



Powering The Nation

**ABBREVIATED RESETTLEMENT ACTION PLAN
FOR
THE PROPOSED KAFUE GORGE LOWER 200MWAC SOLAR
PV GENERATION PLANT AND 330kV TRANSMISSION LINE
IN CHIRUNDU DISTRICT**


PREPARED BY

ZESCO LIMITED

FOR

JIGSCO Energy Corporation Limited

JUNE 2025

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|  | Abbreviated Resettlement Action Plan: Proposed Kafue Gorge Lower 200MWac Solar PV Plant and 330kV Transmission Line in Chirundu District | | |
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EXECUTIVE SUMMARY

The proposed development of the Kafue Gorge Lower 200MW Solar PV project subscribes to Governments short term initiatives, in its quest to add 1000MW of solar power to the National grid, to address the current power challenges the Country is facing. This is meant to stimulate sustainable socio-economic development and contribute immensely to the many poverty reduction interventions which Government has put in place. This is with the realization that electricity makes possible energy services such as lighting, heating, cooking, mechanical power, transportation and telecommunications.


Furthermore, electricity contributes to income and employment generation. It increases household productivity and income generating potential, and therefore, helps to break the cycle of poverty. All these benefits are essential for socio-economic development. Increased access to electricity impacts both short- and long-term improvements in people’s quality of life.

The implementation of this Project may among other issues raise negative socio-economic issues such as displacement/resettlement, loss of livelihoods, land conflicts, social divisions, safety, security, health and pollution. A Project of this magnitude has the potential to raise the aforementioned socio-economic issues requiring an adequate mechanism for resolving them. JIGSCO recognizes the wide range of stakeholders and compliance obligations and has established this Abbreviated Resettlement and Action Plan (ARAP) to uphold the tenets of sustainable development, as part of the Environmental and Social Impact Assessment (ESIA) process.

The ARAP gives an opportunity for improving the livelihoods of the Project Affected Persons (PAPs) and provides guidelines for the mitigation of social risks. All PAPs were engaged and involved in resettlement planning to ensure that the mitigation of adverse effects as well as the benefits of resettlement are appropriate and sustainable.

This ARAP has been prepared to mitigate for loss of any fixed assets and/or livelihoods. A socio-economic survey of affected persons living in, doing business, or cultivating, or having user rights over resources within the Project area was undertaken.

The socio – economic survey revealed that no Project Affected Persons (PAPs) will be impacted on the proposed 250 Ha parcel of land intended for the Solar plant site.,

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however, thirty – six (36) PAPs has been identified to be impacted along the preferred line route for the 330kV transmission evacuation line.

Brief Description of the Project

The proposed Project is in the Southern Province of Zambia, Chirundu District, under Chieftainess Sikoongo’s Chiefdom. The Solar PV site is located approximately 14.2km from Kafue Gorge Lower 330/33 kV Substation. The land earmarked for this Project is 250ha, with the planned solar PV installed capacity of 200MWac. At the Solar Plant, the 330/33kV Chirundu Solar Substation will have an outgoing 14.2km, 330kV transmission line that terminates at the Kafue Gorge Lower 330/33kV Substation.

Project Objective


The objective of this Project is to gain additional generation capacity in the Zambian Integrated Power System (IPS) and diversify the generation mix, reducing the reliance on hydropower. By doing so, the Project aims to increase electricity access, enhance the security of supply, and improve the quality of power supply across the Country.

Project Area, Cost and Implementation Date

The project area is located in Chirundu District of Southern Province, in Katobola Village. The construction of the solar plant and the evacuation line is estimated to cost **USD 222,000,000** (Two Hundred and Twenty-Two United States Dollars). It is scheduled to be implemented in 10 months, commencing by the Third quarter of 2025. The construction activities will only commence once this Abbreviated Resettlement Action Plan (ARAP) has been approved and implemented accordingly by JIGSCO Energy Corporation Limited.

Rationale for Preparation of Abbreviated Resettlement Action Plan

The planned 330kV power line has a wayleave clearance/Right-Of-Way (ROW) of 50m width (25m on either side of the centre). No settlements, trading facilities or trees are permitted within the wayleave in accordance with the Electricity Act, No. 11 of 2019. It is the desire of JIGSCO Energy Corporation Limited to minimise resettlement impacts associated with the development of the Project. However, where such impacts are

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unavoidable, appropriate compensation measures shall be instituted, in line with National legislative requirements and international best practice.

Objective of the ARAP

The objective of the ARAP is to ensure that all the persons affected by the project are exclusively engaged and adequately compensated for loss of assets and/or livelihoods.

Scope of the ARAP

This abbreviated plan covers the following minimum elements:

- ✓ Identification of project impacts and affected populations;
- ✓ Review of applicable National and legal framework in relation to land acquisition and compensation;
- ✓ Preparation of a compensation framework;
- ✓ Description of resettlement assistance and restoration of livelihood activities;
- ✓ Preparation a detailed budget for implementing the ARAP;
- ✓ Outline an implementation schedule;
- ✓ Description of organizational responsibilities;
- ✓ Framework for public consultation, participation and development planning;
- ✓ Description of provisions for redress of grievances;
- ✓ Framework for monitoring, evaluation and reporting; and
- ✓ Socio-economic and income restoration measures¹

Policy, Legal Framework and International Standards


Policy Framework

This shall be informed, at a minimum, by the National Resettlement Policy of 2015 and the Involuntary Resettlement Guidelines (2013) from the Office of the Vice President

Legal Framework

The legal provisions informing the development of the ARAP include:

¹ In case some of the displaced persons lose more than 10% of their productive assets or require physical relocation, the plan also covers a socioeconomic survey and income restoration measures.

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- ✓ The Constitution of Zambia (Amendment), 2016
- ✓ The Urban and Regional Planning Act, No.3 2015
- ✓ The Lands Act, 1995 (CAP 292, CAP 289, CAP 288) and the Lands Acquisition Act, 1995
- ✓ The Local Government Act, No 2 of 2019
- ✓ The Land Survey Act – Cap 188
- ✓ The Environmental Management Act (EMA), No. 12 2011 and the EMA Amendment Act, No. 8 of 2023
- ✓ The Environmental Impact Assessment (EIA) Regulations, SI 28 of 1997
- ✓ Arbitration Act, No. 19 of 2000
- ✓ The Disaster Management Act, No. 13 of 2010
- ✓ Electricity Act, No. 11 of 2019
- ✓ Energy Regulation Act, No. 12 of 2019
- ✓ Workers Compensation Act, No. 10 of 1999
- ✓ Gender Based Violence Act, No.1 of 2011

International Standards


- ✓ World Bank Environmental and Social Framework Guidelines
- ✓ International Finance Corporation Guidelines
- ✓ African Development Bank Integrated Safeguard Standards

Methodology

The following activities formed the methodology used to prepare the ARAP:

- ✓ Inventory and identification of affected assets
- ✓ Census survey of PAPs
 - Enumeration and registration
 - Identification of affected land, structures, livelihoods and trees of economic value
 - Beneficiary Capping
- ✓ Data analysis

The completion of the census represented a cut-off date for eligibility for resettlement assistance. The cut-off date is the date of completion of the census and assets inventory

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of persons affected by the Project. The valuation of land, structures and trees of economic value shall inform the compensation entitlements due to the PAPs.

Profile of Project Affected Persons

The socio-economic survey was carried out in order to gather information on impacted populations and infrastructure on the Project. An inventory of all assets (infrastructure) including fruits and trees of economic value within the wayleave was completed and each affected element was captured and location determined with its GPS coordinates. Household survey was also carried out in order to assess the socio-economic profile of the affected households as well as document the impacts of the Project. A full census was undertaken to ascertain affected households within the wayleave. The main elements affected include cultivated and other lands, structures, houses, etc.).


Socio-economic baseline for the Project Affected Persons (PAPs) is based on the census and asset survey that was conducted, and a total of thirty – six (36) PAPs along the evacuation line of approximately 14.2km.

All the 36 PAPs have identified have cultivating land (fields) that will be impacted.

Resettlement Budget and Schedule

The total budget to implement the ARAP is approximately **K5,000,000.00** (Five Million Kwacha) and will comprise the following:

- Compensation for the affected structures;
- Loss of business arising from relocation of business structures and business interruption; and
- Livelihood restoration (money management training and transitional support

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CONCLUSION

This Abbreviated Resettlement Action Plan (ARAP) has detailed the impacts of the proposed project on the PAPs and presents mitigation measures for the economic and physical displacement that will arise. JIGSCO Energy Corporation Limited has committed to implementing this Plan according to legislative and other requirements and within the budget that has been allocated for this Project.

OTTO KHOZA
DIRECTOR - JIGSCO ENERGY CORPORATION LIMITED


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ABBREVIATIONS AND ACRONYMS

| | |
|-------|--|
| AfDB | African Development Bank |
| ART | Anti-Retroviral Treatment |
| ARAP | Abbreviated Resettlement Action Plan |
| DACO | District Agriculture Coordinator |
| DNPW | Department of National Parks and Wildlife |
| EHSG | Environmental Health and Safety Guidelines |
| EIA | Environmental Impact Assessment |
| EMA | Environmental Management Act |
| EIB | European Investment Bank |
| EIS | Environmental Impact Statement |
| ESD | Environmental Sustainability Department |
| ESIA | Environment and Social Impact Assessment |
| ESF | Environmental Social Framework |
| GMA | Game Management Area |
| GRZ | Government of the Republic of Zambia |
| I&APs | Interested and Affected Parties |
| IDPs | Internally Displaced Persons |
| IFC | International Finance Corporation |
| KGL | Kafue Gorge Lower |
| SDGs | Sustainable Development Goals |
| M&E | Monitoring and Evaluation |
| MW | Mega Watts |
| NGO | Non-Governmental Organization |
| PAPs | Project Affected Persons |
| PCR | Physical Cultural Resource |
| RICS | Royal Institution of Chartered Surveyors |
| RoW | Right of Way |
| SBU | Strategic Business Unit |
| SIZ | Surveyors Institute of Zambia |
| STIs | Sexually Transmitted Infections |
| VCT | Voluntary Counselling and Testing |
| WB | World Bank |
| ZEMA | Zambia Environmental Management Agency |
| ZSA | Zambia Statistics Agency |



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8NDP

Eighth National Development Plan



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GLOSSARY OF TERMS

| Term | Definition |
|-----------------------------------|---|
| Arbitration | Refers to any arbitration whether or not administered by a permanent arbitral institution and means the conduct of proceedings for the determination of a dispute by an arbitral tribunal in terms of the Arbitration Act |
| Census | A socio-economic baseline survey to establish the number of Project Affected Persons (PAPs) to be displaced, livelihoods affected, and property to be compensated. The field survey should take into account persons affected through anticipated cumulative impacts of the resettlement. The census/social survey will also be used identify all vulnerable groups. |
| Communal land | Land owned by government but communally used by communities. |
| Community | A group of individuals broader than the household, who identify themselves as a common unit due to recognised social, religious, economic or traditional government ties, or through a shared locality. |
| Compensation | The cost of payment for expropriated land (including trees and crops that cannot be harvested), housing, structures, and other fixed assets, including assets acquired for temporary project use. It includes the costs incurred to help directly acquire substitute properties as well as the cost of acquiring resettlement sites. Compensation applies to vendors, enterprises, and other commercial operations, as well as residential units (households). |
| Cut-off date | Date of completion of the census and assets inventory of persons affected by the project. Persons occupying the project area after the cut-off date are not eligible for compensation and/or resettlement assistance. Similarly, fixed assets (such as built structures, crops, fruit trees, and woodlots) established after the date of completion of the assets inventory, or an alternative mutually agreed on date, will not be compensated. |
| Displacement assistance | Support provided to people who are physically displaced by a project. Assistance may include transportation, shelter, and services that are provided to affected people during their move. Assistance may also include cash allowances that compensate affected people for the inconvenience associated with displacement and defray the expenses of a transition to a new locale, such as moving expenses. Assistance may further incorporate a range of measures comprising compensation, income restoration, transfer assistance, income substitution, and relocation which are due to affected persons, depending on the nature of their losses, to restore their economic and social base. |
| Dispute | This includes a difference and /or disagreement. |
| Economic displacement | Loss of income streams or means of livelihood resulting from land acquisition or obstructed access to resources (land, water or forest) which results from the construction or operation of a project or its associated facilities. |
| Economically displaced households | Households whose livelihoods are impacted by the project, which can include both resident households and people living outside the project area but having land, crops, businesses or various usage rights there. |



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| Term | Definition |
|--------------------------|--|
| Eligible crops | Crops planted in the moratorium area by project-affected people prior to the moratorium date and that are eligible for compensation in accordance with this RAP. |
| Eligible land | The land (cropped and fallow, agricultural and communal) within the moratorium area that is eligible for compensation in accordance with this RAP. |
| Eligible structures | The buildings and structures constructed within the moratorium area prior to the moratorium date and that are eligible for compensation in accordance with this RAP. |
| Entitlement | A range of measures comprising compensation, income restoration, transfer assistance, income substitution, and relocation which are due to affected persons, depending on the nature of their losses, to restore their economic and social base. |
| European Investment Bank | The European Investment Bank is a publicly owned <u>international financial institution</u> and its shareholders are the <u>EU member states</u> . It is the World’s largest multilateral <u>borrower</u> and lender and provides finance and expertise for sustainable investment projects that contribute to European Union policy objectives. |
| Gross External Area | As defined by RICS Guidance Note – Code of Measuring Practice 6 th Edition is the area of the building measured external at each floor level. |
| Homestead | Stand on communal/ traditional authority land, allocated to an individual or household, on which the latter has built a residential structure and possibly one or more outbuildings. Perimeter may be enclosed by a fence. |
| Host community | People living in or around areas to which people physically displaced by a project will be resettled to, whom in turn, may be affected by the resettlement. |
| Household | A person or group of individuals living together, in an individual house who share cooking and eating facilities and form a basic socio-economic and decision-making unit. |
| Involuntary displacement | Involuntary taking of land resulting in direct or indirect economic and social impacts caused by: <ul style="list-style-type: none"> • Loss of benefits from use of such land; • relocation or loss of shelter; • loss of assets or access to assets; or • loss of income sources or means of livelihood, whether or not the project affected person has moved to another location. |
| Involuntary resettlement | Resettlement is involuntary when it occurs without the informed consent of the displaced persons or if they give their consent without having the power to refuse resettlement. |
| Livelihoods programs | Programs intended to replace or restore quality of life indicators (education, health, nutrition, water and sanitation, income) and maintain or improve economic security for project-affected people through provision of economic and income-generating opportunities, including but not limited to, activities such as training, agricultural production and processing, and small and medium enterprises. Rehabilitation measures may include the following: |



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| Term | Definition |
|---------------------------------|---|
| | <p>Land-based livelihoods—Resettlement sites may require dependable access to grazing land, forest, and water resources; physical preparation of farm land (clearing, leveling, creating access routes, and soil stabilization); fencing for pasture or cropland; agricultural inputs (seeds, seedlings, fertilizer, irrigation); veterinary care; small-scale credit including rice banks, cattle banks, and cash loans; and access to markets.</p> <p>Wage-based livelihoods—Wage earners in the community may benefit from skills training and job placement, provisions made in contracts with project subcontractors for employment of qualified local workers, unemployment insurance, and small-scale credit to finance startup enterprises. Sponsors should provide sufficient lead time for training of affected people to enable them to compete for jobs related to the project.</p> <p>Enterprise-based livelihoods—Established and nascent entrepreneurs and artisans may benefit from credit or training (business planning, marketing, inventory, and quality control) to expand their business and generate local employment. Sponsors can promote local enterprise by procuring goods and services for their projects from local suppliers.</p> |
| Performance Standard 5 | The IFC's Performance Standard on Involuntary Resettlement, which embodies the basic principles and procedures that underlie the IFC's approach to involuntary resettlement associated with its investment projects and stands as the benchmark against which resettlements are measured. |
| Physical displacement | Loss of shelter and assets resulting from the acquisition of land associated with a project that requires the affected person(s) to move to another location. |
| Physically-displaced household | Households who normally reside in the project area and who will lose access to shelter and assets resulting from the acquisition of land associated with the project that requires them to move to another location. |
| Project area | The project area is covered by the moratorium area and its immediate surroundings. It includes areas, individuals and communities impacted beyond the footprint of the project or activity by cumulative impacts from further planned development of the project or other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that can realistically be expected at the time due diligence is undertaken. In addition to the area of geographical or spatial influence, temporal influence should also be determined. |
| Project affected persons (PAPs) | <p>Persons who, for reasons of the involuntary taking or voluntary contribution of their land and other assets under the project, result in direct economic and or social adverse impacts, regardless of whether or not the said PAPs physically relocate. These people may have their:</p> <ul style="list-style-type: none"> • standard of living adversely affected, whether or not the PAPs must move to another location; |



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| Term | Definition |
|----------------------------|--|
| | <ul style="list-style-type: none"> • right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed, temporarily or permanently, adversely affected; • access to productive assets adversely affected, temporarily or permanently; or business, occupation, work or place of residence or habitat adversely affected. <p>PAPs eligible for compensation may include 1. formal legal rights to the land/structure they occupy; 2. do not have formal legal rights to land, but have a claim to land that is recognised or recognisable under national laws; 3. are dependent on the impacted land for their livelihood by way of customary access to natural resources; 4. have no recognisable legal right or claim to the land or structure they occupy; and/or 5. economically displaced persons who face loss of assets or access to assets.</p> |
| Project-affected household | All members of a household, whether related or not, operating as a single socio-economic and decision-making unit, who are affected by the project. |
| Project Team | Refers to ZESCO Limited staff as well as ZESCO assigned people / companies tasked on the project during project implementation. |
| Relocation | A process through which physically displaced households are provided with a one-time lump sum compensation payment for their existing residential structures and move from the project area. |
| Replacement value | <p>Replacement value for <i>land</i> 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 fees and/or transfer duties. In the case of residential land, replacement value would include crops, trees, and other commodities, based on their market value.</p> <p>Replacement cost for <i>structures</i> is defined as the market cost of the materials (current market price of building materials and labour) to build a replacement structure with 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 labour and contractor's fees; plus the cost of any registration fees and/or transfer duties.</p> <p>Costs may further account for any removal costs, utility connection costs, and other costs (e.g. taxation, if relevant) imposed on new housing/re-established businesses etc. Where markets do not exist, surrogate values must be determined.</p> |
| Resettlement | A process through which physically displaced households are provided with replacement plots and residential structures at a designated site. Resettlement includes initiatives to restore and improve the living standards of those being resettled. |



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| Term | Definition |
|---------------------------------|---|
| Resettlement Action Plan (RAP) | The document in which a project proponent specifies the procedures that will follow and the actions that it will take to mitigate adverse effects, compensate losses, and provide development benefits to persons and communities affected by the project. |
| Resettlement-affected household | Any household that will be affected by land acquisition as a result of the project; this includes physically displaced and economically displaced households. In other words, it comprises all those households who either reside, have an asset or structure in, or make use of land that intersects any of the project servitudes. |
| Resettlement Assistance | Support provided to people who are physically displaced by a project. Assistance may include transportation, food, shelter, and social services that are provided to affected people during their relocation. Assistance may also include cash allowances that compensate affected people for the inconvenience associated with resettlement and defray a transition to a new locale such as moving expenses and lost workdays. Resettlement assistance can also consist of land, jobs, or other forms of assistance and should be determined in consultation with affected people. |
| Right of Way | A type of easement granted or reserved over the land for transportation purposes, this can be for a highway, public footpath, rail transport, canal, as well as electrical transmission lines, oil and gas pipelines. It is also a legal agreement that allows the project access to the property directly beneath and to either side of an electric power line. Right of Way (RoW) also allows the project to enter the property at any time, to perform maintenance or repairs to project equipment. Relevant laws and guidelines require maintaining a suitable RoW distance in order to maintain safety of the general public and minimize exposure to Electromagnetic Fields (EMFs). According to the Electricity Act No 11 of 2019, the RoW will constitute 16 m at each of the two sides of the transmission line which represent, also, the protection zone along the line route. |
| Security of tenure | A right, term, or mode of holding or occupying land of value for a period of time. In statutory land tenure this would involve a title deed of 99 or 14-year lease. However, under customary land tenure, the owners do not have title deeds, but they have a 'customary' legal claim to the land. |
| Speculative building | The erection of buildings or structures or planting of crops within the moratorium area with the sole aim of claiming compensation from the project proponent. Speculation may be pre-moratorium (occurring prior to the moratorium date) or post-moratorium (occurring after the moratorium date). |
| Stakeholders | Any and all individuals, groups, organisations, and institutions interested in and potentially affected by the project or having the ability to influence the project. |
| Tenant | A person who lives in a structure belonging to another, regardless of whether they pay rent or not. |
| Unexhausted Improvement | Any quality permanently attached to the land directly from the expenditure of capital or labour and increasing the productive capacity, utility or amenity thereof, |



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| Term | Definition |
|----------------------|---|
| | but does not include the results of ordinary cultivation other than standing crops and growing produce. |
| Vulnerable household | A household who, by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by resettlement than other and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. |
| World Bank | The World Bank is an <u>international financial institution</u> that provides loans to <u>countries</u> of the world for <u>capital programs</u> . It comprises two institutions: the <u>International Bank for Reconstruction and Development (IBRD)</u> , and the <u>International Development Association (IDA)</u> . The World Bank is a component of the <u>World Bank Group</u> . |



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1.0 INTRODUCTION

1.1 Project Background

The proposed Project involves the development of the Kafue Gorge Lower (KGL) 200MWac Solar Plant in Chirundu District, Southern Province of Zambia, in in Chieftainess Sikoongo’s Chieftdom. At the Solar Plant, a 330//33kV Substation will be constructed, to facilitate evacuation of power into the National grid, via an outgoing 14.2km, 330kV transmission line that will terminate at the KGL 330/33kV Substation, Refer to Figure 1. The land earmarked for this Solar Plant is 250ha, acquired from the Sikoongo Royal Establishment, headed by Chieftainess Sikoongo.

Figure 1 below shows proposed siting of the Solar Plant and the power evacuation routing.

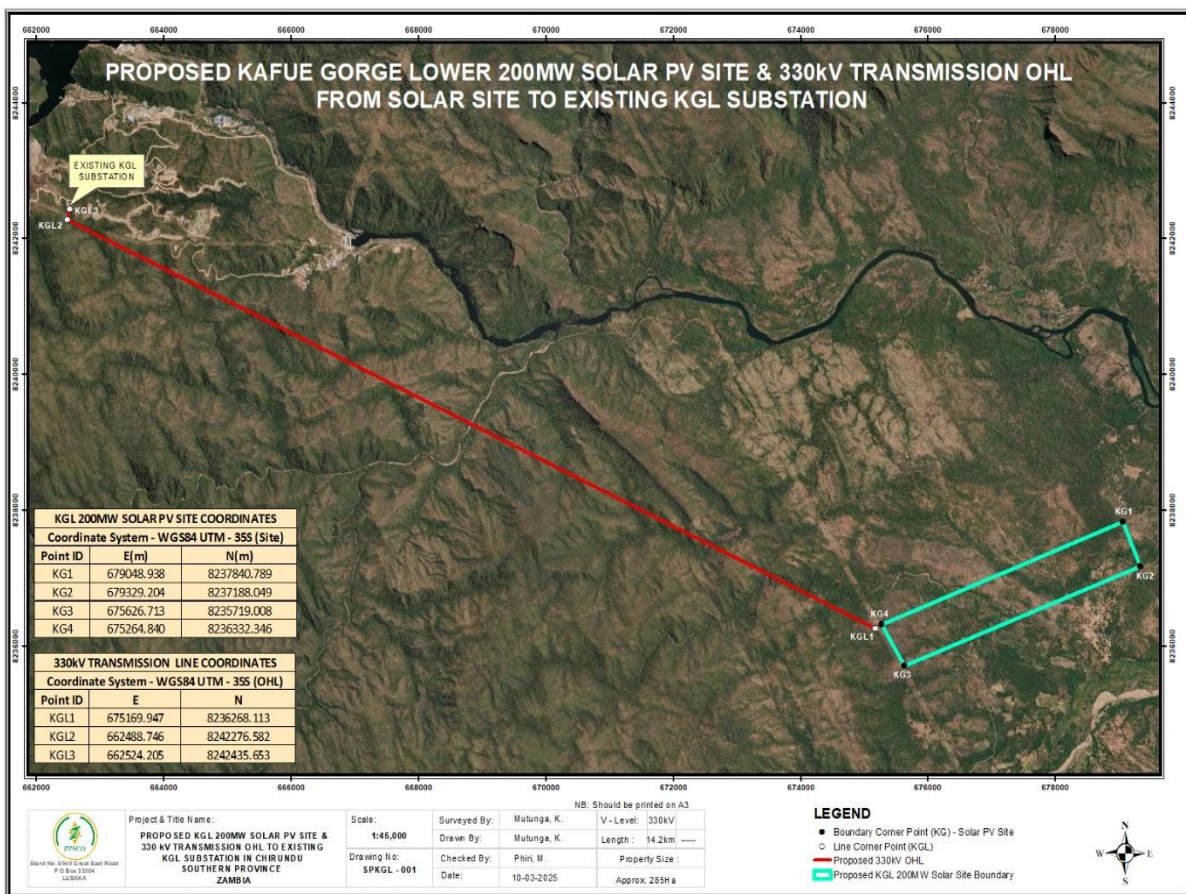


Figure 1: Google map showing proposed KGL 200MW Solar Plant and Power evacuation route

The coordinates of the proposed Solar PV Site Shown in Table 1 below



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Table 1: List of coordinates of the proposed Solar Site and Transmission line

| KGL 200MW SOLAR PV SITE COORDINATES | | |
|-------------------------------------|---------------|---------------|
| Point ID | Lat | Long |
| KG1 | 15°55'56.14"S | 28°40'21.76"E |
| KG2 | 15°56'17.27"S | 28°40'31.39"E |
| KG3 | 15°57'6.02"S | 28°38'27.27"E |
| KG4 | 15°54'51.01"S | 22°56'28.88"E |
| 330kV TRANSMISSION LINE COORDINATES | | |
| KGL1 | 15°56'48.28"S | 28°38'11.76"E |
| KGL2 | 15°53'35.93"S | 28°31'3.88"E |
| KGL3 | 15°53'30.75"S | 28°31'5.05"E |

1.2 Project Objective

The objective of this Project is to gain additional generation capacity in the Zambian IPS and diversify the generation mix, reducing the reliance on hydropower. The Country is currently experiencing load management due to low water levels in the reservoirs as a result of insufficient rainfall, induced by climate change. This Project therefore, aims to increase electricity access, security of supply and improve power supply quality in the Country.

1.3 Project Justification

Zambia has been highly dependent on hydropower as its main source of electricity generation, but increasingly unreliable rainfall patterns in past years, have led to reduction of Zambia's power generation capacity. Diversification into solar power generation will reduce the reliance on hydropower and address the electricity needs of the Nation and ultimately contribute towards its sustainable economic development.

1.4 The Project Proponent

For the purpose of developing this Project, JIGSCO Energy Corporation Limited has been incorporated, as a Special Purpose Vehicle, with shareholding between Jigsaw Investments Limited and ZESCO Limited. This is pursuant to the provisions of the Companies Act, providing for the construction of a power plant, to generate electrical power by conventional and non-conventional methods including coal, gas lignite, oil, biomass, waste, thermal, solar, hydel, geo-hydel, wind and tidal waves.

The affairs of JIGSCO Energy Corporation Limited are managed by a Board of Directors, listed hereunder:



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- I. Otto Khoza– Board Chairperson;
- II. Joyce Muwo Mwansa;
- III. Deolinda Guilherme Langa Wicht;
- IV. Florence Kabati;
- V. Justin Loongo;
- VI. Racheal Inonge Zekko; and
- VII. Choice Corporate Services Limited - Board Secretary.

Percentage of Shareholding by each Shareholder

Shareholding between Jigsaw Investments Limited and ZESCO Limited is as follows;

- Jigsaw Investment Limited: 70%
- ZESCO Limited: 30%

The Developer’s Physical Address and the Contact Person Details

Physical Address

JIGSCO Energy Corporation Limited
Stand No. 3509/No.7
Matandani Close
Rhodes Park
P.O. Box 32565
Lusaka

Contact Person and Contact Details

Otto Khoza
Director
JIGSCO Energy Corporation Limited
Malaiti House
Deaden Kimati Road
Email: choicecorp@zamnet.zm
Tel: +20955834322

1.5 Project Area

The KGL 200MWac Solar PV site is located in Katobola Village, under the charge of Chieftainess Sikoongo in Chirundu District. The land earmarked for the Solar Plant is 250ha, with a planned installed capacity of 200MWac. At the Solar Plant, the Chirundu



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Solar 330/33kV Substation will have an outgoing 14.2km, 330kV transmission line that terminates at the KGL 330/33kV Substation.

1.6 Rationale for preparation of Abbreviated Resettlement Action Plan

The planned 14.2km, 330kV power lines have the wayleave clearance/Right-Of-Way (ROW) of 50m width (25m on either side of the centre line), whereas the Solar Plant site is 250ha. No settlements, trading facilities or trees are permitted within the wayleave and Solar Plant site, according to the Electricity Act, No. 11 of 2019.

It is the desire of ZESCO that the planned works should not negatively affect the livelihoods of the people in the Project area. Therefore, people's assets that are within the ROW that have to be demolished, as a result of the proposed works, shall be compensated for accordingly at full replacement costs in addition to consideration of restrictions, in addition to impacts arising from the permanent land uptake at the site for the Solar Plant.

The ARAP describes the policies, procedures and processes that will be followed throughout the Project, in the course of mitigation of adverse social impacts due to project activities. PAPs, with and without legal title, whose properties, businesses and other assets are likely to be affected by the construction works will be considered.

In addition to the Electricity Act, the development of the ARAP conforms to the provisions of the Land and lands Acquisition Act No. 29 of 1995, the National Resettlement Guidelines of 2013. It further takes cognisance of the requirements of Multilateral Development Environmental and Social Standards, such as: the World Bank Environmental and Social Framework (ESF), Environmental and Social Standard 5 (ESS5) – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; International Finance Corporation (IFC) Performance Standards, Performance Standards 5 (PS5) – Land Acquisition and Involuntary Resettlement; and African Development Bank Integrated Safeguards (ISS), Operational Safeguard 5 (OS5).

1.7 Objectives of the ARAP

The main objective of the ARAP is to ensure that all the PAPs are exclusively engaged and adequately compensated for the loss of property and livelihoods, arising from the Project development.



1.8 Scope of the ARAP

This ARAP covers the following minimum elements:

- ✓ Identification of project impacts and affected populations;
- ✓ Legal framework for land acquisition, resettlement and compensation;
- ✓ Compensation framework;
- ✓ Description of resettlement assistance and restoration of livelihood activities;
- ✓ Detailed budget;
- ✓ Implementation schedule;
- ✓ Description of organizational responsibilities;
- ✓ Framework for public consultation, participation and development planning;
- ✓ Description of provisions for redress of grievances; and
- ✓ Framework for monitoring, evaluation, and reporting

1.9 Policy and Principles

Where disturbance is unavoidable, there is need to minimize adverse effects on people and on the environment through judicious routing or siting of project facilities. The aim of the involuntary resettlement policy is to ensure that people who are physically or economically displaced as a result of a project end up better - off than they were before the project was undertaken. Resettlement is involuntary when it occurs without the informed consent of the displaced persons or, if they give their consent, without having the power to refuse resettlement.

Displacement may be either physical or economic. Physical displacement is the actual physical relocation of people resulting in a loss of shelter, productive assets or access to productive assets (such as land, water, and forests). Economic displacement results from an action that interrupts or eliminates people's access to productive assets without physically relocating the people themselves. While land acquisition does not necessarily require the displacement of people occupying or using the land, it may have an effect on the living standards of people who depend on resources located in, on, or around that land.

The involuntary resettlement policy applies under all conditions of potential physical or economic displacement resulting from the acquisition or use of land for a project regardless of the total number of people affected or the significance/severity of anticipated impact. Thus, resettlement activities should result in measurable



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improvements in the economic conditions and social well-being of affected people and communities.

The preparation of this ARAP has adhered to a number of basic principles for addressing the adverse effects of involuntary resettlement associated with the proposed Project.

These principles are:

- ✓ Involuntary resettlement should be avoided;
- ✓ Where involuntary resettlement is unavoidable, all people affected by it should be compensated fully and fairly for lost assets and/or livelihoods;
- ✓ Involuntary resettlement should be conceived as an opportunity for improving the livelihoods of the affected people and undertaken accordingly; and
- ✓ All people affected by involuntary resettlement should be consulted and involved in resettlement planning to ensure that the mitigation of adverse effects as well as the benefits of resettlement are appropriate and sustainable.

1.10 Stakeholder Engagements

During the preparation of the ARAP, stakeholders that were engaged included the Officials at District level such as Local Government (Council), Health, Education, Fishery, Small & Medium Enterprise, Disaster Management and Mitigation Unit (DMMU), Agriculture, Forestry and Information and Media Departments. The Traditional Authorities were also engaged, and these include Chieftainess Sikoongo and Senior Headwoman Mwiinga in addition to local communities in the project area. The purpose of this engagement was to obtain relevant information pertaining to the area and in particular the PAPs.

Detailed one – on - one discussions were held with each of the affected persons. Questionnaires were administered, to collect relevant information from the affected persons. The PAPs will further be engaged after the valuation process to disclose the compensation entitlements which they will need to consent before payments are made.



2.0 POLICY AND LEGAL FRAMEWORK

Zambia has several pieces of legislation that support restoration of livelihoods and resettlement of persons affected by project activities.

2.1 Legal Framework

The principal policy on Resettlement is the National Resettlement Policy of 2015 which provides guidance on how to deal with issues relating to land acquisition, compensation and resettlement during implementation of projects.

Other relevant legislation includes but not limited to;

The Lands Acquisition Act, 1995

The Lands Acquisition Act was developed to make provision for the compulsory acquisition of land and other property.

Section 12 (b) of The Lands Acquisition Act of 1995 outlines the principles for assessing compensation when property is acquired. It states that any person whose property is affected by a public project is entitled to compensation and provides a mechanism by which people not satisfied with compensation may seek redress through the courts of law. The value of the compensation due is described as below:

“The value of property shall, subject as hereinafter provided, be the amount which the property might be expected to realize if sold in the open market by a willing seller at the time of publication under section seven of the notice to yield up possession”.

The basis for assessment of compensation includes:

- ✓ Enhancement of value of land by reason of proximity of any improvements or works made or constructed on part acquired; and
- ✓ Damage if any, sustained by the person having an estate or interest in land by reason of severance of such land.



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Other relevant provisions in the Land Acquisition Act are that:

- ✓ The President may compulsorily acquire any property of any description, whenever he is of the opinion that it is in the interests of the Republic so to do. This is done by way of notice of intention to acquire property.
- ✓ The Minister or any person claiming any interest in the property may institute proceedings in the Court for the determination of such dispute if there is any outstanding dispute relating to or in connection with the property.
- ✓ No compensation shall be payable in respect of undeveloped land or unutilized land. However, where the land acquired is unutilized land to which an absentee owner is beneficially entitled, compensation shall be payable in respect of the unexhausted improvements on unutilized land.

Undeveloped Land

Land shall be deemed to be undeveloped if it is inadequately developed bearing in mind the reason only:

- a) That it has been fenced or hedged; or
- b) That it has been cleared, levelled or ploughed; or
- c) That it consists of a cleared or partially cleared site of some former development; or
- d) That it is being used, otherwise than as an ancillary to adjacent land which is not undeveloped or unutilized land, as a place of deposit for refuse or waste or as standing or parking places for vehicles:

In the case of land in a rural area which is used for agricultural, pastoral or mixed agricultural and pastoral purposes, the land shall not be deemed to be undeveloped unless such land has not been used for cultivation or pasturage or mixed cultivation and pasturage, as the case may be, at any time during the period of two years immediately preceding the publication of the notice to yield up possession.

Unutilised Land

Land shall be deemed to be unutilised:



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- a) In the case of land in a rural area, if the land is not in accordance with good estate management;
- b) In the case of land in an urban area, if:
 - i. It has been developed by erection of buildings, structures or works which have fallen into substantial disrepair or into disuse, and the land has been unoccupied, or occupied solely by persons employed as watchmen, for a continuous period of not less than three months preceding the publication of the notice to yield up possession; or
 - ii. It is used at the time of the publication of such notice solely for cultivation or pasturage or both cultivation and pasturage; or
 - iii. It is used at the time of the publication of such notice solely for habitation, in dwellings of their own construction or adapted from buildings formerly abandoned by persons holding at the will of a person having title to the land or by trespassers.

Absentee Owner

- a) In the case of an individual, a person who is not ordinarily resident in Zambia; and
- b) In the case of a partnership, a co-ownership or a body corporate, one in which the effective control lies, directly or indirectly, in the hands of individuals who are not ordinarily resident in Zambia.

Relevance

The development of this Project will entail the acquisition of land. Most of the parcels of land observed on the Project area routes are under customary tenure. However, there were a few isolated cases where the land has been converted to leasehold tenure. The levels of land use on the parcels of land varies, with agriculture as the main activity.

Compliance

No land shall be acquired compulsorily without adequate engagement and compensation being given to the affected households. In so doing, JIGSCO shall ensure that the same conditions or better are maintained even after land acquisition and compensation. Improvements made to the land and the existing land-use activities for the land to be acquired will be taken into account.



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The Urban and Regional Planning Act, 3 2015

This piece of legislation was developed, among other functions, to:

- ✓ Provide for a framework for administering and managing urban and regional planning;
- ✓ Establish a democratic, accountable, transparent, participatory and inclusive process for urban and regional planning that allows for involvement of communities, private sector, interest groups and other stakeholders in the planning, implementation and operation of human settlement development;
- ✓ Ensure functional efficiency and socioeconomic integration by providing for integration of activities, uses and facilities;
- ✓ Establish procedures for integrated urban and regional planning in a devolved system of governance so as to ensure multi-sector cooperation, coordination and involvement of different levels of ministries, provincial administration, local authorities, traditional leaders and other stakeholders in urban and regional planning; and
- ✓ Ensure sustainable urban and rural development by promoting environmental, social and economic sustainability in development initiatives and controls at all levels of urban and regional planning.

Relevance

The Act provides for the appointment of regional planning authorities, provincial planning authorities and local planning authorities whose main responsibilities are the preparation, approval of layout plans and revocation of development plans. The local authorities have role to play in the development of the Project, which includes the Solar Plant site and wayleaves. The proposed Project is expected to fit into the integrated development planning of Chirundu District and Southern Province.

Compliance

The Project site plans for the Solar 200MW Plant and 330kV line, engineering designs and any modifications will need to be approved by the Chirundu District Council, before construction can commence in accordance with the planning guidelines and framework set by the Local Authority. JIGSCO will also recognize the jurisdiction of the Southern Province planning authority and its specifications will be complied with.



The Lands Act (Cap 184)

The Lands Act is the statute governing land administration in Zambia which vests all land in the Country in the President and alienation of land by the President.

Relevance

The Act gives Zambians an opportunity to participate in the country's economy.

The Minister responsible for lands has also issued Land Circular No. 1 of 1985. This Circular laid down detailed procedures to be followed on land alienation. The main features of the Circular are that:

- ✓ *Chiefs and District Councils are restricted to recommend up to 250 hectares of land on title, per applicant, in Reserve or Trust Lands; and*
- ✓ *Chiefs and the District Councils are to certify that they had physically inspected the land in question and that no person's rights or interests are affected.*

The Land Act does not comprehensively provide for compensation or resettlement. This is only partially covered in the Mines and Minerals Development Act, Land Survey Act and the Land Acquisition Act.

Compliance

In the acquisition of land, JIGSCO will ensure that the established right channels, both traditional and civil, are adhered to. Where necessary, while determining the value for compensation, JIGSCO will take into account the land tenure of the affected people, that is, whether the parcel of land is customary or state land.

The Local Government Act, No 2 of 2019

The Act provides for the establishment of Councils in districts, the functions of local authorities and the local government system. Some of these functions relate to pollution control and protection of the environment in general.

The main functions of the Public Health Department of the local authority are:

- ✓ Solid waste management;
- ✓ Food control services; and



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- ✓ Disease control.

Relevance

The proposed 200MW Solar Plant project and its associated 330kV evacuation transmission line is located within Chirundu District and will be included in the District planning.

Compliance

JIGSCO will recognise the authority of the Chirundu Council and will be expected to comply with the specifications and any relevant by laws set up by the Local Authority.

The Land Survey Act – Cap 188

The Land Survey Act enacted in 1960 was aimed at providing guidelines to be followed when activities relating to land surveying were carried out. The Act among other things provides for the production of survey diagrams, plans, survey beacons and other survey marks.

Relevance

The land on which the Solar Plant and evacuation line are to be constructed will need to be surveyed and properly marked. This mapping exercise will also help to identify PAPs and their assets to ascertain the extent of impact.

Compliance

Qualified surveyors registered in Zambia will be used. Survey diagrams and plans will need to be provided identifying the land acquired for the Project and the structures affected.

The Environmental Management Act (EMA), No. 12 2011, read together with amended EMA No. 8 of 2023.

The principal legislation governing environmental management in Zambia is the Environmental Management Act (EMA) of 2011, read together with amended EMA No.8 of 2023. This is a piece of legislation in Zambia that focuses on integrated environmental and sustainable management, the protection and conservation of the



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environment, and the sustainable management and use of natural resources. It covers various aspects related to environmental protection, pollution control, waste management, pesticides, noise, and ionising radiation.

Relevance

Of particular relevance is Section 29 of the Act which states that "A person shall not undertake any project that may have an effect on the environment without the written approval of the Agency, and except in accordance with any conditions imposed in that approval".

As defined in Section 2 of the Act, "environment" means the natural or man-made surroundings at any place, comprising air, water, land, natural resources, animals, buildings and other constructions. Thus, any land parcels, structures or places where the community depend on for their livelihoods are covered in this definition.

In relation to this Project, some of the functions of ZEMA are to review the ARAP and undertake environmental monitoring and auditing.

The Act also provides for public participation in decision-making and access to environmental information.

Compliance

The Terms of Reference and Scoping Report for the ESIS study for this P Project was cleared by ZEMA. The Environmental Impact Statement (EIS) and ARAP shall be submitted to the Agency for consideration and approval, through issuance of a Decision Letter. The Decision Letter shall precede commencement of construction works.

The Environmental Impact Assessment (EIA) Regulations, SI 28 of 1997

The Environmental Impact Assessment (EIA) Regulations, Statutory Instrument No. 28 of 1997, demands that before a developer commences construction on a project, an EIA report be prepared and submitted to ZEMA for consideration and approval.

Section 3(2) specifically requires that a developer prepares and submits an EIA report for:



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- (a) Any project set out in the First Schedule, whether or not the developer is part of a previously approved project;
- (b) Any alterations or extensions of any existing project which is set out in the First Schedule; or
- (c) Any project which is not specified in the First Schedule, but for which the Agency determines that an EIS or Project Brief should be prepared.

Relevance

A project of this nature requires that environmental issues relevant to the project construction and operation are identified at an early stage and environmental management measures incorporated at the planning stage.

The project proponent is required under Regulation 11(h) and (i) of the EIA Regulations to assess the “the socio-economic impacts of the project such as resettlement of the affected people” before project implementation.

In addition to the assessment, the proponent is expected to develop an “*impact management plan containing a description of measures proposed for preventing, minimising or compensating for any adverse impact*” of the Project.

Compliance

This ARAP contains the existing socio-economic conditions of the PAPs. The ARAP has also identified the impacts to the affected persons and proposed measures for mitigating these socio-economic impacts. In addition, a compensation budget has been included.

Electricity Act No. 11 of 2019

The Act under Section 29(2) provides for prompt payment of fair and adequate compensation for any damage or loss suffered during the execution of works. It further provides for a referral pathway, in the event that parties disagree on the amount for compensation, to a court of competent jurisdiction for determination.

Relevance



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During construction of works, the project is likely to impact people's assets within the Solar Plant site and along the wayleave for the 330kV evacuation line. Therefore, the Act provides guidance for fair, prompt and adequate compensation.

Compliance

The Project will provide for payment of compensations for the affected assets at full replacement cost and any restrictions as may be applicable.

Arbitration Act, No. 19 of 2000

This Act provides for arbitration in cases where the land owner/occupier does not agree with the amount of compensation being offered. Under section 12(2) of the Act, the parties to arbitration are free to determine the procedure for appointing the arbitrator or arbitrators. Under section 12(3) (b), if the parties are unable to agree on the arbitration, the arbitrator shall be appointed, upon request of a party, by an arbitral institution.

Relevance

During construction of works, the project is likely to impact people's assets within the Solar Plant site and along the wayleave for the 330kV evacuation line. Therefore, those affected will have to be compensated.

Compliance

In accordance with the Act, the PAPs to be compensated who may not agree with the amount of compensation being offered will be free to appeal to the Courts of Law.

2.2 Policy Framework

Guidelines for the Compensation and Resettlement of Internally Displaced Persons

These Guidelines were developed by the Office of the Vice President to provide a mechanism for dealing with Internally Displaced Persons (IDPs). The Guidelines identify rights and guarantees which are relevant to the protection of persons from internal displacements and their protection and assistance during displacements as



well as during return, resettlement or re-integration. Further, the Guidelines provide developers/investors with relevant information on their obligations and matters that they need to take into consideration when formulating their projects in order to avoid unnecessary displacements. The Guidelines are consistent with international human rights and international humanitarian law.

In particular, Guideline 5 states that “Persons that are physically and economically displaced due to investment or development projects have the right to seek compensation from the developer or investor”.

In addition, Guideline 7 recognises the rights of IDPs by stating the following: “Every human being in Zambia shall have the right to be protected against being arbitrarily displaced from his or her home or place of habitual residence.”

2.3 International Standards

2.3.1 World Bank Environmental and Social Framework

This ARAP is developed in accordance with the World Bank Environmental and Social Framework. ESS5 on Involuntary Resettlement as an effective and sustainable means of restoring the livelihoods of people affected by the implementation of the project. In this regard, the ESS5 specifies that resettlement compensation and assistance be offered to all displaced persons regardless of the total number affected, the severity of impact, and whether or not they have legal title to the land. In particular, the ESS5 indicates that compensation should be made to the following three categories of affected population:

- Those who have formal rights to land, including customary and traditional rights recognized under the local laws;
- Those who do not have formal rights to land at the time the census began but have a claim to such lands or assets; and
- Those who have no recognizable legal right or claim on land they are occupying.

ESS5 aims to ensure that the following key principles of resettlement are in place:

- The PAPs are offered choices including alternative resettlement options that are technically and economically feasible to them and are culturally appropriate.



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- When the impacts require physical relocation, the resettlement measures must include provision of assistance during relocation (moving allowance), residential housing or housing sites that are at least equivalent to the old site in terms of productive potential and locational advantages.
- Preferences are given to land-based resettlement strategies of the displaced people whose livelihoods are land-based and are indigenous. Such strategies must be compatible with their cultural preferences and should be prepared in consultations with them.
- The affected people should also be provided with development assistance for losses incurred.
- Particular attention should be paid to the needs and concerns of the poor and vulnerable groups including the landless, women, and children, the elderly, ethnic minorities, and indigenous peoples.
- Resettlement should include measures to ensure that the affected people are offered support for a reasonable transition period based on the estimate of time required to restore the original level of their livelihoods and standards of living.
- Compensations must be made in cash or in-kind depending on the preferences made by the affected people. They should be made promptly, in form of a single payment and shall be at a market value agreed to between willing buyers and sellers, which shall be considered as full replacement cost for the lost assets.
- Cash compensation for lost assets may be appropriate under the following circumstances:
 - ✓ Where the livelihoods are land based, but the land acquired by the project is a small fraction of the affected asset and the residual is economically viable;
 - ✓ Where there is a sufficient supply of land, housing and labour which can be used by the displaced person; and
 - ✓ Where the livelihoods are not land based.
- In regard to public consultation and disclosure, the ESS5 indicates that:
 - ✓ The affected people should be identified and informed about their options and rights in regard to resettlement and should be given the opportunity to participate in planning, implementing, and monitoring of the resettlement activities.



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- ✓ A census of the affected population and broad consultations in the affected communities should be undertaken in order not to only identify those to be affected, but also to discourage inflow of people not eligible for assistance.
- ✓ Participants in the consultations must include community leaders, Non-Governmental Organisation (NGOs), Community Based Organisations (CBOs) and other interest groups active in the project area.

2.3.2 International Finance Corporation Guidelines

The IFC Policy and Performance Standards on Social and Environmental Sustainability is an international benchmark for good practice. The general guidelines of the International Finance Corporation include the following:

Physical or economic displacement must be avoided or minimised as far as possible, while balancing environmental, social and financial costs and benefits:

- When displacement cannot be avoided, the client will offer compensation to displaced persons and communities for loss of assets at full replacement cost and other assistance to help them improve or at least restore their standards of living or livelihoods. Where livelihoods of displaced persons are land-based, or where land is collectively owned, the client will offer land based compensation, where feasible;
- Following disclosure of all relevant information, the client will consult with and facilitate the informed participation of affected persons and communities, including host communities, in decision making processes related to resettlement. Consultation will continue during the implementation, monitoring, and evaluation of compensation payment and resettlement to achieve outcomes;
- The client will establish a grievance mechanism to receive and address specific concerns about compensation and relocation that are raised by displaced persons or members of host communities, including a recourse mechanism designed to resolve disputes in an impartial manner;
- Where involuntary resettlement is unavoidable, the client will carry out a census with appropriate socio-economic baseline data to identify the persons who will be displaced by the project, to determine who will be eligible for compensation and assistance, and to discourage inflow of people who are ineligible for these benefits. In the absence of host government procedures, the client will establish



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a cut-off date for eligibility. Information regarding the cut-off date will be well documented and disseminated throughout the project area;

- The developer will establish procedures to offer affected persons and communities' compensation and other assistance. The procedures will establish the entitlements of affected persons or communities and will ensure that these are provided in a transparent, consistent, and equitable manner. The implementation of the procedures will be considered complete when affected persons or communities have received compensation and other assistance.
- Displaced persons may be classified as persons: (i) who have formal legal rights to the land they occupy; (ii) who do not have formal legal rights to land but have a claim to land that is recognized or recognizable under the national laws; or (iii) who have no recognizable legal right or claim to the land they occupy. The census will establish the status of the displaced persons.
- Where land acquisition for the project causes loss of income or livelihood, regardless of whether or not the affected people are physically displaced, the client will meet the following requirements:
 - Promptly compensate economically displaced persons for loss of assets or access to assets at full replacement cost;
 - In cases where land acquisition affects commercial structures, compensate the affected business owner for the cost of re-establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery or other equipment;
 - Provide replacement property (e.g., agricultural or commercial sites) of equal or greater value, or cash compensation at full replacement cost where appropriate, to persons with legal rights or claims to land which are recognized or recognizable under the national laws;
 - Compensate economically displaced persons who are without legally recognizable claims to land for lost assets (such as crops, irrigation infrastructure and other improvements made to the land) other than land, at full replacement cost. The client is not required to compensate or assist opportunistic settlers who encroach on the project area after the cut-off date;
 - Provide additional targeted assistance (e.g. credit facilities, training, or job opportunities) and opportunities to improve or at least restore their income-earning capacity, production levels, and standards of living to



economically displaced persons whose livelihoods or income levels are adversely affected;

- Provide transitional support to economically displaced persons, as necessary, based on a reasonable estimate of the time required to restore their income earning capacity, production levels, and standards of living.

2.3.3 African Development Bank Guidelines

This ARAP is developed in accordance with Environmental and Social Operational Safeguard 5 (OS5) focuses on the management of land acquisition, restrictions on access to land, and involuntary resettlement in development projects. This safeguard is crucial in mitigating adverse impacts on communities and individuals affected by such activities. The primary objective of OS5 is to ensure that;

- Adverse impacts are avoided where possible.
- Minimized impacts when avoidance is not possible.
- Mitigation measures are implemented to address any remaining impacts

OS5 aims to ensure that the following key principles of resettlement are in place:

- **Involuntary Resettlement:** This occurs when individuals or communities do not have the right to refuse land acquisition or restrictions on land use that lead to displacement. It includes both physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to assets that leads to a loss of income sources or livelihoods).
- **Compensation and Benefits:** Those affected by land acquisition and resettlement must be provided with compensation at full replacement cost and other assistance to help them improve or restore their livelihoods and standards of living to pre-displacement levels or better.
- **Consultation and Participation:** Engaging affected communities through inclusive consultations and ensuring their participation in planning and implementing resettlement activities is vital. This includes the provision of timely information about their rights and options.
- **Grievance Mechanisms:** Establishing accessible and responsive grievance mechanisms to address concerns and grievances from affected communities is essential. This helps in resolving issues promptly and effectively.
- **Monitoring and Evaluation:** Continuous monitoring and periodic evaluations of resettlement activities ensure that the objectives are being met and allow for the adjustment of strategies as necessary.



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- **Post-Implementation:** Monitoring and evaluation continue post-implementation to ensure that the resettlement measures are effective and sustainable over the long term

Implementation steps of OS5

- **Planning:** Detailed planning involves conducting socio-economic surveys, consultations with all key stakeholders, including PAPs, communities, community leaders, to understand the impact on affected persons and communities. Consent from PAPs, signed forms during disclosure process and establishment of GRM structures in all project target areas, training them and ensuring they are well equipped for this responsibility is part of the planning process. It also includes the development of a Resettlement Action Plan (RAP) or a Livelihood Restoration Plan.
- **Implementation:** During this phase, the ARAP or LRP is executed, which includes land acquisition, provision of compensation, relocation of affected persons, and support for livelihood restoration. Furthermore, including compliance monitoring; handling and resolving grievances.
- **Post-Implementation:** Monitoring and evaluation continue post-implementation to ensure that the resettlement measures are effective and sustainable over the long term. ARAP Completion report (to be prepared by the ZESCO Limited, and independent ARAP completion audit

In summary, OS5 is a comprehensive safeguard designed to manage the complex issues associated with land acquisition and involuntary resettlement, ensuring that affected individuals and communities are fairly compensated, supported in restoring their livelihoods, and actively involved in the process.

2.5 Best Practice Perspective

JIGSCO is committed to meeting best practice standards for the management of impacts arising from resettlement and/or loss of livelihoods, that will arise from the development of this Project. A set of key principles have been adopted by JIGSCO as guiding principles for this Project.

The fundamental principle is the improvement of standards of living for the affected households, while achieving the project developmental objective. Furthermore, leading international practice prefers compensation in kind over financial



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compensation (especially for land-based livelihoods) to avoid impoverishment. Cash is only acceptable as compensation for land or housing where there is an active land and housing market and affected persons have participated in this market.

Finally, international best practice promotes participatory planning in determining entitlements and compensation rates and to consider options during the resettlement planning.



3.0 APPROACH AND METHODOLOGY

This section outlines the methodology for socio-economic data collection and consultation process undertaken as part of the development of the ARAP.

3.1 Review of Secondary Information

The development of the ARAP was completed partly by reviewing relevant literature on land use and settlement patterns within the immediate area of influence, of the proposed Project. From the site assessment conducted, it was evident that the proposed Solar Plant site is void of settlements. However, thirty – six (36) PAPs carrying out agricultural activities were identified to be affected within the plant site. Similarly, no settlements were identified along the transmission line route.

The literature review of documents or records related to the project area, was undertaken to:

- Review the development plans that could potentially influence the land use within the project area;
- Identify and harmonize best practices in management of impacts arising from resettlement and/or loss of livelihoods;
- Review legal and policy framework on compensation and resettlement; and
- Establish the land use rights in the project area.

The literature review provided sources for baseline data collection on population characteristics as compiled by the Zambia Statistics Agency (ZSA) regarding poverty levels, demography of the project area, community resources, political and social resources, institutional structures, etc.

3.2 Institutions Involved in the Project

JIGSCO is responsible for resettlement and compensation aspects related to the development of this Project. JIGSCO shall procure specialized services, where applicable, for valuation of assets, crops, trees of economic value and other livelihood losses. In addition, relevant expertise shall be sought for agriculture and land disputes, in consultation with the local and traditional administration. Key entities participating in this process include Department of Lands, District Agriculture Coordinators’ Office (DACO), Department of National Parks and Wildlife, National Heritage Conservation



Commission, Forestry Department and Chirundu Council. It is also worthwhile to note that the Social Welfare Department under the Ministry of Community Development and Social Services, will be engaged for counseling of PAPs before compensation payment and for resolution of any compensation related dispute.

3.3 Stakeholder Participation and Involvement

Public consultation, participation and development planning processes are an opportunity to manage expectations, challenge misconceptions, disseminate accurate project information, and gather stakeholder opinions. These provide relevant feedback to the project developer and other project specialists. Public participation and consultation undertaken for the ARAP included consultation with the communities in the project area, as well as Local and Government Authorities.

Emphasis was placed on a fully inclusive, open and transparent public participation process in the transfer of information regarding the proposed Project, using appropriate means of dissemination. Public consultation and participation will be documented throughout the Project as a way of promoting transparency in the project development.

Various procedures and techniques were employed to facilitate the involvement of the public on this Project. These include:

3.3.1 Focus Group Meetings

Focus Group Meetings (FGM) were held with individual stakeholder groups and will continue to be held throughout the project life cycle to provide ongoing feedback, as well as discuss concerns and issues pertinent to them.

Apart from the consultation process outlined above, all affected property owners were consulted through one-to-one meeting to inform them about the proposed project. Each property owner was informed about the valuation process, disclosure of compensation entitlement and modalities for payment of compensation. Any accidental or omitted PAPs that may be identified during project implementation will be engaged individually, following the due process of compensation.



3.3.2 Key Informant Interviews

The Key Informant Interviews (KII) were undertaken as part of the engagement process with PAPs and key stakeholders to introduce the project and to develop a baseline of the Project area with reference to the socio-demographic context. Key informant interviews were conducted with individuals from the Forestry Department, Department of Social Welfare, Chirundu Council (Planning Department), Department of National Parks and Wildlife, community leaders such as Area Councilor, Ward Development Committee members and Her Royal Highness Chieftainess Sikoongo.

3.4 Census, Socio-Economic and Assets Survey

The census, socio-economic and asset surveys will be used to establish the profile of PAPs in the project area, including vulnerable groups. A copy of the questionnaire to be administered to understand socio-economic demographics is attached as **Appendix 2** of this report. The socio-economic (household) survey will identify the activities and impacts that will occur due to the construction of the Solar Plant and its associated transmission line. The household survey of PAPs and inventory of affected assets and properties will be carried out in **June 2025**. The Survey will consist of interviews with heads of household or their representatives along with the completion of questionnaires. In addition, existing social economic data for the project area from the Zambia Statistics Agency was reviewed and will be used with the primary data to provide a socio-economic assessment for the Project area.

3.4.1 Data Entry and Analysis

Collected data from socio-economic survey was analyzed in order to determine the level and impact and support the decision making process for appropriate mitigation. Data verification will be undertaken to check for accuracy and any discrepancies that may have occurred during data migration process. The research methodology undertaken will require that ethical consideration is taken into account and participants are assured of the professionalism and integrity of the Survey.

3.4.2 Ethical Issues

The following ethical aspects are relevant to the Survey: Voluntary participation; informed consent and anonymity and confidentiality. All the participants in this study participated voluntarily.



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The information obtained in the interviews will be analyzed and presented in a way that protects the identity of the participants. To this end, the enumerators consider it very important to establish trust between participants and themselves and to respect them as independent beings, thus enabling them to make sound decisions. Therefore, the survey will reflect on the following specific key ethical considerations:

- The enumerators and supervisors will be truthful and respectful in the way that they portray the clients' beliefs and practices;
- The enumerators and supervisors will not make any disparaging or judgmental remarks about the PAPs;
- The enumerators and supervisors will not make any sweeping statements that produce generalization and prejudices about the PAPs in general; and
- The enumerators and supervisors will not use terms that some people may consider as hurtful and offensive.

3.4.3 Criteria of Identifying PAPs

The PAPs are identified as persons whose property (land, building, trees of economic value, crops) or income will be affected in part or as a whole by the Project and would therefore need to be compensated, as well as people who will be indirectly affected by the proposed Project.



4.0 SOCIO-ECONOMIC BASELINE ASSESSMENT

4.1 Regional Overview

4.1.1 Administrative Structures

This section outlines the administrative arrangements in District, under which the Project falls. The two broad administrative structures are Government and traditional authorities.

4.1.1.1 District Government

The proposed project will be implemented in Chirundu District. The administration of a district is vested in the Office of the District Commissioner, established by the Government in 1999 as part of the decentralization process. The office coordinates the functions of all developmental agencies in a local district as well as harmonizing the functions of Central Government and those of the Local Government. All development agencies working in the district are members of the District Development Coordinating Committee (DDCC), which is chaired by the District Commissioner.

The Local Authority is a semi-autonomous institution operating as an agent of Central Government. The Local Authority provides a forum for local representation of the public by electing Councillors as local representatives. The Local Authority is responsible to the Ministry of Local Government and Rural Development (MLGRD).

The Local Authority has statutory powers to make by-laws and regulations. According to the provisions under the Local Government Act No. 2 of 2019, MLGRD can amend or revoke by-laws issued by the Council and make regulations that the Council has to conform to, through circulars and statutory instruments.

4.1.1.2 Traditional Authority

The highest traditional authority in all the districts is the Chief, who is responsible for a defined geographical area in a district. Each area is further subdivided into sub-chiefs or village headmen who act as representatives of the Chief in their respective areas.



The area under a sub-chief or village headman is further divided into small areas managed by group leaders. Each group leader has a system of community section heads who report to them and then to the sub- chief/village headman and finally to the Chief regarding developmental activities in the village. Further group of households has a community-based committee leader who reports to the community section head to keep them informed about developments in the village. Finally, each household has a head who is responsible for the overall wellbeing of its family members.

4.2 Socio-economic conditions in the area

According to the 2022 census, the population of Southern Province in Zambia is approximately 2,381,728, up from 1,589,926 in 2010, reflecting an annual growth rate of 3.4%. The population of Chirundu District in Southern Province, Zambia, is approximately 78,780. Sikoongo Ward has a population of 3,223.

4.2.1 Community Profile and Demography

As per the 2022 Zambian Census, Southern Province had a population of 2,381,728 people out of which 1,163,754 were males and 1,217,974 were females, making the sex ratio of 1,046 females for every 1,000 males, compared to the national average of 1,028.

Sikoongo Chieftdom is an indigenous Tonga/Gova chieftdom, encompasses 234 villages. In the Project area, village composition ranges from 28 households to 105 households. The population in the District is primarily concentrated in the township and growth nodes along the Lusaka Road. Table 2 below provides the estimated population projections up to 2035.

Table 2: Projected Population Growth in Chirundu District (2025-2035)

| Year | Population |
|-------------|-------------------|
| 2025 | 87,891 |
| 2030 | 107,339 |
| 2035 | 129,667 |

Source: *Ministry of Local Government and Rural Development (2025)*



4.2.2 Culture and Ethnic groupings

Southern Province has many ethnic groupings with Tonga being the major language spoken. The province also has several chiefdoms headed by traditional leaders

The Tonga people, who are part of the larger Bantu-speaking ethnic groups found in Zambia and parts of Zimbabwe belong to the Bantu ethnic group and are one of Zambia's oldest indigenous communities. They are part of the greater Tonga-speaking population found along the Zambezi Valley, the Gwembe Valley, and the Southern Plateau of Zambia.

Chirundu has a rich cultural heritage, with traditional ceremonies and practices playing a significant role in the community. The people of the Sikoongo chiefdom in Chirundu District observe the Nzambangulwe traditional ceremony. This important cultural event celebrates the heritage and traditions of the Tonga-speaking people in the region. The Nzambangulwe ceremony typically takes place in August.

4.2.3 Land Use and Settlement

Chirundu District has both urban and rural areas. Subsistence farming is the major land use in the rural parts of the District. Other land uses include business facilities, public institutions such as schools, health facilities and churches. Most of the settlements in the rural parts of the District are clustered while a few are along the main roads.

In the Project area land use mirrors the District's general trends, but is more closely tied to traditional lifestyles. Most of the land in Katobola Village is utilized for subsistence farming, with crops such as maize, millet, groundnuts, and cassava being cultivated. Livestock farming is practiced, though to a lesser extent than crop farming, and families often raise cattle, goats, and chickens. The Village has a significant rural character, with traditional homesteads and community-based land management practices.

The largest portion of the land is held under the traditional land tenure system with the occupancy and the use rights allocated by chiefs, through head man based on family needs and usage, with the chief or headman acting as the custodian of the land. Individuals or families seeking land for agricultural purposes or settlement typically approach the local chief, who grants land use rights, often informally. These



rights are not typically formalized through legal documentation, but they are recognized within the community.

Urban areas within the District are planned and zoned into residential, mining, commercial and office areas.

4.2.4 Typical housing types

Institutional houses in the District are mainly built using concrete blocks, plastered, painted and roofed with either asbestos or iron sheets are common with the townships. Some personal houses are built with baked or concrete bricks and roofed with iron sheets or grass thatched. In the project area in rural areas, the majority of the houses are built of mud-bricks with grass thatched roofs. Occasionally, the houses are built using burnt bricks and corrugated iron sheets.

4.2.5 Water Supply and sanitation

The current status of water and sanitation in Chirundu has seen significant improvements recently. The Chirundu Town Council has finalized several water schemes under the 2023 Constituency Development Fund (CDF), including the drilling and installation of four solar-powered boreholes. These efforts aim to provide clean and safe water to over 25,000 people in the District. However, challenges remain, particularly in rural areas where access to water and sanitation services is still limited. The project area is not currently serviced by the local authority. Like many rural areas in the Country, residents rely on nearby water bodies and communal wells for their domestic water needs. Sanitation is managed through pit latrines.

In the vicinity of the project area, there are three existing boreholes: one located at the local school, another at the Health Post, and a third situated in Mwiinga Village, approximately 2km from the proposed solar site.

4.2.6 Local Economy

The local economy of Chirundu District is diverse, with agriculture, trade, transportation and small-scale industries being the main contributors, due to its strategic location on the Zambezi River. This serves as a key border crossing between Zambia and Zimbabwe. Serving as a pivotal point for cross-border traffic between Harare in Zimbabwe and Lusaka in Zambia, the Chirundu Bridge play a vital role in facilitating regional connectivity.



The District faces economic challenges, including low-income levels and limited access to resources. However, there are ongoing efforts to improve the economic situation. The District has implemented various programs to support economic development, including the Cash for Work Programme to mitigate the effects of climate change. Additionally, the Council is focusing on enhancing micro, small, and medium enterprises, improving market spaces, and promoting urban and peri-urban economies.

4.2.6.1 Agriculture

Agriculture is a key economic activity in Chirundu District, with maize, groundnuts, and soya beans being the primary crops. Chirundu is situated in Zambia's Agro-Ecological Region I, characterized by extremely high temperatures and low rainfall. This makes the District prone to droughts, impacting agricultural productivity as was evident in the 2023/2024 farming season, where about 98% of the crops planted on 33,525 hectares failed. This has affected around 14,000 farming households. Initiatives like the SCRALA Project (Strengthening Climate Resilience of Agricultural Livelihoods in Agro-Ecological Regions I and II in Zambia) have introduced irrigation schemes to improve agricultural productivity.

Livestock farming is a significant component of the agricultural sector. The primary livestock reared include cattle, goats, and poultry. Figure 2 below depicts the livestock in the Project area.



Figure 2: Goat rearing in the Project Area

4.2.6.2 Tourism

Tourism in Chirundu District is centred around natural attractions such as the Chirundu Fossil Forest and the Zambezi River.

Chirundu is renowned for its scenic beauty along the Zambezi River making it a popular destination for various activities:

- Fishing - The Zambezi River is famous for tigerfish, making it a hotspot for fishing enthusiasts.
- Boating and Canoeing - Visitors can enjoy boating and canoeing trips, often starting from Chirundu and heading towards Mana Pools.
- Wildlife Viewing - The area is rich in wildlife, including elephants, which are often seen wandering around the District.

Additionally, Chirundu has a rich cultural heritage, with traditional ceremonies and practices playing a significant role in the community. The people of the Sikoongo chieftom in Chirundu District observe the Nzambangulwe traditional ceremony. This important cultural event celebrates the heritage and traditions of the Tonga-speaking people in the region. The Nzambangulwe ceremony typically takes place in August.



Chirundu District is in proximity to national parks such as Lower Zambezi National Park, which supports eco-tourism and wildlife conservation. These parks contribute to the local economy through tourism and conservation activities.

4.2.6.3 Manufacturing Industry

The key industries in the Province include the sugar plantation and processing plant, milling plants and breweries. Other industries are those involved in food processing.

However, there are no major industries in the District and the immediate Project area.

4.2.6.4 Mining

Mining in Chirundu District is an emerging sector. Mining activities in Chirundu District include artisanal mining of minerals such as copper, gold, and gypsum. The Mulonga Mining Cooperative Society Limited is one of the key players in the District, focusing on artisanal mining to benefit local communities.

The Chirundu Mining License, which includes the Njame and Gwabe deposits, is part of the larger Muntanga Uranium Project managed by GoviEx Uranium Inc. This license was reinstated in 2021 after being previously cancelled.

The Muntanga Project, which encompasses the Chirundu area, involves open-pit mining and heap leaching over an initial mine life of 11 years. The immediate project area has no known mining activities.

Mining in the District has the potential to steer social and economic development. This requires public and private investment into development of support infrastructure, such as roads and power supply that could facilitate development of the sector. With the opening of Uranium mining exploration at Muntanga and Dibbwi by Denison Mines Zambia Limited, coupled with the Green Stone Mining in Chief Siandambwe area, the sector is envisioned to positively contribute to the Districts' social and economic development.

4.2.6.5 Energy

The primary energy source in Chirundu District, is hydroelectric power generated from the Kariba North Bank Hydropower Station, located on the Zambezi River. It supplies



electricity to Zambia and surrounding countries; this is considered one of the most important power generation stations in Southern Africa.

Access to electricity is limited in rural areas of the District, resulting in increased use of firewood and charcoal for cooking and heating at household level. Solar energy, Paraffin and candles are used for lighting.

4.2.6.6 Infrastructure Development

Southern Province has great potential for infrastructure development. However, the districts do not have adequate housing and commercial infrastructure. In view of this, the Councils have opened up new areas aimed at expanding the land available for residential and commercial development. Investment in infrastructure through a Public Private Partnership model would also help in opening up the Province and position it to fully realize its potential in tourism, agriculture and agro-processing and manufacturing industries.

4.3 Profile of Project Affected Persons

Thirty – six (36) PAPs were identified and will be socio-economically profiled during the census and asset survey.

4.3.1 Summary of PAPs

PAP includes any person, entity, organizations, firms or private institutions who, on account of changes that result from the project will have their:

- (i) Standard of living adversely affected;
- (ii) Right, title, or interest in any house, land, water resources, fish ponds, communal fishing grounds, annual or perennial crops and trees, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or
- (iii) Business, occupation, place of work or residence, or habitat adversely affected, permanently or temporarily, with or without displacement.

Thirty – six (36) PAPs were identified on the solar plant site where land is under the charge of the Sikoongo Royal Establishment. However, no PAPs were identified on the transmission line route, taking into account a ROW of 50m width (25m on either side



of the centre line). During the identification exercise, any development within the solar plant site or within 50m span of the 330kV power line was deemed to be affected by the Project.

The detailed socio-economic baseline for the PAPs will be established during the census and asset survey that will be conducted in June 2025.

Table 3: Summary of PAPs by Gender

| DISTRICT | GENDER | |
|--------------------|-----------|-----------|
| | MALE | FEMALE |
| Chirundu | 18 | 18 |
| Grand total | 18 | 18 |

4.3.2 Households affected by loss of dwelling structures

No dwelling structure will be affected by the Project.

4.3.3 Vulnerable PAPs

The criteria used for vulnerability identification included categories such as female-headed households, pregnant and lactating mothers, child-headed households, sick and infirm, disabled and elderly (65+). Vulnerable people are more likely to experience some difficulties than other physically or economically displaced persons during resettlement. Moving, rebuilding, relocating may take longer due to their impaired abilities. The thirty – six identified PAPs will be subjected to the above vulnerability criteria.

Some vulnerable people are at greater risk of fraud, theft or threat, especially when compensations are in cash, although on this Project the cash entitlement is going through a number of banking institutions. Compensation distribution can make these people more vulnerable to social and family pressures which would reduce their ability to use the funds prudently. The negative impacts can be mitigated by prepayment counselling with qualified counsellor, assuring the collaboration of legitimate leaders and an adequate follow-up with the PAPs regarding compensation distribution and management.



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Administrative burden of compensation procedures will be reduced to minimal especially for the vulnerable households by giving them timely information, enhanced access that reduces their strain in the compensation process and ultimately minimizing incidental costs to them.

During the construction and operation phases, the Project's impacts on gender equality are mainly related to employment opportunities and land use by women. In the Project area, traditional cultural norms play an important role in women and girls' education, paid employment and other benefits. However, JIGSCO is an equal opportunity employer, and therefore, this impact may be minimized further.

4.3.4 Employment and Livelihoods

Employment in Chirundu District is diverse, with significant contributions from agriculture, trade, and small-scale industries. Agriculture remains a primary source of employment, engaging a large portion of the population in crop production and livestock farming. The District's strategic location along the Lusaka Road facilitates trade and commerce, providing numerous job opportunities in retail, transportation, and logistics. Small-scale industries, including artisanal mining and local manufacturing, also contribute to employment.

The public sector, including local government and educational institutions, provides additional job opportunities. Initiatives like the Zambia National Service (ZNS) projects and capacity-building programs aim to create both skilled and unskilled jobs, enhancing employability and supporting economic development in the District.



5.0 ENTITLEMENT FRAMEWORK

An assessment of the affected physical assets was carried out at project site to identify individuals whose properties or livelihoods would be directly affected by the project activities. Valuations will be conducted to determine the value of the affected physical structures for compensation. Based on these assessments, negotiations about entitlements for the structures will be carried out with the PAPs in the presence of witnesses.

The following sections describe the basis for determining eligibility for entitlements related to the loss of assets and other assistance that may be required during the resettlement process, a summary of impacts that require mitigation and a description of individual entitlements that will be negotiated with the PAPs in the presence of witnesses.

5.1 Compensation Eligibility

Compensation and income restoration measures will be implemented without discrimination (based on gender, race, ethnicity, religion, disability or other prohibited grounds). Regarding gender, JIGSCO will ensure equal treatment of women during compensation and income restoration processes, especially with regard to women's rights and interests in land, property, assets, and compensation and relocation assistance, even where these are not recognised in formal law. This ARAP proposes that within household units, it is encouraged that titles of replacement land and structures are issued in the names of the head of household and his wife, rather than merely the former.

Although the responsibility for establishing eligibility criteria rests with JIGSCO within the national and regulatory framework, international best practice will be adhered to, which recommends that "this procedure include provision for meaningful consultations with affected persons and communities, local authorities, and, as appropriate, NGOs".

Eligibility categorization in terms of land tenure classification will consider:

- (a) Those who have formal legal rights to land (not only the Government, but including registered leasehold and customary/traditional rights recognised under the Zambian Constitution);



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- (b) Those who do not have formal legal rights to land but have a claim under certain provisions (provided that such claims are recognised under the Zambia law or become recognised through the ARAP);
- (c) Those who lose other economic resources such as trees, agricultural produce on cultivated fields, etc., and/or have their access to these economic resources denied or restricted; and
- (d) Those who have no recognisable legal right or claim to land they are occupying.

All PAPs who sustain losses due to project-related causes, whether individual, institutional or communal, and whether physically displaced or otherwise, will be eligible for compensation in terms of this ARAP. The PAPs will include the following categories of people:

- The population resident in areas affected by construction and operational works of the Project, including squatters; (squatters will be provided with compensation for loss of structures/loss of economic activities/livelihoods and resettlement assistance, but no compensation for the land the squatters are occupying.)
- Landholders and/or users of land in areas affected by construction and operational works of the Project; and
- Those who will be economically displaced losing income through loss of employment, such as employees of households and business enterprises, and agricultural labourers.

It is necessary to publicly declare a cut-off date, to determine eligibility and thus entitlements to resettlement and compensation for each Project component of the project as it enters the implementation stage. A cut-off date declaration plan is explained below:

The cut-off date and its significance will be publicly disclosed and widely disseminated to PAPs. The cut-off date will be communicated to PAPs during consultations with them. It will be made clear to the PAPs that anyone who makes a claim for loss of land or any assets after such a date is ineligible for expropriation/compensation. This will be in addition to the process of valuation that will identify and value individual assets on the day the asset registration will take place. The cut-off date strategy would include the following measures:

- Cut-off date handout bearing grievance redress procedure given to PAPs during meetings;



- Inform PAPs in writing and through meetings as well; and
- Consultation with local leaders, and relevant organisations within the Project area.

Compensation cannot be claimed for structures constructed after this assessment procedure, and the publication of the cut-off date. The onus will be on a person who is not recorded in the verification studies to prove that s/he qualifies for Project entitlements.

5.2 Project Impacts

The Project will significantly impact agricultural land by reducing arable land availability. This impact will affect thirty – six field owners, the change will lead to decreased crop yields, loss of biodiversity, and displacement of farming communities.

5.2.1 Loss of crops and trees of economic value

Measures have been proposed to avoid the loss of crops if any during construction period although no farmland was found to be affected during the socio-economic survey. However, in case some PAPs decide to cultivate in the areas earmarked for the Project activities, construction works will only be carried out after the harvest of the crops or compensated for accordingly if destruction is inevitable.

The Project will not affect any trees of economic value at the solar site and in the ROW taking into account the ROW of 25m (50m either side) of the proposed power line.

5.2.2 Loss of Built Structures

There are no built structures within the proposed line route that will be affected by the Project.

5.2.3 Loss of revenue/income

Other than the potential loss of income from the loss of agricultural fields, in the immediate Project area there is no known PAP identified to suffer loss of revenue/income.



5.2.4 Loss of Dwelling Structures

No dwelling structures will be affected.

5.2.5 Cultural Heritage Impacts

Stakeholder engagement revealed that there is an active graveyard within the Project site. The National Heritage Conservation Commission (NHCC) has been engaged to carry out a Heritage Impact Assessment (HIA). Management of impacts on affected families will be as prescribed in the HIA.

5.3 Compensation Calculation Methods

This ARAP spells out the valuation and compensation procedures which will be followed for any resettlement related operations that may take place under the Project activities in regard to land, agricultural fields, residential and commercial structures; crops and trees. For each payment, compensation will be calculated in Zambian Kwacha (ZMW).

The general principle adopted in the formulation of compensation values is that lost income and assets will be valued at their full replacement cost such that the Project affected populations should experience no net loss.

Valuations for compulsory acquisition and compensation in Zambia are prepared in alignment with the Land Acquisition Act, Chapter 196 of the Laws of Zambia. Under Section 12(b) of the said legislation, the value of the property should be, “the amount the property might be expected to realize if sold on the open market at the time of publication of the notice to yield up possession.”

In this regard, Replacement Cost is defined as “The aggregate amount of the value of the land for the existing use or a notional replacement site in the same locality, and the gross replacement cost of the buildings and other site works”.

The basic principle of the Law of compensation is that the sum awarded should as far as practicable place the claimant in the same financial position as they would have been, had there been no question of their land/property being compulsorily acquired. This means that the claimant should be no better off and no worse off than they were before the acquisition.



The amount of disturbance payment shall be equal to the reasonable expenses of the person entitled to the payment in removing them from the land from which they are displaced; and if they were carrying on a trade or business on the land, the loss they will incur by reason of the disturbance of that trade or business consequent upon their having to quit the land.

Disturbance allowance has a social dimension not adequately executed in the valuation as it is assumed that the affected persons will retain their occupational sources of income.

5.4 Entitlements

The International Resettlement Guidelines require compensation for lost assets and replacement costs to both titled and non-titled landholders and resettlement assistance for lost income and livelihoods. Thus, in this Project, the absence of formal title will not constitute a barrier to compensation. Further, the principles adopted herein contain special measures and assistance for vulnerable persons, such as female-headed households, physically challenged persons, and the destitute. Persons affected by land acquisition are entitled to a combination of compensation measures and resettlement assistance, depending on the nature of ownership rights of lost assets and scope of the impact that will help to restore livelihoods to pre-project standards, at a minimum.

Table 4 provides a detailed description of the standard entitlements for each type of loss that requires compensation and mitigation.

Table 4: Entitlement Matrix

| Type of Loss | Category of Affected People | Entitlement |
|-----------------|---|--|
| 1. Loss of land | Landowners with legitimate interests in the wayleave in the following categories: <ol style="list-style-type: none"> 1. Traditional land tenure administered by the Chief 2. Privately purchased land in an area under tribal control | <ul style="list-style-type: none"> • Financial compensation for lost land at full replacement value²: <ul style="list-style-type: none"> – Where affected land is smaller than 1.25ha or – Where the affected portion is less than 20% of the land • Full replacement of land allocated under traditional system: <ul style="list-style-type: none"> – Where the affected farm is cultivated and |

² Land Acquisition Act: value of the property shall be the amount which the property might be expected to realize if sold in the open market by a willing seller.



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| Type of Loss | Category of Affected People | Entitlement |
|---|---|---|
| | 3. Land with a Certificate of Occupation issued by the Department of Lands 4. Land owned under a Leasehold with registered Title | <ul style="list-style-type: none"> - Where the affected portion is more than 20% of the lost land, or - Where the owner can prove that the residual (remainder) area is no longer economically viable, or - Where land acquisition causes landlessness (minimum livelihood requirement is 1 lima or 0.25ha) • Financial compensation at full replacement value as determined by a registered Valuer or Department of Lands for: <ul style="list-style-type: none"> - Privately acquired land in areas under tribal control and - Titled (privately owned) land. <p>For vulnerable groups, or those who would prefer a non-cash option, World Bank ESS5, EIB Standard 6 and the relevant Zambian legislation will apply, where compensation in kind will be considered in lieu of cash.</p> <ul style="list-style-type: none"> - According to the Electricity Act, ZESCO is only supposed to obtain consent from the property owner at no cost for bare land in terms of wayleave acquisition. However, ZESCO compensates 25% of the full replacement cost for restricted land use of affected land for wayleave |
| 2. Additional land acquisition assistance | Owners of cultivated land with an affected area greater than 20% of the total land area and who are entitled to replacement land | <ul style="list-style-type: none"> • Assistance with application for land from the Chief • Assistance with application for restoration of formal ownership, if applicable |
| 3. Loss of dwellings / residential structures | Owners of dwellings in the wayleave, inhabited at the time of the cut-off date | <ul style="list-style-type: none"> • Financial compensation based on the full replacement value/One replacement house of equal size determined by floor area and replicating, as far as possible, functional uses where original dwelling consists of multiple buildings • Resettlement to an agreed rural settlement site (in the same village) |
| | Owners of dwellings in the wayleave, uninhabited at the time of the cut-off date | <ul style="list-style-type: none"> • Financial compensation based on the full replacement value of the existing dwelling as determined by a registered Valuer |



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| Type of Loss | Category of Affected People | Entitlement |
|--|---|--|
| 4. Loss of crops ³ | Owners of Annual crops and fruit trees | <ul style="list-style-type: none"> Financial compensation for all agreed crops Compensation will be based on the standard rates determined from time to time by the Ministry of Agriculture (MoA) Intercropped crops will be compensated in proportion to the coverage and proportionate reduction of weight of rate as determined by MoA formula Transportation cost or allowance to Bank |
| 5. Loss of business structures | Owners of business structures in the line routes, in use at the time of the cut-off date | <ul style="list-style-type: none"> Resettlement to outside the wayleave (in same the village) Full replacement cost for entire structure Allowances: <ul style="list-style-type: none"> Administrative and Transaction Loss of Land Loss of Income/business (for 1 (one) month) Transportation Relocation Reconnection to Electricity Transportation to Bank |
| | Owners of business structures in the wayleave, not in use at the time of the cut-off date | <ul style="list-style-type: none"> Financial compensation based on the full replacement value of the existing business structure as determined by a registered Valuer |
| 6. Loss of non-residential structures | Owners of non-residential structures (sheds, wells, shelters) at the time of the cut-off date | <ul style="list-style-type: none"> Financial compensation based on the full replacement value of the existing structures as determined by a registered Valuer |
| Tenants of permanent Structures (Residential & Commercial) | Tenants of permanent structures. | Where tenant has constructed own housing/ structure on land rented from another person, compensation for loss of structure is provided for. Where tenant rents accommodation in a structure belonging to another person, sufficient notice shall be provided. |
| 7. Difficulty for some households coping with transition caused by physical displacement | Vulnerable PAPs, e.g. disabled persons, elderly persons, persons with chronic illnesses | <ul style="list-style-type: none"> Transitional hardship assistance as appropriate to specific cases, e.g. support female headed household to assist during transition and other assistance deemed appropriate under specific circumstances |
| Loss of communal Facilities | Communal assets such as (Church, land, Borehole etc) | <ul style="list-style-type: none"> Compensation for affected schools or places of worship (church land, etc.) will be given to the |

³ Agricultural Lands Act



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| Type of Loss | Category of Affected People | Entitlement |
|----------------------------------|--|--|
| | | diocese overseeing the worship facility and school administration, respectively |
| Loss of graves or cultural sites | Cultural sites such as (graves, structures in existence more than 50 years) | <p>Stakeholder engagement revealed that there is an active graveyard within the Project site. The National Heritage Conservation Commission (NHCC) has been engaged to carry out a Heritage Impact Assessment (HIA).</p> <p>Compensation will be paid based on the agreements and negotiations with affected families. Compensation will also be paid for relocation of graves if appropriate, the amount of which will be determined on a case-by-case basis, and in consultation with the affected households. Where physical cultural resources are to be affected, the developer will provide financial facilitation necessary in ritual ceremonies involved in relocation of these resources. These activities will be in consultation with NHCC.</p> |
| 8. Loss of livelihoods | Households suffering direct economic displacement resulting from the project | <ul style="list-style-type: none"> • Transitional assistance to farmers with cultivated fields to mitigate the loss of livelihoods until their crops have been re-established |
| | Households suffering direct economic displacement (legitimate businesses) resulting from the project | <ul style="list-style-type: none"> • Compensation for loss of business income based on baseline financial data for affected enterprises • Replacement business structure (e.g. shop) in an agreed resettlement site conducive to its continued operation • Replacement structure shall be of equal size based on floor area • Any transactional costs to restore previously existing business rights will be borne by the Project |
| 9. Disturbance allowance | Project affected households with affected assets within the wayleave. | <ul style="list-style-type: none"> • Compensation for the loss of opportunity as a result of the project. • Administrative and transaction • Transportation to bank |

5.5 Summary of Compensation Packages

The compensation packages will be based on a number of principles and assumptions. The packages are discussed in the sections below.



5.5.1 Standing Crops and Trees of Economic Value

The following was considered when determining the entitlements for the impact of the loss of trees of economic value:

- All the trees within the 50m and were considered at fruit bearing age and/or economic value
- In order to protect the affected families from hunger, all standing crops will be allowed to be harvested before commencement of construction works, provided access to the land is not immediately required by the project.

5.5.2 Residential and Business Structures

Property owners whose structures shall be demolished as a result of the Project works shall be compensated for the replacement value of the structures and will be given a grace period of three (3) months, to re-build their structures at places of their choices. The owners shall be allowed to salvage any valuable materials from their old structures.

5.5.3 Other Allowances

Ten (10) percent of the total compensation entitlement will be paid to PAPs as Disturbance/Inconvenience allowance.

5.6 Process for Fulfilling Compensation and Providing Assistance

JIGSCO is committed to mitigate the impacts of the Project through a set of compensation measures that will bring about improved livelihoods for all the PAPs. In this regard, two specific conditions need to be met as part of its fulfilment of the requirements of this ARAP:

- a) Livelihood restoration and more specifically the restoration of their income-earning capacity will potentially require transitional support. Displacement often causes severe hardship and impoverishment. An appropriate transitional support package must be developed in consultation with the PAPs and duly implemented with the purpose to improve their standard of living and to prevent a net loss in their economic wellbeing.



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- b) Replacement structures, where applicable, will be built by JIGSCO in time for occupation prior to the start of construction in the affected area.



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6.0 RESETTLEMENT PLANNING

6.1 Physical Resettlement

The project has not identified any structures that need to be resettled.

6.2 Relocation Site

There will be no need of relocation project sites because no structures will be affected and affected fields will be compensated for.



7.0 IMPLEMENTATION

This section identifies and provides details on the roles and responsibilities of all organizations: public or private, Governmental or non-governmental and community based, that will be responsible for resettlement activities.

7.1 Implementation Arrangements

For any resettlement, PAPs entitled to compensation must be compensated before taking their land or demolishing structures. Working together with local authorities, district officials and councilors, the developer should put in place a dedicated unit headed by one of its managers, to implement this ARAP. The unit should be responsible for ensuring that the PAPs have been successfully resettled.

The ARAP will be implemented by JIGSCO (project proponent), in collaboration with key Government departments and other stakeholders. A senior management committee from the developer will generally oversee the resettlement process, to guide and assist where necessary, day to day activities undertaken by the main implementation unit. They will work together to ensure that measures identified in the ARAP are acceptable to stakeholders and ensure that implementation of the ARAP is undertaken in an efficient manner. Before resettlement, the ARAP Implementation Unit will be responsible for planning the ARAP implementation, communicating compensation measures/entitlements to PAPs and dealing with the day-to-day activities associated with grievances. After the ARAP, the Unit will be responsible for ongoing monitoring and grievance process and ensuring that the PAPs are assisted with regards to resettlement.

The table 5 below provides an indication of indicative timelines for ARAP implementation as some of the activities have already been undertaken



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Table 5: Indicative Implementation Timelines

| ACTIVITIES | MONTHS | | | | | | | | |
|--|--------|---|---|---|---|---|---|---|--|
| | J | F | M | A | M | J | J | A | |
| <ul style="list-style-type: none"> • Consultation Process • Grievance redress Roll Out • Socio economic Survey | | | | | | | | | |
| <ul style="list-style-type: none"> • Development of 1st draft ARAP • 1st Submission to ZEMA • ARAP disclosure | | | | | | | | | |
| <ul style="list-style-type: none"> • Completion of Socio-economic Survey • Verification of vulnerable households (including vulnerable people) | | | | | | | | | |
| <ul style="list-style-type: none"> • Final Submission to ZEMA • ZESCO Implementing team on the ground (Formation and mobilization of ARAP unit & committees) | | | | | | | | | |
| <ul style="list-style-type: none"> • Commencement of construction • Social monitoring – construction activities (monitoring, evaluation and reporting) | | | | | | | | | |

7.2 JIGSCO Implementation Unit

The role of the Resettlement Implementation Unit will include, but not limited to, the following:

- Overseeing the implementation of the ARAP;
- Ensure maximum participation of the PAPs in the planning of their own resettlement and post settlement circumstances;
- Accept financial responsibility for payment or compensation and other designated resettlement related costs;
- Ensure details of the structures in order to determine the case by case value of each segment of the Project and agree upon a value for compensation;
- Pay the PAPs compensation amounts agreed;
- Ensure monitoring and evaluation of the PAPs and the undertaking of appropriate remedial action to deal with grievances related to resettlement are satisfactorily implemented; and
- Ensure initial baseline data collected for the purpose of monitoring and evaluation report as per the indicator provided by the ARAP.



7.4 Related/Key Government Departments

The role of related/key Government departments will be to:

- Guide the compensation exercise;
- Participate in the resolution of grievances that may arise;
- Provide legal guidance and participate in grievance mechanism; and
- Participate in the resettlement monitoring process.

7.6 PAP committee (Resettlement Working Committee)

Under the guidance and coordination of JIGSCO, the PAP's committee will be formed and will act as a voice for the PAPs. The Committee shall comprise of the following: two PAP representatives, Resettlement officer, Social Development Officer, as well as representatives from the Chirundu Council and local NGOs. The PAP committee will be concerned with the following:

- Public awareness: this includes extensive consultation with the affected people so that they can air their concerns, interests and grievances; and
- Receipt of appropriate compensation entitlements within time and schedule.

7.5 Grievance and Dispute Resolution

Resettlement-related grievances and disputes that may arise during the project implementation process will be resolved through the approved Project GRM. The sections below (7.5.1 – 7.5.4) provide insight on how resettlement related grievances that may arise will be addressed while the detailed grievance processes are presented in the approved Project GRM.

7.5.1 Approach

JIGSCO will ensure that a grievance mechanism for the project is in place, as early as possible in project development, to address specific concerns about compensation, relocation or livelihood restoration measures raised by displaced persons (or others), in a timely manner. Where possible, such grievance mechanisms will utilize existing formal or informal grievance mechanisms suitable for project purposes, supplemented as needed with project-specific arrangements designed to resolve disputes in an impartial manner.



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Regardless of its scale, involuntary resettlement inevitably gives rise to grievances among the affected population over issues ranging from rates of compensation and eligibility criteria to the location of resettlement sites and the quality of services at those sites. Timely redress of such grievances is vital to the satisfactory implementation of resettlement and to completion of the Project on schedule. The Project sponsor must ensure that procedures are in place to allow affected people to lodge a complaint or a claim (including claims that derive from customary law and usage) without cost and with the assurance of a timely and satisfactory resolution of that complaint or claim. In addition, the Project may have to make special accommodations for women and members of vulnerable groups to ensure that they have equal access to grievance redress procedures.

Such accommodation may include employment of women or members of vulnerable groups to facilitate the grievance redress process or to ensure that groups representing the interests of women and other vulnerable groups take part in the process.

Grievances may take the form of specific complaints for actual damages or injury, general concerns about Project activities, incidents and impacts, or perceived impacts. The Grievance Mechanism will provide a structured way of receiving and resolving grievances. Complaints should be addressed promptly using an understandable and transparent process that is culturally appropriate and readily acceptable to all segments of affected communities and is at no cost and without retribution. The mechanism should be appropriate to the scale of impacts and risks presented by the Project and beneficial for both the Project and stakeholders. The Mechanism must not impede access to other judicial or administrative remedies.

7.5.2 Time Frame

The timeline for completion of the proposed action and subsequent closeout of the complaint will depend on the nature of the complaint and the requirements to address it.

All complaints will be given to the Grievance Officer for recording on the grievance database. The Grievance Officer will then acknowledge receipt in writing of the complaint, and reply to the complainant within 14 days of receiving a complaint, to inform him/her of one of the following:

- The complaint is not within the scope of the Project and has been referred elsewhere;
- The complaint will be dealt with at the Grievance Officer level and an investigation will be conducted; or
- The complaint will be dealt with at the Grievance Committee level, which will sit and consider the results of the investigation on a particular date.



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Within 30 days of receiving the complaint (or within 14 days of the Grievance Committee sitting), the Grievance Officer will inform the complainant of the proposed solution and attempt to get acceptance of the plan for resolution.

7.5.3 Appeals

- JIGSCO will seek to reach a resolution with the Complainant that is satisfactory to both sides. If the Developer and the Complainant are unable to agree on a solution, the complaint may be escalated to the Appeals Committee for review and final decision.
- The Appeals Committee reviews the case and determines if further reasonable action is possible. If no reasonable action is possible, the Appeals Committee authorises the close out of the complaint. A close out letter will be sent to the Complainant explaining the resolution.
- Cases where the Complainant disputes or declines to acknowledge the implementation of a previously agreed resolution may also be referred to the Appeals Committee for review. The illustration in Figure 5 below summarizes the procedure and key steps for GRM.

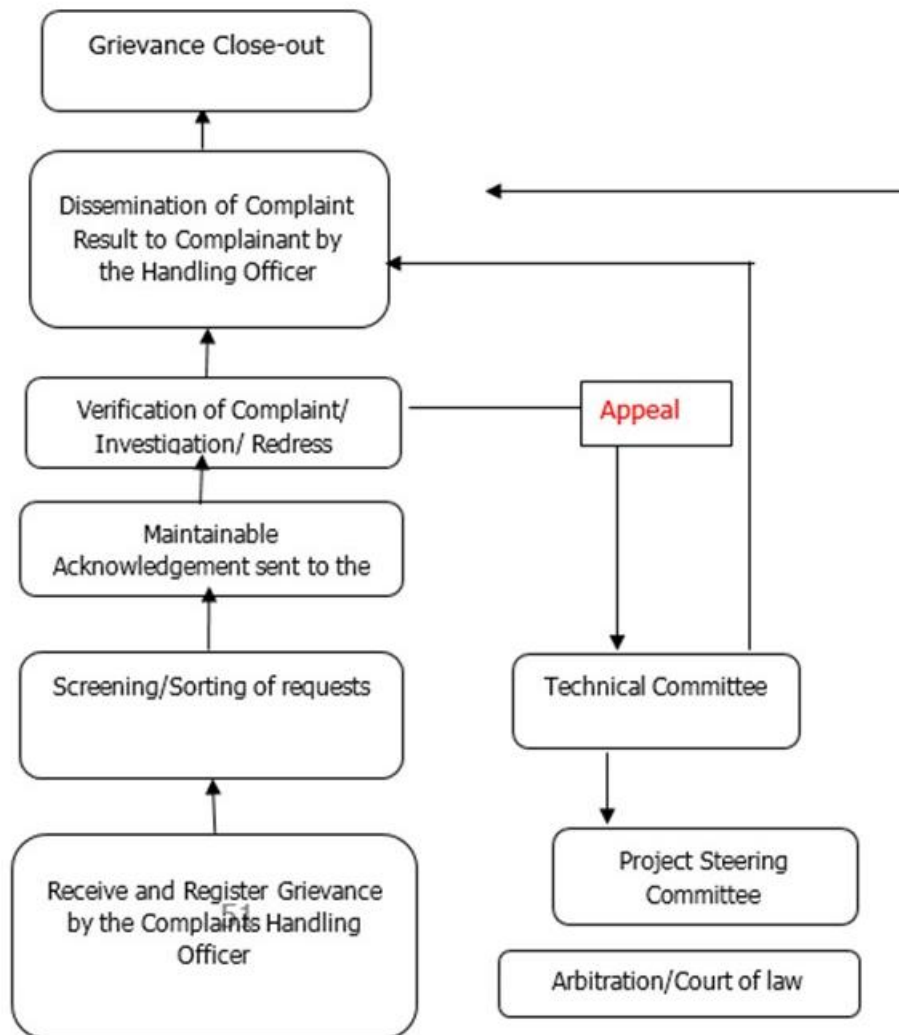


Figure 3:Grievance Redress Mechanism Process

7.5.4 Grievance Form

A grievance form shall be filled in by the Local Focal Point Persons as a way of documenting grievances received. The grievance form reflects the complainant and grievance details, action taken or required and the effectiveness review. Refer to Appendix 3 for more details.



8.0 MONITORING AND EVALUATION

There will be a resettlement monitoring and evaluation programme. The objective is to determine the extent to which resettlement is successfully implemented. The programme will have four broad components:

- ✓ Performance monitoring;
- ✓ Effects monitoring;
- ✓ External evaluation; and
- ✓ A completion audit.

8.1 Performance Monitoring

JIGSCO will coordinate performance monitoring to measure progress with resettlement against scheduled tasks and milestones. Monitoring reports will be prepared on a quarterly basis for the first year following resettlement and bi-annually thereafter until the resettlement project is deemed completed. A completion audit will determine the final completion of the resettlement process. The monitoring reports will be distributed to all relevant parties.

8.2 Effects Monitoring

JIGSCO will be responsible for effects monitoring and may contract components to qualified consultants. Effects monitoring will focus on the effectiveness of resettlement and compensation action plan, the identification of constraints and the recommendation of corrective measures that may be necessary. Indicators and targets for effects monitoring will be established by JIGSCO, in consultation with representatives of project affected households, the Ministry of Agriculture, Government Valuation Department (GVD) and/or NGOs.

Effects monitoring will be conducted-annually, and data will be collected from:

- ✓ Households, through the use of standardized, quantitative socio-economic survey instruments; and
- ✓ The community, through the use of qualitative (participatory) monitoring techniques.

8.2.1 Quantitative Monitoring



It will be important to monitor the changing socio-economic status of project affected households. Socio-economic status will be tracked against baseline conditions prior to resettlement. To achieve this, follow-up will be undertaken using questionnaires similar to those used during the surveys. This will allow comparison of baseline characteristics before and after resettlement, particularly of vulnerable households.

8.2.2 Qualitative Monitoring

Qualitative monitoring will be participatory and gauge the effectiveness of resettlement measures in meeting the needs of Project affected households. The value of participatory monitoring is that it will involve Project affected households in collective assessment of resettlement processes and outcomes. Participatory monitoring is action-oriented and will seek to build the capacity of Project affected households by:

- ✓ Providing opportunities to reflect on progress or obstacles to resettlement implementation;
- ✓ Generating knowledge that informs practice and leads to corrective actions; and
- ✓ Providing the tools to transform the economic and social environments.

The qualitative monitoring programme will include workshops with Project affected households to give them the opportunity to:

- ✓ Develop their own criteria for acceptable socio-economic conditions;
- ✓ Assess their pre-project conditions in terms of their own criteria;
- ✓ Monitor their own progress towards recovering their pre-project conditions; and
- ✓ Develop and communicate their own solutions to outstanding problems.

The outcome will be an assessment of people's attitudes, perceptions, views and fears regarding the resettlement. Given the participatory nature of this monitoring, there will be a continual process of learning, with new ideas and concerns integrated and incorporated into the resettlement process. Monitoring will use qualitative indicators identified in consultation with participants. The following are examples of qualitative indicators that could be used:

- ✓ Attitudes to resettlement initiatives;
- ✓ Perceptions and suggestions relating to positive and negative Project effects; and
- ✓ Satisfaction with the consultation process.



8.3 Completion Audit

A key objective of the ARAP is that resettlement actions and mitigation measures should lead to sustainable restoration or enhancement of affected peoples’ pre-project living standards and income levels. At such time as affected peoples’ quality of life and livelihood can be demonstrated to have been sustainably restored, the resettlement process can be deemed “complete”.

A completion audit will be undertaken one (1) year after resettlement implementation. The objectives of the audit will be to:

- ✓ Confirm that physical inputs specified in the ARAP and subsequent resettlement implementation plan have been delivered;
- ✓ Confirm the expected outcomes of resettlement have been achieved; and
- ✓ Assess whether outcomes of resettlement are positive or not.

The audit will also identify outstanding matters that require further action prior to the closing of the resettlement implementation process. If no outstanding matters are identified, the final Completion Audit report signifies the closure of this resettlement process.

Resettlement planning for the Project assumes that livelihood restoration of affected parties will be complete when compensation has been affected and livelihoods are restored. It is proposed that the resettlement completion audit be conducted 6 months following completion of resettlement or at such time as it will be determined that affected peoples’ living standards and income levels have been fully restored, whichever occurs earlier. The audit should be conducted by an independent auditor and signed-off by ZEMA.

8.4 ARAP Monitoring Plan

Table 6 below shows activities to monitor during ARAP process, type of information to collect, responsibilities and frequency of monitoring actions.

Table 6: ARAP Monitoring Plan

| Activity | Data to collect | Information source | Responsible party | Frequency of reporting |
|-------------------------------|---|---------------------------|----------------------------------|-------------------------------|
| Performance monitoring | Measurement of input indicators against proposed implementation | Quarterly Narrative | JIGSCO -ARAP Implementation Unit | Quarterly |



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| | | | | |
|--------------------------|--|---|---------------------------------------|---|
| | schedule and budget including procurement and physical delivery of goods and services. | | | |
| Impact monitoring | Tracking effectiveness of inputs against baseline indicators. Assessment of PAP's satisfaction with the inputs. | Quarterly quantitative and qualitative surveys Regular meetings and other consultation with PAPs, review of grievance mechanism outputs. | JIGSCO - ARAP Implementation Unit | Quarterly |
| Evaluation | Measurement of output indicators such as income levels, livelihood restoration, availability of shelter and replacement of infrastructure affected by the project. | Assessment report based on performance and impact monitoring reports, independent surveys and consultations with PAPs. | Contracted external evaluation agency | On baseline, mid term and on completion of ARAP implementation schedule |

Adapted from IFC Handbook for Preparing a Resettlement Action Plan



9.0 RESETTLEMENT BUDGET AND SCHEDULE

A total of thirty – six (36) PAPs will be affected for the loss of parcels of farming land. The total budget to implement the ARAP is Five Million Kwacha (**K5,000,000.00**) and will only cover compensation for structures and parcels of land.

This estimated budget will be inclusive of costs of assets and land (fields) but it will not include livelihoods restoration initiatives, implementation programmes as well as professional fees for ARAP implementation.

For livelihood restoration, JIGSCO will need to enlist services of relevant NGOs that will be identified to support the PAPs on livelihood restoration measures. These measures will be intended to prepare PAPs for life ahead, with which to continue to sustain their livelihoods. PAPs will receive these living skills and initiatives during the 30 days' notice provided to them before project implementation. In addition, management of resettlement implementation activities will require a dedicated team to deal with coordination of all resettlement implementation programmes, including grievance management and facilitation of all PAPs and stakeholder engagement processes.

Considering that all the PAPs only have parcels of agricultural land to be affected, the implementation budget does not take into account the following:

- Loss of business arising from relocation of business structures and business interruption; and
- Replacement of permanent structures and land development costs; and
- Livelihood restoration (money management training and transitional support).

Implementation of this ARAP will commence if it is given a 'No Objection' by ZEMA and all logistics are in place.



10. CONCLUSION

The following is the summary of the ARAP:

- a) A number of steps will be undertaken in identifying the social impacts related to land acquisition for the Project. The socio-economic survey and Census studies will provide better understanding on the extent of involuntary resettlement;
- b) Special attention should be given to the vulnerable PAPs, including women, child headed families and the elderly during the ARAP process. Given their limited opportunities to actively engage in production, they are less likely to cope with economic shocks once the project commences. Hence, the compensation framework has to take into account these vulnerabilities;
- c) Project Impacts: The Project will affect a parcel of land with considerable levels of impacts that can be mitigated. There are also impacts which will be socio- economic in nature especially during the construction phase;
- d) Monitoring and Evaluation: For the ARAP to be successful there will be need for continued monitoring and evaluation. This will ensure that arising issues are properly addressed; and
- e) Resettlement: JIGSCO through its financiers will provide the financial input into the resettlement process if any are identified during construction as well as significant additional managerial and technical expertise. JIGSCO is to constitute a resettlement unit immediately after the completion of the ARAP report.

10.1 Recommendation

The following is recommended:

- a) Continuous sensitisation of the affected communities in the affected areas in pre-construction phase of the Project is recommended. This process will be encouraged as a preparatory measure before the Project implementation. The developer will be at the forefront in ensuring this is carried out;
- b) JIGSCO shall compensate all the affected persons in a timely manner in accordance to the Compensation Framework, outlined in Section 8 above;
- c) Before resettlement is implemented, the PAPs will be mobilised and counselled, both socially and economically to avoid any economic disruptions. The aim will be



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meaningful engagement with PAPs, including vulnerable groups, throughout the resettlement process with input on compensation and relocation options. Where applicable, health experts should be involved in counselling to create awareness within the community on issues relating to HIV and AIDS and using the existing Government structures like schools and Health Centres;

- d) Compensation to PAPs should be made before construction works commence, after which, a minimum of three months' notice should be given to the PAPs to enable them to relocate; and
- e) JIGSCO will undertake Corporate Social Responsibility in the project area.

Finally, it will be important that vulnerable people identified in the Project area are provided with appropriate assistance during resettlement based on their prevailing conditions.



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APPENDICES

APPENDIX 1 – Maps showing the preferred route

APPENDIX 2 Socio – economic Survey Questionnaire

APPENDIX 3 – Grievance redress mechanism form

APPENDIX 4 – Cut of Date Notice



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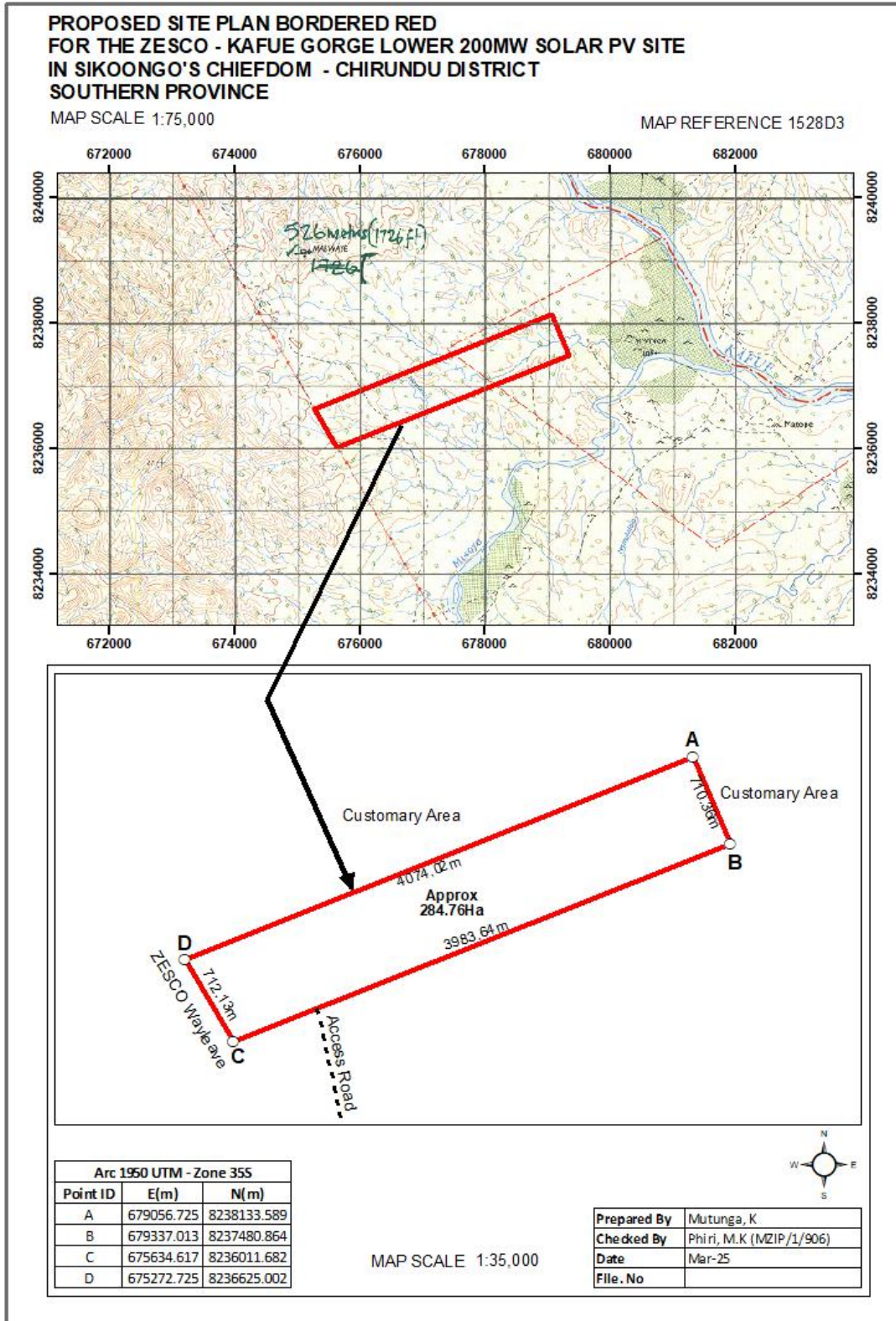
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APPENDIX 1 Maps Showing the preferred plant site Plan





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APPENDIX 2 Socio – economic Survey Questionnaire

RESETTLEMENT ACTION PLAN

HOUSEHOLD CENSUS SURVEY QUESTIONNAIRE

1. Field control and codification

| | |
|--|-----------|
| 1.1 Household Code | |
| 1.2 Name of Household Head (HH) | |
| 1.3 Name of Respondent (if not HH) | |
| 1.4 Relation of respondent to HH | |
| 1.5 Date/Time of interview | / / Time: |
| 1.6 Location of Household (Village) | |
| 1.7 Name of Chief | |
| 1.8 District | |
| 1.9 Province | |
| 1.10 GPS Coordinates | |

HOUSEHOLD DATA

2. Head of Household (Mark X and fill in relevant box/es)

| | | | |
|-----------------------|--------------------------------|----------------------------------|------------|
| First names | | 2.1 | |
| Last name | | 2.2 | |
| ID no. | | 2.3 | |
| Contact no. | | 2.4 | |
| Gender | Male: <input type="checkbox"/> | Female: <input type="checkbox"/> | 2.5 |
| Age | | 2.6 | |
| Marital Status | Single | | 2.7 |
| | Married | Polygamous | 2.8 |
| | | Monogamous | 2.9 |



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| | | | |
|---------------------------|--------------------|----------|-------------|
| | Widowed | | 2.10 |
| | Divorced/Separated | | 2.11 |
| | Other Specify | | 2.12 |
| Ethnic Group | Bemba | | 2.13 |
| | Kaonde | | 2.14 |
| | Mambwe/Lungu | | 2.15 |
| | Tonga | | 2.16 |
| | Lozi | | 2.17 |
| | Nsenga | | 2.18 |
| | Other | | 2.19 |
| Religion | Roman Catholic | | 2.20 |
| | Protestant | | 2.21 |
| | Traditional/ethnic | | 2.22 |
| | Other specify | | 2.23 |
| Level of Education | None | | 2.24 |
| | Primary | | 2.25 |
| | Secondary | | 2.26 |
| | Tertiary | | 2.27 |
| | Informal/VC | | 2.28 |
| Main Occupation | Farmer | | 2.29 |
| | Public Employee | | 2.30 |
| | Private Employee | | 2.31 |
| | Self Employment | Specify: | 2.32 |
| | Pastoralist | | 2.33 |
| | Other | Specify | 2.34 |



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4. How did you gain access to residential/farming land (Mark X in relevant box/es)

| | | |
|-----------------------------|--|------------|
| Allocated land by the chief | | 4.1 |
| Inherited land | | 4.2 |
| Bought land | | 4.3 |
| Renting (payment in cash) | | 4.4 |
| Renting (payment in kind) | | 4.5 |
| Occupation without consent | | 4.6 |
| Other (specify...) | | 4.7 |

5. How long have you lived here (Mark X in relevant box/es)

| | | |
|-------------------------|--|------------|
| Less than 1 year | | 1.1 |
| Between 1 and 5 years | | 1.2 |
| Between 5 and 10 years | | 1.3 |
| Between 10 and 20 years | | 1.4 |
| More than 20 years | | 1.5 |
| Don't know | | 1.6 |

6. Why was the household established here (Mark X in relevant box/es)

| | | |
|-----------------------------------|--|------------|
| Given land by chief | | 1.1 |
| Inherited land | | 1.2 |
| Close to employment opportunities | | 1.3 |
| Near towns and amenities | | 1.4 |
| Only available land | | 1.5 |
| Other (specify)..... | | 1.6 |

AMENITIES

2. Mark with an X whether the amenity is used by the household. If so, indicate the location and name (if applicable) of the amenity.

| Yes/No | Amenities | Name of Amenity | Location (Distance from household) |
|--------|------------------|-----------------|------------------------------------|
| | Primary school | | |
| | Secondary school | | |
| | Clinic | | |
| | Hospital | | |



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| | | | |
|--|------------------------------------|--|--|
| | Cemetery | | |
| | Cultural heritage sites | | |
| | Church | | |
| | Woodlots | | |
| | Communal gardens | | |
| | Taxi ranks/public transport | | |
| | Banks | | |
| | Shops | | |
| | Grazing areas | | |
| | Fishing areas | | |
| | Other (specify...) | | |
| | Other (specify...) | | |

ENERGY, WATER AND SANITATION FACILITIES

3. What energy sources do you use for lighting? *(Mark X in relevant box/es)*

| Energy source | | |
|-----------------------------|--|------------|
| Main Grid | | 3.1 |
| Generator | | 3.2 |
| Torch | | 3.3 |
| Gas | | 3.4 |
| Paraffin lamp | | 3.5 |
| Wood | | 3.6 |
| Candle | | 3.7 |
| Other (specify)..... | | 3.8 |

4. What energy sources do use for cooking? *(Mark X in relevant box/es)*

| Energy source | | |
|----------------------|--|------------|
| Main Grid | | 4.1 |
| Generator | | 4.2 |
| Gas | | 4.3 |
| Wood | | 4.4 |
| Charcoal | | 4.5 |



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| | | |
|-----------------------------|--|------------|
| Other (specify)..... | | 4.6 |
|-----------------------------|--|------------|

5. What level of sanitation does your household use *(Mark X in the relevant box)*

| | | |
|------------------------|--|------------|
| None | | 5.1 |
| Bush toilet | | 5.2 |
| Pit latrine | | 5.3 |
| Ventilated Pit Latrine | | 5.4 |
| Flushing toilet | | 5.5 |
| Other Specify | | 5.6 |

6. Where is the source of water used for domestic purposes *(Mark X in the relevant box)*

| | | |
|---------------------------------|--|------------|
| Piped water in household | | 6.1 |
| Piped water in yard | | 6.2 |
| Borehole with pump | | 6.3 |
| Hand dug well | | 6.4 |
| Stream or River | | 6.5 |
| Other (specify)..... | | 6.6 |

7. What is the distance between the main water source and house?

8. How do you dispose of your garbage *(Mark X in the relevant box)*

| | | |
|-----------------------------|--|------------|
| Municipal collection | | 8.1 |
| Bury in a hole | | 8.2 |
| Burn | | 8.3 |
| None | | 8.4 |
| Other (specify...) | | 8.5 |

INCOME AND EXPENDITURE

9. Which income generating activities was your household involved in, in the last 12 months and how much did you earn from each of the following activities? *(Fill in relevant boxes)*

| Income generating activities | | |
|-------------------------------------|--|------------|
| Formal employment | | 9.1 |
| Non-land informal employment | | 9.2 |
| *Agriculture | Livestock sales | 9.3 |
| | Crop, vegetable, fruit, nut sales | 9.4 |



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| | | | |
|---|-----------------------------|--|-------------|
| | Animal product sales | | 9.5 |
| | Other | | 9.6 |
| Migrant remittances | | | 9.7 |
| Pension/social/welfare grants | | | 9.8 |
| Charcoal production | | | 9.9 |
| Fishing/Farms | | | 9.10 |
| Bussiness | | | 9.11 |
| Other (specify)..... | | | 9.12 |
| TOTAL CASH INCOME FOR LAST MONTH | | | 9.13 |

10. Was this a good earning year or a below average earning year?

| | | | | | |
|------------|--|-------------|-----------|--|-------------|
| YES | | 10.1 | NO | | 10.2 |
|------------|--|-------------|-----------|--|-------------|

HOUSEHOLD FOOD CONSUPTION/PRODUCTION

11. How many meals the household normally has per day? (Mark X in relevant box/es)

| | | | | | | |
|-------------|--|------------------|--|--------------------|--|-------------|
| Once | | Two Times | | Three Times | | 11.1 |
|-------------|--|------------------|--|--------------------|--|-------------|

12. In the last year, how often could the head of household satisfy the food needs of the household

| | | | | | | |
|--------------|--|------------------|--|---------------|--|-------------|
| Never | | Sometimes | | Always | | 12.1 |
|--------------|--|------------------|--|---------------|--|-------------|

13. Does your homestead currently have access to arable land that you use, or have used, for cultivation? (Mark X in relevant box/es)

| | | | | | |
|------------|--|------------|-----------|--|------------|
| YES | | 6.1 | NO | | 6.2 |
|------------|--|------------|-----------|--|------------|

14. Please provide us with information on your agricultural fields.

| Field No. | Cultivated in Last 12 months? 0 = no 1 = yes | Do you rotate this field? | Primary Crop Grown | Where do you source this crop/food if not grown or available |
|------------------|---|----------------------------------|---------------------------|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |



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| | | | | |
|----------|--|--|--|--|
| 4 | | | | |
| 5 | | | | |

1 = Cassava, 2 = Maize, 3 = Beans, 4 = Rice, 5 = Sweet Potatoes, 6 = Peanuts, 7 = Sugar Cane,
 8 = Sorghum, 9 = Sesame, 10 = Millet, 11 = Tomatoes, 12 = Aubergines/brinjals, 13 = Courgettes,
 14 = Spinach, 15 = Cabbage, 16 = Onions, 17 = Soya, 18 =Taro, 19 = Potatoes, 20 = Yams,

HEALTH AND VULNERABILITY

15. Is the Household head handicapped or chronically sick? (Mark X in relevant box/es)

| | | | | | |
|------------|--|-------------|-----------|--|-------------|
| YES | | 15.1 | NO | | 15.2 |
|------------|--|-------------|-----------|--|-------------|

If yes, provide details on his/her sickness or handicap:.....

16. Are there any other members of the household handicapped or chronically sick?

| | | | | | |
|------------|--|-------------|-----------|--|-------------|
| YES | | 16.1 | NO | | 16.2 |
|------------|--|-------------|-----------|--|-------------|

If yes, provide details on their sickness or handicap

17. Were there any deaths in the household in the last year? (Mark X in relevant box/es)

| | | | | | |
|------------|--|-------------|-----------|--|-------------|
| YES | | 17.1 | NO | | 17.2 |
|------------|--|-------------|-----------|--|-------------|

If yes, provide details on cause of deaths

18. In the past three months, have any household members been sick? (Mark X in relevant box)

| | | | | | |
|------------|--|-------------|-----------|--|-------------|
| YES | | 18.1 | NO | | 18.2 |
|------------|--|-------------|-----------|--|-------------|

19. If yes, how many household members were sick in the past three months? And with what diseases?

| Disease | Number of household members | |
|-------------|-----------------------------|-------------|
| Common cold | | 19.1 |
| Malaria | | 19.2 |
| Fever | | 19.3 |
| Diarrhoea | | 19.4 |
| Coughing | | 19.5 |



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| | | |
|-----------------------------|--|--------------|
| Accident | | 19.6 |
| Blood pressure | | 19.7 |
| TB | | 19.8 |
| Anaemia | | 19.9 |
| HIV/AIDS | | 19.10 |
| Dental | | 19.11 |
| Skin Condition | | 19.12 |
| Eye | | 19.13 |
| Ear, nose, throat | | 19.14 |
| Don't Know/Can't Say | | 19.15 |
| Other (specify)..... | | 19.16 |

20. Where did they go for medical assistance? (Fill in relevant boxes)

| Type of establishment | Location | Distance (km) | |
|---|-----------------|----------------------|--|
| Hospital/Healthcare centre | | | |
| Local Clinic | | | |
| Pharmacy | | | |
| Community health worker | | | |
| Friend/relative | | | |
| Shop/kiosk | | | |
| Herbalist | | | |
| Spiritualist | | | |
| Prepared a herbal remedy at home | | | |
| I did nothing | | | |
| Don't know | | | |
| Other (specify...) | | | |

COMMUNITY RELATIONS

21. What support do you give or receive from your neighbours/community members?

| | Give | Receive | |
|---------------------------------------|-------------|----------------|------|
| Monetary support | | | 14.1 |
| Food and other household items | | | 14.2 |



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| | | | |
|--|--|--|------|
| Take care of children | | | 14.3 |
| Assistance with cultural/religious ceremonies | | | 14.4 |
| Advice and guidance | | | 14.5 |
| Other (specify...) | | | 14.6 |
| Other (specify...) | | | 14,7 |

22. Are members of your household involved in any community organisations / churches?

| Yes | No | Name of Organization / church | |
|------------|-----------|--------------------------------------|-------------|
| | | | 15.1 |
| | | | 15.2 |
| | | | 15.3 |
| | | | 15.4 |

RESETTLEMENT AND COMPENSATION

23. What will be affected by the project? (Mark X in relevant box)

| Structures | Type | No. | 16.1 |
|---------------------|------------------|------------|-------------|
| | Main | | 16.2 |
| | Secondary | | 16.3 |
| Land | | | 16.4 |
| Field Crops | | | 16.5 |
| Fruit Trees | | | 16.6 |
| Exotic Trees | | | 16.7 |

24. What is the Land Tenure? (Mark X in relevant box)

| Land Tenure | Tick | Affected Land Size | Total Land Size | Coordinates | 24.1 |
|--------------------|-------------|---------------------------|------------------------|--------------------|-------------|
| Customary | | | | | 24.2 |
| State Land | | | | | 24.3 |

25. Indicate which productive trees you own and if possible, how many within wayleave

| Type | Number (indicate 0 if not grown) | |
|----------------------|---|------------|
| Bananas trees | | 6.3 |



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| | | |
|---|--|-------------|
| Lemon trees | | 6.4 |
| Orange trees | | 6.5 |
| Avocado trees | | 6.6 |
| Nut trees | | 6.7 |
| Mango trees | | 6.8 |
| Pawpaw trees | | 6.9 |
| Pine trees | | 6.10 |
| Eucalyptus trees | | 6.11 |
| Other wood/fuel trees (specify...) | | 6.12 |
| Other fruit trees (specify...) | | 6.13 |

26. Are there any field crops located within the proposed wayleave

| Field Crop | Yes/No | Area (m²) |
|-----------------------|---------------|-----------------------------|
| Maize | | |
| Cassava | | |
| Beans | | |
| Groundnuts | | |
| Millet | | |
| Sorghum | | |
| Sweet potatoes | | |
| Cow peas | | |
| Soya Beans | | |



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Other

LIVESTOCK

27. How many of the following livestock does your household possess? What is the value of these livestock?

| Animal Type | Number owned | Value (per animal) | |
|---------------------------|---------------------|---------------------------|------------|
| Cattle | | | 1.1 |
| Goats | | | 1.2 |
| Sheep | | | 1.3 |
| Pigs | | | 1.4 |
| Rabbits | | | 1.5 |
| Chickens | | | 1.6 |
| Ducks | | | 1.7 |
| Other (specify)... | | | 1.8 |

28. How do you manage your grazing – is it controlled? Would access restrictions be an issue for you?

| |
|--|
| |
|--|

29. Details on the type of Structure(s)



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| No | Type of Structure | Ownership Rights | # of rooms | Type of Wall | | | | | Type of Roof | | | Type of Floor | | |
|----|-------------------|------------------|------------|--------------|------------|--------------|-----------------|---------------------|--------------|----------|-------|---------------|-------------------|---------|
| | | | | Mud Wall | Mud Bricks | Burnt Bricks | Concrete Blocks | Plastered & Painted | Iron Sheets | Concrete | Grass | Earth/Mud | Concrete / Cement | Ceramic |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

COMMENTS:

.....



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| | | | |
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30. What form of compensation would you prefer? (Mark X in relevant box)

| | | | | | |
|-----------------------------|--|-------------|--------------------------|--|-------------|
| In kind Compensation | | 30.1 | Cash Compensation | | 30.2 |
|-----------------------------|--|-------------|--------------------------|--|-------------|

31. Please tell us if you have any comments, questions or concerns regarding the project

.....

.....

.....

.....

.....

.....

.....

.....

32. If you had a resettlement problem where would you go?

| Entity/Organisation | | |
|--------------------------|--|-------------|
| ZESCO | | 32.1 |
| Local chief | | 32.2 |
| Local government offices | | 32.3 |
| Elders | | 32.4 |
| Minister/Pastor | | 32.5 |
| Family/friends | | 32.6 |
| Other (specify...) | | 32.7 |

33. Should we need to contact your household, who is authorized and mandated by the family to represent this household? (Please list at least two family representatives)

1. _____ Contact no. :



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2. _____ Contact no. :


I, _____ declare that all the information herein is true and accurate.

Signature/thumbprint of household head/representative: _____

Date: _____

Thank You

.....

| | | | |
|---|--|----------------------|-----------------------|
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APPENDIX 3 GRIEVANCE REDRESS MECHANISM FORM



Grievance Redress Form

| | | | |
|--|---|---|---|
| KAFUE GORGE LOWER 200 MW SOLAR PLANT PROJECT | | | |
| Section 1: Complainant Details | | | |
| Grievance Reference Number: | Date received: | Submitted by: | Name of person recording the grievance: |
| | | <input type="checkbox"/> Person submitting grievance <input type="checkbox"/> Male/Female <input type="checkbox"/> Other (please specify who) | |
| Name of Complainant / Organisation registering complaint (or write Anonymous): | | | |
| | | | |
| Address: | Telephone Number: | Email address: | How was the grievance lodged: |
| | | | <input type="checkbox"/> In person <input type="checkbox"/> By Phone <input type="checkbox"/> At Community Meeting <input type="checkbox"/> By Mail <input type="checkbox"/> By Email |
| Signature of Complainant: | Confirm that the Grievance has been acknowledged and a copy of this form provided to the complainant? | | |
| | <input type="checkbox"/> Yes | | Date: |
| Section 2: Details about the Grievance | | | |
| Description of Grievance: | | | |
| | | | |
| Section 3: Action Taken / Required | | | |
| Acknowledgement of grievance sent to Complainant? (Y/N) | Date when Acknowledgment provided: | Date set for resolution of Complaint: | Date logged in Grievance Log by Complaints handling Officer: |



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| | | |
|---|---------------------|---|
| Grievance classification: | Reason(s) why: | Manager/safeguard specialist/Director responsible for addressing grievance: |
| <input type="checkbox"/> Critical priority <input type="checkbox"/> Medium priority <input type="checkbox"/> Low priority | | |
| Description of action required (to be updated as needed): | | |
| | | |
| Action carried out by: | Date of Completion: | Method of feedback to Complainant: |
| | | |
| Stakeholder response to action: | | |
| | | |
| Section 4: Effectiveness Review | | |
| Status of Grievance: | Date: | |
| | | |
| To what extent has the grievance been addressed to the satisfaction of the complainant: | | |
| | | |
| Grievance Closed: | Date: | Signed off: Manager/safeguard specialist/Director responsible |
| | | |



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APPENDIX 4: CUT OF DATE NOTICE



ZESCO PUBLIC NOTICE—OFFICIAL NOTICE OF PROJECT CUT-OFF DATE FOR THE PROPOSED CONSTRUCTION OF KAFUE GORGE LOWER 200MWac SOLAR GENERATION PV PROJECT — EFFECTIVE.....

ZESCO Limited would like to inform the public that the cut-off date for the new construction and economic start-up activities in the area identified for the **ZESCO PROPOSED PROJECT** has been set as.....

This follows the completion of the detailed PAP identification and socio-economic survey of affected structures and trees of economic value in the project area.

Having undertaken the aforementioned activities, the public is hereby advised as follows:

- The Project will **NOT** compensate **anyone** for any new structures or economic activities that will be constructed in the area earmarked for the construction of the Solar Site and power line after the stated above captioned cut-off date.
- Any individuals that will undertake any construction and/or engage in any economic activities in the identified project area will be doing so at **OWNER'S RISK** and will **NOT** be eligible for compensation.

Please be informed that a Grievance Redress Mechanism has been set up for individuals who have particular grievances and/or Complaints.

For more information regarding the cut-off date, the general public is advised to contact the undersigned or visit any nearest ZESCO Office.

Phone: ZESCO **National Call Centre on Toll Free line 322** on MTN network only
Email: esd-headoffice@zesco.co.zm
Letter: Head – Environment, ZESCO Limited, Stand No. 6949, Great East Road, P.O. Box 33304 Lusaka-Zambia.
For Further Information, Please Contact:
Tel: +260-211-362341/43

PAP Sign.....