



GHANA GRID COMPANY LIMITED

RESETTLEMENT ACTION PLAN FOR REINFORCEMENT OF POWER SUPPLY TO ACCRA CENTRAL, GHANA

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GLOSSARY

Census: Household survey that covers all project affected persons irrespective of entitlement or ownership. It is necessary for the provision of inventory of all project affected persons and their assets. It can be used to minimize fraudulent claims made by people who move into the area affected by the project in the hope of being compensated and/or resettled.

Project Affected Persons: persons who are affected by the involuntary taking of land and/or the involuntary restriction of access to legally designated parks and protected areas.

Environmental and Social Impact Assessment (ESIA): A systematic procedure for enabling the possible environmental and social impacts of development projects to be considered before a decision is made as to whether the projects to be given approval to proceed.

Involuntary: Actions that may be taken without the displaced person's informed consent or power of choice.

Involuntary Resettlement: The unavoidable displacement of people and/or impact on their livelihood, assets and common property resulting from development projects that create the need for rebuilding their livelihood, sources of income and asset bases.

Monitoring: The process of repeated observations and measurements of environmental and social quality parameters to assess and enable changes over a period of time.

Public Involvement: The dialogue encompassing consultation and communication between a project proponent and the public. It includes dissemination, solicitation and presentation of information.

Resettlement: The process of reestablishing lifestyles and livelihoods following resettlement. It is also used to describe construction works that bring a deteriorated structure back to its original conditions.

Resettlement Action Plan (RAP): A time-bound action plan with a budget, setting out settlement strategy, objectives, options, entitlements, actions, approvals, responsibilities, monitoring and evaluation.

Social Impact: A positive and negative effects on a social issue resulting from infrastructure development projects.

Stakeholders: People who have an interest in project development and who will be involved in the consultative process, and includes any individual or group affected by, or that believes it is affected by the project; and any individual or group that can play a significant role in shaping or affecting the project, either positively or negatively, including the host community or population.

Vulnerable groups: Distinct groups or group of people who might suffer excessively from resettlement effects, such as, the old, the young, the handicapped, the poor, isolated groups and single parents.

EXECUTIVE SUMMARY

Introduction

Ghana Grid Company (GRIDCo) was established in accordance with the Energy Commission Act, 1997 (Act 541) and the Volta River Authority Development (Amendment) Act, 2005 Act 692, which provide for the establishment and exclusive operation of the National Interconnected Transmission System by an Independent Utility and the separation of the transmissions functions of the Volta River Authority (VRA) from its other activities within the framework of the Power Sector Reforms. GRIDCo was incorporated on December 15, 2006 as a Private Limited Liability Company under the companies Code, 1963, Act 179 and granted a certificate to commence business on 18th December, 2006. It became operational on August 1, 2008 and has the following main functions among others:

- Undertake economic dispatch and transmission of electricity from the wholesale suppliers (generating companies) to bulk customers, which include the Electricity Company of Ghana (ECG), Northern Electricity Department (NED) and the Mines,
- Provide fair and nondiscriminatory transmission services to all power market players,
- Acquire, own and manage assets, facilities and systems required to transmit electrical energy,
- Provide metering and billing services to bulk customers &
- Carry out transmission system planning and implement necessary investments to provide the capacity to reliably transmit electric energy and manage the Wholesale power Market.

Consequently GRIDCo owns and operates a network of transmission systems for the distribution of bulk electric power in Ghana, consisting of about 3,670 circuit-kilometers of the 161 kV transmission lines and 34 High Voltage/Medium Voltage substations.

Currently, the Company's transmission system comprises approximately 4,000 circuit km of lines and 38 primary substations, including approximately 75 km of 225 kV lines and a 100 km of 69 kV line extensions in the Volta Region of Ghana. A 161 kV double-

circuit line and a single circuit 225 kV transmission line provide interconnections to Togo and Benin in the East and Cote d'Ivoire to the West respectively.

Background and Objectives of Proposed Project

The Ghana Government regards the electricity sector as a priority development sector to convert economic structure of Ghana, and is increasing electric capacity and improving transmission/distribution networks for major cities. GRIDCo is in charge of the development of transmission/distribution networks and they are promoting those projects. However, these efforts have not fulfilled the demand of electricity especially for the metropolitan area and major cities. Therefore, GRIDCo requested the Government of Japan the Project to improve transmission lines and substations for the central area of the Accra Metropolitan Area.

The Project Area

The study area is around a requested 161 kV transmission line on the existing 33 kV line with a substation as follows:

- a) Location: branch point of the existing 161 kV line - Avenor Substation - Accra Central BSP (in Graphic Road Substation), Accra Metropolitan Assembly, Accra.
 - b) Project route: length 2.7km for overhead line, width 15m, 0.3 km for underground cable
 - c) 15 meters square areas around the proposed 161 kV towers (18 sites) locating mostly at the existing 33 kV ECG towers will be assessed. The Project proposes a technical construction method which limits construction space within the 15 meters square area to minimize the impact on resettlement.
 - d) Neighboring area along the project route.
- Affected communities along the proposed transmission line identified were (1)South Industrial Area (2) Ecomog (3) Las PamasRestuarant (4) Circle Batman and (5) Avenor.

Description of Existing Environment

The entire proposed project traverses built-up area within the Accra metropolis and therefore devoid of flora and fauna of any significance to the project implementation,

except few patches of horticultural gardens. Physical structures such carriage containers; kiosks; obsolete vehicles and machinery cover considerable proportion of the bare land surface. Noise as well as dust pollutions are in concert with the general conditions in the commercial and non-commercial segments of the metropolis. Socio economic activities in the proposed project area are basically trading, artisan's operations and garages. There are people squatting in temporal structures like wooden and metal kiosks.

Census and Socio-economic Survey

A total 35 people (respondents) were interviewed during the survey where 23 had their properties or structures and live within the 15m x15m area and the remaining 12 live outside the 15m x 15m area but only had their property there. These comprised of 24 males representing the majority of the population (69%) while the females also made the minority group (11: 31%). Most of them were Christians (23: 65.7%), Muslims (9:25%) whilst the remaining 3 respondents representing 9.3% were also traditionalist. Married people were (27:78%); (6:18%) were single while the remaining 4% (two) respondents had divorced. The majority of the respondent (18; 51%) were between the age group of 31 to 40 years, followed by the 21 to 30 age group (8; 23%), 5 respondents were between 41 to 50 years which constituted about 14% of the entire respondents, 3(9%) were between the age group of 51 to 60 years whilst the remaining 1 respondents representing only 3% made up of the least age group thus people above 70 years old.

The major occupation engaged by the respondents include trading, Motorbike Riding, driving, carpenter, chop bar operator, drinking spot operator, food vendor (mini restaurant), goat seller, hair dresser, kebab seller, mechanic and plastic waste recycler.

On educational levels, 31% had no formal education, 28% had completed senior high school, 6% had completed Junior High School and the remaining 35% dropped out from school at various stages such as Primary school or Junior High School. About 96.8 % of the entire populations consulted during the survey were Ghanaians by nationality with only one being Nigerian but resident in Ghana.

The household size of the respondents who reside within the 15m x 15m area ranged between 1 and 17 with the majority having the household size of 4. With the respondents who reside outside the 15m x 15m area the household sizes ranged between 2 and 4 with the majority having household sizes of 2.

On the average household incomes of the respondents the survey indicated that, an income of respondents varies. Respondents who reside within the 15m x 15m area received between GHC70.00 and GHC 3,000.00 per month with the average income of the respondents being GHC1,070.00 per month. For respondents who reside outside the 15m x 15m area the monthly income ranged from GHC1000.00 to GHC 14,000.00 per month with the average income of the respondents being GHC6,812.00 per month.

Legal Status

The entire proposed project traverses built-up area, which falls under the 33KV existing ECG transmission line. It was noted that properties or structures of PAPs were under the Right of Ways of the ECG and adjoining lands along the existing ECG right of way also belonged to Ghana Railway Authority. Therefore the occupants did not possess the lands on which their structures were found.

Consultation

The GRIDCo engineering team with the consultant held consultation with the various administrative authorities and other stakeholders, including the Regional Coordinating Director, Accra Metropolitan Authority, Greater Accra Regional Office of the Electricity Company of Ghana and the encroachers on the existing Right of Way. The above persons and institutions were briefed on the various components of the project, including issues of environmental management and the possibility of removal of unauthorized structures within the RoW. In addition, a survey team, on behalf of GRIDCo has held various consultations with possible project affected persons and some community members to brief them on the project and to discuss the issue of removal of illegal structures on the Right of Way.

The identified possible project affected people were assured of the availability of the officers of the public Relations and the Environment Units of GRIDCo to address the

concerns raised by any person or group of persons as a result of the construction of the transmission line.

Legal and Regulatory Framework

Per the Environmental Assessment Regime in Ghana, the Environmental Protection Agency has categorized undertakings for which Environmental Permit is required. This is referred to as the Mandatory List and contains such undertakings as Transportation, Oil and Gas fields, Mining, Electric Power Generation and Transmission among others. In this regard, EPA has requested GRIDCo to conduct an Environmental & Social Impact Assessment (ESIA) with a RAP package. In order to safeguard the interest of all stakeholders, the conduct of the Environmental Assessment is guided by Legal & Regulatory framework. In the light of this, the present undertaking will be guided by the following:

- Environmental Protection Agency, 1994, (490)
- Environmental Assessment Regulation, 1999 (Li 1652)
- Volta River Development Act, 1961 (Act 46)
- Development Act (2005), Act 692
- World Bank's Operational Directive 4.10, "Environmental Assessment"
- International Finance Corporation, Environmental, Health & Safety Guidelines for Electric Power Transmission and Distribution.
- World Bank's Operational Policy 4.12, "Involuntary Resettlement".
- Factories, Offices and Shops Act, 328 of 1970 (For Occupational health safety).
- Energy Commission Act, 1997 (541)
- Lands (Statutory Way leaves) Act, 1963 (Act 186)
- Lands (Statutory Way leaves) Regulations, 1964 (Li 334)
- Lands (Statutory Way leaves) (Amendment) Regulations, (Li 334)
- Volta River Authority (Transmission Line Protection) Regulations, 1967 (Li 542)
- Volta River Authority River Environmental and Social Assessment Framework
- The Land Policy

- Volta River Authority (Transmission Line Protection) (Amendment) Regulation, 2004
- Resource Commission Act (1996), Act 522
- Wild Animal Preservation Act (1961) Act 43
- Wildlife Reserve Regulation (1971) LI710
- Immovable Property Rate Regulations (1975) LI 1049
- National Museums Decree (1969) NLCD 387
- Factories, Offices and Shops Act, 1970, Act 328

Impacts

Buildings both residential and non-residential as well as other structures within the 15m x 15m from around the existing ECG towers would be removed. This is to make way for construction to be carried out. Surveys carried out indicated that ninety-seven (97) structures/containers/kiosks would have to give way to facilitate the implementation of the project.

Areas where the towers will be replaced will be permanent loss. In all approximately eighteen (18) towers are to be replaced to carry the transmission line.

Since none of the occupants have a legitimate right of ownership because the area in question is the corridor of an existing transmission line for ECG. The structures to be affected would be valued with the cost of replacement and transportation of materials, at the present value.

The following structures were found to be affected by the project:

- 13 Wooden kiosk with wooden base & corrugated iron roofing sheets for commercial and residential purposes
- 13 Metal kiosk with concrete base and corrugated iron roofing sheets for commercial and residential purposes
- 10 Metal Container with concrete base and corrugated iron roofing sheet for commercial purposes only
- 3 sheds for livestock trading
- 6 Wooden kiosk with wooden base & corrugated iron roofing sheet for residential only

- 52 Wooden kiosk with concrete base & corrugated iron roofing sheet for residential only

The study has identified 35 affected households with a total population of 177 (~5.1 persons/household). These households own:

- a total of 58 completed occupied residential structures in the project area (within the 15m x 15m area
- a total of 39 businesses, comprising kiosks, containers and sheds

Public facilities located in the Project Area include, mosques, public toilet and bathhouse and meeting/ drinking place. These public facilities may not be directly physically displaced by the Project, since these facilities are outside the 15m x 15m area around the towers.

In all 14 persons were identified as vulnerable in the project area which include four (4) and three (3) older males and females respectively; two (2) male and two (2) female children while two (2) adult females.

Eligibility Criteria

For purposes of determining eligibility criteria, displaced persons were classified in one of the following groups, depending on the type of right they have:

- Owners and families of commercial/residential structures
- Owners and families of commercial structures
- Owners and families of residential structures
- Titles to owners of commercial structures
- Loss of income to owners and dependents of commercial structures with or without permit
- Cultural and religious sites
- Vulnerable persons

Determination of values

GRIDCo has adopted the World Bank Operational Policy 4.12 that recommends the use of Replacement Cost method of valuation of assets. With regard to structures, “replacement cost” is defined as: For houses and other structures, it is the market cost of

the materials to build a replacement structure within an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.

All project-affected persons (PAPs) are entitled to the following types of compensation and rehabilitation measures:

PAPs losing residential land and structures: the mechanism for compensating loss of residential and commercial structures will be cash compensation reflecting full replacement cost of the structures without depreciation.

Mechanism for Selection of Vulnerable

The following issues are considered in evaluating the PAPs who are highly susceptible and would be adversely affected by the project.

- Field findings: total size of land loss
- Estimate of vulnerable population
- The elderly persons, widows and orphans
- Women and children at risk of being dispossessed of their productive assets.
- Household strength
- Disability or disadvantaged PAPs

Institutional Arrangement

Ghana Grid Company Limited

- Take full responsibility for the implementation of the compensation/resettlement plan and implement it with its own teams
- Consult with, sensitize and inform the Project Affected People
- Undertake valuation and other resettlement requirements
- Pay for compensation
- Coordinate with other institutions involved
- Organize and implement monitoring and assistance to vulnerable people

Greater Accra Regional Coordinating Council

- Organize the Way leaves Selection Committee Meetings

- Participate in the monitoring and in the external evaluation

Valuation Division of the Lands Commission, Accra.

- Participate in the process of land acquisition and transfer of titles as the final owner of land to be acquired
- Witness the whole process of compensation and resettlement
- Participate in the monitoring and in the external audits

Ghana Commercial Bank

- Provide banking services for the payment of compensation to PAPs

Sub-Metropolitan Assembly/Community Elders

- Provide continuous project sensitization and the dissemination of information to the affected communities
- Participate in community discussions and computation and payment of compensation to the affected persons.

Implementation Schedule

It is programmed that compensation payments would be completed prior to commencement of physical construction. The implementation phase is planned over a period of eighteen months. The programme makes allowance for building owners to have sufficient time to construct their houses before they are demolished. Further to that, properties outside the 15m x 15m area around the towers that may have to be affected would be identified, assessed and paid for within that period. Monitoring and assistance will continue with less staff for another two-year period.

Grievance Redress Procedure

Grievances are likely to arise in one or more of the following cases:

- (a) Where the value of assets is disputed,
- (b) Where the amount of compensation is disputed and
- (c) Where the identity of the person to be compensated is disputed.

There are three ways in which grievances shall be resolved and these are through Grievance Redress Committee, Arbitration and Courts of Law.

Monitoring and Evaluation

Monitoring and evaluation are key components of the Resettlement Action Plan, and remains part of the whole programme under GRIDCo responsibility/obligations. Arrangements for monitoring implementation of resettlement and evaluating its use are developed during project preparation and used during supervision. Appropriate monitoring criteria are established to verify the predicted impacts of the project and adjust the mitigation measures where necessary. Monitoring and evaluation units should be adequately funded and staffed by specialists in resettlement. In-house monitoring by GRIDCo may need to be supplemented by independent monitors to ensure complete, objective resettlement.

Costs and Budgets

To ensure that the project is perfectly managed to its logical conclusion, the necessary budgetary provisions to ensure that mitigation commitments stated (including compensation) and monitoring programs, can be implemented effectively with the provisional estimate One million, four hundred and ninety-four thousand, four hundred and sixty-eight Ghana cedis only (GH¢1,494,468.00), approximately four hundred and ninety-eight thousand, and one hundred and fifty-six US dollars only (US\$498,156.00)

Conclusion

GRIDCo has put forward mitigation measures aimed at assisting to reduce or possibly eliminate the impacts mentioned above to ensure that the end use of the land after the expiry of the projects life span is not compromised. GRIDCo believes that this Preliminary Environment Report for the Avenor–Graphic road transmission line project has sufficiently dealt with the significant environmental and socio economic issues on the ground. It is hoped that the report will meet the expectations of the EPA and warrant the issuance of an environmental permit to enable GRIDCo to commence the transmission project upgrade. GRIDCo is committed to collaborate with EPA to jointly manage the environmental and social concerns related to the transmission project and shall submit environmental reports to the EPA as required.

Finally, it is affirmed that GRIDCo is committed to ensuring continuous improvement of environmental performance to minimize the impacts of its operations on the environment, in line with the principles of sustainable development, best industry practice, in addition to complying with national and international environmental protection regulations, striving to attain such international standards as International Standards Organization (ISO) 14, 0001 and OHSAS 18, 0001.

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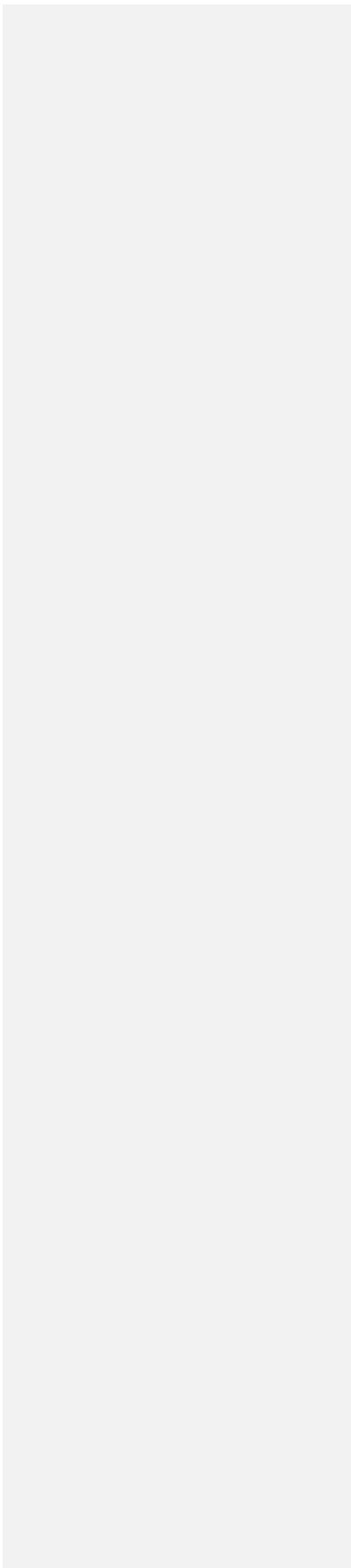
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1.0 GENERAL INTRODUCTION

1.0.1 Ghana Grid Company Limited

Ghana Grid Company Limited (GRIDCo) was established under the Volta River Development (Amendment) Act, 2005 (Act 692) and Energy Commission Act, 1997 (Act 541) as a Transmission Utility mandated to:

- Carry out the business of economic dispatching and transmission of electricity from facilities of wholesale suppliers to bulk customers or distribution companies and utilities in Ghana and West Africa without discrimination.
- Acquire by purchase or otherwise construct, establish, manage, maintain, and otherwise deal with all transmission facilities, works, buildings, and other systems necessary to transmit electric energy.
- Undertake metering and billing of all power transfers in the National Interconnected System.
- Carry out any general commercial activities related to the safe and reliable operation of transmission system and economic dispatch of electric energy.

1.0.2 The Generation System

The Volta River Authority (VRA) was set up as an electric power utility Company and established by an Act of Parliament in 1961 (Act 46). The primary business of VRA as stipulated in the Act is to generate electricity from the Akosombo Dam, transmit and distribute it in Ghana. However, by virtue of the Act establishing GRIDCo, VRA is mandated to generate power for the country. The generation system of VRA consists of two (2) hydroelectric power plants on the Volta River at Akosombo (1,020 MW) and pong (160 MW) and a Thermal Generation plant at Aboadze near Takoradi (550 MW). The pong Hydro Electric Plant has four generating units; each individually rated at 40MW whilst the Akosombo HEP Generation Station has six generating units; now with a total installed capacity of 1,020 MW after the retrofitting conducted in 2005. The Takoradi Thermal Power Plant is presently run on gas and consists of the 330MW

Combined Cycle Takoradi Thermal Power Generating Station (TTPS); and currently a 220MW from the 330 MW CC Takoradi International Company Plant. The TTPS is wholly owned by VRA and comprises two nominal 110MW Combustion Turbine Generators and a nominal 110MW Steam Turbine Generator.

The TICO plant is a joint venture arrangement between VRA and TAQA of Abu Dhabi and consists of two simple cycle 110MW Combustion Turbine Generators. Plans are well advanced to expand the Takoradi Thermal Power Plant from the existing capacity of 550MW to its ultimate capacity of 660MW by converting the TICO plant into a combined cycle plant with the addition of the 110MW steam Turbine – generator. The construction of the Bui Dam project in the north-western part of Ghana is also expected to add about 400MW of power to the national power pool after its completion. The Government of Ghana has completed the Tema Thermal Power Projects consisting of a 126MW Tema Thermal 1 Power Project, 80MW Mines Reserve Power Plant, and the 50MW Tema Thermal 2 Power Plant.

1.0.3 The Transmission Systems

The transmission system consists of about 4000 circuit-kilometers of the 161kV transmission lines and 34 High Voltage/Medium Voltage substations, Six hundred (600) circuit-kilometers of the 161kV lines operated at 34.5kV and are referred to as “161kV light lines”, 42 switching and bulk supply points (substations) a 225kV single-circuit inter tie connects the GRIDCo network to the network of Compagnie Ivoirienne d’Electricité (CIE) of la Côte d’Ivoire at Prestea and Abobo respectively. A double-circuit 161kV transmission line from Akosombo to Lome and a single-circuit 161 kV line from Bawku to Dapaong (Northern Togo) connect the GRIDCO network to the network of Communate Electrique du Benin (CEB) of Togo and Benin. As part of the West African Power Pool, GRIDCo has constructed a 330kv transmission line from Volta (Tema) to Aboadze, covering an approximate distance of 218 kilometers.

1.0.4 Background Information on Proposed Project

The Ghana Government regards the electricity sector as a priority development sector to convert economic structure of Ghana, and is increasing electric capacity and improving

transmission/distribution networks for major cities. GRIDCo is in charge of the development of transmission/distribution networks and they are promoting those projects. However, these efforts have not fulfilled the demand of electricity especially for the metropolitan area and major cities. Therefore, GRIDCo requested the Government of Japan the Project to improve transmission lines and substations for the central area of the Accra Metropolitan Area.

1.0.5 The Project Area

The study area is around a requested 161 kV transmission line on the existing 33 kV line with a substation as followed. The location is shown in Figure 1.

a) Location: branch point of the existing 161 kV line - Avenor Substation - Accra Central BSP (in Graphic Road Substation), Accra Metropolitan Assembly, Accra.

b) Project route: length 2.7 km for overhead line, width: 15 m, 0.3 km for underground cable

c) 15 meters square areas around the proposed 161 kV towers (18 sites) locating mostly at the existing 33 kV towers which are included in b). The Project proposes a technical construction method, which limits construction space within the 15 meters square area to minimize the impact on resettlement.

d) Neighboring area along the project route.

Affected communities along the proposed transmission line identified were (1)South Industrial Area (2) Ecomog (3) Las PamasRestuarant (4) Circle Batman and (5) Avenor.

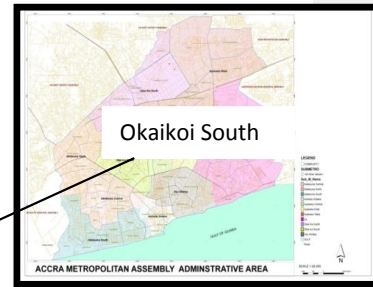
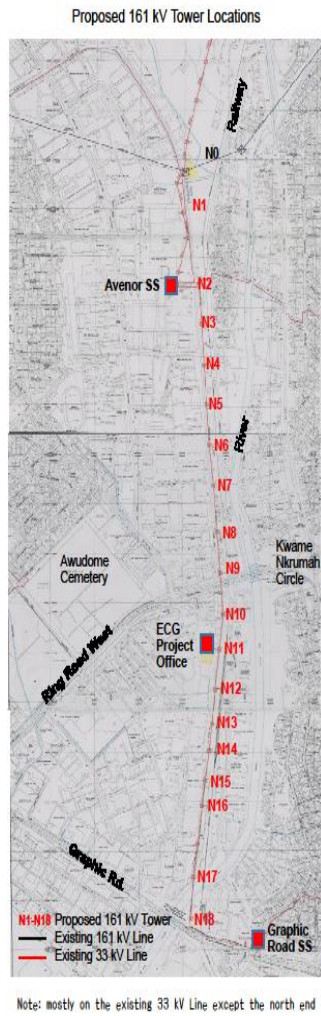


Figure 1: Map of the Study Area

PART I: ENVIRONMENTAL AND SOCIAL CONDITIONS FOR REINFORCEMENT OF POWER SUPPLY TO ACCRA CENTRAL, GHANA

1.1 BACKGROUND

This study was conducted by the Department of Environmental and Natural Resources of Presbyterian University of Ghana on the authorization of GRIDCo. The main objectives of the survey were to identify the current environmental and social situations in/around Right of Way (ROW) of proposed 161 kV transmission line (on the existing 33 kV line) and also sensitize the land users of the proposed upgrading project on the corridor. A two-tier approach was therefore adopted namely, the survey approach and focus group approach to gather information from the respondents (some who have their residences and workshops under the existing 33kv lines). Respondents to the survey tool were sampled from the squatting communities and those having their businesses in the Greater Accra Region (within the areas of ECG High Tension influence) between Avenor and Graphic Road interchange.

1.1.1 Target Community and Demography:

The total population of the people to be affected by the above project within the 15m x 15m area in the existing 33kV ECG corridor was estimated to be **177**. The study area was stratified as into two according to the land use type as follows:

- a) **Residential:** areas where people live, thus sleep and carry out household chores;
- b) **Commercial and/or business enterprises:** areas where people carry out their commercial duties but do not sleep or carry out household activities.

The total number of the people counted was **177** out of which 100 people were counted at the residential area (Table 1) and 77 at the commercial and/or business enterprises areas (Table 2).

The physical residential and commercial structures within the 15m X 15m area around the existing towers to be affected by the proposed project were 97 that were owned by 35 people whom 69% were males and 31% females. It must be noted that not all the 35 owners interviewed reside in the area but they have their structures situating within the 15mX15m area. It must be clarified here that, the people residing in and/or running their

businesses in the 97 structures plus their wives, children and other dependents who would directly affected by the project were enumerated to be 177.

Table 1: Population estimate of people residing within 15m x 15m area of the ECG existing towers

ID No.	Residential			Other Dependents in household	
	Household head	Spouse	Children		
N15	1	0	3	0	
N14	1	1	1	2	
N14	1	1	1	0	
N14	1	1	1	0	
N14	1	1	2	0	
N14	1	1	2	0	
N9	1	1	2	0	
N9	0	1	2	3	
N9	1	1	1	5	
N10	1	0	0	0	
N10	1	0	0	0	
N10	1	0	0	0	
N10	1	1	0	0	
N9	1	1	0	2	
N9	1	1	8	6	
N6	1	1	3	0	
N6	1	1	3	0	
N6	1	2	4	0	
N6	1	1	9	6	
Total	18	16	42	24	100

Table 2: Population estimate of people having their business within the 15 m X 15m area around the ECG existing towers

ID No.	Commercial			Other	77
	Household head	Spouse	Children	Dependents in kiosk/store	
N14	1	0	0	2	
N14	1	1	5	1	
N14	1	1	2	0	
N9	1	2	4	0	
N9	1	0	3	1	
N9	1	1	5	0	
N10	1	1	1	0	
N10	1	1	1	0	
N4	1	1	0	0	
N4	1	1	1	0	
N2	1	1	1	3	
N2	1	2	2		
N2	1	1	0	1	
N9	1	1	2	4	
N6	1	1	1	0	
N8	1	0	2	0	
N6	1	1	2	0	
Total	17	16	32	12	77

1.2 Household

1.2.1 Socio-Economic Characteristics of the Project Affected Persons

A total 35 people (respondents) were interviewed during the survey where 23 had their properties or structures and live within the 15m x 15m area and the remaining 12 live outside the 15m x 15m area but only had their property there (sometimes some of the structures are used for residential purposes as well). These comprised of 24 males representing the majority of the population (69%) while the females also made the minority group (11: 31%) respectively. The religious background according to the study also showed that, most of them were Christians (23: 65.7%), Muslims (9:25%) whilst the remaining 3 respondents representing 9.3% were also traditionalist. On the marital status of the respondents, (27:78%) indicated they are currently married; (6:18%) were single while the remaining 4% (two) respondents had divorced. The summary of these results is shown in the Table 3.

1.2.2 Age Distributions of Project Affected Persons

Since the study was to determine the social impact of the project on the local people; the ages of the respondents were investigated. With regards to this, the ages of the respondents were grouped into classes. The result showed that, majority of the respondent (18; 51%) were between the age group of 31 to 40 years, followed by the 21 to 30 age group (8; 23%), 5 respondents were between 41 to 50 years which constituted about 14% of the entire respondents, 3(9%) were between the age group of 51 to 60 years whilst the remaining 1 respondents representing only 3% made up of the least age group thus people above 70 years old. The distribution of these respondents with their respective locations is displayed in the Table 4.

1.2.3 Occupation of the Project Affected Persons

On the various occupation engaged by respondents, the result showed that, majority of the respondents were trading in various items such as selling of second hand clothing, plastics, spare parts, shoe selling, provision shop etc., this was followed by workers Progressive Transport Owners Association (PROTOA), Okada (Motor) Rider. The occupations of the remaining respondents were as follows; carpenter, chop bar operator,

drinking spot operator, food vendor (mini restaurant), goat seller, hairdresser, kebab seller, mechanic and plastic waste recycler. The details are presented in Table 5 those who reside within the 15m x 15m area and Table 6 for those who reside outside the 15m x 15m area.

1.2.4 Educational levels of Project Affected Persons

With respect to the educational background of the respondents the findings of the survey revealed that, majority of the inhabitants (31%) had no formal education, (28%) respondents had completed senior high school, 6% had completed Junior High School. The responses from the interviewees also indicated that, most of the respondents (the remaining 35%) dropped out from school at various stages such as Primary school, Junior High School and Senior High School (Table 7).

1.2.5 Length of Stay in the Area of the Project Affected Persons

During the survey, respondents were asked length or duration has stayed under the Transmission Tower. The responses indicate that, respondents had stayed in the area between 1 year and 32 years with an average of 11 years in the area.

1.2.6 Ethnicity and Origin of the Project Affected Persons

The result of the study indicated that, about 96.8 % of the entire populations consulted during the survey were Ghanaians by nationality with only one respondent being Nigerian but resident in Ghana. Further interrogations also revealed that, these respondents are people from different parts of the country and have migrated to the capital city to look for greener pastures or better opportunities to enhance their livelihood. The details are shown in Table 8.

1.2.7 Household Size and Income of the Project Affected Persons

The household size is the total number of people including dependents found in each house. Accordingly, the household size of the respondents who reside within the 15m x

15m area ranged between 1 and 17 with the majority having the household size of 4. Details are shown in Table 9. With the respondents who reside outside the 15m x 15m area the household sizes ranged between 2 and 4 with the majority having household sizes of 2 with the details showing in Table 10.

On the average household incomes of the respondents the survey indicated that, an income of respondents varies. Respondents who reside within the 15m x 15m area received between GHC70.00 and GHC 3,000.00 per month with the average income of the respondents being GHC1,070.00 per month. Summary of the monthly incomes received by various respondents is presented in Table 11 for those who reside within 15m x 15m area. For respondents who reside outside the 15m x 15m area the monthly income ranged from GHC1,000.00 to GHC 14,000.00 per month with the average income of the respondents being GHC6, 812.00 per month. Table 12 shows the details of monthly incomes for those who reside outside 15m x 15m area but having their properties/businesses within the area.

1.3 Legal Status

The entire proposed project traverses built-up area, which falls under the 33kV existing ECG transmission line. It was noted that properties or structures of PAPs were under the Right of Ways of the ECG and adjoining lands along the existing ECG right of way also belonging to Ghana Railway Authority. Therefore the occupants did not possess the lands on which their structures were found.

1.4 Public/social facilities, infrastructure and cultural properties

In general, the proposed transmission line traversed across a bigger vicinity of church building, prayer grounds and Mosques. However within the 15m x 15m area, neither these religious nor cultural properties existed; therefore no such heritage would be affected by the proposed project.

Table 3: Sex, Religious and Marital status of Project Affected Persons

Social characteristics	Male frequency	Percentage (%)	Female frequency	Per (%)	Total
Sex	24	69	11	31	35(100%)
Religion Affiliation					
Christian	16	45.7	7	20	23 (65.7%)
Muslims	6	17	3	8.5	9 (25.5%)
Traditionalist	3	9.3	0	0	3 (9.3%)
Total	25	72	10	28.5	35(100%)
Marital status					
Married	17	48.6	10	28.6	27(77.2%)
Single	4	11.4	2	5.7	6 (17.1%)
Divorce	2	45.7	0	0	2(5.7%)
Total	23	65.7	12	34.3	35(100%)

Table 4: Age of Respondents

<i>Age Group</i>	<i>Number</i>	<i>Percentage</i>
21-30	8	23
31-40	18	51
41-50	5	14
51-60	3	9
61-70	1	3
Total	35	100

Table 5: Occupation of Project Affected Persons who live within 15m x 15m area

<i>Occupation</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Carpenter	1	4.3
Chop bar Operator	1	4.3
Drinking spot operator	1	4.3
Food vendor	1	4.3
Goat seller	1	4.3
Hairdresser	1	4.3
Kebab Seller	1	4.3
Mechanic	1	4.3
Okada (Motor) Rider	2	8.6
PROTOA (Progressive Road Transport Association) Worker	3	13.6
Trading (Selling of second hand clothing, plastics, spare parts, shoe selling, provision shop)	9	39.1
Plastic Waste recycler	1	4.3
Total	23	100

Table 6: Occupation of Project Affected Persons who live Outside within 15mx15m area

<i>Occupation</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Provision(Grocery) shop owner	2	16.7
Selling of second hand clothing	3	25.0
Drinking spot operator	1	8.3
Goat seller	2	16.7
Mechanic	1	8.3
Spare parts dealer	3	25.0
Total	12	100.0

Table 7: Educational level of Project Affected Persons

<i>Educational level</i>	<i>Frequency</i>	<i>Percentage</i>
No formal education	11	31.4
Completed SHS	10	28.6
Completed JHS	2	5.7
SHS dropped out	7	20.0
JHS dropped out	5	14.3
TOTAL	35	100.0

Table 8: Home of origin of the Project Affected Persons

Origin	Frequency	Percent
Asante	10	29.5
Akosombo	1	2.9
Akwapem	1	2.9
Akyem	2	5.8
Bawku	2	5.8
Bolgatanga	1	2.9
Brong	1	2.9
Ewe	2	5.8
Frafra	3	8.7
Ga	2	5.8
Krobo	1	2.9
Kwahu	3	8.7
Mamprusi	2	5.8
Nigerian	1	2.9
Tamale	1	2.9
Tumu	1	2.9
Wasa Akropong	1	2.9
Total	35	100.0

Table 9: Household sizes of Project Affected Persons who reside within 15mX15m area

Household size	Frequency	Total household
1	3	3
2	1	2
3	2	6
4	5	20
5	3	15
6	1	6
7	1	7
8	1	8
16	1	16
17	1	17
Total		100

Table 10: Household sizes of Project Affected Persons who reside outside 15mX15m area

Household size	Frequency	Total household
2	1	2
3	7	21
4	2	8
5	2	10
6	1	6
7	2	14
8	2	16
Total		77

Table 11: Monthly income of the PAPs living within 15mX15m area

Monthly Income (GH¢)	Frequency	Percent
70	1	4
190	1	4
200	1	4
240	2	9
360	2	9
450	3	13
750	1	4
850	1	4
950	2	9
1200	1	4
1400	2	9
1900	2	9
2000	1	4
2500	1	4
3000	2	9
Total	23	100

Table 12: Monthly income of the Project Affected Persons living outside 15mX15m area

Monthly Income(GH¢)	Frequency	Percent
1000	1	8
3000	2	17
4000	3	25
4800	1	8
6700	1	8
9000	2	17
12000	1	8
14000	1	8
Total	12	100

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PART II: RESETTLEMENT ACTION PLAN FOR REINFORCEMENT OF POWER SUPPLY TO ACCRA CENTRAL, GHANA

2.0 OBJECTIVES OF RESETTLEMENT ACTION PLAN

Land has been viewed differently by various communities. The concept of land in most countries however, can be seen in three main dimensions, namely; socio-religious, economic and political. Even though these can all co-exist, they sometimes appear incompatible and provide the ingredient for conflict and confusion in the formulation of land policies. For whilst the indigene may wish to preserve a piece of land because of cultural values or mystical connotations, the government may wish to acquire it and put it to a use that will derive optimum benefit from the land in a sustainable manner. It is the responsibility of governments to undertake all kinds of planning activities to improve social standards and life of the community. Governments therefore see this as a justification for increasing interference in proprietary structures. This includes intervention in land use and control, land management, operation of the land market and the framework within which customary land tenure operates. In the social context it is a function of social relationships and interwoven with issues such as kingship, the family system and the entire field of human relationships.

Until recently, development induced displacement of population was a 'sacrifice' some people had to make for the larger good. Resettlement programs in general were limited to statutory monetary compensation for land acquired for the project. However, perceptions are changing because of delays in project implementations and benefits foregone. Various institutions have been established in Ghana to have either direct or indirect responsibilities for compulsory acquisition of properties in line with the 1992 Constitution. This is to ensure that project affected persons are provided with prompt, fair and adequate compensation and that they are not worse off following the implementation of any project.

The following are some of the factors identified, during the review of World Bank assisted projects over the years, to have contributed to the successful implementation of resettlement programmes.

- Commitment of borrowers in the form of laws, policies, and resource allocation.
- Close adherence to established guidelines and procedures in implementation.

- Sound social analysis, reliable, demographic assessments, and appropriate technical expertise in planning for development-oriented resettlement.
- Reliable cost estimates and provisions of required financing; with resettlement activities phased in tune with civil works construction.
- Effective executing agencies that are responsive to local development needs, opportunities and constraints.
- People's participation in setting resettlement objectives, identifying reestablishment solutions and implementing them.

The development of the project which is land based is expected to have socio-economic and environmental impacts on the immediate communities and districts as a whole.

The following compensation objectives have been outlined in this RAP:

- to consider involuntary compensation as an integral part of project design, and deal with resettlement issues from the earliest stages of project preparation;
- to consult with project-affected persons (PAPs) in a meaningful manner, and to provide opportunity for their participation in the planning and execution of resettlement programs;
- to assist PAPs in proportion to impact, recognizing the special needs of vulnerable populations;
- to compensate PAPs fully and fairly for all assets lost permanently or temporarily, this means timely payment of full replacement value prior to construction;
- to ensure that all PAPs who lose residences or businesses are provided acceptable alternative accommodations before construction;
- to ensure that PAPs who lose income-generating resources are assisted in their efforts to improve their livelihoods and standards of living or at least restore them, in real terms, to pre-project levels;
- Assistance would be given to the affected persons in their efforts to improve former production levels, income earning capacity and living standards or at least restore them to the levels they would have been without the project.

The three main performance indicators of power supply systems would all be positively enhanced by the construction of the project. In addition the completion of the project will

complement the nation's policy priorities of poverty alleviation, energy efficiency, and promotion of economic growth and enhanced electrification.

Incidentally most of the communities to be affected by the project are already linked to the national grid.

- Extension services and health education would be provided to the PAPs and the affected communities.

These policy objectives apply to all direct economic and social impacts that result from the project and that are caused by the involuntary taking of land that results in relocation or loss of shelter, loss of assets or access to assets, or the loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

Further, these policy objectives apply to all components of the project that result in involuntary resettlement, regardless of the source of financing.

All project-affected persons (PAPs) shall be identified and issues of compensation and involuntary resettlement would be appropriately addressed. This shall include the identification of PAPs, the valuation of the cost of affected properties and their placement of lost private lands and property in such situations. Grievance procedures would be instituted for person(s) dissatisfied with their compensation packages to seek redress.

2.1 SCOPE OF RESETTLEMENT ACTION PLAN

The RAP has been prepared in line with the form and format of the World Bank Operational Directive OP 4.12 on Involuntary Resettlement and provides information on the following essential elements:

- Description of the Project
- Project Area of Influence
- Project Impacts that gives rise to resettlement
- Objectives of the RAP
- Socio-economic information of the population to be affected

- Legal framework including mechanism for resolution of conflicts and appeals procedures
- Institutional framework
- Eligibility
- Valuation & Compensation Loss
- Resettlement Measures, involving resettlement and compensation packages and special assistance to vulnerable
- Site Selection, site preparation and location
- Housing, infrastructure and social services
- Environmental protection and management
- Community participation and integration with host population, including methods and scope of consultation with PAPs on the resettlement issues
- Integration with host populations
- Grievance procedures
- Organizational responsibilities
- Implementation schedule
- Costs & Budget
- Monitoring & Evaluation

2.2 BASELINE SURVEYS

2.2.1 HISTORY AND METHODOLOGY

The Terms of Reference for the transmission line was produced following site visits and consultations with GRIDCo and ECG officials. Route alignments were considered and the best and optimal selection was made based on the least socio-economic and cultural/religious impact options. Studies on the line were carried out in December 2014 and January 2015. In addition, the routing of the line was confirmed by staff from GRIDCo. As a result, the route alignment has been confirmed and the substation site chosen for the development.

All affected properties (buildings and containers) have been surveyed and valued.

Affected households have been identified, informed and consulted on the projects implementation and possible impacts on their properties.

2.3 POTENTIAL IMPACTS AND MINIMIZATION OF RESETTLEMENT

The methods adopted in identifying the impacts to be associated with the proposed project, and its assessment were based on information gathered during community durbars, surveys, analysis and results of the bio-physical and socio-economic, cultural data and consultations with stakeholders.

The main impacts of the Reinforcement of power Supply to Accra Central, Ghana project will be on the inhabitants in the settlements within the project area. Field studies were conducted to assess those aspects of the socio-economic/ cultural environment that would be most impacted by the project.

2.4 LAND TENURE IN GHANA

Customary practice of land allocation by traditional authorities results in the provision of land to a variety of users through a range of mechanisms. Sometimes, the same piece of land is allocated to two or more users. Such customary land use rights are sometimes enshrined in writing, but more often left to the memory of responsible persons.

The government has sought to formalize the process of land tenure, including the definition of land titling processes and the allocation of responsibility to a number of land administration institutions, including the Lands Commission, (Land Title Registry, Survey Department, Valuation Division, Department of Town and Country Planning, and Office of the Administrator of Stool Land). Despite this effort, systematic mapping, registration and titling does not occur in much of Ghana. Moreover, the effort to codify customary practice has resulted in many disputes, much uncertainty, and ponderous dispute resolution.

Typical dispute resolution mechanisms are customary arbitration, application by chiefs of customary law, state courts and land administration institutions.

Land tenure in Ghana is governed by a web of common law and customary law, from which have emerged the following categories of landholdings:

- Customary ownership

- State ownership
- Customarily owned but state managed lands (vested lands).

For each category, allodial title, equivalent to common law freehold, is the basis of all and rights. Allodial rights are vested in a stool, clan, family, earth priest or private person. Lesser interests, such as tenancies, licenses and pledges, emanate from allodial title.

2.4.1 Customary Ownership

Customary ownership occurs where the right to use or dispose of use-rights over land is governed by the customary laws of the land-owning community, based purely on recognition by the community of the legitimacy of the holding. Rules governing the acquisition and transmission of these rights vary from community to community, depending on social structure and traditional practice. These rules are not normally documented, but are generally understood by community members. Customary lands are managed by a custodian (a chief or a head of clan or family) together with a council of elders appointed in accordance with the customary law of the land-owning community. All grants of land rights by the custodian require the concurrence of at least two of the principal elders for the grant to be valid.

2.4.2 State Lands

State lands have been acquired by government under eminent domain. The principal legislation is the State Lands Act of 1962 (Act 125). Allodial rights are vested in government, which can dispose of the land to state institutions, or private individuals and organizations, by way of lease, certificate of allocation / occupation, and license. Such disposed lands are scattered throughout the country. The boundaries of each have been cadastral surveyed, mapped, and registered.

Acquiring RoW will not have a significant impact on land ownership. As only a Right Of Way is acquired for the project, title to the land is not affected. Thus the owners will continue to retain their ownership of their various parcels. The RoW would only serve as an encumbrance on land ownership. It however does not significantly detract from the ownership factor.

2.4.3 Vested Lands

Vested lands are lands owned by a stool, but managed by the state on behalf of the land owning stool. The legal rights to sell, lease, manage, collect rent have been taken from the customary landowners by the application of specific laws on that land and vested in the state. The landowners retain an equitable interest in the land (i.e. the right to benefit from the land). This category of land is managed in the same way as State Lands. Unlike State Lands, however, the boundaries are not cadastral surveyed and the lands are usually much larger in area.

As all land in Ghana is “owned” and as state and vested lands are formally documented, all other land for which formal documentation does not exist can be considered customarily held.

2.5 TENURIAL ARRANGEMENTS

The tenurial arrangement under the provisions and operation of the Ghanaian Laws and Custom are briefly outlined as below:

Customary Tenure: is the form of land ownership is by virtue of one’s customary rights and occupation of the land; they have proprietary interest in the land and are entitled to certificates of customary ownership. It is a principle that is generally accepted as binding and authoritative by the class of persons it applies to.

Freehold Tenure: derives its legality from the constitution and its incidents from the law. It involves the holding of land in perpetuity or for a period less than perpetuity fixed by a condition. It enables the owner/holder to exercise the full powers of ownership, subject to law.

Leasehold Tenure: is created either by contract or operation of the law. It is a form of land ownership which a landlord or less or grants the tenant or lessee exclusive possession of the land, usually for a period defined and in return for a rent. The tenant has security of tenure and a proprietary interest in the land.

Licenses/Sharecroppers: are granted authority to use land for agricultural production. Licensees have no legal security of tenure or any proprietary right in the land. This tenure is purely contractual. Thus the majority of the affected persons are themselves

landowners. In effect, the impact on the landowners losing their sources of income through the farming activities will be minimal.

3.0 SOCIO-ECONOMIC INFORMATION OF AFFECTED POPULATION

3.1 PROFILE OF OKAI KOI SOUTH SUB-METROPOLITAN ASSEMBLY

3.1.1 Location and Size

Okaikoi South Sub Metropolitan District Council is one of the eleven Sub Metropolitan District Council of the Accra Metropolitan Assembly (A.M.A.). It shares boundary with Okaikoi North to the North, OsuKlottey to the South, Ablekema Central to the West and Ayawaso West to the East.

The Sub Metro has Eight Eletoral Areas namely; Avenor, Awudome, Gontien, Kantsean, Kaneshie, Mukose, Bubuashie and Bubii. These electoral areas are also represented in the Assembly by eight Assembly Members.

3.1.2 Geology and Soils

The Okaikoi South Sub-Metro, consists of Precambrian Dahomeyan Schists, Granodiorites, Granites Gneiss and Amphibolites to late Precambrian Togo Series comprising mainly Quartzite, Phillites, Phylitones and Quartz Breccias. Other formations found are the Palaeozoic Accraian Sediments - Sandstone, Shales and Inter-bedded Sandstone-Shale with Gypsum Lenses.

The soils in the Sub Metro Area can be divided into four main groups: drift materials resulting from deposits by windblown erosion; alluvial and marine mottled clays of comparatively recent origin derived from underlying shales; residual clays and gravels derived from weathered quartzites, gneiss and schist rocks, and lateritic sandy clay soils derived from weathered Accraian sandstone bedrock formations.

In many low lying poorly drained areas, pockets of alluvial 'black cotton' soils are found. These soils have a heavy organic content, expand, and contract readily causing major problems with foundations and footings. In some areas, lateritic soils are strongly acidic and when saturated are prone to attack concrete foundations causing honeycombing. Near the foothills are the large areas of alluvial laterite gravels and sands.

3.1.4 Vegetation and Climate

There is evidence to suggest the vegetation of the metropolitan areas has been altered in the more recent past century by climatic and other factors, mainly anthropogenic. Much

of the metropolitan area was believed to have been covered by dense forest of which only a few remnant trees survive.

A climatic change combined with the gradient of the plains and cultivation has imposed vegetation structures similar to those of the southern Sahel, Sudan and Guinea Savannahs all of which lie north of the Accra plains.

There are three broad vegetation zones in the Metropolitan area, which comprise shrub land, grassland and coastal lands. Only the shrub land occurs more commonly in the western outskirts and in the north towards the Aburi hills.

It consists of dense clusters of small trees and shrubs, which grow, to an average height of five metres. The grasses are a mixture of species found in the undergrowth of forests. They are short, and rarely grow beyond one metre. Ground herbs are found on the edge of the shrub. They include species, which normally flourish after fire.

The coastal zone comprises two vegetation types, wetland and dunes. The coastal wetland zone is highly productive and an important habitat for marine and terrestrial-mainly bird life. Mangroves, comprising two dominant species, are found in the tidal zone of all estuaries sand lagoons. Salt tolerant grass species cover substantial low-lying areas surrounding the lagoons.

These grasslands have an important primary production role in providing nutrients for prawns and juvenile fish in the lagoon systems. In recent times, wetlands are however being encroached upon. Protection of the coastal wetland zone is very important to the long-term sustainability of the fish industry, which the Ga population of Accra depend upon.

There are two rainy seasons. The average annual rainfall is about 730mm, which falls primarily during the two rainy seasons. The first begins in May and ends in mid-July. The second season begins in mid-August and ends in October.

There is very little variation in temperature throughout the year. The mean monthly temperature ranges from 24.7°C in August (the coolest) to 28°C in March (the hottest) with annual average of 26.8°C. As the area is close to the equator, the daylight hours are

practically uniform during the year. Relative humidity is generally high varying from 65% in the mid-afternoon to 95% at night.

The predominant wind direction in the Sub Metro is from the WSW to NNE sectors. Wind speeds normally range between 8 to 16 km/hr. High wind gusts occur with thunderstorm activity, which pass in squall along the coast. The maximum wind speed record in Accra is 107.4 km/hr (58 knots). Strong winds associated with thunderstorm activity often cause damage to property by removing roofing material.

3.1.5 The Built Environment

The housing landscape of the Sub Metro is characterized by an area comprising of indigenous, low class, and high-density development with depressed conditions and over stretched infrastructure services on the other. The total number of houses in the Sub-Metro according to the 2010 Population and Housing Census is 29,913. The average house size is 17 persons per house and approximately 3 households per house. The average household size is approximately 6 people. Housing can also be grouped in 3 broad categories: the low income, middle income and high income areas. The low income housing zones may be divided into indigenous and non-indigenous (dominantly migrant) areas.

3.1.6 Population and Housing Characteristics

Okaikoi South Sub Metro with an estimated population of about 121,718 people as projected from 2010 National Population and Housing Census by the Ghana Statistical Service, Okaikoi South, forms 15.25% of the entire population of Accra Metropolitan Assembly which has also contributed to the fast growing population of the Accra Metropolis. It has population growth rate of 3.17%. The most populated community in the Sub Metro is North Kaneshie while South Industrial Area constitutes the least populated locality in the Sub Metro. It should, however, be noted that spatial population distribution in the Sub Metro is almost evenly in most cases as depicted in Table 6.

3.1.7 Population Distribution by Age and Gender

Okaikoi South Sub-Metro population, like that of other Sub-Metros of A.M.A., is a very youthful with 54.66% of the population under the age of 24 years. It could be realised from the age sex ratio that 51.9% of the population are females (63,126) and the rest

48.1% being males (58,592). This gives a sex ratio of 1:1.08 males to females. The dominance of females over males is a reflection of the nationwide trend where the estimated ratio is 1:1.03. Age dependency ratio has been calculated to be at approximately 36% of residents of Okaikoi South Sub-Metro relying on the other 64% for their livelihood. About 64% of the population constitutes the working force.

Table 13: Localities Population Trends of Okaikoi South Sub-Metropolitan District Council

OKAIKOI SOUTH SUB-METROPOLITAN DISTRICT LOCALITY POPULATION TRENDS							
LOCALITY NAME	POPULATION					2010	2010
	2008*	%	2000	1984	1970	HOUSES	NO: HH
AVENOR	8,577	6.92	6,681	3,125	-	447	1,281
BUBUASHIE	30,769	+24.81	23,967	22,862	10,017	1,403	5,314
KANESHIE	33,609	27.10	26,179	22,363	29,763	2,450	5,712
NORTH INDUSTRIAL AREA	10,339	8.34	8,053	742	-	671	1,579
NORTH-KANESHIE	34,756	28.03	27,072	11,166	-	1,995	5,287
SOUTH INDUSTRIAL AREA	1,692	1.36	1,318	1,063	-	165	265
TESANO	4,275	3.45	3,330	5,612	1,758	238	673
TOTAL	124,017	100.00	96,600	66,933	41,538	7369	20,111

Source: 2010 Population and Housing Census. * Projected

3.2 PROFILE OF PROJECT AFFECTED PEOPLE

3.2.1 Gender Distribution of Project-Affected Persons

As mentioned already, the transmission line of the project would pass through both residential and commercial area. At the residential area, men and women (active age group and act as household heads) were composed of (18 people) 18%, men and women (active age group and act as household spouses) were 16 representing 16%; male and female children were 20 (20%) and 22 (22%) respectively; other dependents that which include older males and females (above the age of 60 years) were respectively 7 (%) while other relatives who depend on the same budget of the family) were 17 representing 18% (Figure 2).

At the commercial area, men and women (active age group and act as household heads) were composed of (17 people) 22%, men and women (active age group and act as household spouses) were 16 representing 21%; male and female children were 32 (41%); older males and females (above the age of 60 years) were respectively 2 (3%) while other dependents (which are relatives who depend on the same budget of the family) were 10 representing 13% (Figure 3).

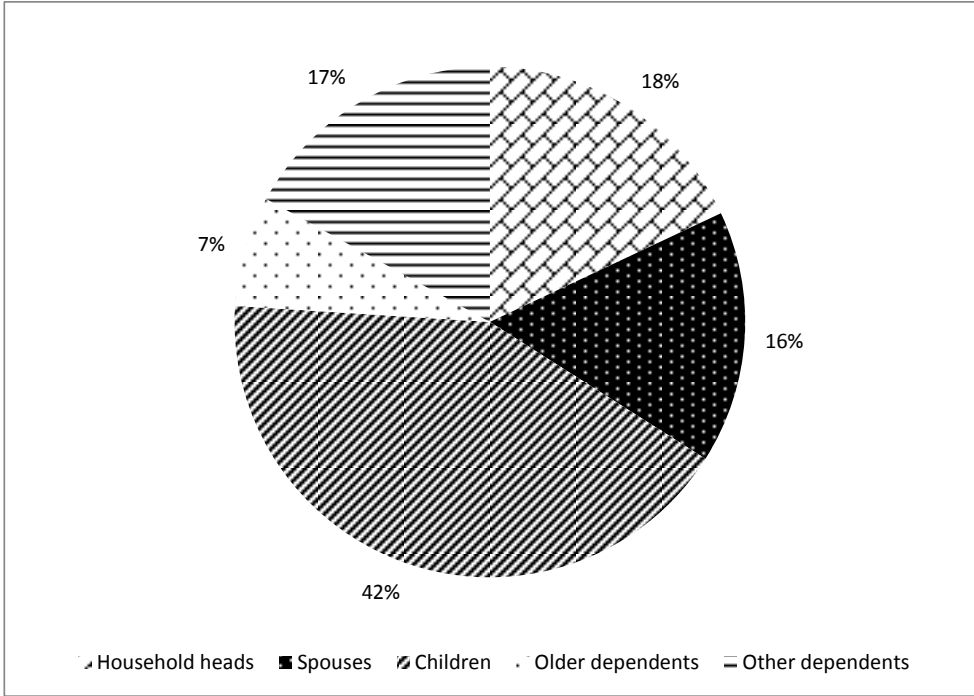


Figure 2: Gender distribution of PAPIs in the residential area

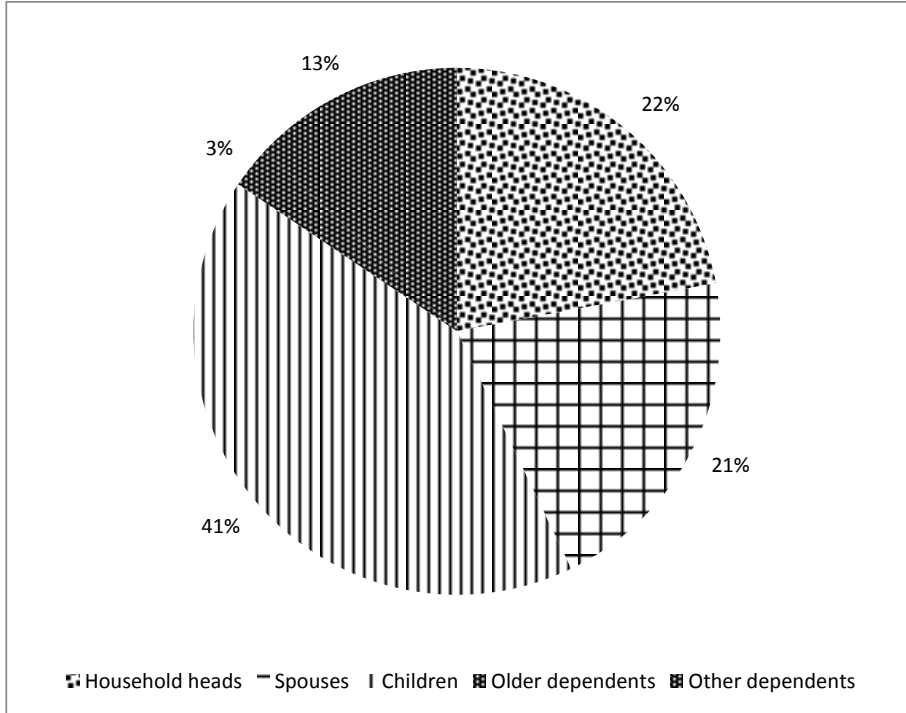


Figure 3: Gender distribution of the PAPs in commercial area

3.2.2 Household Size/Dependents of Project-Affected- Persons

The household sizes of the PAPs ranged from one to 10. Households with sizes of 1, 3, 4 and 5 were found to be the highest possessed by the respondents whereas few families (1) were found to be with household sizes of 2, 6, 7, 8, 9 and 10 as shown Figure 4.

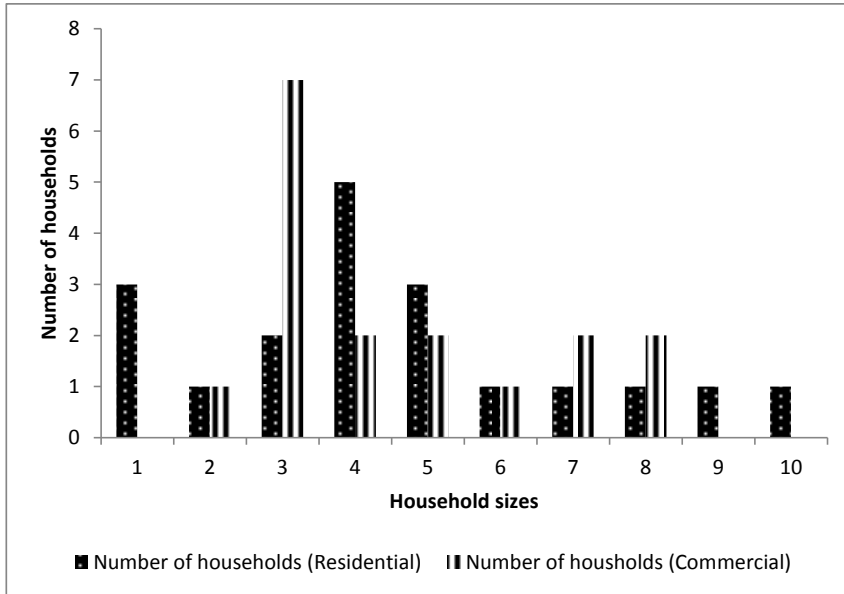


Figure 4: Household Sizes of the Project Affected Persons

3.2.3 Occupation of Affected Persons

The occupation of majority of the Project Affected Persons were small scale trading involving second hand clothes, plastic wares, vehicle spare parts, livestock sales etc. 56% of the PAPs were involved in this occupation. Other occupations of the PAPs include porters at the Progressive Transport owners Association (PROTOA), Motorbike riders, food vendors, carpenters, hairdressers, drinking spot operators and others as shown in Figure 5 below.

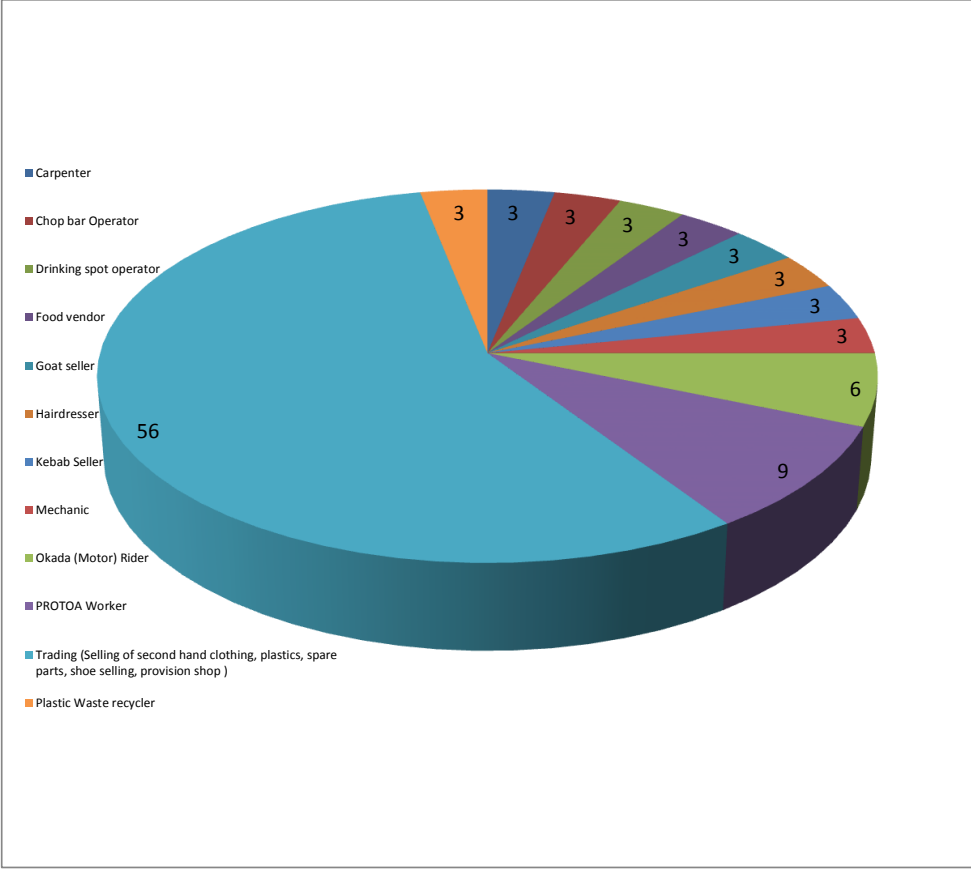


Figure 5: Occupations of Project Affected Persons

3.2.4 Project-Affected Properties

The project traverses in a built up area in an existing ECG15m RoW. The main properties that the project will have impact on are as follows:

1. Wooden kiosk with wooden base & corrugated iron roofing sheet for Commercial and Residential
2. Metal kiosk with concrete base & corrugated iron roofing sheet for Commercial and Residential
3. Metal Container with concrete base & corrugated iron roofing sheet for Commercial Only

4. Shed for Livestock trading for Commercial Only
5. Wooden kiosk with wooden base & corrugated iron roofing sheet for Residential Only
6. Wooden kiosk with concrete base & corrugated iron roofing sheet for Residential Only

4.0 SITE SELECTION, SITE PREPARATION AND LOCATION

In all, ninety-seven (97) structures are to be affected by the project. For some of these, only parts of structures fall within the RoW and would require demolition and re-construction.

The various locations where the structures are sited and the number is as indicated in Tables 1, 2 and Figure 1.

Following discussions with the affected persons, they confirmed the availability of land in the same vicinity outside the 15m corridor for re-construction of the building and therefore would not require re-location of persons. The PAPs will therefore make individual decision relocation for an allocation of a parcel of land after the necessary arrangements are put in place. There would therefore be no need for identifying new sites for construction of building for the affected persons.

With respect to kiosks and container stalls, many of the of the containers can be pulled away from the 7.5 m away from the towers and can be allowed to be brought back not beyond 3.5 m away from the towers after construction. There will therefore be no need for new site selection and preparation for the project with respect to resettlement purposes. Further, there will be no integration with host communities with respect to this project.

4.1 HOUSING, INFRASTRUCTURE AND SOCIAL SERVICES

4.1.1 Buildings

Buildings are officially categorized for valuation purpose as "temporary", i.e., built only with ply wood or other wooden materials and corrugated iron roofs with wooden floor, "semi-permanent" with metal or wooden walls and corrugated iron roofs and concrete floor, and permanent (brick or concrete walls). All the affected buildings are either personally owned by the dwellers or rented from other people and all of them fall under temporary category.

A typical family house has 2 rooms with a total surface of approximately 9m², though there are some variations in the dimensions. Depending on the household's wealth, the floor may be wooden or concrete. Generally, houses have electricity but do not have

running water, toilets, or kitchen. The construction technique of a typical wooden house includes building the frame of the building with strong wooden poles, putting the roof in place, erecting the walls with smaller vertical and horizontal wooden poles arranged into grids, and filling this grid with pieces of plywood to fit the grids. The walls may eventually be painted with oil paint of individual choice of colour. All materials are locally available at the local market. Labour for construction is through community carpenters and self-help labour. Such a construction requires two to three weeks of work for a team of three. There is one large common community pipe, bathroom and toilet where member access these facilities at a cost.



Figure 6: Sample of Prevailing Structures in the proposed area

4.1.2 Public and Community Services

There are various churches and mosques within the communities along the transmission line project. These faith based organisations are however located outside the land acquisition boundary. Various recreational facilities exist and these are mostly recreational facilities in the individual kiosks within the area of influence of the project. This is notably drinking bars and local pubs.

4.1.3 Water and Power

Householders were asked where they obtain their water for drinking, cooking, washing themselves and washing clothes. Majority of them obtain water for drinking from the nearby community stand pipe, which is obtained by purchase. Water for washing is usually obtained from dug-out well pumped into a polytank by an individual who sells it to the general public.

Many of the houses in the communities are connected to the national grid and have electricity. Connection of electricity to individual households however is dependent on ability to pay. Most of the inhabitants depend on charcoal and gas for cooking.

4.1.4 Health, Education and Other Public Services

Network of Ghana Telecom (Vodafone), Tigo, Expresso, Glo, Zain and MTN Telecommunication providers extend to the project area and community members in these areas therefore have mobile phones for use for communicating purposes.

4.1.5 Transportation

Railway transport services exist to transport commuters and market women from one location to the other. Further, Private transportation services, known as "Trotro" (mini-buses) and taxis operate on the main roads. Bicycles and motorcycles are also other means of transportation.

4.2 General Demographic Information on Affected Persons

4.2.1 Age Distribution of Affected Persons

The ages of the affected persons interviewed ranged from 21 years to 70 years. The majority of the affected persons are in their productive (economic, social and biological) years of between 31 years and 40 years. Figure 7 gives impressions of the age distribution. This implies that a significant proportion of the affected population has financial and economic responsibilities. Thus, if the sources of livelihood of these people are to be adversely affected by the project, there have to be mitigation measures to ameliorate any economic and social implications before the implementation of the project. It is also important to note the implications of the project on the significant number of old people (50 years and older – 15.70%). Most of the aged are not strong enough to engage in any active social and economic activities for survival. Therefore any disruption in their economic and social lives without immediate measures to mitigate the possible impact is likely to hamper their survival.

During the inventory exercise, a number of project-affected persons of both genders were identified. The larger proportion of the affected population is composed of males at the commercial area but females dominated at residential area. Children and other dependents present in both commercial and residential areas (Tables 1 and 2).

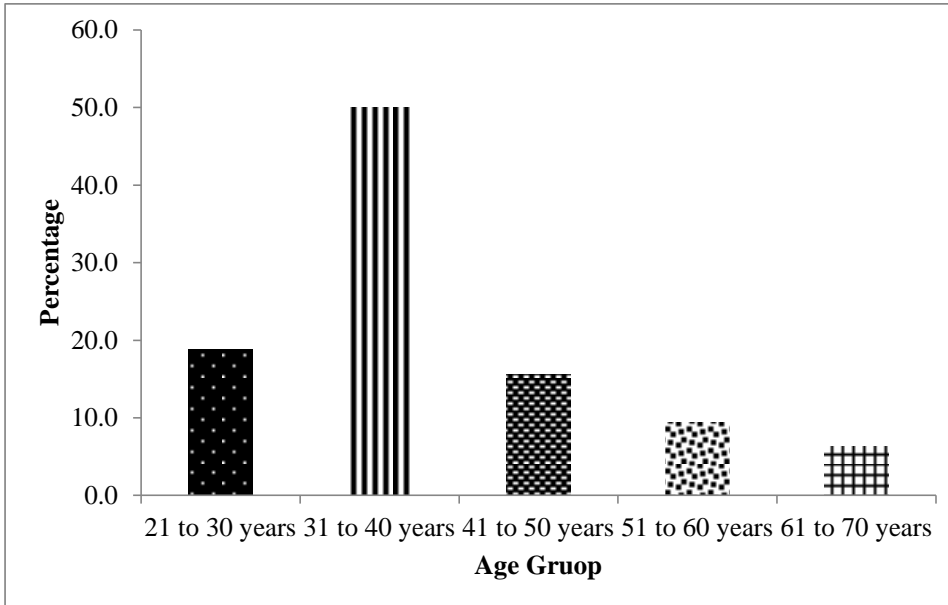


Figure 7: Age Distributions of Affected Persons

4.2.2 Ethnic background of some affected persons

The sub-metropolitan assembly is cosmopolitan consisting of several indigenous ethnic background and migrant people. Some of identified people come from Kwahu, Nkoranza, Tumu, Asante, Akim, Dagomba, Frafra and others.

5.0 IDENTIFICATION OF PROJECT IMPACTS

The International Finance Corporation (IFC) Guidance notes “resettlement planning involves more than simple cadastral surveys or inventories of affected assets”. A key initial task in planning resettlement is to “identify a project’s adverse impacts and the populations that will be affected”.

5.1 IMPACTS THAT GIVES RISE TO RESETTLEMENT

The principal components and activities of the project that has an impact on the resettlement zone of the project are:

5.1.1 Land Use and Settlement

The land use along the transmission line right of way is mainly the temporary residential area and small-scale trading area. Indications are that the area traversed by the project is intensively resided by squatters accommodating various members of an extended family and small-scale traders.

In accordance with LI 542 (Volta River Transmission Line Projection) Regulation, various land use activities would not be permitted in the RoW during the construction phase of the project. This is to make way for scheduled constructional activities to be carried out expeditiously. The uses of the land may continue after the completion of the project provided the owners of the land strictly adhere to regulations about the use of the ROW corridor.

5.1.2 Buildings

Buildings both residential and non-residential as well as other structures within the 7.5m from each side of the towers would be removed. This is to make way for construction to be carried out. Surveys carried out indicated that ninety-seven (97) structures/containers/kiosks will have to give way to facilitate the implementation of the project as shown in Table 14:

Table 14: Structures to be impacted

No.	Category of structure	Purpose	Total Number
1	Wooden kiosk with wooden base & corrugated iron roofing sheet	Commercial and Residential	13
2	Metal kiosk with concrete base and corrugated iron roofing sheet	Commercial and Residential	13
3	Metal Container with concrete base and corrugated iron roofing sheet	Commercial Only	10
4	Shed for Livestock trading	Commercial Only	3
5	Wooden kiosk with wooden base & corrugated iron roofing sheet	Residential Only	6
6	Wooden kiosk with concrete base & corrugated iron roofing sheet	Residential Only	52
	Total		97

5.1.3 Lands to Be Affected

As indicated, ownership of land will not be disturbed by the acquisition of the RoW for the project. The project is not a new one; it is the replacement of the existing towers. However, in some cases the restriction on the ownership will be somewhat permanent. The following are the lands, which are to be affected:

5.1.4 Tower sites

Areas where the towers will be replaced will be permanent loss. In all approximately eighteen (18) towers are to be replaced to carry the transmission line.

Since none of the occupants have a legitimate right of ownership because the area in question is the corridor of an existing transmission line for ECG. The structures to be affected would be valued with the cost of replacement and transportation of materials, at the present value.

5.1.5 Undeveloped accommodation land

As generally planning regulations do not allow building under the transmission lines, these plots are rendered undevelopable by the project. Consequently, GRIDCo or its development partner is not under legal obligation to pay the value of these plots since lands have already been acquired by Electricity Company of Ghana (ECG). During the initial inventorisation, no parcels of land were identified. Information gathered that the lands adjacent to the existing ECG line belong to the Ghana Railway Corporation Authority. The ownership rights are however yet to be established as evidence of titles is yet to be authenticated.

5.2 Impacts on Population and Demography

The project is not expected to have any significant adverse impacts on the size of the populations within the communities. At its peak, the project will require about 50 workers. Out of this number, 60% –70%, which will usually be unskilled labour, may be employed from among the local communities. The skilled workers from outside the communities will be about 40 in number. The workers will be all males but their numbers are such that this would not alter the gender balance within the communities to any appreciable extent. The ethnic composition of the affected persons shows that most of them are not indigenes of the affected communities and this will not be significantly altered during the duration of the project implementation phases.

5.3 Impacts on Employment and Incomes

The project is expected to provide direct job opportunities for about 10-50 persons from the local communities. They will be used mainly as labourers and for the main non-specialized tasks such as watchmen and bush clearing. This will be a positive impact on the communities. Some of the people will acquire skills on the job, which could lead

them to other opportunities when the project is over. During the operation and maintenance phase, contractors who will carry out line maintenance on behalf of GRIDCo would employ some of these people and this would be an additional benefit. Apart from these direct jobs, the project would also create indirect job opportunities like food vending and sale of petty items to the workers, which would be taken up mostly by women in the communities. Employment created by the project and the incidental indirect jobs created, such as petty trading and food vending, will help to boost the levels of incomes. This impact, though positive, will only be of a rather limited duration.

5.4 Impacts on Cultural/Religious Properties

In line with current international practice and the desire to ensure the sustainability of the environment within which the company operates, GRIDCo will, as much as possible, avoid intruding into or interfering with cultural properties of the local communities as much as possible.

In the line route selection, a deliberate effort was made to avoid all cultural and religious properties along the corridor. However, in compliance with the requirement of the World Bank Group and other stakeholders, a decision would be taken by GRIDCo or development partner to realign the proposed transmission line as the first option in such a way that those sensitive properties that may not have been initially captured will be avoided by introducing strong angle towers at the appropriate places.

The implementation of the proposed projects has the potential to impact on cultural properties and historical sites and items. Issues regarding cultural properties and the possibility of cultural and/or archaeological ‘chance finds’ are considered to be significant and require mitigation. There is also the potential to intrude into or interfere with the cultural properties of some local communities. No significant cultural property is known to be affected by the reinforcement project as at the time of compiling the Resettlement action plan.

5.5 Project-Affected Households

For the purposes of designing the resettlement program, a distinction is drawn between physically displaced households and economically displaced households in the Project Area, defined as follows:

Physically displaced, or resident households, are those inhabitants occupying a house in the RoW, built on or before the period of assessment, as the primary or sole residence. These households will have to move from the Project Area (physical displacement), and will almost always have their livelihoods impacted by the Project (economic displacement).

Economically displaced households are those whose livelihoods are impacted by the project. This can include both resident households, and people living outside the Project Area but having land, non-resident structures, businesses or various usage rights there.

The Company has identified 35 affected households with a total population of 177 (~5.1 persons/household). This can be broken down 18 households with a total population of 100 persons (~5.5 persons/household) were identified to own and reside in structures within 15m x 15m area plus additional 17 households with a population of 77 persons (~4.5 persons/household) that own commercial structure but do not necessarily live within the area.

These households:

- Own a total of 58 completed occupied residential structures in the project area (within the 15m x 15m area of the tower)
- Own a total of 39 businesses, comprising kiosks, containers and sheds

5.6 Project-Affected Public Facilities

Public facilities located in the Project Area include mosques, public toilet and bathhouse and meeting/ drinking place. These public facilities may not be directly physically displaced by the Project, since these facilities are on the RoW but not within the 5m x 15m area.

6.0 PROPOSED MITIGATION MEASURES

The project is expected to have diverse socio-economic impacts as it traverses temporal settlements. It needs to be stressed that, being a linear project entire bigger area will not be affected thus occasioning group resettlement along the proposed corridor. GRIDCo will ensure that the impacts on individuals are minimized; several measures have been instituted to address the extent of the effect of the project on the people in the zone of influence. Among these are the following:

6.1 Routing of the line

As much as possible, the line route was selected to minimize the amount of compensation to be paid for acquisition of land. In this case, there is an existing 33kV ECG corridor that would be used for the proposed project that the project will up-grade with 161kV.

6.2 Minimization of Constructional Damages

Conscious efforts would be made by GRIDCo to reduce constructional damages. To this end, the technical construction method of lattice type tower is proposed so that only structures within the 15m x 15m area around towers would be cleared. To ensure that the interest of the occupant is considered, they are advised to remove all the structures that could be of benefit to them although compensation would be paid for resettlements.

Destruction would be kept to the barest minimum and property owners or structure owners would be duly consulted and given adequate notification before construction. Owners of structures would be paid fully and would also be permitted to salvage any materials for re-use if they so wish. Such retrieved materials become bonus to the house owners.

6.3 Land Ownership Impacts

Acquiring RoW will not have a significant impact on land ownership. As only the right-of-way is acquired for the project, title to the land is not affected. Thus the owners will continue to retain their ownership of their various parcels. Anytime the line is decommissioned, the land reverts to the owner from whom the land was taken automatically.

6.4 Construction of site offices

There are existing offices of ECG; therefore GRIDCo would take advantage of these offices to administer the project. However, when the need arise arrangements would be made to reconstruct a temporary one for the project.

6.5 Storage and transportation of equipment and materials

Almost all the materials to be used for the construction of the transmission line will be imported. Such components include tower steel and its components in broken down form, conductors, insulators, transformers, switchgear, etc. Materials that will be procured locally will include aggregates, cement, sand, stone and other miscellaneous supplies and services.

It must be noted that the materials for the towers will not be bulky and unwieldy. They will therefore not require any specialized vehicles. During construction, the materials will be transported to the site via public roads and access tracks. Vehicular movements will be minimal since the proposed line would be constructed over a relatively shorter distances. Materials will be stored at any of the two stations of ECG depending on where it would be most convenient and suitable

6.6 Check survey of line route

Following the award of contract for physical construction, check survey inspections have been undertaken to determine the environmental and social impacts and the state of developments within the RoW to allow for smooth implementation of the project. The methodologies used were as follows:

- Traversing the line route
- Visiting almost all the areas that have been noted to have some obstructions.
- Holding discussions with property owners who happen to be on site at the time of the visits.
- Reconnaissance to ascertain the possibility of diverting the line from properties within the RoW to avoid destruction.

6.7 Clearing of right-of-way

The conventional Right of Way (RoW) for this project is 30m (15m ECG RoW plus 15m adjoining lands also belonging to Ghana Railway Authority), however, the main issues for the RAP arise in the 15m x 15m area around the ECG towers encumbered with structures that would be cleared to give away for construction. This is intended to reduce the level of environmental and socio-economic impact of the proposed project and subsequently reduce the number of project-affected persons as well as affected households by technical construction method of lattice type steel tower.

During construction, not the entire 30m will be cleared of any encumbrances especially structures but the 15m x 15m area around the existing ECG towers from Avenor to ECG station E will be cleared of all structures to give free space for constructional activities.

6.8 Tower spotting

Tower spotting is the determination of the individual sites for the installation of the towers and this takes place over the whole length of the transmission line to identify the optimum foundation design for each tower. Activities that go along with tower spotting will include final survey and soil investigation, though the existing towers have been proposed to be replaced.

The selection of the foundation design type will follow the collection and analysis of the data of each tower location after soil investigations. At this stage minor adjustments may be made to the final tower location, due to the vertical profile of the transmission line corridor, and to avoid buildings that may have been constructed subsequent to the collection of baseline data on structures in the proposed RoW. Such adjustments will be limited to a few meters in either direction.

6.9 Construction of access and tower corridor tracks

A 3m wide maintenance road will also be required along the length of the proposed power line route, which will be located within the 15m RoW. The maintenance road will not require any additional land take to the RoW, although this land-take will be permanent as the road will be required for both construction and operation of the line. Wherever practicable this road will be continuous along the length of the line, with the

exception of areas of difficult terrain such areas of close by permanent structures that would not necessary impede access of the route for maintenance. In these areas access will be obtained from either end of the area and there will be a break in the continuity of the road or be constricted. The tracks will be used for this phase of the project cycle for the transportation of material to the line route for the installation of towers and the stringing of the lines.

6.10 Clearing and excavation of tower base and foundation

Also to be cleared will be the proposed tower base areas. These will be selected spots within the RoW for mounting the towers. This total area to be cleared will not be in addition to the total area to be cleared for the RoW but will be within the RoW, however, this will involve permanent land take as the land will no longer be accessible for any other use.

The area to be cleared for a single tower will be made up of the dimensions of the tower base (5 m x 5 m) with an additional buffer of 2 m on two sides of the base, depending on the design of the individual towers. Tower foundations will vary according to the prevailing geology. A majority of them will however have footings of the pad and chimney type, which will be excavated mechanically. By this method, a concrete pad will be constructed at the bottom of the excavation, and each foot of the tower erected within its own 'chimney' of steel reinforced concrete. After about two days, the formwork will be removed, and the excavation will then be backfilled to original ground level and compacted.

The ground surfaces of the tower sites will be so graded as to gently provide drainage away from the tower legs and to avoid the collection of water (leading to the creation of stagnant pools) at the tower bases. Where necessary, (particularly on hillsides), terracing, cribbing or riprap may be used to provide protection for tower foundations.

In areas prone to flooding (swampy areas) a raft foundation for transmission line towers may be used. The raft foundation is similar in concept to the pad and chimney foundation except all four feet of each tower will be set on a single raft of concrete.

6.11 Erection of towers and stringing of transmission lines

After transporting the steelwork and its components from the yards to the site, erection of the transmission towers will proceed. Typically for GRIDCo, the average span between towers will be about 300–400 m giving a maximum number of towers for this project of about 10 maximum. The towers will have concrete footings with foundation depths of 2–3 m or more depending on the nature of soils at the selected tower spots. Once the towers are erected, the conductors and shield wires will be strung and appropriately ‘tensioned’ to provide the minimum clearance between ground level and the wires.

The proposed line is expected to cross overhead distribution power and transmission lines, public roads, and urban rivers tunnels. In crossing such lines, guard structures will be used when installing the conductor to ensure that the line does not cause hazards and nuisances to the public and construction staff alike. Due notification will be communicated to the appropriate authorities in cases where these lines will have to crossroads and utility lines.

7.0 LEGAL, REGULATORY AND POLICY FRAMEWORK

This RAP has been prepared to comply with the requirement of the Constitution of Ghana and the Lands (Statutory) Wayleaves Act of 1963 (Act 186), Environmental Protection Agency (EPA) and the World Bank Group (WBG) institutions and has therefore been prepared in accordance with WBG RAP requirement as indicated in OD 4.12 on “Involuntary Resettlement”. The main Ghanaian statutes laws applicable to the project area as stated below:

7.1 The Constitution of the Republic of Ghana, 1992

The 1992 Constitution gives maximum protection to individual property rights. Private properties are only to be taken where there is a compelling reason for the state to interfere with such rights. Article 20 establishes that no property “shall be compulsorily taken possession of or acquired by the State” unless it is, among various purposes, “to promote the public benefit” (Clause 1).

The Constitution also provides that where private lands are surrendered for public good, the affected owners must not be made worse off. It states that “Compulsory acquisition of property by the State shall only be made under a law which makes provision for (a) the prompt payment of fair and adequate compensation; and (b) a right of access to the High Court by any person who has an interest in or right over the property. Further, “where a compulsory acquisition or possession of land effected by the State in accordance with clause (1) of this article involves displacement of any inhabitants, the State shall resettle the displaced inhabitants on suitable alternative land with due regard for their economic well-being and social and cultural values” (Clause 3).

7.2 Volta River Authority (Transmission Line Protection) (Amendment)

Regulations, 2004 (LI 542)

VRA (Transmission Line Protection) Regulations, (1967) LI 542 provide security for Transmission Lines and ensure public safety. Define “transmission line right of way” and prohibit/restrict a number of activities in the RoW including farming, cultivation, mining and construction of buildings, which are only allowed with prior consent from the VRA.

VRA (Transmission Line Protection) (Amendment) Regulation, 2004 (LI 1737), which provides for the right of way distances for 69 kV, 161 kV, 225kV, 330 kV transmission lines. The RoW for 225 kV and 330 kV transmission towers is 40m, whilst that of 69kV and 161kV is 30m. This regulation prohibits a number of activities the RoW including mining, construction of buildings, and cultivation of some types of crops. The implementation of this regulation is ensured by the line maintenance and patrols team of GRIDCo in conjunction with the municipal/district assemblies, EPA of Ghana and where necessary Police task force.

7.3 The State Lands Act, 1962 (Act 125)

This Act vests in the President the authority to acquire land for the public good. The President “may, by Executive Instrument, declare any land specified in the instrument to be land required in the public interest” (Sect. 1-1). On the publication of an Instrument, the land shall, without any further assurance than this subsection, vest in the President on behalf of the Republic, free from any encumbrance whatsoever” (Sect. 1-3).

The State Lands Act 1962 places responsibility for registering a claim on the party affected, for it recognizes that it is only the affected person who can best establish the nature of his or her interest among others.

7.4 The Lands (Statutory Wayleaves) Regulations, 1964 (LI334)

Where a right of way must be established in the public interest, the President may declare the land to be subject to such statutory wayleave. On publication of a wayleave instrument specifying the area required, and without further assurance, the land shall be deemed to be subject to wayleave. This law restates the principles of the Lands (Statutory Wayleaves) Act of 1963, and establishes provisions for Wayleave Selection Committees to determine the optimal routing and to ensure that the selected way leave are consistent with town and country planning. The Avenor-Graphic road-interchange Transmission Project to reinforce power in Accra center is a “*linear*” project spanning approximately 3.0 km. The impacts arising from such a project affect a much wider area of influence.

7.5 The Ghana Land Policy, 1999

It provides guidelines and policy actions for land use (e.g., agriculture, forestry, extractive industry, settlement, and infrastructure). These guidelines are aimed at enhancing conservation and environmental quality, thus preserving options for present and future generations. Key objectives of the Land Policy, which are relevant to this Project, include: protection of the rights of landowners, ensuring payment, within a reasonable time, of fair and adequate compensation for land acquired; and promoting public awareness at all levels and community participation in sustainable land management.

7.7 The Environmental Protection Agency Act, 1994(Act 490)

It has been realized that the failure of many environmental policies in many countries has generally been as a result of exclusive concentration on the development of policies, laws and standards to the neglect of implementation including compliance and enforcement. Consequently, the Environmental Protection Agency (EPA) Act 1994 (Act 490) was promulgated by the Government of Ghana to replace the erstwhile Environmental Protection Council Decree (NRCD 239). The Act provided the Agency with the compliance and enforcement powers necessary for the achievement of the environmental policy objectives.

Act 490 established the authority, functions, structure and funding of the EPA and gave mandate to the Agency to ensure compliance of all investments and undertakings with all laid down Environmental Assessment (EA) procedures in the planning and execution of development projects, including compliance in respect of existing ones.

7.8 The Environmental Assessment Regulations, 1999 (LI 1652)

In order to give effect to provisions of the Act on environmental management, the Environmental Assessment Regulations 1999 (LI 1652) was enacted in February 1999, consistent with Section 28 of the Act 490. The LI sets out the requirements for environmental permitting, environmental impact assessment (EIA), the production of preliminary environmental reports (PERs) and subsequent environmental impact

statements (EISs), environmental certificates and environmental management plans (EMPs).

The legislative functions conferred on EPA by the Act, included the authority to request from categories of undertakings, enterprises, construction or development an environmental impact assessment and/or environmental management plan to regulate the type, quantity, conditions or concentrations of substances that may be released into the environment.

The Environmental Impact Assessment (EIA) procedure is not only a regulatory tool to be enforced pursuant to Section 24 of LI 1652, but also a compliance promotion tool to ensure effective preventive, minimization and mitigation of potential impact of industrial developments existing prior to and after the coming into force of LI 1652. Construction and operation of a bulk transmission lines is one of the undertakings for which an EIA is mandatory.

7.9 Electricity Company of Ghana (ECG), Act 461 of 1997

The Electricity Corporation of Ghana (ECG) was established by a decree (NLC Decree No.125) in 1967 and replaced the Electricity Department of the Ministry of Works and Housing. However, under the provisions of the Statutory Corporations (Conversions to Company) Act, 1993 (Act 461), ECG has since 1997 been converted into a limited liability company called Electricity Company of Ghana. Prior to 1987, ECG was responsible for distributing electricity throughout Ghana when it receives bulk supply from the VRA. The ECG's responsibility for distribution is now limited to the Ashanti, Western, Central, Eastern, Greater Accra and Volta Regions of Ghana.

7.10 Volta River Development Act, 2005, Act 692

Ghana's Power Sector Reforms culminated in the passing of the Amendment to VRA Act 46 in 2005. By the Volta River Development Act, 2005, Act 692, the power transmission functions of the VRA was transferred to a transmission utility company known as Ghana Grid Company Limited (GRIDCo). GRIDCo is now responsible for the entire national power evacuation and transmission infrastructure that VRA had hitherto

managed together with power generation. GRIDCo shall be responsible for co-managing the transmission line component with VRA during the operational phase.

7.11 Energy Commission Act (1997), Act 541

Act 541 established the Energy Commission and provided for its functions relating to the regulation, management, development and utilization of energy resources in Ghana; provide for the granting of licenses for the transmission, wholesale supply, distribution and sale of electricity and natural gas; refining, storage, bulk distribution, marketing and sale of petroleum products and to provide for related matters.

The provisions of the Energy Commission's 'PUBLIC NOTICE – EC N. 003' require the VRA to register the proposed project with the Commission and to obtain a permit prior to the commencement of construction of the proposed project. This permit is subject to the granting of an Environmental Permit by the EPA. A "Licensing Manual for Service Providers in the Electricity Supply Industry" was developed and issued by the Energy Commission of Ghana in 1996 to formally establish the framework for licensing electricity production, supply, and distribution and sale services in the power sector of Ghana as stipulated by the Energy Commission Act (Act 541), 1997.

7.12 Factories, Offices and Shops Act (1970) Act 328

Act 328 promotes and ensures the health, welfare and safety of persons employed in the country as well as the responsibilities of the employer. Under the Act, employers are required to ensure that a safe and healthy workplace is provided for the safety, health and welfare of all employees.

7.13 National Museums Decree (1969) NLCD 387

NLCD 387 provides for the care of any archaeological finds. This is the law governing the activities and operations of the National Museums and Monuments Board. Procedures to be followed on the discovery of any such artifacts are outlined in NLCD 387.

7.14 L.I. 1937: Electricity Regulations, 2008

The purpose of these Regulations is to provide for (a) the planning, expansion, safety criteria, reliability and cost effectiveness of the national interconnected transmission system; (b) the regulation of a wholesale electricity market; (c) the market operations of the electricity transmission utility; (d) the technical operations of the electricity transmission utility; (e) minimum standards and procedures for the construction and maintenance of facilities and installations; (f) the protection of the mains and electrical installations and services; (g) the protection of life and property and the general safety of the public in respect of electricity services; (h) minimum reserve margins to satisfy demand; and (i) the development and implementation of programmes for the conservation of electricity.

7.15 World Bank Group Safeguard Policies and Guidelines

a) The World Bank Operative Policy 4.12 on Involuntary Resettlement applicable to the project. The main features of this directive in relation to the project are as follows:

- i. All viable alternatives project designs should be explored to avoid or minimize the need for resettlement and where it cannot be avoided, to minimize the scale and impacts of resettlement;
- ii. Resettlement measures are to be conceived and executed as development activities providing sufficient resources to give the persons displaced the opportunity to share in the project benefits. Assistance should be given to the community in their efforts to improve former production levels, income earning capacity and living standards or at least restore them to the levels they would have been without the project;
- iii. Displaced persons should be
 - Compensated at full replacement cost prior to the actual move
 - Assisted in relocation
 - Assisted and supported during the transition period
 - Particular attention should be given to the vulnerable

Table 15 gives an overview of the World Bank and International Finance Corporations safeguard policies.

Table 15: World Bank Group And IFC Safeguard Policies: An Overview

Safeguard Policy	SUMMARY OF PROVISIONS
OP 4.01 Environmental Assessment	<ul style="list-style-type: none"> • All projects for World Bank Group funding require EA review/analysis to ensure that they are environmentally and socially sound/sustainable • An EA evaluates a projects potential environmental risks and impacts; examines projects alternatives; identifies ways of preventing, minimizing, mitigating or compensating for adverse environmental impacts and enhancing positive impacts • EA considers: the natural environmental (air, water and land); human health and safety; social aspects (involuntary resettlements, cultural property); as well as trans-boundary and global environmental aspects • Various instrument are used to perform the EA depending on the complexity of the project; an Environmental Impact Assessment (EIA), an Environmental audit, a Hazard or Risk Assessment, and/ or an Environmental Action Plan (EAP) • Projects are categorized based on environmental significance. Category ‘A’ Projects require a full EIA undertaken by independent EA experts. • Project sponsors for Category ‘A’ projects must prepare a public and Disclosure Plan (PCDP) and an Environmental Action Plan (EAP) . Project sponsor must consult project-affected groups and local NGOs at least twice: before TORs for EA are finalized and once a draft EA report is prepared. • During project implementation, the project sponsor reports on compliance with (a) measures as agreed

	<p>upon with IFC, including implementation of an EAP; (b) status of mitigative measures; and (c) the findings of monitoring programs.</p> <ul style="list-style-type: none"> • Aims to promote and support natural habitat conservation protection, maintenance, rehabilitation, and improved land use. • The World Bank Group does not support projects that involve significant conversion or degradation of critical natural habitats.
OP 4.04 Natural Habitats	<ul style="list-style-type: none"> • Where the impact to natural habitats is inevitable, there is an opportunity to identify an ‘offset’ as compensation
OP 4.09 Pest Management	<ul style="list-style-type: none"> • Supports the use of biological or environmental control methods rather than use of pesticides .If pesticides are required, the policy sets out the criteria for their use
OP 4.11 Cultural Property (World Bank) OD 11.03 Cultural Property (IFC)	<ul style="list-style-type: none"> • Projects should be in conformity with OPN 11.03. • Policy aims at assisting in the preservation, protection and enhancement of cultural properties and to avoid their elimination • ‘Cultural property’ definition includes unique environmental features with cultural values
OP 4.12 Involuntary Resettlement (World Bank) OD 4.30 Involuntary Resettlement (IFC)	<ul style="list-style-type: none"> • Projects must comply with OP 4.30 • Aims at avoiding or minimize the involuntary resettlement of people • Applied wherever land, housing or other resources are taken involuntarily from people • Projects sponsors must implement a Compensation Action Plan • RAP must address both physical resettlement and economic effects of displacement.

OP 4.36 Forestry	<ul style="list-style-type: none"><li data-bbox="521 388 1169 579">• Aims at reducing deforestation, enhanced the environmental contribution of forested areas, promote afforestation, reduce poverty and encourage economic development.
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8.0 ELIGIBILITY

In accordance with LI 542, a 15m right of way (RoW) also referred to as a right of way, will be required for the entire route, i.e. 7.5m on each side of the center of the line within which all encumbrances will be cleared to give way for constructional activities.

The land lying within the RoW will be subject to provisions of the L.I. 542, which prohibit a number of activities in the RoW, including mining, construction of buildings and cultivation or farming. Persons whose properties fall within the RoW have been identified through consultations with local government authorities, community members and property owners. Conventionally, affected persons will be allowed to move away movable properties away from the designated RoW or salvage some parts where possible prior to the securing of the RoW and undertaking of any physical activity.

8.1 Eligibility Criteria

This section provides information as well as spells out the criteria for determining their eligibility for compensation and other resettlement assistance. GRIDCo, in collaboration with LVD, carried out a census to identify the persons who will be affected by the transmission line. The completion of the census therefore marked the cut off-date for eligibility for compensation. Those who will come into the area after the cut-off date will not be eligible for compensation.

For purposes of determining eligibility criteria, displaced persons may be classified in one of the following groups, depending on the type of right they have to the land they occupy:

- The owners do not have title deeds but they have a ‘customary’ legal claim to it.
- Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets. This group of people mostly comprises those who have bought land or other immovable property but have not yet completed the process of Acquiring title deeds.
- The other group consists of those in legally established voluntary resettlement areas who have not yet reached the retirement age at which point they become eligible for title deeds.

- Those who have no recognizable legal right or claim to the land they are occupying. These are mostly encroachers into state land or those who might occupy customary land without permission or recognition by the local authority (chief).

8.2 Displaced Persons

The displacement of persons through the involuntary resettlement results from the following:

- (i) Relocation or loss of shelter;
- (ii) Loss of assets or access to assets; or
- (iii) Loss of income sources or means of livelihood, whether or not the affected persons must move to another location. Displaced persons, therefore, are those persons who, as a direct consequence of a project would either:
 - a) Physically relocate or lose their shelter
 - b) Lose their assets or access to assets, or
 - c) Lose a source of income or means of livelihood, whether or not they physically relocate to another place.

8.3 Project-Affected Persons

Project-affected persons (PAPs) include:

- Persons whose properties are partly or wholly affected (permanently or temporarily) by the proposed project.
- Persons whose premise and/or land is in part or totally affected (permanently or temporarily) by the proposed project.
- Persons whose crops (annual and perennial) are affected partly or totally by the proposed project.

9.0 VALUATION & COMPENSATION FOR LOSS OF ASSETS

Upon identification of the need for involuntary resettlement in a project, GRIDCo carried out a census to identify the persons affected by the project to determine who will be eligible for compensation, and to discourage inflow of people ineligible for compensation.

The Draft Resettlement Policy framework of GRIDCo sets out procedure for establishing the criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistance, which includes provisions of meaningful consultations with affected persons, local authorities, and specifies grievance mechanisms.

The Resettlement Policy Framework outlines the difference between World Bank's policy requirement and that of the Ghana Government. Despite the differences and to ensure best practices, GRIDCo has largely adopted the principles outlined in the World Bank's Operational Policy 4.12 and this has been the basis for preparing this Action Plan. In this regard the following principles and objectives would be applied:

1. Acquisition of land and other assets will be minimized as much as possible.
2. All PAPs residing or owning properties along an alignment or segment of alignment, as of the date of the baseline surveys, entitled to be provided with compensation sufficient to assist them to improve or at least maintain their pre-project living standards, income earning capacity and production levels.

Lack of legal rights to the assets lost will not bar the PAP from entitlement to such rehabilitation measures. The compensation to be provided is at replacement cost (market value) for houses and other affected structures and or land. Plans for acquisition of land and provision of compensation will be carried out in consultation with PAPs to ensure minimal disturbance. Entitlements will be provided to PAPs no later than one month prior to expected startup of works at respective project site.

9.1 Compensation and Resettlement

Prior to physical construction of the transmission line a survey and verification exercise were undertaken for all areas of land take which includes a referencing and inspection of

any buildings and other similar properties in the RoW that will have to be compensated. This process has culminated in the preparation of this Resettlement Action Plan, which provides for the identification of project-affected persons (PAPs), the valuation of the cost of affected properties and the replacement or compensation of those properties. Most of the PAPs have been identified and issues of compensation and involuntary resettlement appropriately addressed. Based on the issuance of an Environmental Permit from the EPA, GRIDCo shall go ahead and acquire the right-of-way to allow for entry as required under the Lands Statutory Wayleaves Act, Act 186 of 1963 and in compliance with all laws, regulations, operational directives and guidelines. Subsequently a “Notice of Entry” to the site for construction informing the general public will be published in the national dailies.

9.2 Resettlement procedure

The procedures used to ensure that all persons affected by the proposed transmission line project are catered for in line with World Bank’s Operational Policy 4.12 are as outlined below:

- Referencing of all properties, both crops and buildings, by officers of the Valuation Division of the Lands Commission (LVD) in collaboration with Lands Officers from GRIDCo.
- Assessment of the values would be done by the LVD and the valuation advice forwarded to GRIDCo.
- The assessed report would be vetted and corrections effected where necessary to ensure that the amounts are accurate and fair to the company. These would then be processed for payment.
- Offers would be made to the claimants on the basis of the LVD’s advice.
- Claimants dissatisfied with the offer have a right to petition for reconsideration. In this regard, such claimants are required to submit counter proposals supported by valuation prepared by private property valuers of their choice.
- The private valuers’ reports are considered by GRIDCo in conjunction with the LVD to ensure that claimants are treated fairly.

- Where necessary any agitated person would be invited to negotiate and arrive at acceptable figures.
- Where the parties, after all the negotiations, are not satisfied then they can seek redress at the court.

However, in the light of the concerns raised by the PAPs, and considering the current developments in participatory approach to resolving social conflicts, the following shall apply:

- The procedure for payment of compensation for affected persons shall be reviewed to ensure that “fair” compensation covers loss of future land use and that prices shall reflect the prevailing market values (economic rates).
- Since most of the PAPs are illiterates, District Assemblies, Unit Committees and other community-based organization’s shall be involved in the whole process to safeguard their interests.
- Compensation payments shall be handled promptly to avoid imposing undue hardship on the rural farmers and also avoid any conflicts with the communities.

9.3 Determination of values

GRIDCo has adopted the World Bank Operational Policy 4.12 that recommends the use of Replacement Cost method of valuation of assets. With regard to land and structures, “replacement cost” is defined as follows:

- For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
- For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.
- For houses and other structures, it is the market cost of the materials to build a replacement structure within an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of

transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes. The policy further states that "in determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset and where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard."

9.4 OVERVIEW OF GRIDCO'S ASSET VALUATION PRINCIPLES

The methodology for the calculation of crop compensation rates takes into account both the market value of agricultural produce, and the re-establishment period of perennial crops. It must be noted the computation of these values were based applicable rates prepared by the LVD. To ensure that the affected people are paid fair values, these rates will be adjusted to meet the actual replacement and market values of structures or other assets to be lost and also to meet the World Bank Standards. The categories of affected assets are provided in Table 16.

Table 16: Categories of Affected Assets

Asset Category	Types Of Loss	Types of Affected Persons	Compensation Strategy
Residential/ Commercial land	Loss of title and use	Stools, families, individuals, leases,	Cash payment at full market value or offer of replacement land.
	Loss of title and or restriction of use Restriction of use	Families, individuals, lessees, stools	Cash payment at full market value. Payment for diminution in value
Structures	House or living	Families,	Cash payment at full

	quarters	individuals	replacement cost or offer of Replacement houses.
Community and cultural sites	Schools, community centers, markets, health centers,	Communities	Construction of Replacement properties at suitable sites.
	Shrines, other religious symbols or sites.	Communities, Religious bodies	Pacification rites/full payments for replacement.
	Places of worship (church, temple, mosque)	Trustees.	Construction of replacement properties at suitable sites.
	Cemeteries, burial sites	Communities	Offer of equivalent land and pacification rites.
	Rights to food, medicines and natural resources	Communities	Payment in kind/cash based on negotiation.
Infrastructure	Roads, bridges, utilities	Communities	Repairs, rehabilitation or replacement
Environment related	Losses due to Environmental impacts that might result from land acquisition or from the programme itself.	Communities	Repairs, rehabilitation or replacement
Structures	Structure used in commercial/Business/ Industrial activity. Unapproved structures	Squatters	Resettlement assistance
	Displacement from	Affected	Full compensation on

	rented or occupied commercial/business premises	persons	establishment of nature of loss.
Income and Livelihood	Income from wage earnings Income from affected business	Affected Person, Affected business	Cash compensation equal to six (6) months' income if loss is permanent. If temporal then for the period interruption.

9.5 Comparison of Internal, National and International Practices

Where conflicts exist, international practice dictates that project proponents demonstrate how they will “bridge the gap” between domestic requirements and international practice. Bridging the gap is at the core of this RAP. The table 17 displays the requirements of domestic regulations with the requirement set out by the World Bank Group on resettlement.

Table 17: Comparison of International, National and International Practices

RESETTLEMENT TOPIC	GHANAIAN LEGISLATION REQUIREMENT (CONSTITUTION AND MINERALS AND MINING ACT)	INTERNATIONAL POLICY REQUIREMENT (OP 4.12)
Timing of compensation	Prompt	Prior to resettlement
Calculation of compensation	Fair and adequate. The Wayleave act mandates the Land Valuation board to determine the values.	Replacement value for loss of assets.
Squatters	No provision. Are deemed ineligible.	Provision for lack of legal title or recognized land tenure in the form of Resettlement assistance.

Resettlement	Displaced persons are to be resettled on suitable land with due regard for their economic well-being and social and cultural values.	Replacement land is to be at least equivalent to the productive potential and location advantages of land held prior to resettlement
Resettlement Assistance	No provision	Assistance with the movement and support during the transition period and the resettlement site. Assistance with reestablishing access to resources
Vulnerable groups	Owner/occupier must be given one week notice of the intent to enter followed by 24 hrs notice before actual entry	Consultation process must be institutionalized through regular meetings between project officials and communities. Laws and regulations on compensation must be publicized among people to be displaced.

9.6 Asset Valuation Principles

The asset valuation principles try to take into account the type of asset under each category as each type has valuation characteristics, which are peculiar to it. Thus, in valuing assets, the following principles were used as a guide:

- Valuation of assets was undertaken by qualified valuation professionals.
- Valuation of assets is arrived at as replacement cost plus transaction costs.
- Depreciation of structures and assets should not be taken into account.

- Cash compensation levels should be sufficient to replace the lost property such as land and other assets at full replacement cost in local markets.

9.7 Entitlement Policy

All project-affected persons (PAPs) are entitled to the following types of compensation and rehabilitation measures (Table 18):

a) PAPs losing residential land and structures

- The mechanism for compensating loss of residential land and structures will be Cash compensation reflecting full replacement cost of the structures without depreciation.
- Where a portion of the land to be lost represents 20% or more of the total area of the residential land area, and the remaining land is still viable for economic holding, the PAP will not be entitled to compensation
- If the residential land and/or structure is only partially being affected by the Project and the remaining residential land is not sufficient to rebuild the residential structure lost, then at the request of the PAP the entire residential land and structure will be acquired at full replacement cost, without depreciation.
- Tenants, who have leased a house for residential purposes will be provided with a cash grant, and will be assisted in identifying alternative accommodation.

Table 18: Entitlement Matrix

Type of loss/ impact	Eligible persons/type of affected persons	Location of Affected Structures and Persons	Entitlements	Responsible Organization
COMMERCIAL/RESIDENTIAL STRUCTURES: Wooden kiosk with wooden base & corrugated iron roofing sheet	Owners and families of the structures	N6; N9; N14	Cash payment at full market value for reconstruction of the structures.	GRIDCo
COMMERCIAL/RESIDENTIAL STRUCTURES: Metal kiosk with concrete base and corrugated iron roofing sheet	Owners and families of the structures	N2; N4; N6; N9; N14	Cash payment at full market value for reconstruction of the structures.	GRIDCo
COMMERCIAL STRUCTURES: Metal Container with concrete base and corrugated iron roofing sheet	Owners of the structures	N6; N9; N14;N4	Cash payment at full market value for reconstruction of the structures.	GRIDCo
COMMERCIAL STRUCTURES: Shed for Livestock trading	Owners of the structures	N4	Cash payment at full market value for reconstruction of the structures.	GRIDCo
RESIDENTIAL STRUCTURES: Wooden kiosk with wooden base & corrugated iron roofing sheet	Families and owners of the structures	N15, N14, N9,N6, N10	Cash payment at full market value for reconstruction of the structures.	GRIDCo

RESIDENTIAL STRUCTURES: Wooden kiosk with concrete base & corrugated iron roofing sheet for residential	Families and owners of the structures	N15, N14,N9	Cash payment at full market value for reconstruction of the structures.	GRIDCo
Titles to commercial structures	Owners of commercial structures	N14, N9, N4, N6	Cash payment at full market value for reconstruction of the structures.	GRIDCo
Loss of Income (Permanent or Temporary)	Owners and employers depending on commercial Structures inside the RoW with or without permit for a living	N2; N4; N6; N9; N14	Cash payment equal to six (6) months income if loss is permanent. If temporal then for the period interrupted.	GRIDCo
Vulnerable persons	Persons identified as vulnerable		Cash payment for the period of interruption	GRIDCo
Infrastructure: Roads, Bridges, Utilities around the project sites	Communities	General public	Repairs, rehabilitation or replacement (restore or relocate)	GRIDCo
Environment related i.e., losses due to environmental impacts that might result from the programme itself around the project sites	Communities	General public	Replacement or restoration	GRIDCo
Community infrastructure around the project sites	Schools, community centers, market	Communities	Construction of replacement properties at suitable sites.	GRIDCo
Cultural sites: Shrines or other religious symbols around the	Communities and religious leaders	Communities	Pacification rites or full payment for replacement	GRIDCo

project sites				
Cultural Sites: Places of worship around the project sites	Church, Temple, Mosque	Trustees	Construction of replacement properties at suitable sites	GRIDCo
Impacts during Construction	To be determined	To be determined	<p>Cash payment of rental for land outside of the ROW which will not be less than the net income that would have been derived from the affected property during disruption. Restoration of land within 3 months after use.</p> <ul style="list-style-type: none"> • Land outside of the ROW that is adversely impacted by construction activities will be compensated in cash or in-kind at replacement cost. 	Contractors

9.8 Valuation of Structures

Field inspections were carried out to reveal that impacts on structures along the entire 3km route of the transmission line. The consultant and LVD determine replacement cost based on the current price of building materials. In this method, calculating the amount of material necessary for structures of different types provides a unit value per square meter that is multiplied by the area of the structure to be taken in order to establish the value of each structure.

Since the proposed line traverses temporal structures/areas, these estimated amounts are verified with local housing prices and the materials used. In addition, the value of lands was not included in the valuation of the 97 structures because the lands belong to ECG as their 33kv distribution RoW and the adjoining lands also belong to the Ghana Railway Authority.

In the determination of the replacement cost, depreciation is disregarded. Additionally, a percentage of the Capital Value of the structure may be added to cover legitimate costs incurred by the PAP in locating replacement land or structures and any incidental expenses that may incur due to the acquisition of the land. This is known as the disturbance allowance.

9.9 Strategies for Payment of Compensation

In line with the legal regime in the Ghana and in conformity with International Standards, all properties such as buildings, lands, and crops shall be duly compensated for, in accordance with the provisions of the law, at the appropriate replacement values in line with GRIDCo/Land Valuation Division (LVD) of Lands Commission procedures, in addition to its compliance with World Bank Standards on involuntary resettlement. Referencing of all properties, was conducted by a valuation professional and a certified Valuer in collaboration with officers of the LVD and monitored by the Property Impact Assessment Consultant/GRIDCo Lands Management staff. The inspections were carefully and meticulously done to ensure that all affected properties and their details are captured the evaluation teams.

Assessment of the values as indicated in the report was done by the Consultant and the valuation advice would be forwarded to the proponent. The proponent also carries its own internal assessment of the fair amounts to be paid to each of the affected owners. This is to ensure that the values are consistent and fair to the project affected persons. The PAP does also have the right to engage private valuation consultants to advice on the values of their affected properties. The cost of such services is however not borne by the PAPs but by the acquiring agency and in this case, GRIDCo or their donor Agency.

9.10 Beneficiaries of Compensation

By constitution of Ghana, any person or persons who could establish that his/her interests or rights to any land affected by a state project is to be paid fair and adequate compensation. Accordingly all the various interest holders are to be paid to make up for the loss of interests once the level of impact is substantial.

9.11 Negotiation of Agreements

Eligibility to resettlement and compensation is based on the census undertaken during the project and is proportionate to the level of impact suffered by each PAP. All affected physical structures are compensated for based on the detailed count that was carried out at the census stage. Damaged physical structures during constructional would be compensated for too. Valuation is based on counts made during the census with an applicable official rate. Negotiation of agreements between GRIDCo or Donor Agency and project-affected persons is to discuss the physical asset inventory and the unit price per area of the property.

9.12 Resettlement Measures

Countries all over the world are increasingly having in place adequate measures aimed at putting land and its resources to uses that are beneficial not only for the present generation but for future generations as well. Again it has been recognized that having reliable records on land in terms of use, tenure and value assist governments in the exercise of their vital function of overall administration and control of land in the interest of development. Without such vital information, timely identification and reform of the

many defects in existing systems of land legislation, tenure and use is rendered difficult if not impossible.

The reasons for this are as follows:

(1) Rapid population growth especially in the developing world, technological development, the fixed nature of land and the varied but competing uses for this resource have all acted as catalysts for the development of these measures.

(2) The complexity of overall administration and control of the land structure increases with the pace of development. It is now an accepted fact that governments cannot afford not to have policies in place for land records and management.

GRIDCo has completed an inventory of all affected properties and a census of many of those whose properties are to be affected. The inventory includes baseline information as well as the detailed compensation and other entitlements for each PAP. The list of affected properties is provided in Appendix III. The inventory of all affected properties, buildings and other structures are provided as part of Appendix III and Figure 6, which shows pictures of affected buildings and structures within the RoW. These activities have therefore been undertaken in line with the national and international standards of involuntary resettlement.

10.0 IDENTIFICATION OF THE VULNERABLE

The Fourth Ghana Living Standards Survey (GLSS 4) defines extremely poor as those whose living standard is not sufficient to meet their nutritional requirements, even if they devote their entire consumption budget to food. On a national basis, GLSS 4 identified the following groups as including the extremely poor, the vulnerable and the excluded:

- Rural agricultural producers, especial migrant workers and sharecroppers
- Children in difficult circumstances
- persons living with HIV/AIDS
- Displaced communities, including communities affected by mining
- Disadvantaged women, particularly single mothers
- The elderly
- Physically challenged persons
- Persons suffering from chronic debilitating disease
- Drug addicts
- Victims of abuse and harmful traditional practices
- Unemployed, especially unskilled retrenched workers and the unemployed youth.

If 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.

Resettlement especially stresses on persons and households that are:

- Without adequate income or assets
- Without sufficient family support, e.g. children, without adults for support, elderly persons, without working adults for support, single parents, especially single mothers; stigmatized due to gender, ethnicity, occupation, illness.
- Highly dependent due to age (the elderly and children), mental or physical disability.
- Caretakers or sharecroppers with no buildings or fields of their own, or who are losing all the land they work.
- Poor female-headed households without extended family support.
- Elderly poor, especially those without extended family support.

International experience is that the dominant risks of involuntary resettlement in general are landlessness, joblessness, homelessness, economic setback, increased morbidity and

mortality, food insecurity/malnutrition, social disorganization, loss of common property. Several risks are often realized simultaneously e.g. loss of land, employment, home, in a deteriorating social structure. This course tends to drive those already living close to the edge, over the edge.

Vulnerable PAPs in this case may include but not limited to the following categories:

- Disabled people or people suffering from severe diseases (physically challenged)
- The elderly and physically weak
- Those PAPs who have a substantial part of their properties affected but no other source of livelihood. The assessors collect complete information for the physical asset inventory and assess the level of vulnerability through interactions with community elders, physical observations and through the administered questionnaires, in some cases.

Thus, the full complementary socio-economic information on each affected family is captured and assessed to arrive at the proportion of vulnerable families among the affected PAPs.

10.1 Mechanism for Selection of Vulnerable

The following issues are considered in evaluating the PAPs who are highly susceptible and would be adversely affected by the project.

- Field findings: total size of land loss
- Estimate of vulnerable population
- the elderly persons, widows and orphans
- Women and children at risk of being dispossessed of their productive assets.
- Household strength
- Disability or disadvantaged PAPs

In all 14 persons were identified as vulnerable in the project are which include four (4) and three (3) older males and females respectively; two (2) male and two (2) female children while two (2) adult females (Appendix IV).

10.2 Level of Assistance

Assistance to vulnerable may include the following:

- Identification of persons and cause of vulnerability (information to be gathered directly from the communities)
- Assessment of impact suffered in relation to the whole
- Identification of required assistance through interactions with the identified vulnerable (e.g. going to the bank with the person to cash the cheque, assistance in post payment period to secure the money, monetary assistance, etc)
- Implementation of assistance
- Monitoring

To ensure that the project is perfectly managed to its logical conclusion, the necessary budgetary provisions would be made to ensure that mitigation commitments (including compensation) and monitoring programs can be implemented effectively.

Selection Committee, traditional authorities, local notables, neighbours, and extended family elders in order to craft a resolution. Many of these people may be risk-averse and may lack the dynamism, initiative, and to move and re-establish in a new location and undertake new vocation. Women and households headed by them are likely to suffer more than men because the compensation is often paid to the men.

For the reinforcement of power supply to Accra Project, the vulnerable people have been identified as the property impact assessment was undertaken between December, 2014 - January, 2015. The list of the vulnerable is being compiled and added as Appendix IV.

11.0 ENVIRONMENTAL PROTECTION AND MANAGEMENT

The “Reinforcement of Accra Power project” is one that is classified as requiring an environmental assessment and involving involuntary resettlement. It is expected that the project shall involve an influx of workers into the project area which has concomitant impacts on both the environment and the resettlement programme. Constructive environmental management, provided through the environmental assessment provides good opportunities and benefits to resettles and surrounding populations.

The methods adopted in identifying the impacts to be associated with the proposed project, and its assessment were based on information gathered during community durbars, surveys, analysis and results of the biological, physical and socio-economic and cultural data and consultations with stakeholders. The main impacts of the project will be on the inhabitants in the settlements within the project area. Field studies were conducted to assess those aspects of the socio-economic/cultural environment that would be most impacted by the project.

The project is expected to have diverse socio-economic impacts as it traverses many settlements.

To ensure that the impacts on individuals are minimized, several measures have been instituted to address the extent of the effect of the project on the communities. This section provides information of the assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage the involuntary resettlement impacts.

11.1 USE OF EXISTING ACCESS TRACKS

As a practice uses of existing and available tracts and footpaths to provide access for the surveyors and the construction team to access the transmission line route where there is an obstruction within the RoW to allow for the creation of continuous access tracks. Under this project a number of such existing access routes shall be used. This is to reduce destruction of structures and other properties. Where such paths are not available, construction team will carefully select an access where no or minimal destruction will be caused to properties.

11.2 Contractual Obligations

Contractors engage for the construction of the transmission line and the substation components of the project. Consulting firms are also engaged to assist in project supervision and management. The firms shall be responsible for identifying and establishing site offices for project implementation purposes. As part of the contractual arrangements, contractors are required to submit Construction Environmental Management Plans (EMP). The Contractor's EMP includes, to the extent practicable, all to be taken by the Contractor to protect the environment in accordance with the current provisions of national environmental regulations and/or the EIA/EMP for this project.

Notwithstanding the Contractor's obligation spelt out above, the Contractor shall, in addition, endeavor to implement all measures necessary to restore the project sites to acceptable standards and abide by environmental performance indicators specified in the EIA/EMP to measure progress towards achieving objectives during execution or upon completion of any works.

These measures include but not limited to the following:

- a) Minimizing the effect of dust on the surrounding environment resulting from earth mixing sites, asphalt mixing sites, dispersing coal ashes, vibrating equipment, temporary access roads, etc. to ensure safety, health and the protection of workers and communities living downwind of dust generating activities.
- b) Ensuring that noise levels emanating from machinery, vehicles and noisy construction activities are kept at a minimum for the safety, health and protection of workers within the vicinity of high noise levels and communities near rock-blasting areas.
- c) Ensuring that existing water flow regimes in rivers, streams and other natural is maintained and/or re-established where they are disrupted due to civil works being carried out.
- d) Preventing bitumen, oils, lubricants and waste water used/produced during the execution of works from entering into rivers, streams and other natural water bodies/reservoirs and also ensure that stagnant water in uncovered borrow pits is treated in the best way to avoid creating possible breeding grounds for mosquitoes.
- f) Ensuring that the discovery of ancient heritage, relics or anything that might or believed to be of archaeological or historical importance during the execution of works is

reported to the Museums and Monuments Board/National Commission on Culture(NCC) in fulfillment of measures aimed at protecting such historical or archaeological resources.

i) Ensuring that garbage, sanitation and drinking water facilities are provided in construction workers camps.

j) Ensuring that in as much as possible, local materials are utilized to avoid importation of foreign material and long distance transportation.

k) Ensuring public safety and meeting traffic safety requirements for the operation of moving machinery in order to avoid accidents.

l) Discouraging the use of foul or infuriating words on project-affected persons (PAPs) or any other persons seeking information on the project by construction workers. All such persons and grievances should be politely referred to the appropriate authority for redress.

12.0 ORGANISATIONAL RESPONSIBILITIES

12.1 General Organization for Implementation

The general organization of the resettlement action plan will be based on inputs from the following institutions:

- i. GRIDCo will be entirely responsible for the plan, and will implement it with its own teams and means;
- ii. LVD will participate in the final valuation of the properties on behalf of the Government of Ghana
- iii. Greater Accra Regional Coordinating Council will be responsible for the formation of the Wayleaves Selection Committee for the acquisition of the RoW.
- iv. External valuers will assess the process on technical, socio-economical and financial aspects, on request of one of PAPs, or on GRIDCo request.

12.2 Description of GRIDCo Organization for the Resettlement

GRIDCo has constituted a project implementation unit (PIU) to implement all projects under which jurisdiction the Avenor-Graphic road Project falls. The PIU is led by the Director, Engineering and supported by key personnel from GRIDCo as well as external consultants.

In pursuance of the objective of ensuring compliance with the commitments made in the RAP, a Project Acquisition and Environmental Coordinator (PAEC) responsible for compensation and acquisition and monitoring of environmental issues is appointed from the Engineering Department (Lands Management) to coordinate resettlement issues of the Project. The PAEC serves as a liaison between GRIDCo and other key departments.

The Director, Engineering as well as other key officers of the Engineering Dept. ensures that quality work is provided by the PAEC to the project. The PAEC reports on projects through the Manager, Lands Management to the Director, Engineering who in turn reports on all resettlement issues concerning the project. A Project Resettlement Officer (PRO) responsible for monitoring and compliance from the Acquisition Unit of the Lands Management Section provides general assistance in the compensation and acquisition processes.

12.3 Main Participants in The Resettlement Action Plan And Their Roles

Ghana Grid Company Limited

- Take full responsibility for the implementation of the compensation/resettlement plan and implement it with its own teams
- Consult with, sensitize and inform the Project Affected People
- Undertake valuation and other resettlement requirements
- Pay for compensation
- Coordinate with other institutions involved
- Organize and implement monitoring and assistance to vulnerable people

Greater Accra Regional Coordinating Council

- Organize the Wayleaves Selection Committee Meetings
- Participate in the monitoring and in the external evaluation

Valuation Division of the Lands Commission, Accra.

- Participate in the process of land acquisition and transfer of titles as the final owner of land to be acquired
- Witness the whole process of compensation and resettlement
- Participate in the monitoring and in the external audits

Ghana Commercial Bank

- Provide banking services for the payment of compensation to PAPs

Sub-Metropolitan Assembly/Community Elders

- Provide continuous project sensitization and the dissemination of information to the affected communities
- Participate in community discussions and computation and payment of compensation to the affected persons.

13.0 IMPLEMENTATION SCHEDULE

Implementation of the RAP shall commence following the financial close for the project with funding agencies. It is programmed that compensation payments would be completed prior to commencement of physical construction.

The implementation phase is planned over a period of eighteen months. The programme makes allowance for building owners to have sufficient time to construct their houses before they are demolished. Further to that, properties outside the 15m x 15m area around the towers that may be affected would have to be identified, assessed and paid for within that period. Monitoring and assistance will continue with less staff for another two-year period.

The stated duration would allow GRIDCo to monitor the impacts during construction and address them.

Table 19: Implementation Schedule

Activity	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Detailed measurement Stage	■	■																
Replacement Cost Study, Compensation calculation			■	■	■	■												
RAP updating and budgeting			■	■	■	■												
Institutional Arrangements			■	■	■	■	■	■										
Public disclosure of final RAP									■	■								
Negotiation and Contract with PAPs											■							
Budget Disbursement and Payment												■	■	■	■	■	■	■
Relocation of PAPs												■	■	■	■	■	■	■
Socio-economic rehabilitation Program												■	■	■	■	■	■	■
Monitory and Evaluation												■	■	■	■	■	■	■

Table 20: Institutional responsibilities for each component

Activity	Responsible Institution
Detailed measurement Stage	Independent consultant
Replacement Cost Study, Compensation calculation	Independent consultant
RAP updating and budgeting	Land Valuation Division of Lands Commission
Institutional Arrangements	Land Valuation Division of Lands Commission and GRIDCo
Public disclosure of final RAP	GRIDCo
Negotiation and Contract with PAPs	GRIDCo
Payment of compensation	GRIDCo
Socio-Economic rehabilitation programmes	GRIDCo
Relocation of PAPs	GRIDCo
Monitoring and Evaluation	GRIDCo

14.0 COMMUNITY PARTICIPATION AND SCOPE OF CONSULTATION

Participation is vital because the success of resettlement, like the success of most of the projects that cause it, depends in part upon the responsiveness of those that are affected. Providing early information regarding a development intervention to the affected people allays fears, dispels misconceptions and builds trust, providing a foundation for collaboration between the affected population and project officials and authorities.

Consultations involve joint discussion between the project officials and the affected population. This is meant to serve as a conduit to pass on information from the affected population to the project officials. Consultation also encompasses the sharing of ideas.

Public meetings and focused group discussions promote consultations. Household surveys provide an opportunity for direct consultation.

To ensure an adequate flow of information on projects with Involuntary Resettlement as one of its unavoidable impacts, public consultation has been made an integral part of the RAP. This includes consultations during the scoping exercise and the preparation of the RAP report.

14.1 The Process

GRIDCo or its development partner subsequently engaged in a consultative process with all stakeholders taking the following factors into account:

1. Identification of the affected persons along the transmission line right of way.
2. Preparation of the description of all stakeholders who were involved in the consultation process.
3. Prepared a consultation and participation process with the various stakeholders.
4. Agreed on the participation mechanisms to facilitate the consultation process focusing on the following indicators:
 - i. Assessment of project impacts;
 - ii. Resettlement strategy;
 - iii. Compensation rates and eligibility for entitlements;
 - iv. Timing of relocation;
 - v. Development opportunities and initiatives;
 - vi. Development of procedures for redressing grievances and resolving disputes;

1. Mechanisms for monitoring and evaluation and implementing corrective restoration.

Work out the grievance redress framework (both informal and formal channels) that will be put in place by the subproject proponent setting out the timeframe and mechanisms for resolution of complaints about resettlement.

The relevant policies and the regulatory conditions that must be considered for the successful implementation of the project were assembled and reviewed as part of the RAP process and appropriate consultations with the relevant agencies have been undertaken. Projects resulting in physical or economic displacement have special consultation responsibilities. It is vital that the affected persons are fully involved in the selection of project sites and areas of influence, livelihood compensation and development options at the earliest possible time. Participation as a generic term usually encompasses two distinct dimensions:

(i) *Dissemination and consultation* – involving the exchange of information, and;

(ii) *Collaboration or participation* – involving varying forms of joint decision making.

During the RAP preparation process, the emphasis has been to make the consultations exercise thorough to ensure that all the relevant statutory bodies, stakeholders and affected groups have been identified and adequately consulted. All the relevant bodies have been informed of the Project and on the process leading from census to construction and operation. During the actual field surveys, the local consultant interacted with the residents, briefing them on the various relevant aspects of the proposed project and interviewed them to ascertain their concerns and expectations in December, 2014 with appropriate questionnaire duly administered.

The first step involved the identification of all interested and affected parties. This process required detailed analysis of the project, its location and the persons who have been potentially impacted upon or whose authority would be required to grant permit. Stakeholders consulted included elders of the three affected squatting communities and key public agencies such as Railway Company, Valuation Division of the Lands Commission, Survey Department, Town and Country Planning Department and Okaikoi south sub-metropolitan Assembly.

14.2 Consultation with Stakeholders and PAPS

Consultations play a major role in identifying the potential impacts of the proposed transmission line project. Consultations with the state agencies and regulatory agencies have assisted in defining the regulatory and institutional framework within which the project would be carried out. Community consultations will assist in the identification of socio-economic and cultural impacts.

The local consultant has undertaken the consultative process with the affected communities taking the following factors into account:

- i. Identification of the affected communities along the transmission line right of way.
- ii. Preparation of the description of all stakeholders who involved in the consultation process.
- iii. Prepared a consultation and participation process with the various stakeholders.

Agreed on the participation mechanisms to facilitate the consultation process focusing on the following indicators:

- Assessment of project impacts;
- Resettlement strategy;
- Compensation rates and eligibility for entitlements;
- Timing of relocation;
- Development opportunities and initiatives;
- Development of procedures for redressing grievances and resolving disputes;
- Mechanisms for monitoring and evaluation and implementing corrective restoration.

Workout the grievance redress framework (both informal and formal channels) that will be put in place by the subproject proponent setting out the timeframe and mechanisms for resolution of complaints about resettlement.

A program of public consultation has been developed and executed to avoid any risk of apprehension associated with this project like problem of destroying properties and extension of the allotments. Information has been obtained from the State Services, community leaders and members as well as private institutions. The steps below were used during consultations in the project area in order to ensure smooth implementation of the project:

- Consultation with the relevant government agencies
- Consultation with the leaders and elders of the identified squatting communities
- Introducing the project and making available relevant information
- Maintaining and collecting information by enquiry

Information obtained has made it possible to make the inventory of the existing infrastructures and to collect the component about the land management, the socioeconomic activities, the infrastructures and expectation of the people, which include:

- Habitat and demography (ethnic groups, religion, migrations);
- Organization socio-policy, traditional and administrative layer;
- Regional infrastructures;
- Medical health (life expectancy, mortality, infrastructures, causes major of disease, important regional project)
- Education (education level, education type, census of the schools)
- Economy (major economic activities, incomes and employment, problems, economic development)

Consultations with traditional authorities, communities, opinion leaders, District Assemblies and regulatory agencies, Ghana railways Authority were jointly carried out a team from GRIDCo, the Environmental Consultant and the RAP officials. The outcome of the consultations is evidenced in Appendix I.

14.4 Consultation with Public Sector Agencies

14.4.1 Department of Urban Roads

1. Mr. De-Graft Afful (Deputy Director, i/c Maintenance and Operations)

Tel. 0208117314/0244432346

The team consulted the Department of Urban Roads in connection with the Graphic road section of the proposed project. The Deputy Director of Urban Roads in charge of Maintenance and operations, Mr. De-Graft Afful, welcome the team and stated that he was happy about the consultation. He indicated that his outfit is prepared and ready to give any assistance to the project. He emphasized the essence of consulting the Dept. of Urban Roads and cited several examples as consequences of lack of consultation. A typical one is the traffic congestion at Accra shopping mall area, which is so because of

lack of collaboration between the designers of that road and the Department of Urban Roads. The Director promised the team that he will always cooperate with them anytime the need arises. He complained about how certain compensations could have been avoided if proper consultations had been made. (Appendix I).

14.4.2 Ghana Railways Company

Contact Persons: 1. Mr. Raynolds Quansah (Station officer)

Tel. 0244703750

2. Mr. M. A. Asare (Area Manager)

Tel. 0246512695

The team explained the project in details to them and showed the proposed route map to them. In response, they stated as follows:

The Railways Corporation allowed the people to occupy the land but asked them to leave 50 m space from the rail line but no caution was given to them on the electricity line.

The squatting area was not sold to the squatters but they pay yearly rent to the Ghana Railway Corporation. The rent is taken on yearly basis so that they can be ejected at any time when the need arises. Only temporary structures are allowed, permanent structures are not allowed in the railway catchments. (Appendix I).

14.4.3 Okaikoi South Sub-metropolitan Assembly

Contact Persons: (i) Mr. Daniel Bulley, Building Inspector

(ii) Mr. Samuel Mormor, Sub-Metro deputy Director

Tel. 0244865106

The team introduced themselves and supported it with an introductory letter from GRIDCo. The team explained the project in detailed to them. The officers demanded a clarification of whether a permit is required and the team replied in negative. Mr. Mormor stated that though the chairman of the sub-metropolitan Assembly is not available at that moment the Assembly would not kick against such a project. He advised that actions on the project must be expedited, since the political will would not permit ejection and resettlement within the election year or around that time. (Appendix I).

14.4.4 Electricity Company of Ghana

Contact persons: 1) Ing. Godfred Mensah (Sectional Manager/ System Planning)

Tel. 021221865/ 0244765788

2) Mr. Kwadwo Ayensu Obeng (Divisional Manager, System Planning)

Tel.0208112311

The team consulted the Electricity Company of Ghana with the above gentlemen as representatives. They expressed concerned about the sorts of structures and people that have encroached the right of way. They pledged their support to the project and wished it come to pass (Appendix D).

15.0 GRIEVANCE PROCEDURE

This section describes mechanisms available to affected people for complaints about aspects of their treatment under project activities. Grievances are likely to arise in one or more of the following cases:

- a) Where the value of assets is disputed,
- b) Where the amount of compensation is disputed and
- c) Where the identity of the person to be compensated is disputed.

There are three ways in which grievances shall be resolved. These are:

1. **Grievance Redress Committee:** There shall be a grievance redress committee made up of representatives from the community (the Area Development Committee), the Local Authority and the project implementers. This committee shall hear disputes regarding displacements and cases shall only be referred to arbitration or courts of law when the grievance redress committee is unable to resolve an issue.
2. **Arbitration:** Arbitration shall be an option for grievance redress where the parties involved agree to resolve their dispute through arbitration. The Arbitration Act 1961 (Act38) makes provisions for aggrieved parties to agree to settle disputes out of court through arbitration. In order to use arbitration in the settlement of disputes, the parties ought to make a written agreement to submit a present dispute, or future disputes to arbitration. The parties are at liberty whether or not to name an arbitrator in the agreement. Where an arbitrator is not named in the agreement, the agreement should designate a person who would appoint an arbitrator.
3. **Courts of Law:** It should be noted that arbitration only works where the parties to a dispute agree to resolve a difference through arbitration. Where there is no consent, then a court of jurisdiction may be used to resolve a dispute. Some of the mechanisms put in place during the project implementation period are:
 - Inclusion of community opinion leaders in the survey and valuation stages to serve as witnesses in terms of disputes on plot limits, ownership and tree counts/measurements.
 - A project officer is always at hand to take note of all disputes.

- Some of the PAPs including local notables have been selected by the PAPs as their Grievance committee members who are readily available to investigate any dispute as and when they arise.
- Petitioning the company in charge of the project for redress.
- The Ghana Constitution allows for the right of access to the court of law by any person who has an interest or right over an affected property. In practice going to court has been a rare occurrence. In most cases PIPs, represented by the consultants are able to negotiate acceptable awards. The fees of such consultants are paid by the acquiring authorities.

16.0 MONITORING & EVALUATION

16.1 General Objectives for Monitoring & Evaluation

Monitoring and evaluation are key components of the Resettlement Action Plan, and remains part of the whole programme under GRIDCo responsibility/obligations. Arrangements for monitoring implementation of resettlement and evaluating its use are developed during project preparation and used during supervision. Appropriate monitoring criteria are established to verify the predicted impacts of the project and adjust the mitigation measures where necessary. Monitoring and evaluation units should be adequately funded and staffed by specialists in resettlement. In-house monitoring by GRIDCo may need to be supplemented by independent monitors to ensure complete, objective resettlement. For now it has been proposed that a three-man RAP monitoring team will be constituted that will be drawn from the respective units and carried out the various tasks as follows:

- One person from Lands Acquisition Unit to be responsible for 1. Team leader responsible for organization and coordination; 2. Keeping administrative records, payment receipts, and complaint records; 3. Reporting; and 4. Any other duties that would be assigned.
- One person from Lands Acquisition Unit to be 1. Resettlement procedures; 2. Compensation execution; 3. Grievances recording; and 4. Any other duties that would be assigned.
- One person from Environmental Unit to be responsible for 1. Health and safety; 2. General environmental issues; 3. Sanitation issues and 4. Any other duties that would be assigned.

GRIDCo will be operating the transmission facility after commissioning which allows for various evaluations and monitoring actions to be undertaken over a sufficient period of time.

The general objectives for the monitoring and evaluation procedures are:

- Monitoring of specific situations of economic/social difficulties arising from the Compensation/Resettlement process.

- Evaluation of the compliance of the actual implementation with objectives and methods as set in this document, and of the impact of the Compensation/resettlement programme on incomes and standard of living.

16.2 Monitoring

Monitoring allows for a warning system for project managers and a channel for the affected persons to make known their needs and their reactions to resettlement implementation. The objectives of the monitoring are therefore the following:

- To identify affected persons who might get into specific difficulties as a result of the Compensation/Resettlement process;
- To provide a safety mechanism and appropriate responses addressing these situations.

Projects with relatively limited resettlement impacts commonly institute an in-house monitoring system within the project agency. In the case of this project, GRIDCo relies upon its staff in the Lands Management Section of the Engineering Department to keep track of land acquisition, compensation, and grievances. GRIDCo maintains a complete set of administrative records on asset inventories, payment receipts, and complaints. GRIDCo representatives hear complaints on an informal basis and report administratively on project progress. The LVD maintains a copy of the file for the legal agreements on physical assets to be taken (Form F).

Parameters to be monitored shall include:

- a. Clearing of all encumbrances in the selected route
- b. Socio-Economic/Cultural Issues
 - Shrines and Sacred Groves
 - Archaeological chance finds
 - Identifying all affected persons
 - Assessment of compensation
 - Payment of compensation (adequate amounts, timely payments)
 - Employment and job creation
 - Archaeological chance finds. The procedures as outlined in the National Museum Decree, 1969, (NLCD 387) will be followed.

16.3 Evaluation

The objectives for the evaluation of the resettlement programme are:

- General assessment of the compliance of the implementation of the Resettlement Action Plan with objectives and methods as set in this document;
- Assessment of the compliance of the implementation of the Resettlement Action Plan with laws, regulations and safeguard policies as stated in this document;
- Assessment of the consultation procedures that took place at individual and community levels, together with the Central Government and Local Government levels;
- Assessment of fair, adequate and prompt compensation and resettlement procedures as they have been implemented;
- Evaluation of the impact of the Compensation/resettlement programme on incomes and standard of living, with focus on the "no worse-off if not better-off" requirement;
- Identification of actions to take as part of the on going monitoring to improve the positive impacts of the programme and mitigate its possible negative impacts if any.

Reference documentation for the evaluation will be the following:

- This Resettlement Action Plan, including possible amendments required as a result of the final consultation process.
- The 1992 Constitution of the Republic of Ghana
- The WB/IFC Safeguard Policies, including OP 4.12 "Involuntary Resettlement".

16.4 Evaluation Indicators

As part of the preparation of this programme, the developers has set up a comprehensive database of all Project Affected People, based on the census and the socio-economic survey, which were carried out between December, 2014 and January, 2015. The socio-economic survey has addressed all aspects of the standard of living of affected people. It has included direct questions about monetary incomes and this allows for a first set of indicators to be defined, in relation to monetary incomes sources. During the socio-economic survey carried out for this RAP, the direct questions on monetary incomes may

have led to overestimated answers motivated by expected increases in compensation. But other objective indicators have been included in the questionnaire such as the possession equipment, together with indicators of the pattern of expenditures and eating habits. The aggregation of quantitative indicators originating from direct questions on monetary incomes and indirect welfare indicators will allow for cross-checking of data about standards of living.

Evaluation is done on as a required basis and not as part of a formal project implementation requirement.

The evaluation methodology consists of the following:

- Identification of the project-affected persons, designed to take into account all situations, including the following categories, with appropriate criteria crossing and sample significance tests:
 1. Physically Displaced People resettled under this RAP;
 2. Affected people not physically displaced;
 3. Both female and male heads of households;
 4. Households of various sizes, with various tenure forms, various size of land holding and various levels of impact;
 5. Vulnerable people.
- As a rule of thumb, this sample should be about 10% of the total of affected households; it will be extracted from above-mentioned database;
- Enumerators will survey the sampled households for socio-economic purpose; a questionnaire will be developed with, among others, the very same indicators as were used in the initial socio-economic survey; satisfaction indicators will be developed swell;
- Questionnaire treatment will aim at evaluating satisfaction indicators and income/standard of living indicators;
- Situations of specific vulnerability will be put into specific focus, and the methods for addressing them will be assessed;
- Consultation with independent parties will also be part of the evaluation procedures; these parties will include the Local Governments at all levels, and relevant departments of the Central Government.

17.0 COSTS AND BUDGET

The Framework for Environmental and Social Management of Bulk Transmission Line Projects in Ghana states that:

“The replacement cost is based on the market cost (at the time of valuation) of the materials to build a replacement structure plus the cost of transporting materials to site, cost of labour and contractors’ fees is considered”.

To ensure that the project is perfectly managed to its logical conclusion, the necessary budgetary provisions to ensure that mitigation commitments stated (including compensation) and monitoring programs, can be implemented effectively with the provisional estimate of **One million, four hundred and ninety-four thousand, four hundred and sixty-eight Ghana cedis only (GH¢1,494,468.00)**, approximately **four hundred and ninety-eight thousand, and one hundred and fifty-six US dollars only (\$498,156.00)** (Table 21). (The dollar rate at the time was \$1: GhC3.0).

It must be emphasized that construction damages outside the RoW will be kept at its barest minimum. It must be noted that estimates provided in the Table 21, below, are solely based on the government rates of 2015. The values would therefore be adjusted for any upward review at the time of payment if property values go up, to conform to the World Bank’s standard and the 1992 Constitution of Ghana.

The details of the budget as it stands now are provided below as presented in Table 21.

Table 21: Estimated budget for the Resettlement Action Plan

No.	Item	Cost (Gh Cedis)	Cost (US\$)
1	Wooden kiosk with wooden base & corrugated iron roofing sheet for Commercial/Residential	141,000	47,000
2	Metal kiosk with concrete base and corrugated iron roofing sheet for Commercial/Residential	140,000	46,667
3	Metal Container with concrete base and corrugated iron roofing sheet for Commercial only	200,000	66,667
4	Shed for Livestock trading for Commercial only	5,000	1,667
5	Wooden kiosk with wooden base & corrugated iron roofing sheet for Residential only	13,000	4,333
6	Wooden kiosk with concrete base & corrugated iron roofing sheet for Residential only	148,008	49,336
7	Titles to Commercial Structures	3,650	1,217
8	Loss of income due to Commercial loss and transition period	372,500	124,167
9	Loss of income during transition period of residential PAP	24,810	8,270
10	Vulnerable persons	58,639	19,546
11	Professional fees and Permits (10% of the cost of structures)	64,701	21,567
12	Monitoring	252,000	84,000
	TOTAL	1,358,607	452,869
13	Contingency (10% of the Total)	135,861	45,287
	GRAND TOTAL	1,494,468	498,156

BUDGET ITEMS

The following were considered in the estimation of the cost of implementing the RAP.

(a) Structures/Buildings

This is the replacement cost for the replacement of affected structures. The cost is based on the market cost (at the time of valuation) of the materials to build a structure plus the cost of transporting materials to site, cost of labour and contractors' fees.

(b) Titles to Commercial Structures

The District Assembly laws stated that it is a requirement for any one who wants to establish a structure to acquire a permit. These are the current permit fees to be paid by the owners of the structures to the local government when establishing a new commercial structure.

(c) Loss of income

Persons who have their businesses within the 15m x 15m area would suffer from income loss as a result of displacement. It was estimated that it would take about four (4) months to get the businesses established plus transition period of estimated one (1) month. Therefore, income loss of 17 persons whose businesses would be affected is estimated by multiplying their monthly income by five (5) months. In addition, income loss for approximately one-month income has been calculated for 18 PAPs whose residents will be affected within 15m x 15m area as period of transition.

(d) Vulnerable Persons

It is the practice of GRIDCo to cater for vulnerable persons affected by the project even if they are not household heads. To estimate the compensation for vulnerable persons the monthly income of their respective households were divided by the household sizes to get income per household member per day. It has been estimated that the period of construction will last for about four (4) months (approximately 120 days). Hence, the income per vulnerable person per day was multiplied by 120 days for 14 vulnerable persons of different income levels were added as an estimated compensation.

(e) Professional Fees and Permits:

Under the Ghanaian laws, acquiring bodies are responsible for the payment of legal and surveyors fees incurred by PAP's when their properties are compulsorily acquired. The fee charged is normally 10% of the assessed value of the property. This is a statutory requirement for procuring the services of the Land Valuation Board.

(f) Monitoring

A project with relatively limited resettlement impacts; an in-house monitoring system is commonly instituted within the project agency. With this project, GRIDCo will rely upon its staff in the Lands Management Section of the Engineering Department to keep track of RoW acquisition, compensation, and grievances. A three-man monitoring team will be assigned to monitor the implementation of RAP. The monitoring period has been estimated to last for 700 working days and daily allowance for one GRIDCo staff is GhC120.00/day for three (3) staff was used as an estimate cost for monitoring.

(g) Contingency

An estimate of 10% of the total budget of the cost of implementation of resettlement action plan has been added to cater for other unforeseen cost that would arise in the course of the implementation.