# **UNDP MALAWI**

# SUSTAINABLE DEVELOPMENT GOALS HOTSPOT ACCELERATION INITIATIVE (SHAI) PROJECT

# **ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)**

# BOREHOLE DRILLING AND INSTALLATION OF HAND PUMP

# LOCATION – GVH GUNDA IN PHALOMBE DISTRICT - GVH TIZOLA IN NSANJE DISTRICT

**JULY 2021** 

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# 1. INTRODUCTION

In a quest to accelerate achievement of the Sustainable Development Goals (SDGs), there is an advocacy to adopt hotspots approach to local development. Malawi is one of the first countries in Africa to adapt this approach to local development planning and prioritization of service delivery. The country selected Phalombe and Nsanje Districts as the first phase of roll out. Implementation of the initiative (formerly as a project) began in January 2020 with Irish Aid as the donor. The project is implementing the first service response in GVH Gunda, Phalombe District and GVH Tizola, Nsanje District where 12 boreholes will be drilled (7 in Phalombe and 5 in Nsanje).

# 2. UNDP SOCIAL AND ENVIRONMENTAL STANDARDS (SES)

UNDP Malawi is committed to mainstream social and environmental sustainability in its projects as underpinned by the SES whose objectives include:

- Strengthening the social and environmental outcomes of the projects
- Avoid adverse impacts to people and the environment
- Minimize, mitigate and manage adverse impacts where avoidance is not possible
- Strengthen UNDP and partner capacities for managing social and environmental risks
- Ensure full and effective stakeholder engagement, including stakeholder response mechanism (SRM)

At the core of SES are the issues to do with (1) human rights, (2) gender equality and women empowerment and (3) environmental sustainability.

# 3. UNDP'S SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE (SESP)

The SESP is aligned to the SES and its objectives include: *Engineer*.

The SESP is aligned to the SES and its objectives include: *Luckson Ngalu*, UNDP

- Integrate the SES overarching principles (human rights, gender equality and environmental sustainability)
- > Identify social and environmental risks and their significance
- > Determine the project risk level (low, moderate, high)
- Determine the level of social and environmental assessment and management required to address potential risks and impacts.

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# 4. SCREENING AND ESMP PREPARATION

## 4.1 Site screening

UNDP Malawi carried out screening of all proposed borehole drilling sites in compliance with the UNDP Social and Environmental Standards (SES), National Environmental Policy 2004, Environmental Management Act 1996, Environmental Impact Assessment guidelines 1997. Screening was carried out in accordance with UNDP Social and Environmental Screening Procedures (SESP). The aim of the screening process was to determine the potential environmental and social impacts and appropriate mitigation measures associated with the project.

# 4.2 Objectives of the screening process

The screening process was carried out with an objective to:

- To identify potential environmental and social impacts on specific drilling sites;
- To determine enhancement and appropriate mitigation measures for activities with positive and adverse impacts;
- To identify the social and environmental parameters to be monitored during the drilling and subsequent operation and maintenance of the boreholes.

# 4.3 Methodology

The screening process involved both desk appraisal and site-specific screening in consultation with the communities to single out the possible social and environmental

issues that might be experienced during the borehole drilling. This facilitated the identification of potential environmental and social impacts, determination of their significance and proposals on appropriate mitigation measures.

## 4.4 Land Access and Management

Under the proposed interventions, there will be no land acquisition as there will be no activities that will be undertaken on private property hence no resettlement of people (including those whose livelihood is land-based) is anticipated. The proposed interventions are actually designed to protect the communities from waterborne diseases. The borehole drilling company will have to ensure that:-

- Trespassing on private land by contractor's workers or machinery will only be done upon being granted consent by the land owners,
- Extraction of construction materials on or off site will be done upon the land owner granting consent,
- (iii) The drilling will be done within the village identified by the community but the contractor will be responsible for locating the actual site to drill the borehole as informed by the geophysical survey.

# 5. ENVIRONMENTAL AND SOCIAL IMPACTS

# 5.1 Generic Environmental and Social Impacts

The environmental and social impact assessment conducted on proposed construction project sites shows that the activities of the project will cause some significant positive and negative environmental and social impacts. A summary of the positive and the negative impacts is as outlined below:

### 5.1.1 Generic Social Positive impacts

- Skills transfer to local community and the construction sector
- Increased disposable income in the project area due to wages
- Spillover effects to local business community due to presence of the contractor
- Reduced incidences of waterborne diseases during the operation phase

• Time spent fetching water will be reduced and directed to other activities

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#### 5.1.2 Generic Social Negative impacts

- Occupational safety and health risks to the workers and the public at large
- Risk of increased incidences of Sexually Transmitted Infections (STIs) and HIV/AIDS
- Noise pollution and risk of water pollution
- Conflicts due to competition for resources
- Obstruction of foot paths
- Risk of Gender-based violence (GBV), Sexual exploitation and assault

#### 5.1.3 Generic Environmental Positive impacts

- Reduced incidences of waterborne diseases
- Reduced infant mortality rates due to access to clean water

#### 5.1.4 Generic Environmental Negative impacts

- Poor wastewater management during drilling can pose a health hazard
- Risk of water pollution in natural waterways due to poor wastewater management during drilling

### 5.2 Environmental and Social Impact Mitigation Measures at Construction Phase

#### 5.2.1 Loss of vegetation

Wanton cutting down of trees will only happen where it is necessary to do so but in addition, tree planting and enhancing of natural regeneration of indigenous trees

#### 5.2.2 Accumulation of wastes

The contractor shall provide enough waste bins on site so that all the solid wastes can be dumped-in and be disposed of at a designated dumpsite. The contractor shall also provide a pit latrine on site for use by the workers

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#### 5.2.3 Soil erosion and dust emission

To prevent any further soil erosion, the contractor be require to clear only the land in those places where drilling will take place. The contractor will have to sprinkle water or reduce speed of trucks delivering materials on site

#### 5.2.5 Risk of water and air pollution

To minimize water pollution and contamination from machinery fuels and oils, the contractor will ensure that vehicles and machinery are well maintained and that the fuels/oils or any other waste are properly disposed of away from watercourses. The contractor will minimize dust emission by sprinkling water or reducing speed

#### 5.2.6 Occupational health and safety of workers and the public

The contractor will have to develop an Occupational Health and Safety approach, which aims to avoid, minimize and mitigate the risk of work place accidents. This would include identifying potential risks and the corresponding safe working practices, using only trained workers, using safe machinery and equipment and providing necessary personal protective equipment (PPE). The contractor shall ensure that a first aid kit is available on site including all the sanitary requirements in compliance with covid-19 prevention measures.

#### 5.2.7 Spread of HIV/AIDS and other Sexually Transmitted Infections (STIs)

Contractor's workers are predominantly men who travel away from their families during the construction period hence prone to engaging in promiscuity that might lead to transmission of HIV/AIDS including other STIs. Mitigation measures include sensitization on HIV and AIDS, distribution of condoms and awareness campaigns on HIV prevention.

#### 5.2.8 Risk of competing for resources

The contractor and communities may compete for resources on the ground thereby creating unnecessary tension. To avoid this, community engagement will involve introducing the contractor to the community and establishing a continued engagement platform where the two groups can discuss and resolve any differences that may arise.

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## **UNDP** Engineer.

5.2.9 Obstruction of foot paths The project does not anticipate obstruction of existing footpaths but in the event of its occurrence, the community will be informed and the contractor shall identify an alternative.

5.2.10 Gender-based violence (GBV) and sexual exploitation and assault (SEA) We expect that the contractor will source most of labour locally hence, the risk of GBV related incidents is likely to be low. However, as a precautionary measure the contractor will sensitize the workers and have a contractor's code of conduct to be signed by workers.

# 5.3 Environmental and Social Management and Monitoring Plan (ESMMP)

During the implementation of the project, the Environmental and Social Management and Monitoring Plan will be a vital tool to ensure that implementation of the mitigation measures prescribed in the management plan are taking place. The environmental and social monitoring during the construction phase, for example, will comprise of two activities:-

- a) Review of Contractor's plans, methods statement, temporary works design and arrangements to ensure that environmental and social protection measures are adopted
- Systematic observation of all site activities and the contractor's offsite facilities to ensure b) compliance with contract requirements relating to environmental and social matters

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Expected	Proposed	Output	Target	<b>Responsibility for</b>	Responsibility for	Date of	<b>Required inputs</b>	
Environmental/	Mitigation/enhancement	indicators		implementing	monitoring the	implementation	IDAL O	
Social impacts	Measures			Mitigation	implementation of		then	
				Measures	<b>Mitigation Measures</b>			
							Luckson Naalu	
							UNDP	
							Enginee	
Loss of trees and	Minimize clearing of site:	No of trees	60	Community	District Council	Onset of	Seedlings shovels	
shrubs	Planting trees	nlanted	00	Community	District Counter	construction	water canes tubes	
511 405	T faitting trees	pluited				works		
Soil erosion and	Minimize clearing of site	Area cleared	TBA	Contractor	District Council	Onset of	Supervision fuel	
dust emission	sprinkle water	Area creared	IDA	Contractor	District Counter	construction	Supervision fuer	
dust emission	sprinkle water					works		
Domostic waste	Provision of nit latrings for	Workers nit	2 (for	Contractor	District Council	Onset of	Building materials	
Domestic waste	workers	lotrinog	2 (101 ladiag &	Contractor	District Council	onstruction	Building materials	
	workers	laumes	raules &			works		
	1 Distribution of condense	No. of condema	gents)	Haalth Cantus	District Courseil	WORKS	Condense aleres	
	1. Distribution of condoms	No. of condoms	100	Health Centre	District Council	Onset of project	Condoms, gloves,	
Spread of	HIV/AIDS	distributed		Staff (1.e. HSA)			Tuel, Lunch	
HIV/AIDS and			~	H 11 C	<b>D</b> ' + ' + <b>C</b> - '1		allowance	
other STIs	2. Awareness meetings	No. of meetings	5	Health Centre	District Council	Onset of	Condoms, gloves,	
		conducted		Staff (1.e. HSA)		construction	fuel, Lunch	
	· ·		_			works	allowance	
GBV	Awareness meetings	No. of meeting	5	GVH / CPW, HSA	GVH, VDC	Onset of project	Fuel, Lunch	
		conducted			chairperson		allowance	
Community	Awareness meetings;	Community	TBA	Contractor, PMC	District Council	Onset of	Fuel, Lunch	
health and safety	speed limits & humps	meetings, sign				construction	allowance	
		posts				works		

Table 1: Generic Environmental and Social Management and Monitoring Plan for Flood Mitigation Works

Water pollution	Avoid d	disposal	of	Designated site	's	TBA	Contractors	District council	Onset	of	Fuel,	Lunch
	petrochemicals in		in	for oils disposal					construction		allowance	
	waterways								works			