





# JCM Matswani Solar Corp Limited

Environmental and Social Impact Assessment for the proposed 60 MW Solar Power Plant in Kanzimbe Village, TA Kalonga, Salima District, Central Region, Malawi

# **Executive Summary**

September 2018



# Environmental and Social Impact Assessment (ESIA)

60 MW Solar Power Plant in Kanzimbe Village, TA Kalonga, Salima District, Central Region, Malawi

# JCM Matswani Solar Corp Limited

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Signed:

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#### **EXECUTIVE SUMMARY**

#### Introduction

This is the Environmental and Social Impact Assessment (ESIA) report for the construction and operation of a 60 megawatt (MW) <sup>(1)</sup> alternating current solar photovoltaic (PV) plant and 4 km transmission line ('the Project') on a 168 hectare (ha) land plot in Salima District situated in the Central Region of Malawi. In addition, the transmission line wayleave will impact approximately 57 ha of land. Impacts from the land acquisition, and construction and operation of the Project (including wayleave) are included in this ESIA. In total, 72 people were affected by the land acquisition for Phase I and 166 for Phase II, with the majority of affected land plots comprising under one ha.

The Project is being undertaken by JCM Matswani Solar Corp Limited (a limited liability corporation in Malawi owned and managed by a consortium composed of JCM Power, InfraCo Africa Limited, and Matswani Capital (PTY) Limited) (herein referred to as 'ProjectCo'). The Project will take approximately 12 months to construct and construction is expected to start at the end of 2018. The Project has an investment value of USD \$80,000,000 and will be operational for a minimum of 20 years. The Project has agreed a Power Purchase Agreement (PPA) with ESCOM and the power from the Project will be fed directly into the national grid via a 4 km 132 kilovolt (kV) transmission line through to the Nanjoka substation.

#### The ESIA Process

A Project Brief was submitted to the Malawian Environmental Affairs Department (EAD) in late 2017 and received a response on the 6<sup>th</sup> of January 2018. Following a review of the Project Brief, which was prepared in line with the Environment Management Act 1996 (EMA), it was confirmed by the EAD that the Project required a detailed Environmental Impact Assessment (EIA). As the ProjectCo intends to seek international finance for the Project, the ESIA has also been developed in line with the International Finance Corporation (IFC) Performance Standards (PS) as well as the Malawian EMA.

## Project Justification

This Project is an investment in renewable energy and will help with the diversification of the energy sector as well as add to increased capacity for the national grid. In addition, the Project is part of the government IPP process and is part of sector reform development.

<sup>(1)</sup> The capacity of the project may increase to 60 MW at request of the Government of Malawi at any time. However, it is important to note that no new land take will be required as result of this change.

# The Project

The Project comprises of a 60 MW solar PV plant on a 168 ha green field site in Kalonga Traditional Authority (TA), Salima District. It is adjacent to the villages of Kanzimbe and Mayambo, under Kanzimbe Group Village (KGV), 20 km from the town of Salima and 88 km from Lilongwe (along on the M5 and M14 roads).

The solar plant will connect to a 4 km 132 kV transmission line that runs alongside an existing Electricity Supply Corporation of Malawi (ESCOM) 132 kV transmission line to the Nanjoka substation. Electricity generated will be sold to ESCOM and will be transferred to the national grid via the existing ESCOM Nanjoka substation.

The PV solar technology chosen for this Project consists of the following main components:

- **PV cell:** The PV cell is the device that generates electricity when exposed to solar radiation.
- **PV module:** The PV module is the set of interconnected photovoltaic cells encapsulated between a transparent front (usually glass) and a backing support material then mounted in an aluminium frame
- **Mounting structures**: Multiple PV modules are bolted onto a mounting structure which tracks the suns progress across the sky in an east to west direction.
- **PV array:** The PV array is the complete power generating plant consisting of multiple PV modules wired in series and in parallel.
- **Inverter:** The inverter converts the Direct Current (DC) to Alternative Current (AC)
- **Substation:** The substation receives all power from the inverters via underground cables and provides protection and control equipment required to safely manage the plant and to ensure grid code compliance regulations.
- **Transformer:** The transformer steps up the AC power from the inverters (typically at 33 kV) to match the grid voltage (expected to be 132 kV).
- Stores, offices and control building.
- Access tracks and fencing.
- 5 km 132 kV transmission line.

# Project Phases

The Project will be completed in three phases:

- site preparation and construction;
- operational; and
- decommissioning.

Site preparation and construction will involve the clearance of vegetation, installation of fencing and levelling of the site and preliminary earthworks. The site will be marked out, safety and security fencing installed, the access road will be upgraded, and internal site access tracks will be constructed. It is anticipated that there will be approximately 200 workers on the Project site across the six-nine month construction phase.

The solar PV power plant will be operated on a 24 hour, 7 days a week basis with 20 on site workers. Key operational activities will include:

- cleaning of the modules
- vegetation management for under and around the modules
- maintenance of all Project Components
- site security monitoring.

The proposed Project is expected to operate for at least 20 years. It is important to note that the ProjectCo and ESCOM may agree to trigger a clause in the PPA which would simply extend the term beyond 20 years. Therfore, it is possible the plant will operate beyond a 20 year life span. Furthermore, the land leases for the Project are for 50 years.

#### Project Baseline

The sensitivity of the site was assessed and the habitats in the near vicinity of the Project show considerable evidence of transformation, with the overall floral and faunal species composition showing a divergent change from the natural state. The vegetation is dominated by plant species that provide benefits to local communities, with many non-beneficial species having been eliminated through settlement and cultivation practices. As a result there are many species of non-native origin present. Human activity has substantially modified an area's primary ecological functions and species composition, and the habitats there conform to modified habitats as described in Performance Standard (PS) 6.

The Project is not located within the vicinity of protected areas, no highly threatened or range restricted floral or faunal species are considered likely to be present, and no large congregations of species are expected to occur. What remains of the habitats are representative of a widespread vegetation formation, and are therefore not unique. Based on these observations, no critical habitats are expected to occur, and a critical habitat assessment following IFC PS6 is therefore not necessary.

The ecological sensitivity of the Project area is therefore considered to be low. PS6 does not stipulate minimum requirements for developments within modified habitats, but states measures should be taken to minimise impacts on remaining biodiversity and implement mitigation as appropriate.

The Project Site is situated in the central region of Malawi, approximately 30 km Salima District Centre, and within Kalonga TA and the Kanzimbe GVH. All the villages in the Project area rely on subsistence farming for their household food consumption, with some households generating a small income from crops. Additionally, livestock rearing, particularly of goats and poultry is common. Livestock use the Project area for grazing.

Farmers generally have land plots that are under one ha. In combination with small land plots and a lack of irrigation, communities suffer food shortages during the dry seasons, especially December to February. Malaria is the most prevent illness experienced by men, women and children in the Project area due to poor sanitary conditions in villages. It is particularly prevalent during the rainy season as pools of rain water accumulate in low lying areas. Gastric illnesses such as diarrhoea, colds and other illnesses can spread if proper sanitation and hygiene is not effectively managed. Sexually transmitted diseases are also prevalent in the District.

# Stakeholder Engagement

Extensive stakeholder engagement has been undertaken as part of the ESIA, the land acquisition activities, and the corporate social responsibility feasibility study. Through these actions all relevant stakeholders have been engaged and their feedback gathered. *Chapter 7* describes the stakeholder engagement undertaken to date.

#### Impact Assessment

The ESIA identified both potential positive and adverse impacts, as illustrated in the *Table 1*. The table summarises the potential impacts of the Project phases (construction and operation) before and after mitigation measures. Mitigation measures that are included in this Report become set project commitments, which will be implemented by ProjectCo as part of the Environmental and Social Management Plan (ESMP).

 Table 1
 Summary of Impact Assessment Findings

Potential Impact	Project Phase Significance (Premitigation)		Residual Significance (Post-mitigation)	
Generation of electricity	Operation	Positive	Positive	
Employment and economy	Construction	Positive	Positive	
	and Operation			
Nuisance and impact to air	Construction	Moderate	Minor	
quality from dust emissions				
Nuisance from construction	Construction	Moderate	Minor	
noise				
Soil erosion and reduced soil	Construction	Moderate	Minor	
quality				
Reduction in groundwater	Construction	Moderate	Minor	
quality and availability				
Biodiversity- loss of habitat	Construction	Minor	Negligible	
and faunal disturbance				
Biodiversity- loss of	Construction	Moderate	Minor	
threatened flora				
Biodiversity- risk of increased	Construction	Minor	Negligible	
invasive alien plants				
Biodiversity-disruption of	Construction	Moderate	Minor	
ecosystem services				
Change in landscape and	Construction	Moderate	Minor	
visual amenity				
Change in landscape and	Operation	Moderate	Minor	
visual amenity from solar				
reflection				
Physical and economic	Construction	Major	Minor	
displacement from project				
land take				
Access restrictions from	Construction	Moderate	Minor	
project land take	and			
	Operations			
Increased risk of vector borne	Construction	Minor	Negligible	
or communicable diseases				
Increase risk in STI/HIV	Construction	Minor	Negligible	
transmission				
Increase risk to community	Construction	Moderate	Minor	
safety and security				
Increase risk to community	Operation	Minor	Negligible	
safety and security				

# *Positive Impacts*

As noted in *Chapter 8*, positive impacts are associated with economy and livelihoods, through the creation of approximately 200 jobs during construction and 20 during operation. There will be on the job training and capacity development opportunities. Enhancement measures have been proposed to maximise the potential positive benefits.

The generation of 60 MW of power will lead to an 11% increase in the generation capacity of Malawi, representing a significant benefit to the macro economy of the country.

Finally, as part of the Project the ProjectCo will invest in a Corporate Social Responsibility (CSR) programme which will ensure the Project affected communities directly benefit from the Project.

## Potential Adverse Impacts

Due to the nature of a solar plant, its construction and operation, the majority of the potential environmental and social impacts occur during the construction phase. As described in the table above there were several potential impacts from routine Project activities of *major* or *moderate* significance. All of these potential impacts have been addressed through mitigation and management measures (as included in *Table 10.1 and 10.2*) of the ESIA report, and the potential impacts have been reduced to *minor* or *negligible* significance.

There is always the potential for unplanned events such as spills and traffic accidents. These have been identified (see *Section 9.13*) and preventative measures will be put in place to reduce the likelihood of these occurring.

#### Resettlement Activities

The land acquisition for the Project has been undertaken in two phases. Phase I refers to an initial 80 ha plot of land and Phase II refers to additional 88 ha plot of land. The land acquisition process for Phase I was Government-led process, led by the Salima District Office and undertaken at the end of 2017, prior to the development of the ESIA. The Phase II land acquisition is still underway at the time of completing this ESIA.

Land acquisition will trigger economic displacement of land users, primarily comprising subsistence farmers. Due to food shortages in communities resulting from inefficient farming techniques, the impact of land acquisition and economic displacement is likely to exacerbate food insecurity and heighten poverty levels. The high levels of subsistence farming within the communities in the Project area produces low income levels and high levels of poverty.

72 people were compensated by Phase I of land acquisition: 50 people in Kanzimbe Village (24 males and 26 females) and 22 people in Mayambo Village (8 males and 14 females). In terms of Phase II, a total of 166 people are impacted (77 males and 89 females).

In order to mitigate the impacts of economic displacement, a Livelihood Restoration Plan (LRP) is in the process of being developed that sets out the extent and scale of displacement impacts, engagement activities related to land acquisition, eligibility and entitlements for affected persons and the implementation, monitoring and evaluation requirements.

An ESMP has been developed to specify the standards and controls required to manage and monitor the environmental and social impacts. To achieve this, the ESMP Framework identifies potential adverse impacts from the planned activities and outlines mitigation measures required to reduce the likely negative impacts on the biophysical and social environment. The ESMP actions, contained in this report are legally binding on authorisation of the ESIA and ESMP by the EAD.

The key mitigation and enhancement measures are summarised as below *Table 3* and *Table 4* (full mitigation and enhancement measures included in *Section 10*.

In summary, the proposed Project will benefit the local economy through job creation and upskilling of the local workforce as well as generation of additional electricity for the country. Whilst adverse impacts have been identified, there are no potential impacts, which cannot be managed and outweigh the positive impacts of the Project and the objective of the Project in developing additional power generation for Malawi. This Project is in line with the Malawian Government's drive to produce renewable energy in the country. Finally, those adverse impacts that have been identified in the ESIA have been minimised through the implementation of the ESMP, which is based on the approach of continual improvement following international best practice.

Likewise, positive impacts have been enhanced and maximised through the ESMP by the ProjectCo's commitment to ongoing engagement with the community and key stakeholders and an open and transparent dialogue and hiring process throughout the life cycle of the Project. On the basis of this ESIA Report it is recommended that the Project continue as planned.

 Table 2
 Summary of Enhancement Measures

Impact	Project Phase	Summary of Enhancement Measure
<ul> <li>Employment and the Economy</li> <li>Employment opportunities and the need for the supply of goods and services has the potential to create jobs for the local community and improve income levels.</li> </ul>	Construction and Operation	<ul> <li>Provide opportunities to local communities to enhance income levels, skills/employability and improve the quality of life</li> <li>Ongoing costs for recruitment activities are included in the EPC contractor's bid.</li> <li>ProjectCo to verify that the procedure has been implemented.</li> </ul>
Generation of Electricity	Operation	As electricity generation is ambit of ESCOM there are no applicable enhancement measures
Corporate Social Responsibility	Construction and Operation	The CSR Plan has already been developed and will be implemented across the Project Lifecycle.

 Table 3
 Summary of Mitigation Measures

Impact	<b>Project Phase</b>	Summary of Mitigation Measures		
Reduction in air quality from fugitive	Construction	Restrict the removal of vegetation and soil cover;		
dust emissions		<ul> <li>Land clearance will be sequential and the smallest possible area for working will be exposed;</li> </ul>		
		<ul> <li>Stripping of topsoil will not be conducted earlier than required in order to prevent the erosion;</li> </ul>		
		Speed limits will be enforced;		
		All transported materials must be covered with tarpaulins to prevent fugitive dust;		
		<ul> <li>Where feasible, surface binding agents will be used on exposed open earthworks;</li> </ul>		
		<ul> <li>Exposed ground and earthworks should be covered as much as possible;</li> </ul>		
		• Stockpiles stored longer than six weeks should be vegetated or covered to reduce soil loss from wind or storm water runoff;		
		• Stockpiles will be located as far away from receptors as possible and will be covered (with sheeting, shade cloth or tarpaulin);		
		Wind breaks will be erected around the key construction activities		
		<ul> <li>All construction vehicles must be regularly maintained to minimise exhaust emissions;</li> </ul>		
		<ul> <li>When not in use, vehicles will be switched off, unless impractical for health and safety reasons;</li> </ul>		
		Any complaints received from neighbours must be reported to the ProjectCo		
Nuisance from construction noise	Construction	Maintain machines and plant equipment in good working condition and inspect regularly;		
emissions		<ul> <li>Selection of equipment and vehicles in accordance with best available techniques for noise reduction;</li> </ul>		
		<ul> <li>Minimise vehicle movements within and around the site as much as possible;</li> </ul>		
		<ul> <li>Use local screening/site hoardings to screen noise where appropriate; and</li> </ul>		
		<ul> <li>Complaints received from neighbours must be reported to ProjectCo</li> </ul>		
Soil erosion and reduced soil quality	Construction	Mitigation measures for air emissions are applicable to this impact		
		<ul> <li>Erosion control measures will be constructed where necessary.</li> </ul>		
		<ul> <li>Access roads will be well drained in order to limit soil erosion.</li> </ul>		
Reduction in groundwater quality	Construction	Monitoring water levels within existing wells and boreholes will be undertaken during installation drilling and pump testing		
and availability		of project abstraction boreholes.		
		• Radius of influence will be recalculated using site-specific hydrogeological parameters. Project abstractions will be located		
		outside the radius of influence if practical.		
		<ul> <li>Further assessment will be done at a later stage with updated information from all community boreholes;</li> </ul>		
		<ul> <li>Continuous monitoring of affected village supplies and a cessation of project abstraction if the groundwater elevation in</li> </ul>		
		village water supply wells reaches a pre-agreedlevel.		
		• Water storage solutions (eg tanks) for water pumped during the wet season for use during the dry season.		
Reduction in groundwater quality	Operation	<ul> <li>Continuous monitoring of affected village supplies and a cessation of project abstraction if the groundwater elevation in</li> </ul>		
and availability		village water supply wells reaches a pre-agreedlevel.		
		<ul> <li>Water storage solutions (eg tanks) for water pumped during the wet season for use during the dry season.</li> </ul>		

Biodiversity- loss of habitat and	Construction	Ensure that vegetation is methodically cleared to avoid unwarranted clearance of vegetation.			
faunal disturbance		<ul> <li>Provisions that prohibit staff and contractors from engaging in all forms of hunting in the Project area</li> </ul>			
		<ul> <li>Rehabilitation of all disturbed areas must be undertaken following construction.</li> </ul>			
Biodiversity- loss of threatened flora	Construction	Rehabilitation of all disturbed areas must be undertaken following construction.			
		Ensure that vegetation is methodically cleared to avoid unwarranted clearance of vegetation.			
		<ul> <li>Provisions that prohibit workers and contractors from clearing/utilising word and plant species in the Project Area</li> </ul>			
Biodiversity- risk of increased	Construction	Invasive alien plants will be removed from areas controlled by EPC Contractor.			
invasive alien plants		• All alien vegetative and/or seed bearing material that is removed through control measures should be contained in a			
		cordoned off area, dried and burnt on site to prevent the distribution of seeds.			
		<ul> <li>Vehicles and construction equipment should be washed on a regular basis</li> </ul>			
		• Source areas such as vehicle parking, construction camps should be kept clean of invasive plants to minimise the presence of			
		seeds that can be dispersed unintentionally.			
		• Disturbed areas will be rehabilitated at the earliest opportunity to minimise the establishment of invasive alien plants.			
		• Regular and ongoing monitoring of the presence of invasive alien plants should be conducted within construction and			
		rehabilitated sites.			
Biodiversity-disruption of ecosystem	Construction	Rehabilitation of all disturbed areas must be undertaken following construction.			
services		• Maintain ongoing engagement between the Project and local communities, with communities informed in advance of any			
		vegetation clearing to allow pre-harvesting of resources such has wood fuel, mangoes, building materials or other useable			
		resources.			
		<ul> <li>Piles of woody vegetation cleared for construction activities are to be made available to communities to access it for use as</li> </ul>			
		wood fuel or other purposes.			
Change in landscape and visual	Construction	<ul> <li>Ongoing rehabilitation of cleared areas to minimise visual scarring and maintenance clearing will be kept to the absolute</li> </ul>			
amenity		minimum			
		<ul> <li>Any excavated or cut and fill areas will be landscaped and allowed to revegetate;</li> </ul>			
		<ul> <li>No debris or waste materials will be left at the work sites; and</li> </ul>			
		<ul> <li>Appropriate directional and intensity settings will be utilised on all lighting.</li> </ul>			
Change in landscape and visual	Operations	Rehabilitation of all disturbed areas must be undertaken following construction.			
amenity from solar reflection		• Maintain ongoing engagement between the Project and local communities with regards to potential solar reflection impacts.			
Unplanned Events:	Construction	The Project will develop a Hazardous Spill Response Plan (HSRP) and maintain spill clean-up and response capability			
• Spill events/improper disposal		adequate for addressing spills for all phases of the Project.			
of waste leading to soil and		The Project will develop and implement a Waste Management Plan.			
groundwater contamination		• Refuelling of equipment and vehicles will be carried out in designated areas on hard standing ground to prevent seepage of			
		any spillages to ground. Collection systems will be installed in these areas to manage any spills, fuels will be collected and			
		either reused, or removed by a local contractor.			
		<ul> <li>Hazardous material storage will be on hard standing and impermeable surface and the storage facility will be bunded.</li> </ul>			

Unplanned Events:  • Spill events/improper disposal of waste leading to soil and groundwater contamination	Operations	<ul> <li>The Project will implement a Hazardous Spill Response Plan (HSRP) and maintain spill clean-up and response capability adequate for addressing spills for all phases of the Project. All spills will be immediately contained and cleaned up. Contaminated areas will be remediated.</li> <li>The Project will implement and Waste Management Plan.</li> <li>Hazardous material storage will be on hard standing and impermeable surface and the storage facility will be bunded.</li> </ul>
Unplanned Events:  Traffic Accidents	Construction	<ul> <li>A Traffic Management Plan, driving codes of conduct and enhanced driver safety awareness will be implemented</li> <li>Plan traffic routes to limit road use by the Project during high traffic periods and in sensitive areas such as near schools</li> <li>Assess local road conditions and discuss road maintenance during Project construction to minimise traffic risks associated with roads deteriorated from Project activities.</li> <li>The Project will provide driver training to promote safe and responsible driving behaviour.</li> <li>Engage with local communities and authorities to inform them about plans and procedures</li> <li>Implement awareness campaigns recording traffic and road safety in communities along the transport corridor.</li> <li>Work with the relevant local and regional government to ensure the roads used by Project vehicles are well maintained, and that potential problems or hazards are communicated to the relevant authority timeously.</li> </ul>
<ul> <li>Land acquisition and displacement</li> <li>Land clearance, causing economic displacement, in particular of subsistence farmers and land for livestock grazing.</li> <li>Displacement of one structure used for a goat farmer in the wayleave. The structure is not used for residential purposes.</li> </ul>	Construction	<ul> <li>Develop a Livelihood Restoration Plan (LRP)</li> <li>Ensure an inclusive and participatory consultation process that ensures the participation of women, men, youth, elderly, disabled and other groups in the decision making process in relation to replacement land and livelihood restoration programmes.</li> </ul>
Access restrictions  The presence of construction equipment and activities during this period may block pathways that transect the solar site, including access to communities and farmland	Construction	<ul> <li>Undertake consultation with communities using farmland in areas affected during construction to establish the best alternative routes.</li> </ul>
Access restrictions  The presence of construction equipment and activities during this period may block pathways that transect the solar site,	Operations	<ul> <li>Undertake consultation with communities using farmland in areas affected during operation to establish the best alternative routes and measures that the Project should put in place to minimize impacts related to access restrictions.</li> </ul>

including access to communities and farmland		
Vector borne and communicable diseases  Construction equipment and activities have the potential to create dust emissions and create breeding grounds for vector borne illnesses affecting communities living in villages adjacent to the solar site.  Additionally the presence of the workforce during this period in combination with poor sanitary conditions has the potential to increase communicable diseases	Construction	<ul> <li>Provide workforce training on communicable diseases, disease prevention and treatment to raise awareness.</li> <li>Establish a worker Code of Conduct that includes guidelines on worker-worker interactions andworker-community interactions</li> <li>Provide workers with appropriate gender friendly sanitary facilities</li> <li>Develop a robust waste handling system to avoid the creation of new vector breeding grounds.</li> <li>Establish measures to reduce the presence of standing water onsite during site preparation</li> <li>Ensure that working areas are kept clean and free from any accumulation of wastes as well as supplied with clean potable water.</li> <li>Have a first aid point on site to avoid adding pressure on local health facilities.</li> <li>In line with best practice requirements regarding the health of the workforce, develop and implement pre-employment screening measures to ensure that workers are fit for work, as well as identify any pre-existing conditions. However, no one should be denied employment on the basis of their health status as long as they are able to undertake the required duties (following treatment if relevant).</li> </ul>
Increase risk in STI/HIV transmission	Construction	Develop and implement an STI/HIV Management Plan and support a women's NGO that is addressing gender and GBV issues in Salima and in Project affected communities, to raise awareness of such issues and to encourage prevention.
<ul> <li>Community safety and security</li> <li>Security risk in relation to petty crime, increased GBV and perceptions that people in the communities are benefitting more than others creating tensions.</li> <li>Worker-community interactions, including the presence of security may pose a threat to the community.</li> </ul>	Construction and operation	<ul> <li>Project will train security personnel in safeguarding of the community in high tension situations</li> <li>Project security will comply with Malawian laws and regulations as well as the requirements of the Voluntary Principles for Securi and Human Rights.</li> <li>Project will provide security measures for the construction site to minimise safety risks and the possibility of theft.</li> <li>Project will establish clear and visible signage in construction areas to warn the community of any risks and hazards.</li> <li>Project will establish a community engagement programme to provide information about safety hazards and raise awareness of how these are being managed.</li> <li>Project will raise awareness to communities regarding their Grievance Mechanism to deal with community concerns and issues in a timely manner toavoid issues escalating.</li> </ul>
Labour and working conditions     During peak construction the workforce may be subject to poor labour and working conditions	Construction and operation	<ul> <li>Develop a Human Resources Policy, which includes a Labour and Employment Plan and Worker Grievance Mechanism.</li> <li>Prepare a Gender Development Plan to promote gender equality in relation to job opportunities</li> <li>Ensure that contracts will make explicit reference to the need to abide by Malawian law and international standards.</li> <li>Ensure that as part of any contractor and supplier selection process, performance with regard to worker management, worker rights, health and safety as outlined in Malawian law and international standards will be managed and reported on.</li> <li>Support contractors in adhering to labour and working conditions that are in line with Malawian legislation and IFC PS 2</li> <li>Undertake regular checks of contractors to ensure the relevant labour laws are adhered to at all times.</li> </ul>

- Implement a health and safety programme will be developed that includes risk assessments work permit systems and a H&S management system, in line with industry best practice.
- Establish a hiring mechanism to ensure no employee or job applicant is discriminated against on the basis of his or her gender, marital status, nationality, ethnicity, age, religion or sexual orientation.
- Ensure that all workers will, as part of their induction, receive training on worker rights in line with Malawian legislation and international standards.
- Ensure that all workers will have contracts which clearly state the terms and conditions of their employment and their legal rights.
- Ensure that a fair and transparent worker Grievance Mechanism is in place that will be accessible to all workers, whether permanent or temporary, directly or indirectly employed.
- Ensure that all workers will have access to training on communicable diseases, STI's and community interactions in general.