons can help policies makers make some informed decisions that would benefit the society as a whole. Secondly, the study findings will provide major conclusions and policy suggestions which will help conveners of EIA, environmental activists, and civil society organizations in their approach. Finally, the study will contribute to the literature on participatory mechanisms of EIA, EIAs in African countries as well as literature on environmental and socio-economic dynamics

1.7 Scope of the Study

The scope of the study is based on a case study on EIA in Ghana. The scope of the study covers the Bui area of Ghana. It assesses the preliminary stages of the Bui Project when the EIA was carried out as well as the post-project stage.

1.6 Organization of the Study

The study is structured into five main chapters. The first chapter presents a background to the study, problem statement, the study objectives and research questions. It also presents the significance of the study, scope of the study, and chapter organization.

Chapter two of the study reviews literature relevant to the study been undertaken and the objectives0 set out. The literature is categorized into theoretical and empirical; theoretical explains the key concepts in the study whilst empirical literature reviews previous studies done by researchers.

Chapter three entails the methodology employed for the study and outlines the research design, sources and types of data used. The chapter also presents the sampling techniques and sample size as well as instruments of data collection. It also presents the methods of data analysis.

Chapter four (4) of the study presents findings of the study thematically and discusses the main findings of the study. Chapter five provides summary of research findings and will base on the findings to draw conclusions and recommendations on how to optimize participation in environmental impact assessment to mitigate socio-economic losses people gain from such projects.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on Environmental Impact Assessment and participation as well as other related concepts. The chapter is organized into both theoretical and empirical literature. The theoretical literature provides a definition of the main concepts in the study which include Environmental Impact Assessment and participation; the processes in the EIA process; and objectives of the EIA process. The chapter also discusses the idea of participation, forms of participation and role of participation in EIA processes. The empirical literature will discuss existing findings and studies on public participation in EIA.

2.1 Defining Environmental Impact Assessment (EIA)

The idea of Environmental Impact Assessment was borne out as part of the National Environmental Policy Act (NEPA 1969) in the United States for considering possible socio-economic and environmental impacts prior to a decision being taken on whether or not a proposal should be given approval to proceed. The process since the period has become a requirement in over one hundred (100) countries (Wood, 1995).

Glasson et al (1994) view EIA as a preventive, hands-on and methodical process which is more underscored with multistakeholder involvement. To Spaling (2003), the concept involves a tool or process that seeks to promote sustainable development through an appraisal or evaluation of the likely impacts that may arise from a major activity with a potential to considerably affect both the natural and human-built environment. The process entails detailed consultations and more participatory in the evaluation process (Wood,

1995). In other words, EIA entails a process of information gathering and analysis which is carried out to support decision taking processes as enshrined in the laws and institutional structures. The process is widely open and seeks public participation and contribution from the very people and groups likely to be directly affected by or interested in the projects underway (Lumsden, 2001).

The EIA process has come to stay across the globe, however, its execution varies from one context to the other, whether an advanced country or less undeveloped one, and from organisation to organisation. In many countries, the legal framework on environment usually provides that before a license is granted, the company is supposed to carry out an EIA of the proposed development or project. To Schroll (2002), the assessment should be carried out such that environmental concerns get on to the project agenda even at the planning stage, and options on the feasible ways of executing the project should be made known. The alternative options should be assessed in a holistic manner including the environmental, scientific, social and economic terms as well as the particular consequential effects that accompany each alternative is clearly stipulated.

The idea of identifying the environmental impact at an early phase of the project has an advantage of helping both the conveners and relevant state agencies on environmental stewardship to advance the value of both project planning and decision-making. Consequently, EIA has assumed a critical role as an instrument for project development, planning and decision-making (UNCEP, 1992). This has been noted in principle seventeen of the Rio Declaration on Environment and Development which seeks to command all

entities to undertake EIA: “Environmental Impact Assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority” (UNCED, 1992).

2.2 The EIA Process

2.2.1. Consideration of Alternatives

A preliminary and first phase of the EIA process is involves taking into account the vast alternatives and choice set that come with the process (Wu et al, 2014). In every EIA, the proponents or those who execute any task are met with a lot of options and choice sets mostly presented by different stakeholders and community members with varying impact on the environment. An appropriate process to foster an early check that the environmental effects of alternatives really have been fully considered is their inclusion in preliminary documents produced prior to the EIA report (Andre et al, 2006).

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This involves an attempt to discuss the action with the public authority and environmental authorities before a submission of the Environmental Impact Assessment report will comprise the assessment of design documents. This provides the prospect to assess the most suitable ecological alternative and design which meets the objectives of the proponents. Those ones get selected and if it occurs none meets the required expectation it becomes prudent to refine or review the design process (Wood, 1995).

2.2.2. Action Design

After a choice concerning the general approach and venue have been devised already, a next step is to make for a more elaborate design of the processes and activities to take place (Barton, 2002). It is prudent to prevent and mitigate ecological consequences of any action or process; it therefore requires adequate resources being committed to the process. The processes and techniques for assembling and brainstorming with environmental experts for to assess each alternative or possible impact of the project, or through consultation, in addition to the adoption of appropriate assessment tools and strategies, the numerous design alternatives get refined and reduced and a more favorite design develops and get selected (Becker et al, 2004).

2.2.3. Determining whether an EIA is necessary (Screening)

In every project, to ascertain whether an Environmental Impact Assessment report will be a pre-requisite or not in most cases depends on the extent of its potential impact on the environment (Del Furia & Wallace-Jones, 2012). There are two general strategies to determine the significance of the potential impact of EIA systems:

Firstly, this could be done by compiling series of actions; the thresholds as well as criteria and indicators to define which of those are to be assessed.

Secondly, there is a need to put in place a procedure to guide the use of discretion to determine those actions to be assessed.

In practical terms, most EIA processes implement a crossbreed approach which entails lists, determination of thresholds and the deployment of discretion. In some cases,

proponents may employ different forms of EIA for projects or actions which may exert different levels of significance (United Nations Environment Programme, 1996). Relevant environmental agencies may engage broadly with people likely to be affected by a suggested project in order to understand more clearly the nature and significance of the likely impacts. This information will facilitates in the screening process to ascertain if EIA is prerequisite and, in situations where there are a range of levels within the EIA system, the appropriate level (UNEP, 1996).

2.2.4. Scoping

Scoping involves those mechanisms for deciding the variety of issues to be dealt with in an EIA report. It also involves a process for determining the significant issues concerned with proposed courses of action (Bear, 1989). The key elements of role of the scoping exercise seek to understand (a) the nature and scope of the planned development; (b) the different issues and activities (c) the extent to which each of the issues requires in-depth investigation (BWPP, 2001).

According to the UNEP (1996), public involvement is generally carried out at the scoping phase with the goal of ensuring that all the relevant concerns are known, local people's concerns on the project development or project are harmonized. Similarly proposals on alternate ways of carrying out the project goals to reduce the perceived impact on the people may be proposed and interrogated at this stage for possible consideration.

2.2.5. Preparation of the EIA Report

This stage involves a proper documentation of the expected impacts of the project. This is because there can be no meaningful impact assessment if there is no report that puts together the key findings on the proposed impacts of the project on the environment. In every country the EIA regulatory mechanisms stipulate measures to identify the minimum content of every assessment report should capture including the procedures one an organization is required to follow before preparing the EIA report (Furia & Wallace-Jones, 2012). Essentially, all EIA reports are expected to define the proposed processes and actions as well as the scope of the environmental resources to be affected; it is required to report on the estimated significant impacts likely to result from the implementation of the action and the report should be provided in plain summary that can be accessed and understood by all relevant stakeholders. The reports are to provide information on treatment of alternatives as well as procedures for mitigation (Devlin & Yap, 2015).

It is also important to describe the actions and expected impact on the environment which should be made more concise and understandable with respect to transmission of the relevant information. It is crucial to provide data on the key characteristics of the proposed activities which will give rise to the expected consequences. A comprehensive list may contain the nature and goal of the project, features of the proposed area, features of the proposed project and the various stages of the project development (Doelle & Sinclair, 2016).

To be able to adequately track impact, it is important to carefully and systematically undertake a preliminary assessment of the ecological conditions (baseline) before one can accurately compare what exactly the impact has been on the environment. In situations where there is existing data, (for example if the soil characteristics, or geology data exists) to indicate the principal physical features (e.g. geology), it can be used for the baseline data (Wood, 1985).

Data on the possible consequence of the project to be undertaken and its anticipated intensity on the environment is to be declared in the EIA statement of report. Explicitly, it is important to clarify the nature, scope and boundaries as well as intensity of each of the anticipated impacts. For example, if it is mining project, it is important to do a forecast of the dust levels and the information may show that the intensity may show variation depending on the a community's closeness or remoteness from the source and the dust will disappear if emissions also comes to an end. According to Beanlands *et al*, (1983), the impact of the magnitude is to be assessed in the context of the baseline circumstances.

There should be adequate involvement of the people in an EIA preparation and forecasting processes although the latter requires more mathematical and statistical computations. To pave for external certification and reviewing the authenticity data and methods used; it is important to ensure the data and predictions are accurate so as to espouse confidence (Finsterbusch, 2005).

It is essential to ascertain the significance of the impact which also requires proper diagnostic and forecasting tools which also depends on the quantitative effects. At times the importance of an impact may be determined by through value judgements and the premise upon which such value judgements are made need to be explicitly accounted for because there could be varied opinions and judgments from different stakeholders on the extent of impacts, different participants in the EIA process (Finsterbusch, 2005). To arrive at a more acceptable manner, mathematical, statistical or computational models help to predict the significance of the impact in a more systematic way.

2.3 Objectives of Environmental Impact Assessment (EIA)

The idea of EIA is to accomplish some short term and long term objectives which help in many other ways. The main objectives are highlighted below:

Firstly, EIA is aimed at enhancing the environmental design of a proposed project; it seeks to ensure that resources are deployed applicably and efficiently. It assists in the identification of proper measures for moderating the probable impacts of the projected development. Moreover, EIA seeks to promote public participation and helps to facilitate informed decision-making. (Sadler 1999).

Finally, it promotes the protection of human health and safety and helps avoid irreversible changes and serious damage to the environment; EIA seeks to safeguard valued resources, natural areas and ecosystem components; and to enhance the social aspects of the proposal (Lumsden, 2001).

2.4 Definition of participation

The idea of participation in environmental impact assessment (EIA) has been studied, classified, and compared by different writers (Glucker et al., 2013; Morgan, 2012; Webler & Tuler, 2006). To Morgan (2012) the scholars have reflected on the growing relevance of EIA and the advent of new terminologies which includes "deliberative democracy", "collaborative rationality", and "environmental justice". To most scholars and practitioners, the level of public involvement or participation fluctuates depending on the extent to which people are allowed or able to influence final results or decisions to be taken (Arnstein, 1969). This is determined by the effectiveness of the engagement process, rules of the game as well as the kind of information given and exchanged in the course of the participation process. In her seminal work on participation, Arnstein (1969) lays emphasis on the efficacy of the participation process which makes her demonstrate the levels and quality of public participation. In an ascending order, the lower levels are described as "non-participation", especially "therapy" and "manipulation". At apex of the ladder, the author describes those as quality participation and involves "partnerships" and "delegated responsibility" given to local people to influence decision making processes.

Public participation in the context of EIA is defined to mean "the involvement of individuals and groups that are positively or negatively affected, or that are interested in, a proposed project, programme, plan or policy that is subject to a decision-making process" (International Association for Impact Assessment, 2006). To Hughes (1998), participation in EIA is a process, which enables individuals or organisations likely to be affected by a proposed project to significantly have a say in the decision-making processes.

According to Arnstein (1969) participation is "a categorical term for citizen power. It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future" (Arnstein, 1969: 216). From Arnstein's definition, public participation entails a means to empower previously marginalised individuals and to empower them more significantly. The conceptualization of public participation in the framework of EIA is explicitly related to the underlying goals the participatory process is expected to accomplish.

2.5 Relevance of Participation in EIA process

Involving people or the public in EIA process is deemed very important for these reasons. Firstly, it helps to provide information to the publics and relevant stakeholders. In most cases the people or local communities are involved in EIA as only recipients of information. In most cases, conveners or decision makers make relevant information available to those who participate in the process and the end of the day the latter gets details of the proposed development, the timing, and their predicted impact on specific groups and localities (Burton, 2004). Whilst no longer requiring the general public's lively participation and viewed in some circumstances as of little value to it, the knowledge provision may also be principal in allowing affected individuals and corporations to organize for the expected impacts of the project.

It is important requirement for these two objectives: (i) the relay of information from the stakeholders or community to decision makers and (ii) could help in ensuring the effective operationalization of program or project objectives (Del Furia & Wallace-Jones, 2012; Tang et al., 2008).

Additionally, public participation helps in filling information gaps. In lots of circumstances the need to attain or improve public participation in EIA is premised on the perception that it is required in order for decision makers to include neighborhood views to fill in the expertise gap with respect to information on the area and project.

It is believed that people who stay with the project or local areas are more knowledgeable and have adequate information on their problems and have ideas on how these should be addressed (Burton, 2004).

Table 2.1: Defining purposes for public participation in EIA

General objective	Specific activities or objectives
acquire people's input into decisions taken elsewhere	Provision of relevant information to people
	Fill up gaps in information
	Information contestability
	Solution to Problems and aids in social learning
Share decision making with public	Demonstrates democratic principles
	Demonstrates democracy in action
	Pluralist representation
Changes/ resets power distribution and structures of decision making	Participation of marginalize/vulnerable groups
	Transfer the locus and focus of decision making
	Reduce marginalization

Developed by author

Public participation in EIA shall allow contributors to strengthen their citizenship potential (reminiscent of interest articulation, conversation and cooperation) and, whilst, provide contributors with an opportunity to actively activity citizenship. Several authors posit that

public participation in EIA is a means to promote democratic capability among residents. Viewed from that angle or thought, public participation is of value in its own right.

According to Petts (2003), it provides the platform to inculcate and acquire social responsibility skills and citizenship. To O'Faircheallaigh (2010), the fundamental notion is that participation is an only avenue that affords community members the platform to "develop their full potential as citizens". From that school of thought, people's participation in environmental impact assessment accomplishes an education objective, and enables participants to develop the capacities to express their interests and issues and giving them insights into their approach of presidency.

2.5.1 Indicators of an effective public participation

Local people, their representatives and local authorities are to be given access and be made to integral in the decision making process. To Jain *et al* (1993), by allowing for public participation in problem identification and discussions which will not have impact on the final decision, does not portray a candid or efficacious form of participation but a façade or pretence. To Spaling (2003), by effective public participation, it involves a situation where concerns and comments of the people have a greatest potential to have impact on decisions.

According to Glasson *et al* (1994) public participation efforts and processes are to foster a give-and-take or reciprocal direction of information to enable local people to make their concerns and grievances known. For neighborhood participation to be robust, the concerns

furnished via citizens should result in a path of motion consistent with their wants and with the needs of their fellow neighborhood members. According to Jain *et al* (1993), the proponent ought to have the capacity and will power to act on behalf of the local people and the consequent decisions should reflect the joint efforts made by proponents and communities in the participatory process or phase.

Some indicators and criteria for effective public involvement are highlighted below:

- It is duty-bound to deliver information; provide for varying echelons of technical complexity and those with special interests; foster a "two-way" relay if information, in order words exchange of information between public and decision makers; provide powers to enforce and implement project; and allow for the right to make petition.

2.6 Displacement and Resettlement: Conceptual Overview

Displacement according to Cernea (2005), refers to physical removal of folks from their houses and restrictions on their resource use and entry to places which prevents them from pursuing their livelihoods (economic displacement). Displacement can be either voluntary or involuntary. According to Cernes and Schmidt (2006) forced migration, displacement, eviction or involuntary resettlement may be defines as "the compulsory removal processes initiated when a project's need for 'right of way' is considered to supersede the 'right to stay' of the occupying populations". The right forcibly to move people from their homes at the request in the interest of a utilitarian social good (referred to as eminent domain) is a special power enshrined in states which possess sovereignty and monopoly of use of force. The power is exercised by governments all over the world for different reasons (Schmidt-Soltau, & Brockington, 2007).

A generally accepted definition of forced displacement could be the one proposed by the United Nations (1997) which conceptualizes forced displacement to entail those policies that have the objective or the impact of forcing people to quit their homes and place of habitual residence, encompassing in some situations putting them to another area of the country, perhaps against their will.

According to Adamson (2003), voluntary resettlement affords the affected persons an opportunity to decide whether to stay behind or participate in the resettlement process, which might provide them with new opportunities. Most donors and governments do not provide blueprints or frameworks for ‘‘voluntary’’ resettlements. This makes voluntary resettlements somewhat easier, cheaper, and acceptable at least from the operational point of view. But its justice and fairness, and the consequent lack of safeguards, hinges upon the desires and goodwill of those participating in the process.

Relocation on the other hand is defined by Bekhet, (2016) as a frequently a stressful event, accompanied by major losses including losses of possessions, social support systems, and mobility. Thus resettlement/displacement and relocation are the same but the triggers are different. In the current study, resettlement is more appropriate and refers to the displacement of seven (7) communities within the Bui area who were affected and as such were compensated through the provision of housing facilities and other infrastructural facilities.

2.7 Conceptual Framework: Arnstein's Ladder of Participation

Arnstein (2011) discusses an eight-level model of participation as presented in figure 2.1 below.

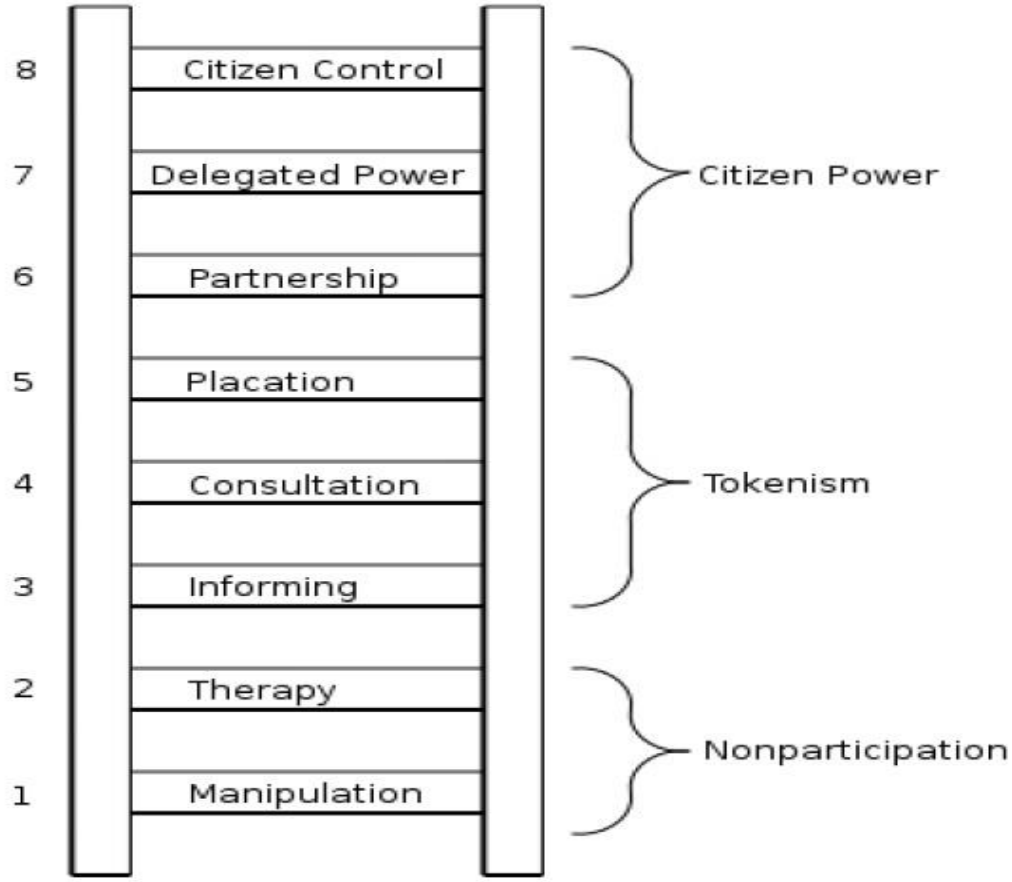

Figure 2.1: Ladder of Participation
Source: (Arnstein, 1969)

She argued that such a framework would enable us reason out the mischief usually adopted by conveners and officials in the guise of ensuring popular participation. Her framework observed eight levels of participation but a careful observation reveals that some forms of participation are indeed 'non-participation'. The eight-point typology is arranged in a ladder pattern to indicate the extent of citizens' influence or extent of citizen power in affecting end product. The eight rungs are classified under "non-participation", "tokenism" and "citizen power" (Arnstein, 1969).

At the bottom of the ladder, the author describes it as 'non-participation'. This comprises rungs one and two which are 'manipulation' and 'therapy' respectively. It is a form of disguised participation and the objective is not to genuinely allow people to influence the planning or initiation of programs but a mere formality by which officials pass on information to the citizens ostensibly to educate them. Citizens do not have any voice in what goes on and how it is done, they are only at the receiving point (Arnstein, 1969).

At the middle of the ladder is a level known as 'tokenism' where leaders allow electorate to air their views and are given some form of information; this level comprises rungs three, four and five which are 'informing', 'consultation' and 'placation' respectively. The author argues that at these levels of participation, though citizens may access information and could have their voices aired, they do not have the real power to ensure that their views would be heeded to by those in authorities (Arnstein, 1969). If we reduce participation to those initial levels, then there is no commitment or guarantee that the people can make any meaningful change or contribution to the decision process. The fight rung is classified to mean "placation" which forms an advanced level of "tokenism" due to the fact that because the system allows the electorate or constituents to advise or to be placed on community boards.

At the apex of the ladder is the most important level where the electorate or grassroot really become influential in the affairs of the community. This level is referred to a "citizen power" which is made up of three forms of participation (partnership, delegated power and citizen control) which forms the sixth, seventh and eighth levels respectively. This framework has been adopted for the study as it helps to ascertain the extent to which the

engagement of citizens in the EIA and resettlement process of Bui actually gave a voice to the community. In other words, the ladder of participation helps to assess the extent to which public involvement was a "mere hearing of the public" or indeed was public hearing which could influence final decisions.

2.7 Conclusion

The chapter has reviewed literature relevant to public participation, environmental impact assessment, and resettlement. The chapter began by providing a conceptual overview of EIA, the phases in the EIA process and the objectives of the EIA process. The chapter further provides conceptual overview of public participation with particular emphasis on its relevance in EIA process as well as criteria to determine effective participation. It reviews the concept of relocation and resettlement as well as the triggers of resettlement. The chapter ends with Arnstein's ladder of public participation which also forms a conceptual framework of this study.

CHAPTER THREE
METHODOLOGY

3.0 Introduction

The chapter presents the general procedures and employed to gather the necessary data for the study. The chapter comprises the research approach, study design and data sources. It also entails sampling processes and sample size as well as the approach to primary data collection and analysis.

3.1 Research Design

This refers to an arrangement of the conditions for the collecting and analyzing data, relevant to the researcher in a manner which is most economical to the researcher. This research adopts the case study design of qualitative research. Qualitative research provides the researcher opportunity to adequately discover the "meaning individuals or groups ascribe to a social or human problem" (Creswell, 2012). Patton (1990) explains that qualitative research provides avenue for the researcher to talk to people to gather their experiences and perceptions. Qualitative research approach enables researchers to adopt a holistic assessment of the phenomenon under discussion.

According to Robson (2002), a case study involves a strategy for carrying out research involving an .empirical inquiry of a specific existing occurrence within its real life context through the deployment of different sources of evidence or data.

3.2 Sources of Data

The study made use of secondary and primary sources of data. Primary data was acquired through the use of interviews and observation. Secondary data involved data already collected and complied for other purpose from books, articles and journals, details from newspapers, internet, and other publications, existing which will be relevant to the study. Project reports on the Bui Power project and EIA reports on the project as well as online items were deployed for the study to triangulate primary data.

3.2.1 Study Area

A first township is Jama town in the Bole District which provided shelter for four (4) affected communities (Brewohodi, Agbegikuro, Damsite and Lucene) which had to be resettled because of their closeness to the construction activities and the dam area. Phase A was temporary resettlement camp and those four communities hosted in Jama were further relocated to their permanent housing units as of June 2012 when their permanent apartments were fully constructed. The second phase of resettlement involved the repositioning of three (3) communities (Bator Akanyakrom, Bui Village and Dokokyina) who had to be displaced because of their proximity to the Bui Reservoir area. In all, the three (3) relocated communities had approximately 899 inhabitants from 141 households. Bator Akanyakrom community was the most populated with 437 people from 63 households. Bui was made of 297 people from 42 households with Dokokyina community least populated with 165 people from 36 households (Obour et al, 2016).

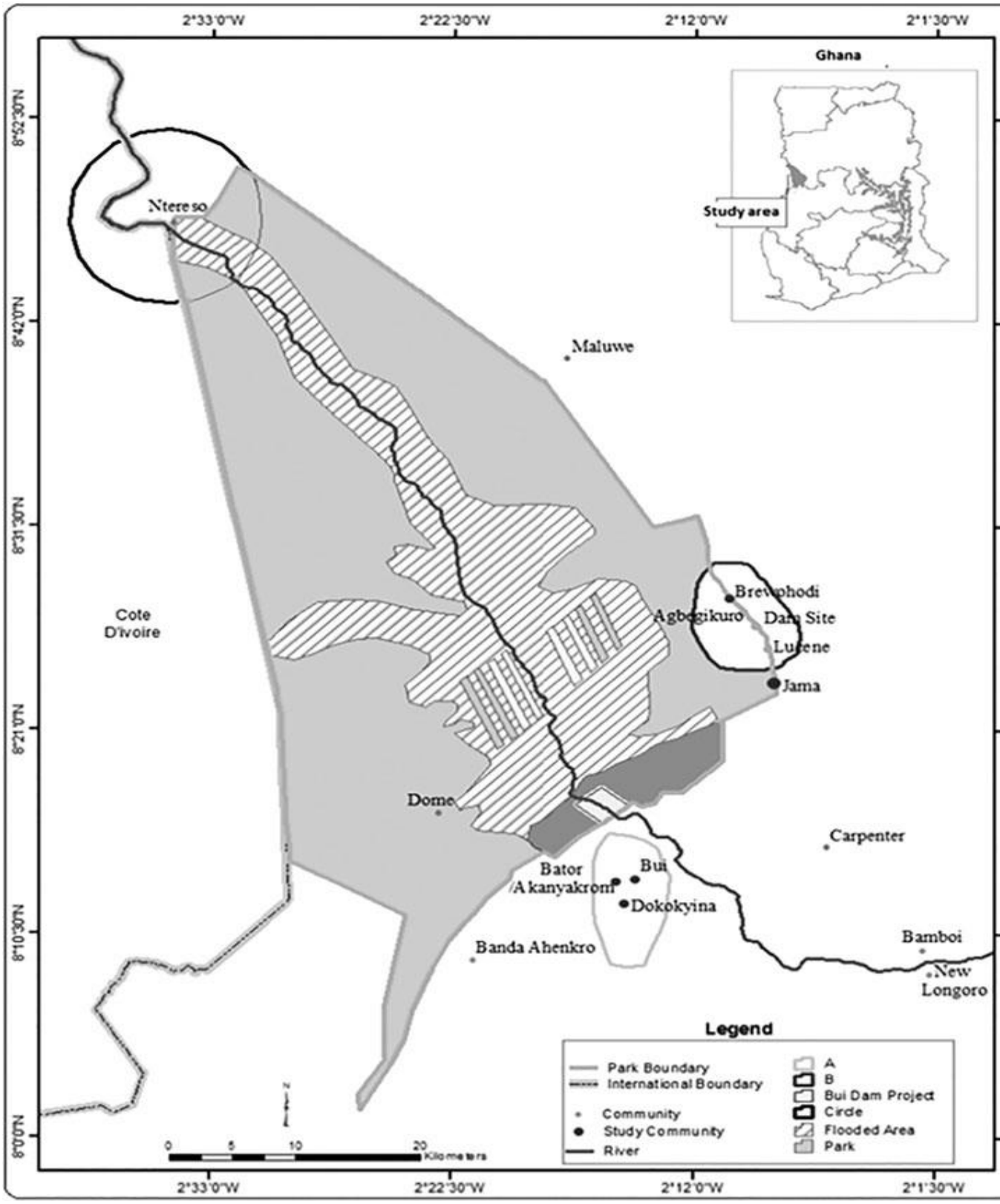

Figure 3.1: Map of study area

3.3 Population and Sampling

The sampling frame for the study involved officials of the Bui District Assembly, Bui Power Authority, Environmental Officers at Bui and EPA officials, opinion leaders in Bui, local authority and traditional chiefs as well as community members in the area.

The purposive sampling technique was used to select relevant actors who were deemed to possess the requisite information on public participation in the EIA processes of the Bui Dam Project and the outcomes. The Purposive sampling technique was deemed more suitable for the study because it provided the researcher an opportunity to target respondents who were instrumental in the EIA processes either as conveners, environmental officials, and opinion leaders or those members of the public affected by the process.

3.4 Sample Size

A sample size of thirty-five (35) respondents from across different categories were selected for the study. This included five (5) respondents from Environmental Protection Agency; five (5) opinion leaders from the resettled communities, two (2) officials from the local government, two (2) from Bui Power Authority (BPA) and twenty-one (21) households which were affected by the operations of Bui Project. Three (3) households each were interviewed from the seven (7) resettled communities which are Brewohodi, Agbegikuro, Damsite, Lucene, Akanyakrom, Bui Village and Dokokyina.

Table 3.1: Number of study respondents

Category of Respondents	Size
Environmental Protection Agency	5
opinion leaders from the resettled communities	5
officials from the local government	2
Bui Power Authority (BPA)	2
households which were affected by the operations of Bui Project (3 households each from the 7 communities)	21
Total	**N=35**

3.5 Tools for Data Collection

The study employed in-depth interviews and observations as the main instruments for primary data collection. In-depth interview involves a face-to-face interaction with the researcher and study participants. The researcher poses relevant questions to them and can add a follow up question. This was deemed appropriate in discussing the key research questions with respondents and it allowed for in- depth interaction with respondents in their natural setting. This instrument was employed to gather information from the officials who were directly involved in the EIA process, it also involved the opinion leaders, district assembly officials in the Bui area. More importantly selected household heads were interviewed also.

3.6 Data Analysis

A data management plan was employed to manage data which were gathered effectively. The interviews were first transcribed fromm audio to text followed by generating codes and themes from the interviews. The themes were used to discuss the findings and in the course of the analysis process, direct narratives and pronouncements from study respondents have been employed to demonstrate prominence on the points being argued.

3.7 Conclusion

The chapter has presented the general methods and procedures that were followed in embarking upon this research project. The research approach and study design have been presented and justified. The case study design is well justified in the chapter and the study area has been well described. The data sources and methods for gathering primary data are illustrated including the techniques for data analysis.

CHAPTER FOUR
DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

The study set out to assess public participation in EIA processes using the experience of Bui Dam Project in Ghana. The study was guided by these specific objectives: *To assess the mechanisms and structures that were put in place to foster public participation in the EIA processes of Bui Dam Project; To assess the Bui Resettlement Action Project and people's conditions afterwards; To investigate how to optimize public interest to participate in future EIA projects.* This chapter presents and analyzes data obtained from the field. The chapter is presented in themes reflecting the three key objectives.

4.1 Mechanisms and structures to foster public participation in the EIA processes of Bui Dam Project

The first objective of the study was to assess the structures and measures that were put in place to ensure public participation in the Bui Dam Project. Data for this objective was gathered through in-depth interviews with respondents and content analysis of the Bui Project EIA document. From the data gathered, the findings have been organized into themes below:

4.1.1 Institutional obligation

Due to legal and regulatory requirement, the Bui Dam Project could not have occurred without any form of EIA conducted since it is legally mandatory for such projects. In other words, such attempts at any EIA and public hearing are inspired by the institutional framework. This was explained by key informants from the Environmental Protection Agency (EPA). A key officer noted:

> *"Our environmental assessment regulations 1999 LI 1652* (Legislative Instrument) *spells out projects that are EIA mandatory and those that are not and under the mandatory EIA project there are projects that you organize for public hearing and if you look at the Li it will tell you what will trigger the public hearing. if there is a public outcry of a particular project then it will trigger public hearing. If it will lead to resettlement of people usually 25 families, then you organize a public hearing or when the project has far impact on the families you organize a public hearing. …" (Project officer at EPA*

4.1.2 Scoping and stakeholder identification

Respondents indicated that a first structure or process involves scoping and clearly defining the boundaries of who is to be involved and who is not to be. This entails defining the scope for stakeholder participation and relevant interests in the project. A safety officer at the EPA made this submission:

> *…first of all, one needs to define the scope of the stakeholders he will be engaging and it can be defined by the impact scale of the project. With the Bui dam, what is the impact scale? how many communities is the project going to affect? some might be relocated, their livelihood might be affected, so one will have done an assessment to get the area of influence. So once you get your area of influence you get the stakeholders most especially the PAPs which is the project affected persons you get them out and know the levels of impact it will have on them (programme officer)*

From the above narrative, it reveals that a first structure involved defining the boundaries of relevant stakeholders to be engaged in Bui. It more importantly, involved carrying out a baseline study of the social and environmental conditions of the area. A management officer at the Bui Power Authority corroborated:

> *During scoping, the team conducted a social baseline survey, which encompassed focus group discussions in the villages during which villagers' perceptions and expectations with respect to the Bui Project and resettlement were discussed.*

After this scoping, the Environmental and Social Impact Assessment (ESIA) team visited the site to interact with the leaders and public using methods including focus group discussions (FGDs) and one-on-one interviews. This is captured in the theme below.

4.1.3 Upstream and downstream consultations

Public participation in the Bui Power Project involved both upstream and downstream consultations where the input and suggestions of relevant groups were heard and acted upon appropriately. A key informant narrated:

> *A national consultation meeting was held in central Accra in April 2006 and was well attended by over 120 participants from a wide range of organisations and institutions with an interest in the Bui Project. The formal consultation exercise in villages in the study area was discussed with the Ghanaian Environmental Protection Agency (EPA), and meetings were convened by the EPA (with the participation and support of the EIA study team) in August 2006, in four villages. For each of the meetings, people were invited from the village itself, and from neighbouring villages. Each village was to send representatives from the following groups: chiefs, women, farmers, fishermen, teachers and health workers. The meetings were conducted in the local language and presented the project, its potential impacts, and suggested mitigation measures.*

With these formal consultation processes, the cross section or categories of individuals and leaders were given the platform and voice to formally contribute to the decision making processes of the Bui Dam Project EIA, especially, those involving the resettlement of the

people and communities as well as what exactly went into the resettlement process (ERM, 2007a; 2007b). The efficacy of the participation process and the voice given to community members would greatly influence the resettlement package which is discussed in the second objective below.

4.2 Bui Resettlement Action Project and aftermath

A second objective of the study was to assess the Bui community resettlement process and how effective the process was carried out. From the public hearings and community participation processes led to the development of a Bui Resettlement Action Plan (BRAP) which was submitted to the EPA and also formed the action plan of community resettlement. The general activities and processes involved in the resettlement phase are illustrated in text box 1.

Text box 4.1: Resettlement process in Bui

PHASE 'A' OF RESETTLEMENT

The host community for Phase A resettlement was Jama town (Bole District) which is approximately 4 kilometres from the Bui Power Station. It was to provide a temporary shelter for four (4) affected communities (Brewohodi, Agbegikuro, Damsite and Lucene) which had to be resettled because of their closeness to the construction activities and the dam area. The four communities hosted in Jama were made to elect two representatives who became opinion leaders of the resettled communities and acted in concert with the Jama Chief, the Bui Power Authority to address any issue and to convey the people's concerns. Phase A was temporary resettlement camp and those four communities hosted in Jama were further relocated to their permanent housing units as of June 2012 when their permanent apartments were fully constructed. The people have access to Community centre; robust lightening system powered by solar; roads to facilitate their movements; classroom block for nursery education; access to potable water and toilet facilities to promote sanitation.

PHASE 'B' OF RESETTLEMENT

The second phase of resettlement involved the transfer of three (3) communities who had to be displaced because of their proximity to the Bui Reservoir area. These communities were Dokokyina, Bui Village and Bator Akanyakrom. In all, the three (3) relocated communities had a cumulative population of 899 persons from 141 households. Bator Akanyakrom community was the most populated with 437 people

from 63 households. Bui was made of 297 people from 42 households with Dokokyina community least populated with 165 people from 36 households. These three communities were resettled in a place which is approximated 3.5 kilometres from the Bui Generation Station and 3.5 kilometres from Bongase. This location was generally agreed upon by representatives of the three communities.

Throughout the process, the Bui Power Authority provided assistance to the community youth in the three affected communities who got employed as artisans in the course of building the housing units and other community structures. These individuals, through such opportunity offered them so additional revenue which could add up to what they would get from income they generated from sale of their farm products and fishing activities.

With a petition and request made by the communities to be replaced with respect to the arrangement and siting of their houses at the Resettlement Township, the planning scheme for Resettlement Phase B illustrates three communities, which also reveals a house inventory exercise embarked by Bui Power Authority in 2009. As at June 8, 2011, the authority formally tendered in the Phase B Township to the relevant stakeholders.

4.2.1 Situation prior to resettlement

Hitherto, fishing and farming were the main economic engagements in the communities in the Bui area who were to be evacuated and resettled. For example, a chairman of the fishing folk submitted:

> *Fishing was the main income-generating activity for the people of Agbegikuro and Bator/Akanyakrom, the two fishing communities were situated very close to the Black Volta River. Agbegikuro was approximately thirty metres from the river, with Bator/Akanyakrom approximately forty metres… the closeness of the people to the river provided the fishermen easy access to engage in their fishing operations.*

One of the respondents further explained the crop farming situation before the Bui Dam Project

> *Before the relocation, farming was the main economic activity in Dokokyina, Bui and Brewohodi. The farmers were engaged in smallholder farming with small sizes which could range from 0.4 Hectares 1.4 hectares. Farming generally depended on the seasonal rainfall pattern.*

4.2.2 Aftermath of resettlement on economic activities

Farming

The resettlement process has had mixed results on the two main economic activities of the community members. Farming has been somewhat steady which has seen just a negligible reduction in the total number of farmers after being relocated to their new settlement. The relative stability in farming is due to the fact that the Bui Power Authority allotted new areas to be farmed to the resettled communities after they were resettled and this made it possible for them to carry on with the farming activities with no break in the progress. That notwithstanding, few of the farmers made complaints of some challenges facing their agricultural activities in the new allotted farmlands which they complained were relatively less fertile and hardly supports tuber crops such as their traditional cassava and yam. Additionally, irrespective of their previous farmlands, the new area allocated to each household a fixed farmland size of 0.8 hectares which tends to be restrictive if one wants to go into large scale farming.

Fishing

Unlike farming, fishing activities have become very worse off and have encountered sharp reduction since the resettlement and dam construction which reduced their access to fishing sites and reduction in the river flow at the downstream. The people were relocated to a new site very far from their fishing sites and such distance cannot be covered on regular basis by the older fishermen. An old fisherman in his late 60s narrated the ordeal:

> *Even to go to the riverside is a problem; you have to walk for longer distance. . . . For fishermen who are old and cannot walk like me sitting here, even if you carry me in a palanquin, by the time I get there I will be tired and cannot do any fishing. So only the energetic ones can still do some fishing.*

In addition, the downstream of the dammed river which is relatively closer to their new habited sites is not very conducive for fishing because the rate of flow is very low and there is occasional spill of the dam water to the downstream which displaces the fishing nets.

4.2.3 Public participation process in the Bui Dam Project: a remarkable step

Respondents noted that the public participation process and the resultant resettlement process has been a remarkable one. Using other participation processes as reference points and frames of analysis, respondents explained that the Bui process has achieved major successes. A compliance officer at the Environmental Protection Agency (EPA) explained:

> *I will not say it addressed all their concerns 100% but in terms of Bui and Akosombo dam you know Akosombo dam did not go through impact assessment so there are so many challenges with Akosombo even with the communities that were resettled, I think about fifty-three communities because it didn't go through impact assessment, proper consultation, public participation and certain process were not followed. To date, people who were affected have serious issues. With Bui,… the communities who were resettled are comfortable, they have been provided with accommodation that are even far better and more comfortable than the ones they lived in previously.*

This observation corroborates an assertion by Stewart and Sinclair (2007:16) that a properly carried through EIA which adopts proper public participation "envisages an even wider range of benefits, including access to local knowledge; broadening the range of solutions considered; avoiding costly litigation; strengthening the democratic fabric of society; acting as a vehicle for individual and community empowerment…". This

observation is in synch with the higher levels of Arnstein's ladder of participation designated as "partnership", "delegated power" and "citizen control".

4.2.4 Better Housing Schemes

The participation process and the resultant resettlement led to better housing schemes for the resettled community. The Bui Power Authority resettled the community members to two separate camps (Jama and Bui relocated areas) which are approximately 9 km apart. These are illustrated in figure 4.1

The Bui EIA Participation project and the ensuing resettlement process shows a remarkable improvement especially the housing schemes. Unlike the previous Akosombo Dam Project which only gave victims just one completed core room across board and other building materials (Miescher & Tsikata, 2009), the Bui Project showed a massive improvement. The displaced households were resettled in fully completed block houses, roofed with zinc aluminum sheets. Each of the households settled were given fully completed house with the number of rooms in each house corresponding with the previous one plus additional room, hall, storeroom and a washroom. Whilst scholars such as Lawrence (2003) argue the benefits of participation is in fact more apparent than real, empirical observations and findings from this study indicate that peoples participation in the EIA processes gave them voice to be heard and their concerns resolved sufficiently in different phases of the project.

Figure 4.1 Resettled communities: New Housing Units

4.2.5 Balancing between public safety and reality of participation

It is observed that the EIA participation process resulted in appreciable outcomes except that the Bui Power Authority was also concerned with safety of the community members as well as ensuring community demands were adhered to. For safety and to prevent any unforeseen consequences, some demands had to be negotiated and not taken in totality. For example, in the case study, many of the respondents resettled indicated that their request for particular land to be relocated to was not granted. More importantly, those from the two fishing communities indicated they made a demand to be put somewhere very close to the river but this request was not granted. Lockie (2001) argues on the need for participation to be "meaningful" and not illusory of just giving opportunity for people to provide information to decision makers. The ability of the information or concerns churned out by participants to 'influence' actual decisions is what remains very essential to public participation (Yang, 2008). This notwithstanding, in as much as the voices of people should be head and adhered to, if conveners of EIA are very convinced that the consequence of

granting a particular request would pose medium and long term to community members, the safety precaution should be taken into consideration also.

4.2.6 No major uproars by the communities

Although there were reports of other minor concerns, what remains paramount is that there were no major outcries throughout and after the Bui Resettlement process. This is an indication that the public participation in the EIA process and aftermath was effective which to a greater extent met public expectation. An EPA officer who having observed different EIAs and public participation across various projects rated Bui context high. A programme officer at the EPA narrated:

> *So the responsibility of EPA is to ensure that people are adequately compensated for or they adequately resettled without issues and to have a good resettlement action plan you really need to consult with the people who would be affected. The Bui Dam, there hasn't been any serious agitation which made news in the press so I can conclude by saying that 80% of their concerns were addressed.*

Those issues which came up in the course of the implementation were resolved quickly which also demonstrates the responsiveness of the Bui Power Authority. A key informant mentioned:

> *Aside other issues such as sleeping sickness and other diseases that came up because of the construction of the dam, so health wise that was the issues they were facing but in terms of accommodation and livelihood to some extent it was good.*

4.2.7 Rolling engagements

With these issues observed, the BPA responded quickly by establishing health centres to attend to the people's needs.

> *You might have addressed those issues at which they have raised at the initial stages but with time you realize that there were certain things you should have done which was not done and BUI for one the accommodation they provided for them they used biofill. And biofill uses microorganisms. They use worms such that the worms feed on the fecal matter so that it would not become full. We didn't educate them on that so they became alarmed and started pouring warm water into it. The toilet started smelling so they had to address those issues but effectively they all participated and gave their views.*

This was given support by a project officer at the EPA who narrated:

> *They requested for a market which was built for them but later complained it was too far. For the initial stages we provided a bus to be conveying them to the market on the market days.*

The findings provide a support to an argument by Momtaz and Gladstone (2008:223) which maintains the objectives of public participation involve "sharing information, involving the community at an early stage of decision making, taking community aspirations into considerations and giving the community the ability to influence the outcome of decision making" which will enhance EIA outcomes.

4.2.8 Overall satisfaction

In general, satisfaction with the participation and the resettlement process especially the new homes remained high among the resettled households. In the study it was noted that

the new houses as well as the facilities are better than what the people used to occupy previously. This was mentioned by one of the household heads:

> *In the previous place, the house was built of mud and roofed with grasses and we had two room with a pit latrine situated elsewhere behind the house… currently, I owe a title to a modern block house which has three rooms, a living room as well as modern toilet and bathroom in a self-contained style"*

This was given support by another household headed by a woman who explained:

> *I remember those days when my husband was alive and we were in the former place, the two of us together with my two kids were in the single room with no toilet and bathroom... however when we were moved to this new place, I was given two-bedroom house with a separate hall and toilet facility.*

The observation above corroborates a similar study in the area by Obour et al, (2016) where 81% of respondents indicated their general satisfaction with the new housing because of the facilities and more importantly they had were made owners of the new homes. Additionally, the housing model of Bui Resettlement made resettlers have a house which is more advanced and showed greater improvement over what they used to live in. In terms of healthcare, the data below indicates an observation by Miine (2017) which presents the healthcare situation before and after the resettlement process.

Table 4.1: Health Service Provision before resettlement

(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: Miine, 2017

From the above account, one observes that the health conditions of people before the resettlement was very traditional and had no immediate access to modern healthcare unless one traveled for hours. This would prevent many community members from visiting the health facilities which were situated far away from their households.

Table 4.2: Health Service Provision 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: Miine, 2017

A post-resettlement assessment indicates that the resettled communities have had easy access to modern healthcare which within less than 30 minutes radius from their households. This suggests an improvement in healthcare since the resettlement.

Figure 4.2 CHP compound for health delivery

4.3 Optimizing public interest and participation in future EIA projects.

A final objective of the study was to strategize measures to promote public interest in EIA processes and the gains derived from EIA processes. As illustrated in the study's conceptual framework, it is important not to take the local people for granted, participation should be shrouded with manipulation, or just consulting but must reflect in actual citizen power where whatever concerns people give will at least influence final decisions. From interactions with respondents, it emerged that education and sensitization, constant engagement, post resettlement audit remain crucial in enhancing the gains derived from public participation in EIA projects. These are discussed in the themes below.

4.3.1 Education

Unanimously, it was mentioned that community sensitization and education on the rationale, relevance and collective utility to be derived from the project as well as the possible benefits the community seeks to derive from hosting such project. This is a first step in ensuring that ideas and intentions are frankly disclosed to relevant stakeholders. It is important to engage in proper scoping so that all interested parties are brought on board. Inviting others unto the negotiation table and neglecting others will be a beginning of a protracted agitations and conflicts which will destabilize the process and outcomes. This was mentioned by one key informant;

> *"it is important to engage all parties or communities even if it will take time, because if you rush through in the initial phase, the trouble will increase even more than three-folds and you will face it along the route…so there is no short-cut… with Bui*

A key official from EPA explained that educating people on some major issues involved in the project especially those that concern the people is very important and failure to do so could bring some negative consequences. He narrated:

> *Just as i mentioned the biofill issue for instance. They (community members) didn't understand the technology and until I went to Bui myself I didn't also know that technology and i did not know that if water is poured into the biofill will end up destroying the whole system of waste treatment faclity.so education is key.*

4.3.2 Constant engagement

Maximizing popular participation and to make their views heard in decision making require constant engagement with them. It requires identifying the relevant stakeholders and to be with them in subsequent times such that there will be rapport between the conveners and

community members. It is prudent to identify and appoint a trustworthy individual or organization which services as the bridging organization between the two. A key officer noted:

> *"Constant engagement is also key and Bui did well on that aspect because they had a community liaison officer and under each community the liaison officer identifies somebody that the people trust that they can easily give out information and he goes around to collate those information, sends it back to management for synthesis and analysis which I think was good …".*

The observations above reiterate an argument by Diduck and Mitchell (2003) that public participation is sought by decision makers not only as a means of obtaining information, but also to help the issue of solving by bringing out ideas, solutions and resources which could be organized to solve compounded ecological and social issues.

4.3.3 Post resettlement monitoring and audit

More importantly, it came out that the monitoring of EIA processes should not end after the process but efforts should be made follow up on the communities concerned even after the EIA processes. In other words, regulators and conveners of EIA processes should be concerned with those processes, before and after so that everything will be orderly and carried out as decided. A Senior Programme Officer from EPA noted:

> *…When you finish the resettlement action plan, there should be a monitoring body but there is no body to monitor. The regulatory bodies do not monitor after the compensation paid and the relocation is done we all go to sleep. There is supposed to be an audit aspect, compliance aspects etc., and EPA is trying hard to put these measures in place.*

A related approach as observed by Chavez and Bernal (2008) involves the idea of social learning whereby stakeholders partner in the spirit of sharing information to detect effective and socially satisfactory approaches to moderate expected impacts and to identify opportunities (Van den Howe, 2006).

The idea of following up on EIA results has been regarded as crucial in securing the best outcomes for people and communities requires following up on the EIA process and aftermath of the public participation processes to monitor the extent to which decisions reached are carried out subsequently. For instance, with the Bui EIA which also resulted in a Bui Resettlement Action Plan, a project officer at the EPA put forward:

> *"When the resettlement action plan is being undertaken there is supposed to be a monitoring and evaluation process and that where we all err as a country. Thus as regulatory institution like Bui for example they are supposed to monitor to see whether the people are satisfied and are doing well after the project has being set. Thus for example community A and b were moved, are they okay with the farm lands given to them?, that is there is no follow up. …So monitoring and evaluation is key and when we are done with our impact assessment process there should also be a proper auditing and compliance monitoring aspect and that's what EPA is trying hard to revamp to see from time to time those who are going by the rules and those who are not"*

4.3.4 Broader guidelines on participation

Finally, respondents mentioned the need for institutionalized guidelines on how exactly the public is to be engaged. This will ensure any future project will follow such agreed upon guideline and conveners of EIA will be assessed on that benchmark. Respondents put

forward that EIA as the regulator and enforcer is to help put forward such a standardized procedure for involving community members. One of the key informants explained:

> *Currently EPA is in the process of having a public participation guideline which is at the draft stages at the moment and very soon would be finalizing it and would be launched so that if a project is been undertaken it would have to go through the steps and process setup in the guidelines in terms of engaging the public, the stakeholders, institutions, the local people that are key to that project*

4.4 Conclusion

The chapter has presented results and findings of the study which were organized thematically to reflect the three key study objectives. The chapter has provided an adequate discussion of the study findings triangulating both primary and secondary data relevant to the study. Existing empirical and theoretical literature are used to corroborate or analyze the findings of the study.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The final chapter provides a summary to the study and highlights the study findings. It provides useful conclusions from the findings. The chapter ends by suggesting relevant recommendations to policy makers and practitioners on public participation and environmental impact assessment processes.

5.1 Summary of Findings

The study set out to assess public participation in EIA processes using the experience of Bui Dam Project in Ghana. The study was guided by these specific objectives: *To assess the mechanisms and structures that were put in place to foster public participation in the EIA processes of Bui Dam Project; To assess the Bui Resettlement Action Project and aftermath; To recommend measures to optimize public interest and participation in future EIA projects.* The research adopted the case study design within qualitative research approach. A sample size of thirty-five (35) respondents from across different categories were selected for the study. This included five (5) respondents from Environmental Protection Agency; five (5) opinion leaders from the resettled communities, two (2) officials from the local government, two (3) from Bui Power Authority (BPA) and twenty-one (21) households which were affected by the operations of Bui Project. Three (3) households each were interviewed from the seven (7) resettled communities which are Brewohodi, Agbegikuro, Damsite, Lucene, Akanyakrom, Bui Village and Dokokyina. Secondary data involved data already collected and complied for other purpose from books, articles and journals, details from newspapers, internet, and other publications, existing

which will be relevant to the study. Project reports on the Bui Power project and EIA reports on the project as well as online items were deployed for the study to triangulate primary data. The study employed in-depth interviews and observations as the main instruments for primary data collection. The data was discussed thematically and narratives are used to demonstrate emphasis. The findings of the study are summarized below.

5.1.1 Mechanisms and structures to foster public participation in the of Bui EIA processes

It was noted that public participation in the EIA process was first and foremost and institutional obligation well stipulated in the Environmental Assessment Regulation of 1999 which obliges conveners to engage in EIA and to submit report demonstrating public participation.

The Bui Power Authority and EIA experts engaged in scoping and stakeholder identification to identify the groups. This was followed by upstream and downstream consultations as well as the use of community opinion leaders to serve as liaison between the BPA and community members.

5.1.2 Bui Resettlement Action Project and aftermath

From the public hearings and community participation processes led to the development of a Bui Resettlement Action Plan (BRAP) which was submitted to the EPA and also formed the action plan of community resettlement. The resettlement process has had mixed results on fishing and farming activities which are the main occupations of the seven (7) resettled communities. The public participation process as well as the resettlement package which followed the process has been viewed as very remarkable. The households have been

relocated and given better Housing Schemes and access to improved and modern healthcare. The Bui Power Project did not encounter any major uproars by the affected communities which also demonstrates the efficacy of the engagement and participation processes. The study observed a general satisfaction among the people.

5.1.3 Optimizing public interest and participation in future EIA projects.

Strategizing measures to promote public interest in EIA processes and the gains derived from EIA processes involves education and public sensitization; Post resettlement monitoring and audit; and Constant engagement. For future EIA processes to foster effective public participation and efficacy of community package will require broader guidelines on participation which is to be designed by the EPA.

5.2 Conclusions

The study concludes that institutional framework within which an organization or a process occurs determines the efficacy of the EIA process. This suggests that the institutional environment needs to be improved and there should be constant auditing of the process to optimize the process.

Secondly, the scoping and stakeholder identification of Bui Power Project EIA process was carried out in a general effective manner such that the engagement process resulted in no major public outcry. The study concludes that effective community participation followed with effective resolution of community concerns will make major projects avoid any possible resistance from the affected communities.

Moreover, the study concludes that public participation should be closer to the people in the communities and should be done in a fair and honest manner. EIA process should not be limited to the national headquarters or district capitals but efforts should be made as far as practicable decentralize the process so that households in the communities get access to conveners of EIA which the study calls downstream engagement. The study concludes that 'downstream' engagements are very crucial for the success of EIA projects without which any consultation at the top will be futile.

Finally, the study concludes that for EIA report to meet the very socio-economic wellbeing of community members calls for an EIA process which begins well and in an honest manner, proffers proper consultation and participation and decisions well enforced and periodically monitoring for results.

5.3 Recommendations

From the summary and conclusions above, the study makes the following recommendations.

Firstly, there is the need for community sensitization and education on the rationale, relevance and utilitarian interest or benefit to be derived from the project as well as the possible benefits the community seeks to derive from hosting such project. This is a first step in ensuring that ideas and intentions are frankly disclosed to relevant stakeholders. It is important to engage in proper scoping so that all interested parties are brought on board. Inviting others unto the negotiation table and neglecting others will be a beginning of a protracted agitations and conflicts which will destabilize the process and outcomes.

Secondly, maximizing popular participation and to make their views heard in decision making require constant engagement. The study recommends for the need to identify all the relevant stakeholders and to be with them in subsequent times such that there will be rapport between the conveners of EIA project and community members. It is prudent to identify and appoint a trustworthy individual or organization which services as the bridging organization between the two parties.

Moreover, the study maintains that monitoring of EIA processes should not end after the process but efforts should be sustained through follow up on the communities concerned even after the EIA processes. In other words, regulators and conveners of EIA processes should be concerned with those processes, before, during and after so that everything will be orderly and carried out as decided. This will make the people feel their voices have been heard and they are more likely to honor any subsequent public hearing process.

Finally, the study recommends for institutionalized guidelines on how exactly the public is to be engaged. This will ensure any future project will follow such agreed upon guideline and conveners of EIA will be assessed on that benchmark. Respondents put forward that EIA as the regulator and enforcer is to help put forward such a standardized procedure for involving community members.

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APPENDIX

UNIVERSITY OF GHANA BUSINESS SCHOOL
DEPARTMENT OF PUBLIC ADMINISTRATION AND HEALTH SERVICES MANAGEMENT

INTERVIEW GUIDE

This is an interview guide to elicit information on the topic ***"public participation in EIA processes using the experience of Bui Dam Project in Ghana"*** in partial fulfilment of the requirements for the award of a Master Public Administration Degree. This information provided shall be used solely for academic purpose and you are assured of your confidentiality

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

a. Age range of respondent ……
b. Gender…….....
c. Level of education……
d. Job Position.....

SECTION B: mechanisms and structures for public participation in the EIA processes of Bui Dam Project

1. Do you think there were adequate mechanisms to foster public participation in the Bui Power Project? Please explain your answer
2. Mention and describe three (3) processes that were used to enable the public bring out their concerns
3. Please explain three (3) main provisions that were put in place to ensure people meaningfully participate and make their concerns heard in the EIA process
4. How do you think the processes for public hearing helped address the concerns of the public?

SECTION C: the effectiveness of the public participation process in the Bui Dam Project

1. To what extent will you say the concerns of the public or local people were addressed?
2. What were some of the socio-economic losses people encountered because of the Bui project?
3. Were the public given a platform to communicate their losses to the appropriate authorities?

4. Do you think the participation of the public in the process helped to meaningfully resolve some of their problems? Or was it mere cosmetic?

SECTION D: Resettlement of displaced Communities

1. How will you rate the overall satisfaction with regards to the resettlement process
2. What do you think has been its effect on economic activities?
3. How will you describe the nature of the new environment in terms of health and the housing units?

SECTION E: measures to optimize participation in future EIA projects.

1. Do you think the participation process of the Bui Project was worth it?
2. What do you think could have been done differently to help improve the process and outcomes?
3. Explain three mechanisms that can be done to improve public participation in future EIA process as well as the outcomes of EIA processes.
4. Any further recommendations?