

EXECUTIVE SUMMARY MR21: SOCIO IMPACT ASSESSMENT

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LIST OF ABBREVIATIONS

AfDB African Development Bank	NDP National Development Plan	SODV Sexual Offences and Domestic Violence
AIDS Acquired Immunodeficiency Syndrome	NGO Non-Governmental Organization	GBV Gender Based Violence
ART Anti-Retroviral Treatment	NMCP National Malaria Control Program	SMP Social Management Plan
CEDAW Convention for the Elimination of All Forms of Discrimination Against Women	OS Operational Safeguards	GAP Gender Action Plan
CFI Center for Financial Inclusion	PAC Project Affected Communities	RHIA Rapid Health Impact Assessment
CIC Council Industry Council	PAP Project Affected Persons	EPC Eswatini Population Census
CLO Community Liaison Officer	PDC Project Development Committee	EEC Eswatini Electricity Company
CSO Central Statistics Office	PMTCT Prevention of Mother to Child Transmission	VAR Vulnerability Assessment Report
DWA Department of Water Affairs	PTB Pulmonary Tuberculosis	TDL Title Deed Land
ECO Environmental Compliance Officer	RAP Resettlement Action Plan	OVC Orphaned & Vulnerable Children
EEA Eswatini Environmental Authority	RWS Rural Water Scheme	REPS Royal Eswatini Police Service
EHIES Eswatini Household Income and Expenditure Survey	SADC Southern African Development Community	EECE Early Childhood Care and Education
EWSC Eswatini Water Services Corporation	SDG Sustainable Development Goals	IAP Interested and Affected Parties
GAP Gender Action Plan	SEP Stakeholder Engagement Plan	MP Member of Parliament
GIA Gender Impact Assessment	SHEQ Safety, Health, Environment, and Quality	SWAGAA Swatini Action Group Against Abuse
GoE Government of Eswatini	SIA Social Impact Assessment	SADC Southern African Development Community
GRM Grievance Redress Mechanism	SNL Swazi Nation Land	SDG Sustainable Development Goals
HIA Health Impact Assessment	STI Sexually Transmitted Infections	SEAH Sexual Exploitation, Abuse, Harassment
HIV Human Immune Deficiency	VCT Voluntary Counselling and Treatment	PMTCT Prevention of Mother to Child Transmission
ESIA Environmental and Social Impact Assessment	WASH Water Access, Sanitation and Hygiene	CMIS Client Management Information System
ISS Integrated Safeguard System	MoPWT Ministry of Public Works and Transportation	NCD Non-Communicable Diseases
URTI Upper Respiratory Tract Infections	TB Tuberculosis	

I. SUMMARY OF LEGAL, POLICY, REGULATORY AND INSTITUTIONAL FRAMEWORK.

The implementation of the proposed development will trigger a number of local and international policies, laws, and regulatory requirements whose provisions will have to be recognized and taken into consideration in all stages for the development of the MR21. The sub-sections below give a description of the policies, laws and regulatory requirements that are relevant to this component of the project. The relevant statutes, policies and regulations found to be relevant to this project are presented in the table below.

Table E-1: Applicable legislation, regulations and guidelines

National Legislations		
Constitution of the Kingdom of Eswatini.	Environmental Management Act 2002.	Workmen’s Compensation Act 1983
National Gender Policy 2010	Employment Act 1980	Sexual Offences and Domestic Violence Act 2018
Construction Industry Council Act 2013	Children’s Protection and Welfare Act 6, 2012	The Kingdom of Eswatini Constitution Act No.1/2005
Occupational Health and Safety Act 2001	National Emergency Response to HIV/AIDS Act 2003	The Eswatini National Trust Commission Act No.9 / 1972
Acquisition of Property Act, 1961	The Eswatini Administration Order No. 6/1998	Public Health Act, 1969
Human Settlements Authority Act of 1988	Standard Building Act and Regulations of 1969	Construction Industry Council Act, 2013
Acquisition of Property Act, 1961	The Industrial Relations Act 2000 (as amended)	The Roads Outspans Act Number 40, 1931
National Regulations		
Environmental Audit, Assessment and Review Regulations 2000	Ozone Depleting Substance Regulations, 2003.	
Factories, Machinery and Construction Works Regulations, 1974	Waste Regulations, 2000	
International Conventions		
Convention on the Rights of the Child, 1989	ILO Convention 1: Equal Remuneration Convention (1951) (No. 100)	ILO Convention 2: Discrimination (Employment and Occupation) Convention (1958) (No. 111)
ILO Convention 3: Minimum Age Convention (1973) (No. 138)	The Convention on the Elimination of all forms of Discrimination against Women (CEDAW)	
AfDB Guidelines		
Integrated Safeguard Policy Statement	AfDB OS1: Environmental and Social Assessment	AfDB OS2: Involuntary Resettlement: Land Acquisition, Population Displacements and Compensation.
AfDB OS3: Biodiversity and Ecosystem.	AfDB OS4: Pollution Prevention and Control, Greenhouse Gases, Hazardous Materials and Resource Efficiency.	AfDB OS5: Labour Conditions and Social Assessment Procedures.

II. SUMMARY OF INSTITUTIONAL ARRANGEMENTS AND CAPACITY

Institutional arrangements and capacity

The Department of Roads, a division of the Ministry of Works and Transport, is tasked with the ESMP's administration. Despite the absence of resident specialists in Environmental and Social domains, the Ministry has a proven track record of successful project execution through the engagement of external consultancy services. The ESMP will be widely disseminated to all relevant departments, kept at the project site office, and conveyed to all senior contract personnel. This approach ensures that all senior staff are familiar with the ESMP's provisions. The successful execution of the ESMP requires the active participation of multiple stakeholders, each playing a unique yet critical role in ensuring effective environmental stewardship.

The MoPWT as the project proponent, holds paramount responsibility for the ESMP's implementation. The MoPWT is tasked with understanding the significance of environmental conservation and ensuring that the contractor acts in an environmentally conscientious manner. The ESMP will be widely disseminated to all relevant departments, kept at the project site office, and conveyed to all senior contract personnel. This approach ensures that all senior staff are familiar with the ESMP's provisions. Furthermore, the MoPWT is responsible for ensuring that all governmental and non-governmental entities, including essential service providers, various governmental ministries, and Non-Governmental Organizations, are aware of their distinct roles and responsibilities as stipulated by the ESMP and SEP. This approach guarantees efficacy and compliance with the ESMP's provisions.

The successful execution of the ESMP requires the active participation of multiple stakeholders, each playing a unique yet critical role in ensuring effective environmental stewardship. This includes the Resident Engineer, the Workers, Contractor, community, and the Traditional Authorities. A detailed list of collaborators is presented in table E-2.

Table E-2: Institutional Arrangements for Project Implementation

Stakeholder	Role
DEVELOPMENT PARTNERS	
African Development Bank (AfDB)	Contribute to Eswatini's national poverty reduction agenda. Contribute to the achievement of Eswatini's national development strategy of improving road infrastructure, enhancing public transport, promoting sustainable transport, investment in transport infrastructure and improving transport safety.
GOVERNMENT MINISTRIES/DEPARTMENTS	
Ministry of Public Works and Transport (MoPWT)	<ul style="list-style-type: none"> ▪ Responsible for the rollout of the project and all associated activities that ensure adherence to laws, policies and guidelines governing developmental projects in Eswatini. ▪ Responsible for liaising with the project financier (AfDB) for project related updates. ▪ Mandated by legislation to oversee the development of road infrastructure and ensure road safety.
Ministry of Economic Planning and Development (MEPD)	<ul style="list-style-type: none"> ▪ Reviews all planned capital projects for viability. ▪ Assesses capital projects by levels of priority for inclusion in the National Development Plan.
Ministry of Natural Resources and Energy (MNRE)	<ul style="list-style-type: none"> ▪ Responsible for ensuring fair compensation rates for private assets to be removed from right of way.
Ministry of Finance (MoF)	<ul style="list-style-type: none"> ▪ Provide oversight and control of disbursement project funds to the implementing agency. Monitor compliance of financial reporting of project funds by the implementing agency
Ministry of Health (MoH)	<ul style="list-style-type: none"> ▪ The Public Health Section shall assist with educating project stakeholders on health issues such as prevention of HIV.
The Deputy Prime Minister's Office (DPMO)	<ul style="list-style-type: none"> ▪ The Gender Department and Family Issues Assists with policies regarding vulnerable people and educating stakeholders about the legislation for preventing occurrence of gender-based violence (GBV). ▪ The National Children's Coordinating Unit (NCCU) evaluates and reviews all existing national legal instruments governing the treatment of children to ensure compliance with international children treatment standards, provisions and practices. Monitors and evaluates all National children, policies, plans & programs and ensure that all stakeholders collaborate and contribute towards a National Children Development agenda. ▪ The Department of Social Welfare develops, facilitates and monitors the implementation of effective policies and strategies on integrated social welfare services that meet the needs of all vulnerable groups. Implement comprehensive social welfare services focusing on all vulnerable groups (families, older persons, disabilities, children, ex-servicemen, substance abuse people, persons affected with HIV/AIDS).

Stakeholder	Role
	<ul style="list-style-type: none"> The National Disability Unit within the Department of Social Welfare is currently responsible for the coordination of interventions for persons with disabilities.
GOVERNMENT AGENCIES	
Eswatini Environmental Authority (EEA)	<ul style="list-style-type: none"> Have the overall oversight and responsibility of ensuring compliance with environmental and social regulations by all organizations, persons, companies whose actions and processes have a potential environmental and social impact. The project will, from time to time, be required to obtain permits and authorization prior to implementation of certain components of the project. Furthermore, EEA will frequently carry out inspection of the project implementation process to ensure compliance to the environmental and social regulations
Eswatini National Trust Commission (ENTC)	<ul style="list-style-type: none"> To be consulted on sensitive areas of nature conservation such as game reserves, heritage sites, etc. that the project may affect.
REGIONAL AUTHORITIES	
Shiselweni Regional Administrator (SRA) and Lubombo Regional Administration (LRA).	<ul style="list-style-type: none"> According to the laws of the country, Regional Administration (RA) is the second level of government after National Government, which makes the Shiselweni an important stakeholder. RA provides structures for national government to allocate resources in an efficient, effective and more equitable way to communities in the country. Throughout the project life cycle, the SRA and LRA where necessary and if the need arises will facilitate resolution of community conflicts and land disputes in the Chiefdoms. They may also facilitate and monitor the implementation of the project.
CONSTITUENCY AUTHORITIES	
MPs, Tindvuna Tenkhundla for the Constituencies of Lubulini, Sigwe, Ngudzeni, Sithobela and Siphofaneni	<ul style="list-style-type: none"> Can assist in mobilizing the communities for discussions at central locations. Are the focal point of contact for the communities and external agencies, organizations and people.
TRADITIONAL AUTHORITIES	
Chiefs and Community Liaison Officers.	<ul style="list-style-type: none"> Local community leaders acting as representatives of their local community. Meetings with traditional authorities will follow local practices and be held prior to any wider communication in local communities in order to respect the cultural and social structures. Be involved in and facilitate the resolution of community conflicts and land disputes at community level. Facilitate and monitor the implementation of the project. Liaison Officers will be selected from each chiefdom to be a link between the community, chief and the contractor.
LAW ENFORCEMENT	
Royal Eswatini Police Service (REPS)	<ul style="list-style-type: none"> They are responsible for keeping law and order. The project can bring crime, violence and other criminal offences. The services of this stakeholder will be on a as needed basis. Their services will also be requested to be used by the affected local communities to report GBV and other criminal incidents.
NON-GOVERNMENTAL ORGANIZATIONS	
Swatini Action Group Against Abuse (SWAGAA)	<ul style="list-style-type: none"> Works with interested parties and the REPS in facilitating prosecution against gender-based offenders and provides counselling to victims They could support any GBV victims that have resulted directly from the presence of the project in the project affected communities.
Coordinating Assembly for NGOs (CANGO)	<ul style="list-style-type: none"> Facilitates coordination between NGOs, capacity building and influence of policy formulation both nationally and internationally. Advise on which NGO can assist in facilitating the implementation of the vulnerable groups plan.
The National Emergency Response Council on HIV and AIDS (NERCHA)	<ul style="list-style-type: none"> Can facilitate the comprehensive delivery of services at the grass root levels in the communities related to HIV/AIDS, TB and Malaria

Stakeholder	Role
Women and Law in Southern Africa-Swaziland (WLSA)	<ul style="list-style-type: none"> Can facilitate the education of workers and communities on the provisions of their protection with regards to the SODVA, 2018.

III. SUMMARY OF STUDY METHODOLOGY

Household survey

Utilizing a structured questionnaire, information to establish the baseline profile of the project area was gathered. The survey collected data directly from the local population to gather information about their socio-economic conditions and potential impacts of the projects on their livelihoods and living environment. The questionnaire collected information in the following categories:

- Demographics
- Morbidities
- Livelihood activities
- Household income and expenditure
- Financial inclusion
- Gender roles

The survey adopted a two-stage sampling method. The first stage were clusters of 10 households while the second stage involved simple random sampling within the clusters. In total, there were 12 clusters sampled along the project corridor. A total sample of 103 households were sampled.

Staff of ten (10) were recruited and trained over three (3) days. Data was collected through hard copy questionnaires and Kobo Toolbox, a data collection software. Data analysis and tabulation was done on Excel. Once data processing was completed, datasets were stored.

Gender impact assessment

Gender issues were embedded in the questionnaire in annex 2 of the household data collection instrument. Gender issues were also extracted from public participatory meetings where both men and women participated. A review of existing literature also provided insights on the status of gender mainstreaming and prevalent issues in Eswatini.

Health impact assessment

The study adopted a rapid health impact assessment (RHIA), presented in chapter 5 of this report. The RHIA was conducted to evaluate the potential health impact of the MR21 development projects on the surrounding communities. Data and information were gathered through site visits, interviews with health facilities along the project corridor and review of existing literature and reports. The baseline health assessment of the PAPs was assessed in consideration of factors such as existing health conditions and healthcare access. Additionally, primary data was collected to the greatest extent possible from household interviews regarding other morbidities, nearest health facilities and costs of getting medical attention.

IV. SUMMARY OF PUBLIC PARTICIAPTION AND STAKEHOLDER CONSULTATION

The public consultation process started with identifying the route of the Maloma-Siphambanweni MR21 road, mapping of the study area, carrying out surveys in the local communities, and consulting with local, regional, and national stakeholders. The intention was to get all stakeholders on board, and collect their views, concerns, and suggestions. The ultimate aim was to provide information on the project, and to get a buy-in, to prevent the project suffering stalls and delays as a result of lack of information.

Official letters of introduction were provided on MoPWT letterhead. The public consultation process was carried out using a combination of techniques, including household surveys, email submissions and public meetings. Minutes were taken during the public consultations to capture any issues, concerns, and suggestions raised. These were input in the Issues and Concerns Register. Table 0-3 and Table 0-4 presents regional and parliamentary officials met during the public participation process.

Table 0-3: Regional Authorities and Members of Parliament

Authority	Official	Role	Meeting mode	Date
Lubombo Regional Administration Office	Ms. Swane Dlamini	Regional Secretary	Face-to-face	07-Feb-24
	Mr. Phathizwe Zwane	Planning Officer		
Shiselweni Regional Administration Office	Mr. Bheki Thwala	Regional Secretary	Face-to-face	
	Ms. Nomcebo Mkhwanazi	Regional Officer		
Member of Parliament	Hon. David Ngcamphalala	MP – Sigwe	Face-to-face	20-Feb-24
	Hon. Minister for Economic Planning and Development - Dr. Thambo Gina	MP – Lubulini	Face-to-face	
	Hon. Charles Ndlovu	MP – Ngudzeni	Telephone	
	Hon. Mancoba Sihlongonyane	MP - Sithobela	Face-to-face	16-Feb-24
	Hon. Sabelo Ndlangamandla	MP – Matsanjeni South	Face-to-face	
	Hon. Nomalungelo Simelane	MP - Siphofaneni	Face-to-face	

Table 0-4: Community public participation process register

Region	Name	Date	Contact Number
Lubombo	Prince Mshengu	22-Feb-2024	7642 2619
	Prince Mkhathjwa	22-Feb-2024	7627 7983
	Chief Mawandla Gamedze	22-Feb-2024	7606 3307
	Chief Mshikashika	22-Feb-2024	7666 3647
	Chief Mshayeli Myeni	22-Feb-2024	78296156
Shiselweni	Prince Maja	22-Feb-2024	N/A
	Prince Gasa waNgwane	22-Feb-2024	N/A
	Prince Mbilini	22-Feb-2024	N/A

A summary of concerns, issues and comments collected during the public participation process is presented in the following table E-5

Table 0-5: Summary of concerns from public meetings on MR21

Comments/Issues	Response	To Be Attended By
<p><i>Hlatsi Road</i> Attendees asked about the MR-10 to Ngudzeni</p>	<p>The Client replied by saying that MR-10 is in consideration and government is still looking for funds.</p>	<p><i>Planning- MoPWT ESIA to include MR-10 information on future projects.</i></p>
<p><i>Construction Timeframes</i> Attendees are concerned about the criteria that is used when choosing the Contractor, said they would not like to see what is happening on MR-13 which has dragged for too long.</p>	<p>The Client noted the comment and stated they will make sure everything goes according to the ADB's standard and laws.</p>	<p><i>Planning- MoPWT - ESIA Team to entrench penalties for delays</i></p>
<p><i>Employment</i> Attendees asked what solution MoPWT has for the employment process to be peaceful.</p> <p>As neighbouring communities (Tinkhundla), attendees asked if they are allowed to also come and look for jobs.</p> <p>Attendees requested that age should not be strict during employment as we are all hungry.</p>	<p>The Client stated that CLO's will be chosen by the community at chiefdoms to ensure that people from the affected communities are employed. To also ensure that women are employed (gender) is very important.</p> <p>The Client stated that people from the neighbouring Hosea Inkhundla who are next to the road will be given an opportunity to be employed.</p> <p>Comment Noted.</p>	<p><i>Planning-MoPWT + ESIA Sociologist to compile skills register and entrench local employment to Labour Plan.</i></p> <p><i>ESIA Team to ensure CLOs are in hiring panel.</i></p> <p><i>Sociologist in Labour Plan to include the elderly, vulnerable.</i></p>
<p><i>Community Social Responsibility</i> Attendees stated that they heard that there's a possibility that a market can be built for the community, and they would gladly appreciate it.</p>	<p>The Client clarified that the MP was just requesting that if funds allow, MoPWT or Ministry of Commerce should consider building a market for the women of the area.</p>	<p><i>MoPWT + Design Team: CSR to be in BOQ. - Sociologist to document through survey areas where CSR can be applied</i></p>
<p><i>Local SME Support</i> How can we subcontract if the Contractor brings his own machinery and drivers? We have seen this in the neighbouring Mpakeni Dam construction.</p>	<p>The Client stated that these are two different projects from two different ministries. Stated that, in their ministry, it is a norm that when the is a</p>	<p><i>MoPWT to strengthen SME support in Procurement Policy of Contractor</i></p>

Comments/Issues	Response	To Be Attended By
	project, people from the affected areas are given an opportunity to subcontract.	
<i>Qualification</i> Concerns about not all of them having certificates but in need for jobs	Comment Noted.	Comment Noted.
<i>Communication</i> The CLO's/Contractor that will be doing the employment process should also be told of what has been said here.	The Client stated that they will try all means to motivate the CLO's and do follow ups.	<i>Contractor: To engage and remunerate CLO's</i> <i>Sociologist to clearly define CLO roles in selection process</i>
<i>Livestock</i> Attendees notified road designers homesteads and dipping tanks are on opposite sides of the road to avoid livestock roaming into the road. Attendees want to know how livestock will be relocated. Concerns about taking an hour to the cattle dip because they use roads in the forests therefore take longer.	The Client stated that strategic crossing points for people and cattle will be designed, and comment was noted. The Client replied that Ministry of Agriculture will take care of anything including livestock. Additionally, since livestock is easier to move than crops, relocation may not be as complicated. The Client stated that the road will be constructed in a way that the road reserve is perfect for use for livestock and community as a whole	Planning: MoPWT to include livestock infrastructure in design
<i>Imported Labour</i> Attendees stated that they do not want to see what is happening at Mpakeni where less people from the area have been employed.	Comment noted.	Planning: Contractor, ESIA Team This will be included in the SMP.
<i>Local Labour</i> Attendees requested that the Contractor employs residents	Comment noted.	Planning: Contractor, ESIA Team This will be included in the SMP.
<i>Employment</i> Attendees requested that this meeting be a final decider if this is the success or failure of the project. The request is that MoPWT would inform the Contractor all that has been said today about the	The Client responded by saying that, general labours cannot be from the Manzini region but from this area. For example, surveyors may be brought by the Contractors. The Contractor usually brings skilled employees only. Unskilled labours will be from the affected areas.	Planning: MoPWT This will be included in the SMP.

Comments/Issues	Response	To Be Attended By
employment process, and that they can be told as the community the labours that will be brought by the Contractor.		
Attendees wanted to know the age limits for employment.	The Client stated that this type of work needs strong and fit personnel, therefore 18-35 are usually the considered ones.	
<i>Follow Up Meeting</i> Attendees asked when will the Engineer come back	The Client stated that the dates have not yet been reviewed but will come back to introduce Contractor.	Planning: MoPWT
<i>Appreciation</i> Attendees thanked the Government for this project and wanted the name of the road.	The Client stated that it is MR 14 from Siphofaneni-Sithobela-Maloma-Nsoko then from Maloma to Siphambanweni MR-21.	ESIA Team to properly reference the roads.
<i>Wages Concerns</i> Concerns about Contractors underpaying local labourers. Attendees pleaded that they should set a minimal wage and not the E1500.00 Contractors usually pay	The Client stated that wages are paid according to the type of services an employee renders, the Ministry of Labour shall investigate that. The Client stated that wages are paid according to the type of services an employee renders, the Ministry of Labour shall investigate that.	Planning: ESIA Team, Contractor This will be included in the SMP.
<i>Gender Improvement Appreciation</i> Attendees thanked the Government for the project, stated that they have been waiting for this project for many years but on this day there are hopeful that change is really about to come, added that it is really great to see women being in lead, made an example of Mrs. Sihle Mamba, said it really means that this new government is coming with a whole lot of new surprises/developments.	The Client thanked the words of appreciation.	Planning: MoPWT, ESIA Team This will be included in the SMP, Gender Impact Assessment
<i>Cracked Houses</i> Attendees enquired about the distance of homesteads that will be affected by cracks.	The Client mentioned that vibrations from machinery and vibrations from blasting are different. He mentioned that we are talking about vibration of machinery which are measured.	Planning: ESIA, Environmentalist, Socio-Economist and Contractor Contractor to carry out pre-construction crack survey and post construction crack survey.

Comments/Issues	Response	To Be Attended By
<p><i>Transparency</i> Attendees requested that the employment process should be transparent.</p> <p>Attendees requested that the sub-contracting process should be transparent.</p>	<p>Comment Noted.</p>	<p>This will be included in the SMP.</p> <p>ESIA Team to entrench transparency in SMP and Stakeholder Engagement Plan.</p>
<p><i>Corporate Social Responsibility</i> Attendees requested that social benefits for the Inkhundla should be considered. Attendees requested that the contractor should upgrade at least the sports grounds in the area.</p>	<p>The Client stated the comments were noted, however, he explained that the Inkhundla should come to the Client with their request not to the Contractor. If the contractor does that on his own the Client will not pay the contractor for the work done without their concern and instruction.</p>	<p>Will be included in the SMP.</p>
<p><i>Loss of Farmland</i> Attendees wanted to know what will happen when their farmland is affected by the road construction and the Indlunkhulu says there is no more land in the community?</p>	<p>The Client stated that the Indlunkhulu will have to give the land to the affected area. Land on Swazi Nation Land is not compensated rather replaced.</p>	<p>Eligibility and compensation criteria will be outlined in the ARAP.</p>
<p><i>Construction Phasing</i> Attendees wanted to know if during the employment process people will be employed at the starting point and he was worried that as they are located at the end of the project at Siphambanweni there might not get an opportunity to be employed.</p>	<p>The Client stated that the employment process will be done through the Imiphakatsi where a Community Liaison Officer will be chosen by the community members in the 5 constituencies.</p>	<p>ESIA Team to emphasize CLO from respective communities (Tigodzi) to avoid this. This will be included in the SMP.</p>

V. SUMMARY OF SOCIO-ECONOMIC BASELINE PROFILE

Population and demographic divide

Along the project corridor, the sampled households approximately 60.6% were female headed households while 39.4% were male headed households. The age distribution of the heads of households in the sample is largely between 35 years and 79 years.

Employment, sources of income and livelihood

Unemployment in the sampled area was found to be approximately 53.3% which were highest among females than males. Sources of livelihood along the MR21 include grants, proceeds from farm activities, seasonal work, small businesses, and regular monthly salaries.

Income, expenditure, and poverty levels

Along the project corridor, the study found that the average income from respondent primary sources in E1,098.73. Respondents also submitted that they receive income in kind such as donations of food, medication, clothes, construction materials, transport, and other necessities. These on average amounted to E2,176.87 per month. Other income sources include remittances which amount to an average of E356.34 as well as other sources of income which average E226.76.

House structures

Structures along the MR21 are predominantly of modern build and designs. The sampled areas approximately 86.1% have cement brick walls, 90.4% have corrugated iron/roof tiles and 91.8% have finished cement floors. The homesteads sampled along the project corridor have various fence types such as traditional fences (made from wooden sticks), barbed wire fence as well as diamond mesh fences. It is common along the project corridor to find kraals by the front entrance of the homesteads. Most of the homesteads are also characterized by modern gates made of diamond mesh and iron.

Sources of energy

Sources of energy along the project corridor include electricity, gas, and wood. It is normal to find one household utilizing all these sources of energy for different household activities. The rural community still uses wood for some purposes such as cooking, heating and boiling water which are considered electricity intensive household activities.

Household vulnerabilities

It is estimated that approximately 32,600 people along the project corridor face acute food insecurity with approximately 10,700 of those requiring emergency humanitarian assistance and of these, 53.1% are women. Households along the project corridor have family members who have autism, albinism, epilepsy, mental disabilities, limited mobility, deafness, blindness, and host orphans.

Morbidities

Households along the project corridor have varying ailments and conditions. It was found that there are people living with HIV, TB, hypertension, cancer, skin ailments, kidney diseases and cystic fibrosis.

Current land uses

Communities on SNL around the project area have established homesteads and also practice both livestock and crop farming. Livestock and crop farming that is practiced at household level is mainly for subsistence purposes.

Cultural resources and assets

The social fabric of the communities along the MR21 is characterized by the availability of soccer fields for the benefit of inter-school games, worship, public transportation stations and community meetings. The project corridor also has churches lining the road used as places of worship and weddings.

Transportation

The project alignment traverses rural settlement roads that are completely composed of gravel material. Certain sections of the road are maintained to the best extent feasible by Maloma Colliery. The primary focus of the mine's maintenance efforts is on routes utilized by heavy-duty trucks responsible for transporting coal from the mine. Public transportation along the MR21 is provided by big buses and minibuses (kombis). The minibuses ferry commuters to as far as Sigwe, while the buses can go as further. The buses have designated stops along the MR21 where passengers wait. The bus stops are not sheltered due to the non-development of the pedestrian infrastructure.

Telecommunications

Along the project corridor, there is mobile service coverage provided by MTN Eswatini and Eswatini Mobile. Telecommunication antennas are situated in close proximity to the road, and commercial and economic hubs can be found along the MR21 corridor. MTN Eswatini has 4G coverage all over the country with plans for a complete 5G coverage at mature stages. The youngest mobile service provider Eswatini Mobile also has 4G network for approximately 70% of the country including the project corridor.

Water access, sanitation, and hygiene

The study found that along the project route, a significant portion of respondents use unimproved water sources such as surface water, rainwater, and groundwater. There are those who use improved water sources such as kiosk and rural water scheme. Some households buy water from water trucks but did not know the source of the water. Even though there is EWSC pipeline infrastructure from Esiphambanweni to Sigwe, only a few residents have access to this water as the infrastructure is still being developed to meet the demand.

The study revealed that the majority of households have improved sanitation facilities such as VIP latrines and indoor flush toilets. There are also households with unimproved sanitation facilities which are non-ventilated pit latrines. To manage waste, households use a variety of methods such as hiring honey suckers, use of chemicals to manage sludge in the pit toilets while others simply dig another latrine if the active latrine is full.

Education

The project area is serviced by a number of schools. The schools are close to the road but generally observe the road servitude. This is beneficial to these schools to enable easy access to the local transport network. On the MR21, the following schools can be found:

- Zamokuhle Primary School

- Elulakeni Primary School
- Elulakeni High School
- Makhava Primary School

Health

The health facility types are mostly clinics which service the communities surrounding the project corridor. A summary of health facilities is presented in the table below.

Table 0-6: Health facilities

Health facility	Area
Matsanjani Health Center	Esiphambanweni
Nhlangunjani JCI	Nhlangunjani
A1 JCI	Makhava A1

Financial literacy and financial product usage

There is a high proportion of respondents who have a mobile money account and transact through electronic means. The largest mobile network operator, MTN and a major bank (FNB) are visible along the project corridor. This provides easy access to remittances, grant withdrawals as well as sending money to own electronic accounts or to counterparties. Some of their bills (water bills) and buy necessities such as electricity units and airtime through their mobile money accounts.

Involuntary resettlement

The project along the MR21 is anticipated to have some minimal resettlement impacts. Some properties at Maloma are on Title Deed Land (TDL) were found to be within the right of way. Other possible impacts were found at Makhava. These were fences on residential property and at a business property at Makhava business node. The road is projected to be 24 meters in width inclusive of the servitude. The Roads Department has initiated discussions with the directly affected individuals with the view of compensating them. The resettlement costs are estimated to amount to E7 million/UD\$387 thousand.

VI. SUMMARY OF GENDER IMPACT ASSESSMENT

The following issues on gender were submitted during the primary data collection.

- Some women reported that their husbands strongly influence them to choose the type of treatment they should take. Some women said they prefer modern medicine, but their husbands prefer traditional healers.
- During the data collection, respondents indicated that their main purposes for travelling using the MR21 and within the community include going to the nearest town to get household supplies such as groceries, seek medical assistance for themselves and their children.
- Comments from women regarding opportunities that will come with the construction phase of the project were predominantly about ensuring that they are given the opportunity to be part of the laborers.
- The construction industry is generally a male dominated industry. There is a paucity of women in technical and managerial roles across all levels, from civil engineers, architects, maintenance, and supervisory staff. Construction can be a high-risk environment for gender-based violence and harassment. This can affect community members, workers, service users and discourage women from seeking employment in the construction industry. Risks can intensify when there is an influx of

male construction workers from outside the community. Risks to local women such as sexual harassment, violence, and exploitative transactional relationships which are traditionally aggravated by male-working environments is anticipated to increase.

The gender impacts and mitigants are embedded in the social impact assessment matrix.

VII. SUMMARY OF HEALTH IMPACT ASSESSMENT

The project corridor's healthcare infrastructure consists of health centers and clinics offering the following key services.

Table 0-7: Health care facilities and services along the project corridor

	Siphofaneni	Sithobela	Lubuli	Sinceni	Ekhwezi
Facility type	Clinic	Health Center	Clinic	Clinic	Clinic
TB	✓	✓	✓	✓	✓
ART, STI	✓	✓	✓	✓	✓
VCT	✓	✓	✓	✓	✓
OPD	✓	✓	✓	✓	✓
IPD	x	✓	x	x	x
X-ray	x	✓	x	x	x
PMTCT	✓	✓	✓	✓	✓
Electronic Database system availability CMIS					
	✓	✓	✓	✓	✓

Ailments reported to prevail in the project area include hypertension, diabetes, malaria, HIV, AIDS, TB as well as ailments such as the common flue and stomach ailments. Health service provision in the PACs is supported by various government partnerships which have a nationwide reach (see Volume 1 SIA Report table 7-3). The health impact risks are included in the socio-economic impact assessment and mitigation plan. The potential impacts are summarized in the following table.

VIII. MAJOR SOCIAL, HEALTH AND GENDER IMPACTS

The major purpose of the scoping phase was to solicit comments, requests and scope out as many potential issues and impacts as possible. Impacts considered were those that could be identified scientifically or and those which the public and other interested and affected parties could foresee because of the proposed development of the MR21. This section presents a summary social impact identified during the assessment.

Table E-8: Major impacts on the social environment

ISSUE	IMPACT	IMPACT DESCRIPTION
<i>Pollution</i>	Water quality (-)	Pollution of river water during water abstraction from rivers for construction works. Soil eroded from spoil heaps will be transported to water courses resulting in pollution and siltation of water courses. Without proper sanitation during construction, employees will urinate and/or defecate over open or directly into water courses resulting in pollution of watercourses and groundwater.
	Sanitation (-)	Without proper sanitation during construction, employees will urinate and/ or defecate over open ground or directly into watercourses resulting in pollution of watercourses and groundwater. This will ultimately result in public health hazards in the community.
<i>Water supply</i>	Water availability at construction sites (-)	Since there is no potable water, there is a potential for site personnel not having access to quality drinking water, which may lead to waterborne diseases and reduced productivity during implementation.
<i>Air quality, noise, and aesthetics</i>	Dust (-)	Dust from pre-construction works may lead to air pollution, especially on windy days. Dust from excavations, stockpiles and backfilling may also lead to particulate matter pollution, especially on dry, windy days.
	Noise (-)	The use of machinery for compacting the ground and excavation and clearing may lead to the generation of noise.
	Aesthetics (-)	Excavation and associated working may result in loss of landscape feature e.g. topographical changes, loss of vegetation, which causes changes in landscape character.
<i>Occupational health and safety</i>	Risk to workers and public safety (-)	Personnel involved in the construction activities might be exposed to safety risks if they are not properly protected. If the public is not properly warned, activities may be a hazard to passersby. Trenches that are left uncovered for a long time pose a safety hazard to the public. The construction activity on site may also pose danger to the public if proper precautions are not taken.
	Skills impartation (+)	In the process of working on the construction, skills will be imparted to local communities through internships as well as longer term employment.

ISSUE	IMPACT	IMPACT DESCRIPTION
<i>Economic, social and employment</i>	Closure of some access points (-)	The construction works will result in temporary or permanent closure of some access points to homesteads, sports grounds, churches, and businesses.
	Employment opportunities (+)	The communities will benefit from being prioritized for employment opportunities during the construction which will result in enhanced local economic activities.
	Entrepreneurial opportunities (+)	The communities will benefit from being prioritized for the supply of goods and services for the construction works as well as the workers.
	Public nuisances (-)	High and heavy traffic volumes will be a public nuisance.
	Higher crime rates (-)	Higher incidences and opportunities of crime due to influx of migrant workers. Crimes committed may include theft and gender-based crimes.
<i>Health</i>	Spread of HIV/AIDS, non-communicable diseases, vector borne diseases and upper tract respiratory diseases (-)	Employment opportunities created by the project will attract job seekers into the community, resulting in promiscuity and prostitution which will in turn spread HIV/ AIDS, non-communicable diseases, vector borne diseases and upper tract respiratory diseases. The incidence of HIV/AIDS in Eswatini is
	Higher risks of traffic related injuries (-)	The increased traffic volumes could increase the risks of traffic related injuries and fatalities. The National Road Safety Strategy 2023-2030 has committed to reducing such by 50% by the year 2030. The Contractor shall endeavor to support this agenda throughout the project life cycle.
	Pressure on local health facilities. (-)	Influx of workers will put additional pressure on the local health system which already are greatly constrained. The project route is serviced by one (1) health facility (Matsanjeni Health Center) and three (2) clinics. An influx of migrant workers would see the existing capacity treating a high number of patients using the already limited human resource and human capital.
<i>Gender</i>	Narrowing of gender gaps (+)	The Contractor's conscious approach to employing women will help with gender mainstreaming efforts in the construction sector and the national gender mainstreaming agenda. Women in construction are grossly underrepresented in the country with women accounting for approximately 19% of those employed in construction. The women in the PACs are willing to be part of the construction work force. With appreciation of the muscle intensive nature of the jobs, they are willing to partake in less intensive work such as traffic control.

IX. SOCIAL MANAGEMENT PLAN, MONITORING AND ESTIMATED COSTS

Social Management Plan and Monitoring Responsibility

The Social Management Plan (SMP) consists of a set of mitigation, monitoring and institutional measures to be taken throughout the project's life cycle which is approximately 44 months of which 8 of them is the feasibility and design phase. The objective of the SMP is to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures. This ESMP is an essential element of the ESIA, and being the part directly involved in the implementation phase. The ESMP section will form part of the bidding and contract documentation to which the selected contractor/s need to comply. Furthermore, the ESMP is considered a dynamic document as management actions may be subject to changes because of feedback received during project implementation and / or in response to unexpected impacts with a magnitude different to that predicted at the time the ESIA was finalized. Implementation and monitoring responsibilities are going to be a collaborative effort between MoPWT, Project Contractors, Project Engineers, Environmental Compliance Officer, SHEQ Officer, Community Liaison Officers (CLOs), Non-Governmental Organizations (NGOs), Traditional Authorities (TA) as well as various Government Departments including Finance, Economic Planning and Health. Government agencies such as the Eswatini Environmental Authority and NERCHA shall also be roped in for support at specific periods and milestones of the project's life cycle.

Estimated Costs

The total cost for the implementation of the social management plan is estimated to be E19 million/US\$1 million presented in table E-10. Costs of some items associated with social monitoring will be a significant component of specific items incorporated in the overall project budget and no separate budget is necessary to cover them. These items include:

Marginal costs of the contractor to be incurred in complying with environmental protection clauses in the construction contract are incorporated in unit rates and bill items and will thus be included as construction costs. It should be noted that no significant increase in construction costs is expected in connection with requiring compliance with environmental protection clauses, since these merely require the contractor to behave in a responsible manner in relation to the environment, in accordance with good construction practice.

Social monitoring carried out by the Supervising Engineer's team including inputs by the Social Specialist/Environmental Compliance Officer recruited by the Consultant is an integral aspect of supervision duties/responsibilities and will be covered by normal construction supervision cost estimates and contract.

X. IMPLEMENTATION SCHEDULE AND REPORTING

The implementation of the social management plan shall last throughout the project cycle. The main responsibility of monitoring the progress of the project shall lie with the Roads Department in the MoPWT. The Road Department shall be responsible for designing project monitoring systems and record keeping. It will prepare progress reports, including quarterly reports, which will need to be submitted to the Bank. The designated Roads Department staff together with the Engineer will be responsible for the preparation of reports on the effectiveness of the implementation of the environmental and social mitigation measures and any improvement that would be required.

Table E-9: Social Management Plan and Estimated Costs

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
PRE-CONSTRUCTION PHASE			8,797,783.36	518,037.64
Water supply for construction and domestic use	Project Engineer	<ul style="list-style-type: none"> Ensure water is sourced either from commercial sources or that contractor is in possession of a water abstraction permit. 	16,000.00	868.08
Implementation of RAP, disclosure of information to PAPs.	MoPWT	<ul style="list-style-type: none"> Ensure all directly affected persons are compensated before construction 	7,010,783.36	386,957.69
Disclosure of GRM to PAPs and community.	PIU	<ul style="list-style-type: none"> Familiarize themselves with the provisions of the GRM and its levels. Ensure GRM disclosure using appropriate outlets (Tinkhundla offices, Chiefdom). Ensure effective resolution of grievances and signing off of grievances. 	1,771,000.00	130,211.87
Build capacity for the understanding of the provisions of the GRM and its application.	PE ECO PC			
CONSTRUCTION PHASE			5,435,000.00	294,875.62
Implementation of health safety and environmental measures	ECO	<ul style="list-style-type: none"> Ensure contractors have hired qualified SHEQ Officers for enforcing SHEQ standards on site on a daily basis. Keep records of proof of academic qualifications of SHEQ Officer. Ensure all relevant safety measures are in place at construction sites, constructional tracks, site office and local roads affected by construction activity. 	35,000.00	1,898.92
Sewage waste management	PE ECO PC	<ul style="list-style-type: none"> Monitor to ensure SHEQ Officer enforces PPE usage and other pollution control measures. Ensure proper handling, temporary storage and safe transportation of waste from project sites to designated disposal sites. Issue site instructions to contractor when necessary. Report during progress site meetings. 	20,000.00	1,085.10
Implementation of GRM	PIU ECO	<ul style="list-style-type: none"> Facilitate registration and timely resolution of emerging grievances. Ensure all community interests and concerns are attended to by contractor. PIU to facilitate flow of information between communities and contractor, vice versa. Ensure grievances are registered through established channels and that they are resolved within stipulated timeframes. 	4,500,000.00	244,147.25

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
Monitoring and evaluation of RAP	E&M Officer Subcontracted Experts	<ul style="list-style-type: none"> Use performance indicators to monitor progress. Make recommendations necessary for improving performance. 	300,000.00	16,276.48
Monitor implementation of all social mitigation measures	E&M Officer Subcontracted Experts	<ul style="list-style-type: none"> Prepare Project Compliance Reports (PCRs) on behalf of ESWADE. Facilitate submission of PCRs to EEA at the agreed times and intervals. Provide support and advice to the project team, contractor and all subcontractors in the implementation of environmental management procedures and corrective actions. Assess the efficacy of the ESMP and identify possible areas of improvement or amendment required within the ESMP. Facilitate the amendment of the ESMP in conjunction with the Engineers, SHEQ Officer and MoPWT, as and when necessary. 	300,000.00	16,276.48
Participation of locals and vulnerable groups (women, youth, persons living with physical disabilities) in employment opportunities	Employment Committee CLO	<ul style="list-style-type: none"> Ensure eligible jobseekers are mobilized and registered with respective Chiefdoms. Develop recruitment procedures in consultation with contractors. Monitor to ensure employment of locals. o Relay information from contractors to Chiefdom level regarding labour requirements throughout construction period. Monitor compliance with lawful labour practices and facilitate reporting of deviations to MoPWT. 	30,000.00	1,627.65
Engagement of CLO is key in the feedback mechanism as a link between the contractor and the community during the construction and operations phases.	CLO	<ul style="list-style-type: none"> Assist contractor with recruitment procedure. Establish good working relationship between contractor and the community. Prepare community liaison meetings monthly and keep records for use by Employment Committee, Contractor and other interested parties. Investigate and respond to complaints / grievances received in collaboration with EPC, ECO and SHEQ Officer. Timely notification of the community regarding important notices issued by the contractors. 	250,000.00	13,563.74
OPERATIONAL PHASE			2,300,000.00	233,296.26
M&E of effectiveness of GRM and prepare closure report	PIU	<ul style="list-style-type: none"> Evaluate overall implementation of GRM. Identify any outstanding issues and make recommendation for their conclusions. Prepare audit report for submission to MoPWT 	300,000.00	16,276.48

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
External auditing of the project	Appointed team of local and international experts	<ul style="list-style-type: none"> ▪ Periodic review of the project. ▪ Identify gaps in accomplishment of project performance targets. ▪ Prepare audit report with recommendations for improving project performance. ▪ External audit at Year 3 of project operation. 	2,000,000.00	110,389.29
Sub-Total			16,532,783.36	939,579.03
Contingency at 15%			2,479,917.50	140,936.85
Grand Total			19,012,700.87	1,080,515.88

XI. SOCIAL INFRASTRUCTURE DEVELOPMENT ON THE MR21

The road project, as a corridor initiative, is anticipated to include social infrastructure that will be beneficial to vulnerable groups such as women, people living with conditions that limit their mobility as well as the youth. The (AfDB) has a strong commitment to inclusivity and social infrastructure development, which is reflected in its policies and guidelines. These policies are designed to ensure that funded projects contribute to equitable and sustainable development across the African continent. The guiding principles are presented in the *Ten-Year Strategy (2013-2022)*, *Gender Strategy*, *Social Safeguards and Standards*, *Integrated Safeguard System (ISS)*, *Policy on Disability*, *Infrastructure Development Policies*, *High 5 Priorities*, *Climate Change and Green Growth Framework*, and *Jobs for Youth in Africa Strategy*.

Table 0-10: Possible project initiatives

Initiative		Beneficiary	Location	Features
Bus bays	Major commercial nodes along the project route do not have designated bays to idle while awaiting passengers.	Vendors Students Commuters Public transport operators.	Siphambanweni Makhava	Basic concrete paving indicative of setting (bus bay).
Sanitation	The commercial nodes do not have adequate public sanitation facilities.	Vendors Students Commuters Public transport operators.	Siphambanweni Makhava	Sustainable improved pit latrines.
Sustainable market infrastructure	Vendors operate in market stalls built from material that is not climate resilient such as corrugated iron.	Vendors Commuters Students	Makhava Nhlangunjani	Sheltered markets with features to secure wares (e.g. security bars, lockable lockers). Inclusive of sanitation facilities.
Internships	The project corridor has high youth unemployment rate. Offering internships during construction would provide unemployed youth with relevant experience and increase their employability.	Youth	Project corridor	A 3 to 6 months internship by contractor/s for both skilled and unskilled local youth.
Soccer ground rehabilitation	The project corridor has soccer fields which are used by the locals for school sports tournaments and inter-community tournaments. The grounds are also used for community meetings.	Schools Community Youth	Siphambanweni Sigwe Junction	Sports ground with changing rooms, sustainable improved pit latrines, sitting stands, running track and outdoor gym equipment.
Pre-school facilities	The primary school principals submitted a	Schools Children	Makhava Nhlangunjani	Buildings with sustainable improved sanitation facilities,

	need for pre-schools along the project corridor.			playground, solar panels and potable water.
Solar panels	The schools submitted that they face high electricity bills. These would alleviate the operational costs of the schools so that budget can be re-allocated.	Schools	Zamokuhle Primary School Makhava Primary School Elulakeni Primary and High School.	Tamper proof, weather resilient, economically sustainable panels. They should generate enough power to pump water and lights including security lights.

END OF EXECUTIVE SUMMARY

SOCIO IMPACT ASSESSMENT REPORT: MR21 – MALOMA-ESIPHAMBANWENI ROAD

1. INTRODUCTION

1.1. PROJECT BACKGROUND

The MR21 road project is a significant infrastructure development initiative in the Kingdom of Eswatini. This road is a vital component of Eswatini's main transportation network, linking agricultural zones to urban centers and facilitating the movement of goods and people. The project encompasses the upgrading of the existing gravel road to a bitumen surface, improving travel conditions and reducing maintenance costs. The MR21 road is vital for connecting rural areas to urban centers, facilitating the movement of goods and people, and supporting local economies. The upgrade is expected to significantly reduce travel time, improve road safety, and enhance access to markets and services for the local population. The Government of Eswatini has prioritized the development of its transport infrastructure as part of its broader economic development strategy. This project aligns with the Government's Programme of Action (2013 - 2018) and His Majesty's Vision 2022, which aim to improve the country's logistics infrastructure and support sustainable economic growth. In 2013, with assistance from the African Development Bank (AfDB), the government commissioned the Swaziland/Eswatini Transport Master Plan (STMP) to guide the development of the transport sector over the next two decades. The STMP includes comprehensive assessments of existing infrastructure, demand forecasts, and strategic investment plans to enhance the country's road, rail, and air transport systems.

1.2. PROJECT LOCATION

The MR21 predominantly traverses across Swazi Nation Land (SNL). The road initiates from Maloma to Siphambanweni where it meets the MR9. It traverses the Sigwe, Matsanjeni South and Ngudzeni Tinkhundla.

Figure 1-1: Project Location



1.3. PROJECT OBJECTIVES

The overarching objective of the project is to support the economic development of Eswatini through facilitation of easier access to markets and connection to the Southern African Development Community's (SADC) road network. The under arching but equally significant objective is to enhance the socio-economic environment through facilitating lower transport costs and connecting the rural economy with the more economically vibrant urban economy. These two broad objectives can be broken down into the following:

- i. Promoting equal access to economic and social development opportunities across the country thus contributing to the Government's efforts to eradicate poverty through economic development.
- ii. To improve the country's road infrastructure and fulfil the objectives of the National Transport Master Plan.
- iii. The project will facilitate the transferring of skills and build technical capacity through on the job training.
- iv. Reduce costs associated with transporting goods and time taken to transport goods. This benefit is anticipated to trickle down to the community by opening local markets to a broader range of goods and services and ultimately moderating their price at the local level.

1.4. OBJECTIVES OF THE SIA

The objective Social Impact Assessment (SIA) is to facilitate the achievement of the project goals in the most efficient, least disruptive and the most socially inclusive way possible. Through the impact assessment process, the SIA seeks to:

- i. Examine the project's potential negative and positive environmental and social impacts and recommend any measures needed to prevent, minimize, mitigate, or compensate adverse impacts and to improve environmental and social performance.
- ii. Analyze project alternative and impacts thereof with the ultimate goal of informing project design while adhering to the principles of the SIA (efficient, non-disruptive and socially inclusive).
- iii. Ensure that affected communities are appropriately engaged on issues that could potentially affect them.

1.5. REPORT STRUCTURE

This SIA report integrates the project impacts, mitigation measures, management and monitoring plans. It tackles social concerns and provides practical advice on the mitigation of any potentially adverse social impacts of the project or any other impacts to the social environments of the project host communities. Due to its nature, this SIA is the outcome of extensive consultations, and its recommendations are community, social development and human rights centric. This report is structured as follows.

Chapter 1: Introduction

Chapter 2: Socio-economic study methodology

Chapter 3: Legal, Policy and Regulatory Frameworks

Chapter 4: Socio Economic Baseline

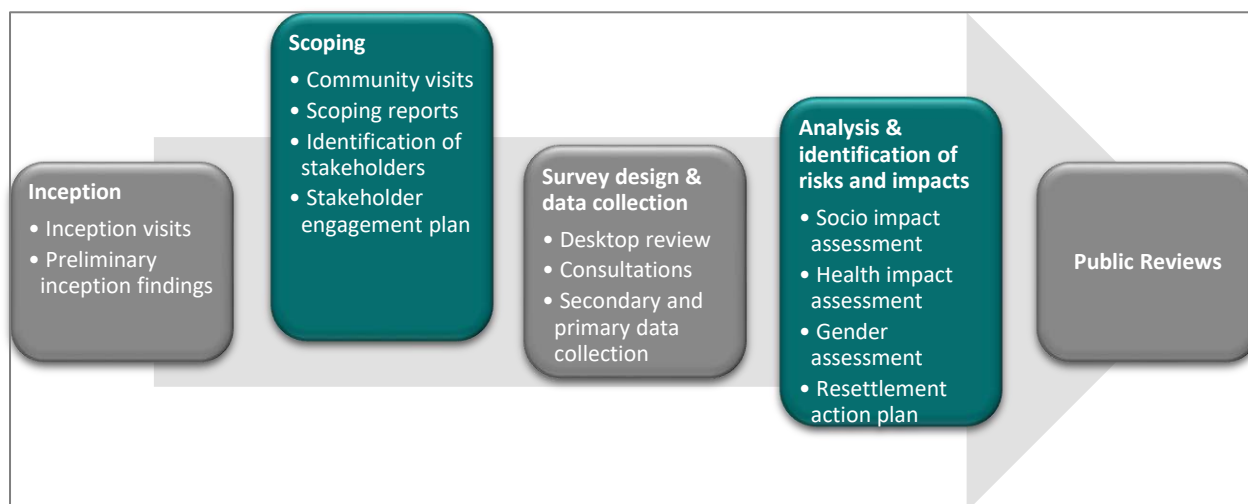
Chapter 5: Gender Impact Assessment
Chapter 6 Health Impact Assessment
Chapter 7: Social Impacts and Mitigation Measures
Chapter 8: Social Management Plan, Monitoring and Estimated Costs
Chapter 9: Social Infrastructure Development
Chapter 10: Conclusions and Recommendations
Chapter 11: References

2. SOCIO ECONOMIC STUDY METHODOLOGY

2.1. APPROACH

An overview of the Consultant's methodology and approach is presented in Figure 2-1 below.

Figure 2-1: Socio economic study approach



In order to carry out the Social Impact Assessment (SIA) thoroughly, an approach which ensures that the concerns and views of all interested, and project affected parties are identified and examined will be adopted. The study will be carried out in five stages namely:

(i) Inception

The inception phase included inception visits and scoping of the project area, unstructured and informal conversations with locals to understand the socio economy. The outcome of this phase will be the inception report.

(ii) Scoping

The scoping stage involves community visits, identification of stakeholders and achieving consensus among stakeholders. It involves engaging stakeholders, gathering their requirements and expectations, and ensuring a shared understanding of the project's goals and objectives which will be recorded and presented in the scoping report.

(iii) Survey design and data collection.

The survey design and data collection stage involve reviewing existing literature pertaining to the project area, identifying gaps in existing data and literature as well as primary data collection. The outcome of this stage will be a baseline socio economic profile of the project area.

(iv) Analysis and identification of risks and impacts

The analysis and identification of impacts stage involves the quantifying of risks and their impacts. At this stage the data collected will be analyzed to assess identified impacts, mitigate the risks, and

propose measures to enhance the benefits of the project. The outcome of this stage will be the socio impact assessment, health impact assessment, gender assessment and the resettlement action plan.

(v) Public review

The objective of the public review stage is to foster transparency, accountability, and public engagement in the socio-impact assessment process for a road project. It aims to ensure that the project's potential social impacts are thoroughly considered and that the concerns and interests of the public are considered.

2.2. METHODOLOGY

2.2.1. Socio-baseline profile

Utilizing a structured questionnaire, information to establish the baseline profile of the project area was gathered. The survey collected data directly from the local population to gather information about their socio-economic conditions and potential impacts of the projects on their livelihoods and living environment. The questionnaire collected information in the following categories:

- Demographics
- Morbidities
- Livelihood activities
- Household income and expenditure
- Financial inclusion
- Gender roles

2.2.2. Sampling design

The survey adopted a two-stage sampling method. The first stage were clusters of 10 households while the second stage involved simple random sampling within the clusters. In total, there were 20 clusters sampled along the project corridor. Total sampling was done in the areas presented in Table 2-1. The sample size was 71 households for the MR21.

Table 2-1: Sampling by area

Inkhundla	Area	Sample	Total
Sigwe	Elulakeni	15	71
	Ngwavuma	14	
Matsanjeni	A1/Makhava	13	
	Esiphambanweni	14	
Ngudzeni	Nhlangunjani	15	

Recruitment and training of field staff

A team of experienced field enumerators were recruited. The enumeration team was made up of 5 teams of 2 people. Field work training was three days. An inclusive approach was adopted for conducting the household survey. The study was intentional in balancing data collection by gender, vulnerability, disadvantaged and gender.

Data management and quality control

Kobo Toolbox, a toolkit for collecting and managing data for surveys was utilized for the data collection. Hard copies of the questionnaire were printed as back-up in case of technology failure. Field data was uploaded to a database on a daily basis. Issues on the quality of the data received were intercepted and corrected daily. Initial data issues discovered on the first day of data collection were programming issues and were swiftly corrected for the second day data collection.

Data analysis

Data collected on hard copies was captured on kobo toolbox after the fieldwork for challenged areas. Data analysis and tabulation was done on Excel. Once data processing was completed, datasets were stored.

Limitations and challenges

The study faced the following challenges:

The homesteads are sparsely populated, more time in one day was spent travelling to the homesteads that reduced interview time.

Data collection was suspended for two days due to warnings about cyclone FILIPO from the National Disaster Management Agency.

The study had to be conducted during the week when eligible respondents had to be present. In some of the clusters, the adults were either away for the day or at work while some were not willing to participate. To overcome this challenge, the enumerators moved onto the next household to ensure that enough households were covered.

2.2.3. Gender impact assessment

The Consultant assessed the social impact of the project on the quality of life of the people along the project corridor with special attention paid to highlighting gender issues. The outcome of the gender assessment is presented in chapter 5 of this report. Due to the tight timelines of the study, gender issues were embedded in the questionnaire of the household data collection instrument. Gender issues were also extracted from public participatory meetings where both men and women participated. A review of existing literature also provided insights on the status of gender mainstreaming and prevalent issues in Eswatini.

2.2.4. Health impact assessment

The study adopted a rapid health impact assessment (RHIA), presented in chapter 5 of this report. The RHIA was conducted to evaluate the potential health impact of the MR21 development projects on the surrounding communities. Data and information were gathered through site visits, interviews with health facilities along the project corridor and review of existing literature and reports. The baseline health assessment of the PAPs was assessed in consideration of factors such as existing health conditions and healthcare access. Additionally, primary was collected to the greatest extent possible from household interviews regarding other morbidities, nearest health facilities and costs of getting medical attention.

2.2.5. Criteria for the assessment of likely impacts

The project is anticipated to have both positive and negative impacts on the socio-environment. They need to be assessed in order to ascertain their level of significance. This sub-section presents the criteria used for the assessment of the likely impacts.

Table 2-2: Description of Impacts

NATURE	Include brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity
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Table 2-3: Scale/Distribution of Predicted Impacts

GEOGRAPHICAL/SPATIAL EXTENT: This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and bracketing ranges is often required. This is often useful during the detailed assessment of a project in terms of further defining the determined		
1	Site	Physical impact will only affect the site
2	Local/district	Will affect the local area
3	Province/region	Will affect the entire region
4	International and national	Will affect the entire country

Table 2-4: Probability Criteria for Evaluation of Impacts

PROBABILITY		
1	Unlikely	The chance of the impact occurring is extremely low (less than 25% chance of occurring)
2	Possible	The impact may occur (between 25% and 50% chance of occurrence).
3	Probable	The impact will likely occur (between a 50% and 75% chance of occurrence).
4	Definite	Impact will certainly occur (greater than 75% chance of occurrence).

Table 2-5: Reversibility of the Evaluated Impact

REVERSIBILITY: This describes the degree to which an impact on an environment can be successfully reversed upon completion of the proposed activity		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is reversible with moderate mitigation measures.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible, and no mitigation measures exist.

Table 2-6: Extent of Lost Resources of the Evaluated Impact

IRREPLACEABLE LOSS OF RESOURCES: This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact will result in a complete loss of all resources

Table 2-7: Duration Criteria of the Impact

DURATION: This describes the duration of the impacts on the environment parameter. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years)
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years)
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).

Table 2-8: Intensity of the Knock-on Effects of the Evaluated Impact

CUMULATIVE EFFECT - This describes the cumulative effect of the impacts on the environmental parameter. A cumulative effect/impact is an effect, which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects
3	Medium Cumulative impact	The impact would result in minor cumulative effects
4	High Cumulative Impact	The impact would result in significant cumulative effects

Table 2-9: Categorization of the Evaluated Impact

INTENSITY/MAGNITUDE - Describes the severity of the impact.		
0	Negligible	No impact on the environment or socio-economy
1	Low	Impact is minor and will affects the quality, use and integrity of the system/component/processes in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component/processes but system/ component still continues to function in a moderately modified way and maintains general integrity.
3	High	Impact affects the continued viability of the system/component/processes and the quality, use, integrity, and functionality of the system. The system/component is highly impaired and may temporarily cease. It has high costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component/processes and the quality, use, integrity, and functionality of the system/component. The system permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation are often impossible. If possible, rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation

Calculation of overall significance of impacts

The impact significance scale aims to assess the importance of a specific impact. This assessment must be conducted within the appropriate context, as an impact can be ecological, social, or both. Four factors are considered when evaluating the significance of all impacts:

Temporal Scale: This factor relates to measured time and defines the significance of the impact over various time periods, indicating the duration of the impact

Spatial Scale: This factor pertains to space and defines the physical extent of the impact.

Severity/Beneficial Scale: This factor assesses the state or extent of the impact, whether negative or positive. It scientifically evaluates how severe negative impacts would be or how beneficial positive impacts would be on a particular affected system (for ecological impacts) or a particular affected party.

Likelihood: This factor measures the degree of probability that the impact will occur. The likelihood of impacts resulting from project actions varies between potential impacts.

Each criterion is ranked with scores assigned as presented in the ranking table to determine the overall significance of an activity. The criteria are then considered in two categories: the effect of the activity and the likelihood of the impact. The total scores recorded are then read off the matrix presented in the following table to determine the overall significance of the impact, which can be either negative or positive.

Table 2-10: Significance Criteria for Rating of the Evaluated Impact

<p>SIGNIFICANCE - determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. This describes the significance of the impact on the environmental parameter. The calculation of the significance of an impact uses the following formula: <i>(Extent + probability + reversibility/irreplaceability + duration + cumulative effect) x magnitude/intensity</i></p> <p>The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic, which can be measured and assigned a significance rating</p>		
Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects
51 to 73	Negative High impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

3. LEGAL, POLICY, REGULATORY AND INSTITUTIONAL FRAMEWORKS

3.1. OVERVIEW

The implementation of the proposed development will trigger a number of local and international policies, laws, and regulatory requirements whose provisions will have to be recognized and taken into consideration in all stages for the development of the MR21. The sub-sections below give a description of the policies, laws and regulatory requirements that are relevant to this component of the project. These are detailed in the sub-sections below.

3.2. APPLICABLE NATIONAL LEGISLATION

3.2.1. Constitution of the Kingdom of Eswatini

The project will empower the surrounding communities and the whole country by improving the transport system. This project is consistent with the economic objectives of the country, as enshrined in Section 59 of the Constitution of the Kingdom of Eswatini. Section 59(1) of the Constitution states that “The State shall take all necessary action to ensure that the national economy is managed in such a manner as to maximize the rate of economic development...” and further provides that action shall be taken by the State to “provide adequate means of livelihood and suitable employment and public assistance to the needy.” Section 59(2) of the Constitution of the country states that “The State shall, in particular, take all necessary steps to establish a sound and healthy economy whose underlying principles shall include (d)undertaking even and balanced development of all regions and in particular improving the conditions of life in the rural areas, and generally, redressing any imbalance in development between the rural and urban areas.”

3.2.2. National Gender Policy

This Policy aims to ensure equity in the assigning of benefits, roles and responsibilities for women, youths, and people with special needs in all sectors of the economy. Both the construction and operational phases for the project will have a role to play in ensuring fair and equitable participation of these vulnerable groups at the different stages of its development.

3.2.3. Environmental Management Act 2002.

According to the Act, no person shall undertake any project that may have an effect on the environment without the written approval of EEA. The preparation of this ESIA report is a part-fulfilment of this Act because it has provided an opportunity for the screening of all the likely impacts of the project activities and mitigation measures to be developed to protect both the social and biophysical environment from any detrimental effects.

3.2.4. Employment Act 1980.

The Act stipulates that no under-aged person may enter into a contract of employment. It further discourages discrimination on grounds of gender, race, color, religion, marital status, national origin, tribal or clan extraction, political affiliation, or social status by employers. The act orders employers to pay employees equally for equal work. It provides for the protection of wages, registration of employers, prohibits forced labour, provides for annual holidays and sick leave and other miscellaneous items including

housing and feeding of employees. Contractors for civil works will be bound by the provisions of this Act to provide a conducive work environment for their employees.

3.2.5. Workmen’s Compensation Act 1983.

The Act provides for the compensation and medical treatment of workmen who suffer injury or contract work related diseases in the course of their employment. This Act will apply in the event that employees of contractors are injured or suffer work-related diseases in the course of their employment.

3.2.6. Children’s Protection and Welfare Act No.6, 2012

The CPWA, 2012, is a comprehensive legislative framework designed to safeguard the rights and welfare of children in Eswatini. This Act addresses various aspects of child protection, including the prevention of child marriage, sexual exploitation, and other forms of abuse. The key provisions of this act include the criminalization of sexual activity with minors, rigorous enforcement and prosecution of perpetrators irrespective of their social or economic status, advocates for community engagement and behavior change interventions to address harmful cultural norms as well as advocate for the empowerment of girls in ending the cycle of violence. The CPWA 2012, also addresses issues of child labour by criminalizing hazardous work, forced labor, child trafficking and commercial sexual exploitation of children. The Act is preventative by nature through its call for effective and time bound measures to prevent the engagement of children in the worst forms of child labour and the provision of direct assistance for their removal and rehabilitation. The Act recognizes the role of economic empowerment in breaking the cycle of child labor. It stresses the importance of addressing poverty and unemployment to protect children from being forced into labor.

3.2.7. NERCHA Act No.8, 2003

Eswatini does not have HIV and AIDS specific legislation that would address matters such as intentional transmission of HIV and discriminations against people living with HIV. There is however a network of legislations that support the national response to HIV and AIDS. The NERCHA Act establishes a national coordination mechanism called the National Emergency Response Committee on HIV and AIDS. This coordination mechanism is implemented by NERCHA which is an agency mandated to organise and manage the nation’s response to the pandemic.

3.2.8. The Road Traffic Act, 2007

This is a comprehensive statute that governs the regulation of road traffic and transportation within the country. It sets out the rules of the road, including speed limits as well as driver and passenger behaviour in a moving vehicle. It also sets out traffic fines and addresses the safety of pedestrians.

3.2.9. The Road Safety Act, 1983

This act focuses on improving road safety through various programs and initiatives. It establishes the Road Safety Council which oversees these road safety initiatives. These initiatives include the development, monitoring, implementing and updating of long-term road safety programs. The council is also mandated to provide guidance to both the Government and public on road safety matters through symposia, lectures and other gatherings that promote road safety.

3.2.10. The Road Transportation Act, 2007

The Road Traffic Act, 2007, of Eswatini is a vital legislative framework that ensures the orderly and safe use of public roads. By providing clear guidelines for the registration and licensing of vehicles and drivers, and by defining key terms, the Act aims to enhance road safety and transport management in the country. It also sets out the rules and controls for traffic and transport on public roads. The Act is guided by both the Road Traffic Act of 2007 and the Road Safety Act of 1983, which together provide a comprehensive framework for road safety and traffic management in Eswatini.

3.2.11. Industrial Relations Act, 2000

The Industrial Relations Act 2000 of Eswatini is a legislative framework that governs the relationship between employers, employees, and trade unions within the country. It aims to promote fair labor practices, collective bargaining, and industrial harmony. The key provisions of this statute include the establishment of the Industrial Court, outlines the role of the Commissioner of Labour, guarantees the right of workers to form and join trade unions and for employers to join employers' associations. The Industrial Court has the power to issue compliance orders to enforce the provisions of the Act. The Act also prescribes penalties for violations of its provisions including fines and imprisonment for serious offences. It also provides a legal framework for collective bargaining, allowing workers and employers to negotiate terms and conditions of employment. The Act sets out procedures for the resolution of industrial disputes, including conciliation, mediation, and arbitration. It regulates the right to strike and lockout, stipulating the legal processes that must be followed before these actions can be taken. This Act advocates for the protection of workers from unfair dismissal and discrimination.

3.2.12. Sexual Offences and Domestic Violence Act 2018

The main objective for the Act is to make provision concerning sexual offences and domestic violence (SODV), prevention and the protection of all persons from harm caused by domestic violence and unlawful sexual acts. Part II of the Act gives a list of what constitutes sexual offences. Of the listed sexual offences, those that are most likely to be applicable to the project workers include rape, sexual assault, compelled sexual assault, inspiring the belief of sexual assault and unlawful stalking. Offences involving children include maintaining sexual relationship with a child, compelling children to witness sexual offences, sexual acts, and children abduction. According to the Act, a child refers to persons under the age of 18. It would be strictly prohibited under this Act for construction workers for this project to entice children into sexual relations in exchange for favors of any kind and to engage in physical and/or emotional violence in any of the project area communities. Section 70 of the SODVA, 2018 has a constructive provision which compels a Police Officer on duty to refer a victim of a sexual offence for support and Post Exposure Prophylactics.

3.2.13. Construction Industry Council 2013.

The Act provides for the establishment of the construction industry council and outlines its functions; provides for:

- i. The promotion and development of the construction industry in Eswatini.
- ii. The registration of contractors; provide for the affiliation to the council of professional bodies or organization whose members are engaged in activities related to the construction industry. provides for the regulation of the construction industry.

- iii. The training of persons engaged in construction or activities related to construction; registration of projects and lastly provides for matters connected with or incidental to the foregoing.

The construction and operational phases for this component for the project will require that all firms contracted to do work under the project be those that are registered with the Construction Industry Council.

3.2.14. Occupational Health and Safety Act 2001

Part III: section 9 (1) – (10) of the Act sets the duties of the employer to ensure the safety and health of its workers. The Act provides for the establishment of a safe working environment in all workplaces in Eswatini. The Act will apply to all activities undertaken during the pre and construction phase. Contractors who will be engaged in the construction of the road will be required to prepare a Safety, health and Environment Management Plan which will be reviewed and approved by the MoPWT. This Act emphasizes the fact that it is unlawful for anyone to endanger their lives or the lives of other people, which can be other employees or anyone in the vicinity of that workplace.

3.2.15. Acquisition of Property Act, 1961

When acquiring property for developmental needs, Section 15 of the Act identifies the factors that need to be considered when determining compensation, which are the market value of the property, damages sustained by the person interested by severing of any land, damages sustained by reason of the acquisition injuriously affecting any other property of the person and any reasonable expenses incidental to a change of residence or business as a consequence of the acquisition. The main objective for this Act is to ensure that a person or entity affected by the acquisition of property for the purpose of some development should be assisted to get back to the pre-disturbance situation, if not better. The Acquisition of Property Act, 1961 will be applicable to the Project Affected Persons because it stipulates the procedure that needs to be followed when acquiring property that will be needed for the project.

3.3. APPLICABLE NATIONAL REGULATIONS

3.3.1. Environmental Audit, Assessment and Review Regulations 2000

Those involved in the operation, design, and implementation of development projects in Eswatini are informed by these Regulations of their environmental obligations for environmental protection. The regulations provide for the screening of proposed developments and placing them under one of three categories, depending on the severity of their potential impacts on the biophysical and socio-economic environment. The main objective of the Regulations is to avoid and mitigate adverse impacts of proposed and existing undertakings on the receiving environment. An Environmental Compliance Certificate is issued by the Eswatini Environment Authority when all the necessary compliance mitigations have been complied with successfully during the implementation of a project. The preparation of this ESIA/CMP report has been sanctioned by EEA under these Regulations of 2000.

3.3.2. Factories, Machinery and Construction Works Regulations, 1974

The regulations were formulated to operationalize the Factories, Machinery and Construction Works Act (1972). The regulations make provisions for the protection of the health of workers from adverse construction effects including dust, fumes, noise, and other impurities. Contractors are required to ensure the safety and health of their construction workers is safeguarded through the provision of necessary health and safety clothing as well as a healthy environment. These regulations will be relevant for the construction

phase for the project infrastructure as well as the development phase for the irrigated farms during the project lifecycle.

3.4. AFRICAN DEVELOPMENT BANK GUIDELINES

The AfDB's guidelines aim to address and mitigate various impacts that development projects such as this road project may have on the environment and local communities. These impacts may include social disruptions, health, and safety risks, land acquisition impacts, environmental concerns, service disruptions, noise, and traffic management as well as socio-economic management.

3.4.1. Integrated Safeguard Policy Statement

The Bank's Integrated Safeguards Policy Statement sets out the Bank's own commitments and responsibilities for delivering the Integrated Safeguards System (ISS) to:

- i. Ensure the systematic assessment of environmental and social impacts and risks.
- ii. Apply the OSs to the entire portfolio of Bank operations.
- iii. Support clients and countries with technical guidance and practical support in meeting the requirements.
- iv. Implement an adaptive and proportionate approach to environmental and social management measures to be agreed with clients as a condition of project financing.
- v. Ensure that clients engage in meaningful consultations with affected groups; and
- vi. Respect and promote the protection of vulnerable groups, in a manner appropriate to the African context.

The Policy Statement and the Operational Safeguards are developed in three different volumes:

Volume 1: General Guidance on Implementation of OS1

Volume 2: Guidance on Safeguard Issues

Volume 3: Sector Key sheets

3.4.2. Integrated Environmental and Social Impact Assessment Guidelines

The Integrated Environmental and Social Impact Assessment (IESIA) Guidelines provide a systematic process for addressing projects' environmental and social impacts with a clear understanding of the specific sector characteristics. The IESIA Guidance Notes are presented in three standalone volumes that provide guidance in the three essential components of:

- (i) the Environmental and Social Assessment process,
- (ii) specific topics and operational safeguard requirements, and
- (iii) technical guidance on key sectors and subsectors that have been proposed by operational departments as areas where guidance is needed.

Volume 1: Environment and Social Assessment Instruments and Outputs

In OS1 and the ESAP, several new environmental and social assessment instruments and outputs are introduced. These include the use of Strategic Environmental and Social Assessment (SESA) for policy and program lending and the use of Environmental and Social Management Frameworks and Systems (ESMFs

and ESMSs) for program lending and Financial Intermediaries, Environmental and Social Impact Assessment and Resettlement Action Plans for proposed Bank supported projects. There is also greater emphasis on compliance monitoring during project implementation as well as greater attention to country systems. For Bank operations staff and their counterparts in borrowers or clients, it is vital that they have clear and easy-to-use guidance on these different instruments and outputs. This guidance is therefore designed specifically to complement the ESAP Annexes, which provide templates and report formats in many cases. The main purpose of this category of guidance should be to:

- (i) Make it clear to staff what is the nature of the different instruments in the specific context of the OSs and ESAP.
- (ii) Assist them in preparing the TORs, report formats and select high quality consultants.
- (iii) Evaluate the quality of reports and deliverables to assess if the OS1 requirements are followed in a satisfactory way.
- (iv) Highlight key issues of importance for good compliance.

Volume 2: Environmental and Social Assessment Topics

The OSs introduce or elaborate on several key ESA requirements and topics. It is of great importance to provide Bank and borrower staff with a clear and easy guidance to ensure a high level of understanding of what is required, best practice in meeting the requirements and - where appropriate - sources of good technical information. Some of these topics reflect specific OS requirements such as applying safeguards to policy and program lending, public (free, prior, and informed) consultation and grievance mechanisms. Some address specific areas of environmental and social risk not previously covered specifically by Bank policies, such as vulnerable groups, cultural heritage, environmental flows, biodiversity, GHG emissions and labour standards. Others cover topics long recognized to be of great importance and where compliance may be improved through better technical guidance, such as resettlement or pollution control.

Volume 3: Guidance on specific sectors called sector key sheets.

There are thirty (30) specific project types, within four key sector areas for which checklists should be prepared. The aim of such checklists is to identify typical project components, sources of impact, commonly applied assessment methods and likely management options. These can be used by Bank staff to assist in the process of screening projects in the early stage of the Project Cycle as well as for tailoring TORs for Environmental and Social Assessments. The Bank considers it very important for it to take full account of how useful such guidance has been for other agencies, what format and scale would be best suited by Bank staff and the selection of specific sectors for which checklists may be useful. The successful preparation of this ESIA document will require detailed consultations with the Bank's Environmental and Social Specialists.

3.4.3. Operational Safeguards System (OS)

The OSs are intended to:

- i. Better integrate considerations of environmental and social impacts into Bank operations to promote sustainability and long-term development in Africa.
- ii. Prevent projects from adversely affecting the environment and local communities or, where prevention is not possible, minimize, mitigate and/or compensate for adverse effects and maximize development benefits.

- iii. Systematically consider the impact of climate change on the sustainability of investment projects and the contribution of projects to global greenhouse gas emissions.
- iv. Delineate the roles and responsibilities of the Bank and its borrowers or clients in implementing projects, achieving sustainable outcomes, and promoting local participation; and
- v. Assist regional member countries and borrowers/clients in strengthening their own safeguards systems and their capacity to manage environmental and social risks.

OS1: Assessment and Management of Environmental and Social Risks and Impacts

The key aspects of OS1 include:

- A comprehensive assessment of risks and impacts associated with projects. This includes direct, indirect, contextual, and cumulative risks, as well as the vulnerability to climate change.
- Specific definitions and requirements aimed at promoting the inclusion of and preventing harm to vulnerable groups. This encompasses Indigenous People and highly vulnerable rural minorities. The policy is designed to ensure that these groups are not adversely affected by development projects and that their rights and needs are adequately considered.
- The policy requires a thorough risk assessment, mitigation, and response plan for issues related to sexual exploitation, abuse, and harassment (SEA/H), gender-based violence (GBV), child labor, and modern slavery. This is particularly important when such risks are identified or when related complaints are filed. This proactive approach aims to protect individuals from these serious violations.
- In tandem with OS10, OS1 emphasizes the importance of stakeholder engagement and information disclosure. Borrowers are required to develop and implement stakeholder engagement plans to ensure continuous engagement and information sharing throughout the project cycle. This promotes transparency and inclusivity in project implementation.

OS2: Labour and Working Conditions

OS2 mandates that all AfDB borrowers comply with the core labour standards defined by the International Labour Organization (ILO). These standards include fundamental principles such as the elimination of forced labour, child labour, discrimination in respect of employment, and the right to collective bargaining. Borrowers are also required to provide written information to workers about their working conditions and rights.

The safeguard requires borrowers to comply with basic occupational health and safety standards. This includes ensuring safe working environments and taking necessary precautions to prevent workplace accidents and illnesses. A significant aspect of OS2 is the requirement for borrowers to take responsibility for the conditions of third-party workers. This means that the borrowers must ensure that their contractors, subcontractors, and intermediaries also comply with the labour standards set out in OS2. The policy instructs that these requirements be incorporated into contractual agreements with all third parties involved in the project.

OS3: Resource Efficiency and Pollution Prevention and Management

OS3 prioritizes the guidance on resource efficiency, pollution prevention, greenhouse gas emissions, waste management, pesticide use and compliance and monitoring of possible impacts thereof.

OS3 emphasizes the efficient and sustainable use of natural resources, including energy, water, and raw materials. The safeguard encourages the adoption of sustainable practices that reduce consumption, enhance the use of renewable resources, and minimize waste production. This is aimed at ensuring that projects supported by the AfDB are environmentally responsible and contribute to sustainable development. The safeguard sets out to prevent or minimize pollution from projects financed by the AfDB. It covers a wide range of pollutants, including emissions to air, discharges to water, and waste generation. The policy requires the application of emission and discharge standards that are consistent with international best practices and local regulations. OS3 includes specific provisions for the assessment and management of greenhouse gas (GHG) emissions. Projects are expected to consider climate change implications and incorporate measures to reduce GHG emissions where feasible. This aligns with global efforts to combat climate change and promotes low-carbon development.

The safeguard requires the implementation of effective waste management systems that prioritize waste prevention, reduction, recycling, and reuse before considering disposal options. The policy aims to reduce the environmental and health impacts associated with waste generation and disposal. The OS3 also advocates for the use of safe and unsustainable pest management practices. The policy encourages alternatives to chemical pesticides and promotes integrated pest management strategies to minimize potential adverse impacts on human health and the environment. To ensure that OS3 is used efficiently as a guide, it requires that projects should establish and maintain environmental management systems that ensure compliance with the safeguard's provisions. This includes regular monitoring of resource efficiency and pollution levels, as well as the implementation of corrective actions when necessary.

OS4: Community Health, Safety and Security

OS4 addresses the health, safety and security risks to and impacts on project affected communities and the corresponding responsibility of the Borrower to avoid or minimize them with particular attention to vulnerable people. It recognizes that projects, activities and infrastructure can increase community exposure to risks and impacts. It draws attention to the impacts of climate change as an accelerator or multiplier of impacts from projects or activities. Its objectives include: (i) anticipating and avoiding adverse impacts on the health and safety of project affected communities during the project or operation lifecycle from both routine and non-routine circumstance. (ii) support the promotion of public health and safety across the project's area of influence through programs that aim at preventing the spread of major communicable diseases. (iii) avoid or minimize community exposure to project related traffic and road safety risks, diseases and hazardous material. (iv) ensure that effective measures to address emergency events are in place. (v) ensure that the safeguarding of personnel and property through the provision of public or private security is carried out in a manner that avoids or minimizes risks to the PACs and in a manner consistent with international human rights and principle and (vi) help prevent against SEAH of members of the community by project workers.

OS5: Land Acquisition, Restrictions on Access to Land and Land Use, and Involuntary Resettlement

OS5 recognizes that asset loss due to project activities can have adverse impacts on communities and persons. This safeguard defines involuntary resettlement as to both the impact of project related land acquisition and restrictions on land use. The OS prioritizes avoidance of involuntary resettlements and where unavoidable, it should be minimized with appropriate measures in place to mitigate adverse impacts on the displaced. Other equally important objectives of OS5 include:

- i. to ensure that resettlement plans and activities are informed by social assessment including gender issues.
- ii. To avoid forced evictions.to mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use.
- iii. To improve the living conditions of poor or vulnerable groups who are physically displaced by the project through the provision of adequate housing, access to services and facilities, security of tenure and safety.
- iv. To conceive and execute resettlement activities as sustainable development programs by providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant.
- v. To ensure that resettlement activities are planned and implemented with the appropriate disclosure of information, meaningful consultation, and the informed participation of those affected.

OS7: Vulnerable Groups

Through the requirements of this OS, the Bank encourages Borrowers to observe international human rights norms, standards, and best practices, and to reflect in Bank operations national commitments made under, inter alia, international human rights covenants and the African Charter of Human and Peoples' Rights. In this OS, vulnerability is thus context-specific and is to be understood through the interplay of three factors: (i) exposure to risk and adverse impacts; (ii) sensitivity to these risks and impacts; and (iii) adaptive capacity. OS7 contributes to poverty reduction and sustainable development by ensuring that projects supported by the Bank enhance opportunities for vulnerable groups to participate in, and benefit from, the development process in ways that do not threaten their unique cultural identities and well-being. Specific objectives of this OS include:

- i. To ensure that vulnerable groups and individuals are identified as early as possible in Bank Group operations and that engagement is meaningful, considering individuals' and communities' specificities, and delivered in an appropriate form, manner and language.
- ii. To affirm, respect, and protect the rights and interests of vulnerable individuals and groups throughout the life cycle of the project or investment.
- iii. To recognize, respect, and preserve the culture, knowledge, and practices of highly vulnerable cultural groups and minorities including indigenous peoples, and to provide them with an opportunity to adapt to changing conditions that could arise due to project activities in a manner and in a time frame acceptable to them.
- iv. To adopt a gender-responsive approach to the management of E&S impacts, which considers the rights and interests of women and girls, men, and boys, including paying specific attention to the differentiated burden of impacts that women and girls might face.
- v. To identify and avoid adverse impacts of Bank operations on the lives and livelihoods of vulnerable individuals and groups, including women and girls, and HVRM including indigenous peoples. Where avoidance is not feasible, reduce, minimize, mitigate, compensate or effectively remedy impacts.
- vi. To promote development benefits and opportunities for vulnerable groups, including women and girls, minorities and HVRM in a manner that is accessible, culturally appropriate, and inclusive.
- vii. To improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with the vulnerable groups affected by a project, set of activities or initiatives throughout the project lifecycle.

OS10: Stakeholder Engagement and Information Disclosure

This Environmental and Social Operational Safeguard (OS) therefore recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social (E&S) sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. The objectives of this OS include:

- i. To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship and channels of communication with them, in particular project-affected parties.
- ii. To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be considered in project design and E&S performance.
- iii. To promote and provide the means for safe, effective, and inclusive engagement with project affected parties, inclusive of women's perspectives, in an equitable manner, and vulnerable groups, in a manner free of reprisal, throughout the project life cycle on issues that could potentially affect them.
- iv. To enhance project benefits and mitigate harm to local communities.
- v. To ensure that appropriate project information on E&S risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.
- vi. To provide project-affected parties with accessible and inclusive means to provide input, raise issues, questions, proposals, concerns, and grievances, and allow Borrowers to respond to and manage such grievances.
- vii. To promote development benefits and opportunities for project-affected communities, considering the needs of women, including vulnerable groups, in a manner that is accessible, equitable, culturally appropriate, and inclusive.

Table 3-1: Applicable AfDB and EEA OS and guides

AfDB Operational Safeguards	Applicability to project
<p>OS1: Assessment and Management of Environmental and Social Risks and Impacts</p>	<p>The project for which this ESIA is being prepared, is classified as an AfDB Category 1 project which is equivalent to a Category 3 project according to the national legislation.</p> <p>AfDB Category 1 projects require a full ESIA, including the preparation of an ESMP. These projects are likely to induce important adverse environmental and/or social impacts that are irreversible, or to significantly affect environmental or social components considered sensitive by the Bank or the borrowing country.</p> <p>According to the Eswatini Environmental Audit, Assessment and Review Regulations, 2000 categorization of the project is carried out as follows:</p> <p><i>Category 3</i> projects are those whose impacts cannot be easily predicted without in-depth background studies to determine the significance of the likely impacts.</p> <p>For projects at this scale, a comprehensive assessment of social risks and impacts will be prepared of which OS1 is applicable as a guideline.</p>
<p>OS2: Labour and Working Conditions</p>	<p>The principles of OS5 are embodied in various national legislation such as the Employment Act, 1980; Factories, Machinery and Construction Works Act, 1972 and Regulations, 1974; Workmen’s Compensation Act and Regulations, 1983; Occupational Safety and Health Act, 2001. OS5 will be applicable to ensuring that there is no discrimination based on race, religion, gender and other personal attributes during the employment selection and termination process. This principle will further be pertinent to the committees at community level that will be responsible for establishing and maintaining registers of community members eligible for employment in appropriate jobs in order to ensure that priority is given to the community. The committees will ensure that individuals and groups are discriminated against and thus excluded. The outcome from the study to mitigate risks that may compromise OS2 include the labour management procedure, grievance redress mechanism, gender action plan and stakeholder engagement plan to support the implementation of the SMP.</p>
<p>OS3: Resource Efficiency and Pollution Prevention and Management</p>	<p>Measures will have to be taken in the project to minimize impacts from identified sources. Measures such as dust suppression mechanisms could be used during construction, adequate drainage systems could be installed to control runoff, and a waste management plan could be developed to efficiently handle construction waste. Regular monitoring and evaluation would be conducted throughout the project to ensure that these pollution prevention and control measures are effectively implemented, and necessary adjustments would be made as required. This approach ensures that the road construction project is aligned with the AfDB’s commitment to environmentally sustainable and socially responsible development.</p>
<p>OS4: Community Health, Safety and Security</p>	<p>The project will have to take measures to uphold the objectives of OS3. Impacts such as changes in community dynamics due to migrant worker influx and increase in traffic which puts at risk the community’s health, safety and security. This OS will be implemented together with the SODVA 2018, CPWA 2012, NERCHAA 2003, APA 1961 as well as the traffic laws and regulations.</p>

AfDB Operational Safeguards	Applicability to project
OS5: Land Acquisition, Restrictions on Access to Land and Land Use, and Involuntary Resettlement	The assessment found that there are private and communal assets that will be impacted by the project which were found to be in the ROW. An appropriate resettlement framework will be prepared to facilitate the implementation of mitigations presented in the SMP.
OS7: Vulnerable Groups	For this project, OS7 is applicable on a broad scale since there were no vulnerable persons found to be directly impacted. Despite the findings, this safeguard recommends consideration of vulnerable persons in the PACs. The outcome of consideration of vulnerable groups and persons includes the gender action plan as well as action plan for SEAH grievances.
OS10: Stakeholder Engagement and Information Disclosure	Stakeholder engagement is the foundation and backbone of infrastructure developmental projects. The application of this OS includes a stakeholder engagement plan, a grievance redress mechanism, resettlement framework to support the SMP. Inputs from the stakeholder engagement inform the proposed mitigation plan as well as feed into the implementation of OS1, OS and OS7 at the minimum.

3.5. LEGAL FRAMEWORK GAP ANALYSIS

A comparative analysis of the guiding legislative and policy framework for the SIA is presented in table 3-2.

Table 3-2: Legal and Policy Framework Gap Analysis and Mitigation

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
AfDB Guideline:	OS1 - Assessment and Management of Environmental and Social Risks and Impacts		
Eswatini Laws:	Environmental Management Act 2002.		
	The Environmental Audit, Assessment and Review Regulations, 2000.		
Assessment and management of environmental and social risks and impacts			
Requires Borrowers to consider direct, indirect, contextual, and cumulative project-specific risks and impacts, including vulnerability to climate change	Eswatini's primary legislation governing environmental management, which includes provisions for conducting Environmental Impact Assessments (EIAs) for various projects.	Both Eswatini's legal framework and the AfDB's ISS require comprehensive environmental and social assessments, including consideration of direct and indirect impacts	Apply national laws and/or the more stringent where necessary.
To adopt a mitigation hierarchy approach to i) Anticipate and avoid risks and impacts; ii) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; iii) Once risks and impacts have been minimized or reduced, mitigate; and iv) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.			
The environmental and social assessment covers all relevant direct and indirect cumulative and associated facility impacts identified during the scoping phase, including any specifically covered in OSs 2-5, for which there are specific requirements: OS 2: Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation OS 3: Biodiversity and Ecosystem Services.	Environmental Management Act No 5 of 2002 provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. The Environmental Audit, Assessment and Review Regulations, 2000, issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental	No significant gaps between OS1 and national laws	Apply national laws

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>OS 4: Pollution Prevention and Control, Greenhouse Gases, Hazardous Materials and Resource Efficiency OS 5: Labour Conditions, Health and Safety.</p> <p>Categorization follows the principle of using the appropriate type and level of environmental and social assessment for the type of operation. Based on the initial assessments and scope of the project, they can be put in either category 1, 2,3 or 4.</p>	<p>impacts under studies such as the ESIA. These include scoping, screening, impact identification using hierarchical processes, mitigation etc. The EAARR 2000 provides for categorization of projects based on risk factors i.e. category 1, 2 and 3.</p> <p>Section 32 of the Environmental Management Act, 2002 emphasizes that no person shall undertake any project that may have a detrimental effect on the environment without the written approval of the EEA.</p> <p>The legal framework and regulations do not provide for offset mechanism as a compensation.</p>		
<p>To adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the project.</p>			
<p>Member countries and other borrowers/ clients are responsible for protecting the physical, social and economic integrity of vulnerable groups and for paying particular attention to health needs, particularly for women, including access to female health care providers and to such services as reproductive health care and appropriate counselling for sexual and other abuses.</p>	<p>National laws and regulations do not address the risk that adverse impacts will fall on disadvantaged on vulnerable people.</p>	<p>There are gaps between the OS1 requirements and national laws.</p>	<p>Apply OS1 requirement without contravening national laws.</p>
<p>To utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate.</p>			
<p>AfDB has the ISS framework which guides the implementation of</p>	<p>Eswatini Government has in place relevant environmental and social institutions, regulations,</p>	<p>The Project will rely on National laws and regulations</p>	<p>Apply national laws.</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
development projects. The ISS has operational safeguards which are focused policy statements that follow the Bank's commitments and establish operational parameters.	laws, systems and procedures that support sustainable development through ensuring assessment, development and implementation of projects in a sustainable manner. These include Eswatini Environmental Agency as well as laws, regulations and procedures namely, The Environmental Audit, Assessment and Review Regulations, 2000, Environmental Management Act No 5 of 2002, Waste Regulations of 200, Water Pollution Control Regulations of 2010 and The Air Pollution Control Regulations, 2010.	supplemented by measures defined in the full ESIA.	
Requirement: Stakeholder engagement and information disclosure			
OS1 of the AfDB's ISS sets out a framework for robust stakeholder engagement that is inclusive, continuous, and meaningful, ensuring that stakeholders are informed, consulted, and have their concerns addressed throughout the project lifecycle.	The Environmental Audit, Assessment and Review Regulations, 2000 requires stakeholder consultation during the ESIA preparation process. Specifically, during the scoping phase, the proponent must conduct stakeholder consultation. The EAA also allows for public hearing during the EIA process , where - (a) after examining the IEE and/or EIA report and accompanying CMP for the proposed project, it is of the opinion that the project is of such a sensitive or significant nature that the public should have the opportunity to make submissions or comments at a public hearing; or (b) the public concern over the project is great and the number of written and substantiated objections exceeds ten." EAAR Regulations, sec. 12(1)	There are gaps between the OS1 requirements and national laws.	Apply OS1 requirements
	There are no clear regulations on how to assess the level of stakeholder interest and support for a project.		
	There are no clear regulations on how to provide means for effective and inclusive engagement with		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	project-affected parties throughout the project lifecycle on issues that could potentially affect them.		
To ensure that appropriate project information on environmental and risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format.			
The borrower or client is responsible for conducting and providing evidence of meaningful consultation (i.e., consultation that is free, prior and informed) with communities likely to be affected by environmental and social impacts, and with local stakeholders, and also for ensuring broad community support.	<p>EAAR Regulations, sec. 11(1). Provides for public notice of the availability of the EIA which must be published in the Government Gazette, on the Eswatini Broadcasting Service, and in a newspaper circulating in Eswatini twice a week and for two consecutive weeks. The EM Act and EAAR Regulations, sec. 11(1). Requires the Authority to distribute copies of the EIA and CMP to concerned and affected ministries, local authorities, parastatals, and non-governmental organizations.</p> <p>The Authority shall publish "a detailed statement of the decision for public inspection." EAAR Regulations, sec. (15)(6)(c) "Any person may request from the Minister, the Authority or any other organ of Government any information relating to the environment that is not available in the registry but that could reasonably assist that person in contributing to the enhancement, protection and conservation of the environment and the sustainable management of natural resources." EM Act, sec. 51</p>	No gaps between OS1 and national laws	Apply national laws
To provide project affected parties with accessible and inclusive means to raise issues and grievances, and allow borrowers to respond to and manage such grievances			
The borrower or client establishes a credible, independent and empowered local grievance and redress mechanism to receive, facilitate and follow up on	EAAR Regulations, sec. 12(2) The Authority shall "call upon any party who has an interest in the outcome of the public hearing, including the project proponent, the authorizing agency, the commenting agency and	No gaps between OS1 and national laws	Apply national laws

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>the resolution of affected people's grievances and concerns about the environmental and social performance of the project. The local grievance mechanism needs to be accessible to the stakeholders at all times during the project cycle, and all responses to grievances are recorded and included in project supervision formats and reports.</p>	<p>any other person, to attend the public hearing or solicit in writing comments from other government agencies or offices with expertise or regulatory power over the proposed project."</p>		
<p>To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties.</p>			
<p>Consultation is based on stakeholder analysis and is preceded by disclosure of adequate project information and environmental and social information to ensure that participants are fully informed. It begins at an early stage during project preparation and continues as needed. It is conducted in a timely manner in the context of key project preparation steps, in an appropriate language, and in an accessible place. The results of the consultation are adequately reflected in the project design and in the project documentation.</p>	<p>The Eswatini Environment Authority has a systematic approach to stakeholder engagement during the EIA process.</p> <p>EAAR Regulations, sec. 11(1). Provides for public notice of the availability of the EIA which must be published in the Government Gazette, on the Eswatini Broadcasting Service, and in a newspaper circulating in Eswatini twice a week and for two consecutive weeks.</p> <p>The EM Act and EAAR Regulations, sec. 11(1). Requires the Authority to distribute copies of the EIA and CMP to concerned and affected ministries, local authorities, parastatals, and non-governmental organizations.</p> <p>The Authority shall publish "a detailed statement of the decision for public inspection." EAAR Regulations, sec. (15)(6)(c) "Any person may request from the</p>	<p>No significant gaps between OS1 requirement and the various national laws during preparation phase. However, no explicit mention of stakeholder engagement during implementation/construction and operation phase.</p>	<p>Apply OS1 requirements</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>Minister, the Authority or any other organ of Government any information relating to the environment that is not available in the registry but that could reasonably assist that person in contributing to the enhancement, protection and conservation of the environment and the sustainable management of natural resources." EM Act, sec. 51 EAAR Regulations, sec. 11(1). The Authority shall "invit[e] objections, comments or submissions from interested and affected persons."</p> <p>EAAR Regulations, sec. 11(1). EAAR Regulations, sec. 12(2) The Authority shall "call upon any party who has an interest in the outcome of the public hearing, including the project proponent, the authorizing agency, the commenting agency and any other person, to attend the public hearing or solicit in writing comments from other government agencies or offices with expertise or regulatory power over the proposed project."</p>		
To protect cultural heritage from adverse impacts of project activities.			
Project sites and designs must avoid significant damage to cultural heritage, including both tangible and intangible cultural heritage ⁶ . The borrower or client identifies and qualifies the cultural heritage likely to be affected by the project, and experienced experts assess the project's potential impacts on this cultural heritage. When a	The National Trust Commission Act, 1972, provides for the operation of cultural institutions and the proclamation of national parks, monuments and matters incidental thereto. The Eswatini National Trust Commission is the parastatal organization responsible for the conservation of nature and the cultural heritage of the Kingdom of Eswatini. Environmental Management Act No 5 of 2002 provides for subjecting proposed projects to Environmental and Social Impact	No gaps between OS3 and national laws.	Apply national laws

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>project may affect cultural heritage, or access to it, the borrower or client consults with the communities that use or have used it within living memory and with relevant national or local regulatory agencies that are entrusted with protecting cultural heritage, draw on indigenous knowledge to identify its importance, and incorporate the views of these communities into the decision-making process.</p>	<p>Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. This includes cultural resources. The Environmental Audit, Assessment and Review Regulations, 2000, issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental impacts under studies such as the ESIA. This includes cultural resources.</p>		
	<p>Eswatini does not have requirements specific to addressing cultural heritage as an integral aspect of sustainable development.</p> <p>Eswatini does not have requirements specific to consultations regarding tangible or intangible cultural heritage.</p> <p>Eswatini does not have requirements specific to equitable benefit sharing from the use of cultural heritage.</p>	<p>There are gaps between OS3 requirement and the various national laws.</p>	<p>Apply OS3 requirements without contravening national laws.</p>
<p>AfDB Guideline:</p>	<p>OS5: Land Acquisition, Restrictions on Access to Land and Land Use, and Involuntary Resettlement</p>		
<p>Eswatini Laws:</p>	<p>The Constitution of Eswatini, 2005</p> <p>The Environmental Audit, Assessment and Review Regulations, 2000</p>		
<p>OS aims to avoid or minimize involuntary resettlement wherever feasible, exploring all viable alternatives. It requires that displaced persons receive compensation at full</p>	<p>Section 211(3) of the Constitution notes that "a person shall not be deprived of land without the due process of the law and where a person is deprived, that person shall be entitled to prompt and adequate compensation..."</p>	<p>All persons are protected by the law regardless of their social or economic standing, age or disability so long as they occupy</p>	<p>Given that the National laws guarantee the protection of all occupiers of land to be affected by land acquisition, it is</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>replacement cost and assistance for relocation, including provision of resettlement sites with adequate facilities. The safeguard mandates meaningful consultation with affected communities and provides opportunities for affected persons to participate in planning and implementing resettlement programs. It establishes that affected individuals should have access to grievance redress mechanisms.</p> <p>For projects involving significant involuntary resettlement, the development of comprehensive Resettlement Action Plans (RAPs) is required.</p>	<p>Section 14 (1) (d) of the Constitution guarantees the right of all individuals to the protection from deprivation of property without compensation.</p> <p>Section (14) (1) (c) secures the right of individuals to protection of their property rights.</p> <p>The Constitution does not specifically classify the different categories of eligibility of a person to be deprived of land without due process as required by OS. However, Section 20(1) and (2) provides thus; S.20(1) – all person are equal before and under the law in all spheres of political, social, economic and cultural life and in every other respect and shall enjoy equal protection of the law; Section 20(2) further states that for the avoidance of any doubt, a person shall not be discriminated against on the ground of gender, ..., or social or economic standing..., age or disability.</p> <p>To avoid forced evictions</p> <p>The Constitution of Swaziland 2005, on the protection and promotion of fundamental rights and freedoms of the individual guarantees protection from deprivation of property without compensation (S.14(e)) Section 211(3) of the Constitution notes that “a person shall not be deprived of land without the due process of the law and where a person is deprived, that person shall be entitled to prompt and adequate compensation for any improvement on that land or loss consequent upon that deprivation unless otherwise provided by</p>	<p>land earmarked for the proposed project.</p> <p>There is a significant gap with respect to forced evictions. There are no laws or regulations protecting squatters or encroachers on government land and this provides an opportunity for the government to undertake forced evictions without due compensation.</p> <p>While the acquisition of property act applies to all PAPs affected by the proposed project with regards to the procedure for acquiring and compensation, it is silent on the issue of allocation of land of equal production use or potential or with similar or improved services. It only</p>	<p>recommended that the National laws supersede the OS. Where the need arises. The more stringent will prevail.</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>law." S.54 of the Electricity Act, 2007 and S.3 of the Acquisition Act, 1961 requires consent from the property owner. If, however, the property owner does not consent due process is then followed.</p> <p>To mitigate unavoidable adverse social and economic impacts from land acquisition or land restrictions on land use.</p> <p>S.15 of the Acquisition Act identifies the factors that needs to be considered when determining compensation, namely: - a) market value of the property b) damages sustained by the person interested by severing of any land c) damages sustained by reason of the acquisition injuriously affecting any other property of the person d) any reasonable expenses incidental to a change of residence or business as a consequence of the acquisition. The Acquisition of Property Act 10, 1961 in essence requires that the person affected by the acquisition should be placed in a position he was had he not been affected by the move if not better.</p> <p>To improve living conditions of displaced VGs</p> <p>The resettlement procedure will be done within the purview of the law, in particular S.15 of the Acquisition of Property Act and the Constitution. All affected persons will be compensated fairly.</p> <p>Loss of access to natural resources</p> <p>There is no legislation which deals with compensation of loss of access to natural resources due to a project.</p>	<p>mentions compensation in terms of monetary value.</p> <p>While the acquisition of property act applies to all PAPs affected by the proposed project with regards to the procedure for acquiring and compensation, it is silent on the issue of allocation of land of equal production use or potential or with similar or improved services. It only mentions compensation in terms of monetary value.</p>	<p>Apply OS2 guidelines</p> <p>Apply OS2 guidelines</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>Ensure appropriate disclosure information, meaningful consultation and the informed participation of those affected. No legislative requirement for disclosure of RAP. The Environmental Audit, Assessment and Review Regulation 2000 does require consultations of the ESIA and mitigation plans.</p> <p>To protect cultural heritage and its preservation from project activities. The National Trust Commission Act, 1972, provides for the operation of cultural institutions and the proclamation of national parks, monuments and matters incidental thereto. The Eswatini National Trust Commission is the parastatal organization responsible for the conservation of nature and the cultural heritage of the Kingdom of Eswatini. Environmental Management Act No 5 of 2002 provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. This includes cultural resources. The Environmental Audit, Assessment and Review Regulations, 2000, issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental impacts under studies such as the ESIA. This includes cultural resources.</p>	<p>The national legislation does mention that a person shall not be discriminated against, however, does not explicitly require that additional support shall be provided to address needs of vulnerable group or to improve their living conditions.</p> <p>The is a gap with OS2</p>	<p>Apply OS2 guidelines and work with local authorities and resettlement committees to address the needs of the VGs</p>
AfDB Guideline:	OS6- Habitat and Biodiversity Conservation, and Sustainable Management of Living Natural Resources.		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
Eswatini Laws:	<p>The Constitution of the Kingdom of Swaziland Act, 2005,</p> <p>The Environmental Management Act, 2002</p> <p>The Flora Protection Act, 2001</p> <p>The Game Act, 2001</p> <p>The Plant Control Act, 1981</p>		
To protect cultural heritage from adverse impacts of project activities.			
<p>The ISS's provisions for cultural heritage are designed to ensure that development projects financed by the African Development Bank are implemented in a way that respects and preserves cultural heritage for current and future generations. This includes not only avoiding or mitigating harm but also enhancing the positive contributions that safeguarding cultural heritage can make to development outcomes.</p>	<p>The National Trust Commission Act, 1972, provides for the operation of cultural institutions and the proclamation of national parks, monuments and matters incidental thereto. The Eswatini National Trust Commission is the parastatal organization responsible for the conservation of nature and the cultural heritage of the Kingdom of Eswatini. Environmental Management Act No 5 of 2002 provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. This includes cultural resources. The Environmental Audit, Assessment and Review Regulations, 2000, issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental impacts under studies such as the ESIA. This includes cultural resources.</p> <p>Eswatini does not have requirements specific to addressing cultural heritage as an integral aspect of sustainable development.</p>	<p>No gaps between OS3 and national laws</p> <p>There are gaps between OS3 requirement and the various national laws.</p>	<p>Apply national laws</p> <p>Apply OS3 requirements.</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>Eswatini does not have requirements specific to consultations regarding tangible or intangible cultural heritage.</p> <p>Eswatini does not have requirements specific to equitable benefit sharing from the use of cultural heritage.</p>	<p>There are gaps between OS3 requirement and the various national laws.</p> <p>There are gaps between OS3 requirement and the various national laws.</p>	<p>Apply OS3 requirements.</p> <p>Apply OS3 requirements.</p>
AfDB Guideline:	OS3: Resource Efficiency and Pollution Prevention and Management		
Eswatini Laws:	<p>The Environmental Management Act, 2002.</p> <p>The Water Act, 2003.</p> <p>The Air Pollution Control Regulations, 2001.</p> <p>The Building Act, 1969</p>		
<p>The borrower or client avoids or, where avoidance is not possible, controls and reduces the generation of hazardous and non-hazardous waste at source, in compliance with applicable international conventions.</p> <p>At the early project stages, the borrower or client determines the potential hazardous materials to be used or generated throughout the lifecycle of the project and considers alternatives that use or generate less hazardous materials. The borrower or client does not manufacture, trade, donate or use any chemicals that are banned or subject to phase-out by</p>	<p>Ozone Depleting Substance Regulations, 2003, provide for the elimination and avoidance of products that deplete the ozone layer.</p> <p>The Waste Regulations, 2000, under the Environmental Management Act, provide for the management of solid and liquid waste disposal. They emphasize the appropriate handling, transportation, treatment and final disposal of waste.</p> <p>The Building Act, 1969, underlines the prohibition of illegal structures and requires the removal and disposal of all waste materials in an appropriate manner during project implementation</p>	No gaps between OS4 and national laws	Apply national laws

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>international treaties, including ozone-depleting substances and persistent organic pollutants.</p> <p>The borrower or client determines whether the project poses any operational risk of accident or emergency events and assesses the options for responding to such situations. If appropriate, the borrower or client develops an emergency response plan— proportionate to the risk—to respond to accidents or emergency events that may pose risks to human health and the environment. For the appropriate management of all issues related to this OS, the borrower or client has the obligation to have permanent environmental health and safety staff with relevant experience, and a training action plan.</p>	<p>Ozone Depleting Substance Regulations, 2003, provide for the elimination and avoidance of products that deplete the ozone layer. Eswatini does not have regulations regarding Green House Gases</p> <p>The Environmental Audit, Assessment and Review Regulations, 2000 requires ESIA studies to be conducted as a mechanism for identification of adverse impacts on projects on the human health and environment and requires the determination of mitigation measures (avoid, minimize, mitigate, compensate) when such impacts are identified.</p> <p>The Environmental Audit, Assessment and Review Regulations, 2000 requires ESIA studies to be conducted as a mechanism for identification of adverse impacts on projects on the human health and environment and requires the determination of mitigation measures (avoid, minimize, mitigate, compensate) when such impacts are identified.</p>		
AfDB Guideline: OS2: Labour and Working Conditions			
Eswatini Laws:	The Occupational Health and Safety Act, 2001		
	The Factories, Machinery and Construction Works Act 17, 1972		
	The Workman's Compensation Act 7, 1983		
	The Employment Act 5/1980		
	The Industrial Relations Act 2000		
	The Constitution of Eswatini, 2005		
	The Building Act, 1969.		
	The Public Health Act, 1969,		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	The Road Traffic Act, 2007		
	The Sexual Offence and Domestic Violence Act, 2018		
Commits to zero tolerance for exploitation, harassment especially for women and children.	The main objective for the Act is to make provision concerning sexual offences and domestic violence (SODV), prevention and the protection of all persons from harm caused by domestic violence and unlawful sexual acts. Part II of the Act gives a list of what constitutes sexual offences. Of the listed sexual offences, those that are most likely to be applicable to the project workers include rape, sexual assault, compelled sexual assault, inspiring the belief of sexual assault and unlawful stalking. Offences involving children include maintaining sexual relationship with a child, compelling children to witness sexual offences, sexual acts, and children abduction. According to the Act, a child refers to persons under the age of 18. It would be strictly prohibited under this Act for construction workers for this project to entice children into sexual relations in exchange for favors of any kind and to engage in physical and/or emotional violence in any of the project area communities.	The AfDB's ISS stance against harassment is strong, however, it is not explicit in the type of harassment referred to. The SODV is more explicit and lists all offences that fall under this category. This includes SEA/H, GBV.	Apply national laws
Safety at work			
Occupational health and safety. The borrower or client provides the workers with a safe and healthy work environment, considering risks inherent in the particular sector and specific classes of hazards in the borrower's or client's work areas—including physical, chemical, biological,	The Occupational Health and Safety Act, 2001 provides for the safety and health of both employees and the public, especially during the construction phase of proposed projects, and specifies processes to be undertaken in order to ensure that safe and health practices are adhered to and implemented at work.	No significant gaps between OS5 and national laws.	Apply national laws.

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>and radiological hazards. Within the environmental and social management system, the borrower or client includes a health, safety and environmental programme that includes plans or procedures to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by:</p> <ul style="list-style-type: none"> ▪ Identifying and minimizing, as far as reasonably practicable, the causes of potential safety and occupational hazards to workers, including exposure to inappropriate levels of noise, temperature, radiation or lighting. ▪ Providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances. ▪ Providing appropriate equipment to minimize risks and requiring and enforcing its use. ▪ Training workers and providing appropriate incentives for them to use and comply with health and safety procedures and protective equipment. 	<p>Factories, Machinery and Construction Works Act, 1972 provides for the protection of workers' health from harmful effects such as fumes, dust, excessive noise and other harmful impacts. This is applicable to contractors as well. The Act mandates the office of the Labour Commissioner to monitor and inspect any working environment or structure to determine its suitability. The office of the Labour Commissioner is also required to investigate incidents or accidents involving any person injured in connection with the activities of the employer.</p> <p>The Occupational Safety and Health Act 9, 2001 provides for the safety and health of persons at work and at the workplace and for the protection of persons other than persons at the workplace against hazards to safety and health arising out of or in connection with the activities of persons in the workplace and to provide for other matters incidental thereto: S.9 – entrusts the employer to ensure the safety and health of all its employees, and also to mitigate risks of exposure to danger of its workforce; Provide personal protective clothing or equipment to employees exposed to wet, dusty, noisy or any conditions that might expose the employees to harsh or dangerous conditions; Train its workers to perform their work in order to avoid exposure to danger or injury; and inform employees of any known hazards or disease associated with the work.</p>		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<ul style="list-style-type: none"> ▪ Documenting and reporting on occupational accidents, diseases and incidents; and ▪ Developing emergency prevention, preparedness and response arrangements. <p>The borrower or client complies with all local and national environmental, health and safety laws and regulations.</p>	<p>The Workman's Compensation Act 7, 1983 provides for the compensation and medical treatment of workmen who suffer injury or contract diseases in the course of their employment. The scope of its application extends not only to an injury or accident that occurs within the workplace but also while the employee is travelling by reasonable means and within any reasonable route between the workplace and his place of residence.</p> <p>In terms of the Act, Workman is any person who has entered into the works under the contract of service or of apprenticeship or of traineeship whether the contract is express or implied, is oral or in writing whether the remuneration is calculated by time or work done</p>		
Requirement: To promote the fair treatment, nondiscrimination and equal opportunity of project workers.			
<p>The borrower or client takes special measures to address harassment, intimidation, and/or exploitation, especially in relation to women. The borrower or client also prevents social exclusion of or employment inequalities to women and workers with family responsibilities and, to the extent possible, allows employment not to conflict with family responsibilities.</p>	<p>The Employment Act 5/1980</p> <ul style="list-style-type: none"> ▪ S29 – prohibits employers from discriminating against any person on grounds of race, color, religion, marital status, sex, national origin, tribal or clan extraction, political affiliation or social status. ▪ S30 – makes it an offence to discriminate against any person as envisaged in S29. Such employer if found guilty shall be liable on conviction to a fine not exceeding E3,000.00 or imprisonment not exceeding 1 year or both. ▪ S96 – mandates employers to accord female employees the same treatment as their male 		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	counterparts in the workplace and also pay them 'equal pay for equal work'.		
To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with the AfDB Policies) and migrant workers, contracted workers, community workers and primary supply workers, as appropriate.			
<p>Migrant workers are employed in accordance with local laws and on comparable terms and conditions as non-migrant workers who are employed in similar work.</p> <p>The borrower or client takes special measures to address harassment, intimidation, and/or exploitation, especially in relation to women. The borrower or client also prevents social exclusion of or employment inequalities to women and workers with family responsibilities and, to the extent possible, allows employment not to conflict with family responsibilities.</p>	<p>The Employment Act 5/1980:</p> <ul style="list-style-type: none"> ▪ S29 – prohibits employers from discriminating against any person on grounds of race, color, religion, marital status, sex, national origin, tribal or clan extraction, political affiliation or social status. ▪ S30 – makes it an offence to discriminate against any person as envisaged in S29. Such employer if found guilty shall be liable on conviction to a fine not exceeding E3,000.00 or imprisonment not exceeding 1 year or both. ▪ S96 – mandates employers to accord female employees the same treatment as their male counterparts in the workplace and also pay them 'equal pay for equal work'. <p>The Occupational Safety and Health Act 9, 2001</p> <ul style="list-style-type: none"> ▪ This Act provide for the safety and health of persons at work and at the workplace and for the protection of persons other than persons at the workplace against hazards to safety and health arising out of or in connection with the activities of persons in the workplace and to provide for other matters incidental thereto. <p>The Workman's Compensation Act 7, 1983</p> <ul style="list-style-type: none"> ▪ It provides for the compensation and medical treatment of workmen who suffer injury or 		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>contract diseases in the course of their employment.</p> <ul style="list-style-type: none"> ▪ The scope of its application extends to not an injury or accident that occurs within the workplace but also while the employee is travelling by reasonable means and within any reasonable route between the workplace and his place of residence 		
To prevent the use of all forms of forced labor and child labor.			
<p>The borrower or client does not employ children in any manner that is economically exploitative or is likely to be hazardous or to interfere with the child's education or to be harmful to the child's health or physical, mental, spiritual, moral, or social development as stipulated in national laws in compliance with the provisions of ILO Convention C138 and C182. All work is subject to an appropriate risk assessment and regular monitoring of health, working conditions, and hours of work. Forced labour. The borrower or client does not employ forced labour—that is, any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labour, such as indentured labour, bonded labour,</p>	<p>The Employment Act 5, 1980 (Part XIV) – Forced Labour</p> <ul style="list-style-type: none"> ▪ S144 – prohibits all works or services which are extracted from any person under the threat of any penalty and for which the said person has not offered himself voluntarily. ▪ S147 – states that, if any person acting in an official capacity coerces any person under his charge, that person shall be held personally liable and shall be liable to a fine not exceeding E3,000.00, or imprisonment not exceeding one year or both. <p>The Country ratified both the ILO Minimum of Age Convention (C138) and the ILO Worst Forms of Child Labour Convention (C182) in 2002. It also signed the African Charter on the Rights and Welfare of the Child in 1992.</p> <p>The Employment Act 1980</p> <ul style="list-style-type: none"> ▪ S97 – Prohibits the employment of children below the age of 15. <p>The Children's Protection and welfare Act 6, 2012</p> <ul style="list-style-type: none"> ▪ S234 – Minimum age of engagement for children is 15 		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
<p>or similar labour-contracting arrangements. The borrower or client does not employ trafficked persons. Women and children are particularly vulnerable to trafficking.</p>	<ul style="list-style-type: none"> ▪ S236 – children below the age of 18 cannot be engaged in any form of hazardous employment ▪ S248 – any person who employs underage children liable on conviction to a minimum fine of E100,000.00 or 5 years' imprisonment or both for a first offender. For a second offender, it is imprisonment of not less than 10 years. 		
<p>To provide project workers with accessible means to raise workplace concerns.</p>			
<p>Grievance and redress mechanisms. The borrower or client ensures that a workforce grievance mechanism is permanently available to workers (including workers supplied by third parties) and their organizations to raise reasonable workplace concerns in a transparent manner without fear of retribution. The grievance mechanism is made known to workers at recruitment. The mechanism does not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, nor does it substitute for grievance mechanisms provided through collective agreements.</p>	<p>In implementing an effective dispute management system consideration must be given to the disputed resulting from the following:</p> <ol style="list-style-type: none"> 1. Disciplinary action 2. Individual grievances 3. Collective grievances 4. Negotiation of collective grievances <p><u>Disciplinary Procedure</u></p> <p>The Code of Good Practice: Resolution of Disputes at the Workplace which is in terms of S109 of The Industrial Relations Act 2000(as amended) at Clause 4.2 requires employers to establish a fair and effective disciplinary procedure in the workplace, which should be in line with Clause 11 (Fair Procedure). The procedure is as follows:</p> <ol style="list-style-type: none"> a) Investigate to determine whether there are grounds for a hearing to be held. b) If a hearing is to be held, the employer is to notify the employee of the allegations using a form and language that the employee can understand. 	<p>No significant gaps between OS5 and national laws</p>	<p>Apply national laws</p>

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p>c) The employee is to be given reasonable time to prepare for the hearing and to be represented by a fellow employee or a union representative.</p> <p>d) The employee must be given an opportunity to respond to the allegations, question the witnesses of the employer and to lead witnesses.</p> <p>e) If an employee fails to attend the hearing the employer may proceed with the hearing in the absence of the employees.</p> <p>f) The hearing must be held and concluded within a reasonable time and is to be chaired by an impartial representative.</p> <p>g) A dismissed employee must be given the reasons for dismissal and the right to refer the dispute concerning the fairness of the dismissal to the Conciliation, Mediation and Arbitration Commission (CMAC).</p> <p><u>Individual Grievance Procedure</u></p> <p>Clause 4.3 requires every employer to have a Formal Grievance Procedure which should be known and explained to the employee. The Code recommends that such procedure should at least:</p> <p>a) Specify to whom the employee should lodge the grievance.</p> <p>b) Make reference to time frames to allow the grievance to be dealt with expeditiously</p> <p>c) Allow the person to refer the grievance to a more senior level within the organization, if it is not resolved at the lowest level.</p> <p>d) If a grievance is not resolved the employee has the right to lode a dispute with CMAC.</p>		

Key Components of the AfDB Guidelines	Key components of Eswatini's legal framework	Gap Analysis	Mitigation
	<p><u>Collective Grievances and Disputes resulting from the negotiations of Collective agreements</u></p> <p>Clause 4.4 and 4.5 of the Code deals with the handling of collective grievances as raised by the employees. This procedure is usually contained in the Recognition Agreement the parties sign from the onset. What is common to these disputes is that in the event the parties fail to resolve the dispute, either can lodge a dispute with CMAC and subsequently the Industrial Court.</p>		

3.6. APPLICABLE REGULATORY LICENSES AND APPROVALS

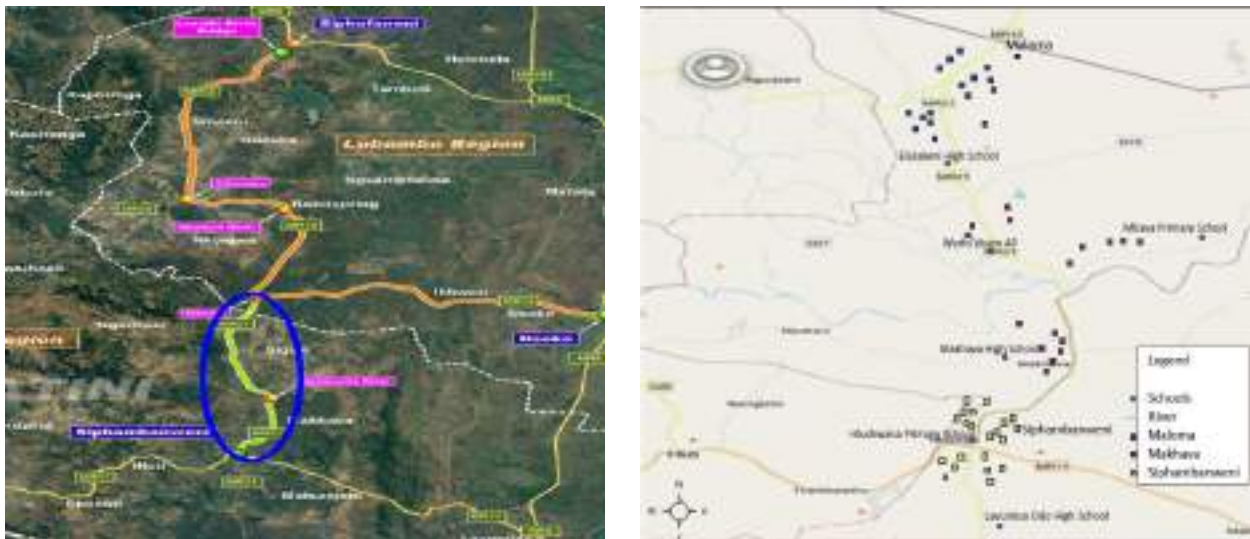
Since the project is funded by AfDB, it can only go ahead once the bank has approved the ESIA and ESMF, as well as any other documents that are relevant to the project. In accordance with the Environmental Audit, Assessment and Regulations, 2000, the project can only go ahead once the ESIA and associated ESMP have been reviewed and approved by Eswatini Environment Authority. A signed letter of project approval needs to be issued by EEA to enable the project to go ahead. During the construction phase, the EEA requires periodic project compliance reports (PCR). Once EEA is satisfied that all environmental and social mitigation measures that have been developed in the ESMP have been successfully implemented, the project would be issued with an environmental compliance certificate (ECC).

4. SOCIO ECONOMIC BASELINE

4.1. DESCRIPTION OF STUDY AREA

This chapter details the methodology used for data collection on the baseline environment along and around the development corridor. The study area covers the corridor of the project area as shown in **Error! Reference source not found.**. The road infrastructure project spans approximately 108 kilometers, of which approximately 20 km is the MR21 that begins at Maloma to Siphambanweni and is mostly in the Shiselweni Region. The study focused on areas to be directly and immediately impacted by the project and communities at the second level impact trajectory.

Figure 4-1: Study Area



4.2. CONSIDERATION OF ALTERNATIVES

The study area included the proposed options 1 and options 2 of road re-alignment along MR21. The alternatives proposed are not conspicuous as to require significant consideration. The alternatives on the MR21 are proposed at Ngwavuma at Ebloweni in Enjabulweni community which was covered in the primary data collection.

Figure 4-2: Realignment options on MR21



4.3. POPULATION AND DEMOGRAPHIC DIVIDE

According to the 2017 Eswatini Population Census (EPC), the total population for the project affected Tinkhundla is as presented in the following Table 4-1.

Table 4-1: Population of affected Tinkhundla

Inkhundla	Male	Female	Total
Sigwe	4,552	5,287	9,839
Ngudzeni	4,136	4,732	8,868
Matsanjeni South	4,892	5,626	10,518

Source: Central Statistics Office, 2017.

Table 4-2 provides an overview of pertinent indicators of significance in understanding the determinants that may impact socio-economic indicators within the project corridor. The data presented reveals that the population density in the Lubombo region stands at 36 persons per square kilometer, whereas the Shiselweni region exhibits a higher density of 54 persons per square kilometer. The dependency ratios of both affected regions are high indicating that the economically dependent population (0-19 and 60+ years) is higher than the population of the economically active (20 – 60 years).

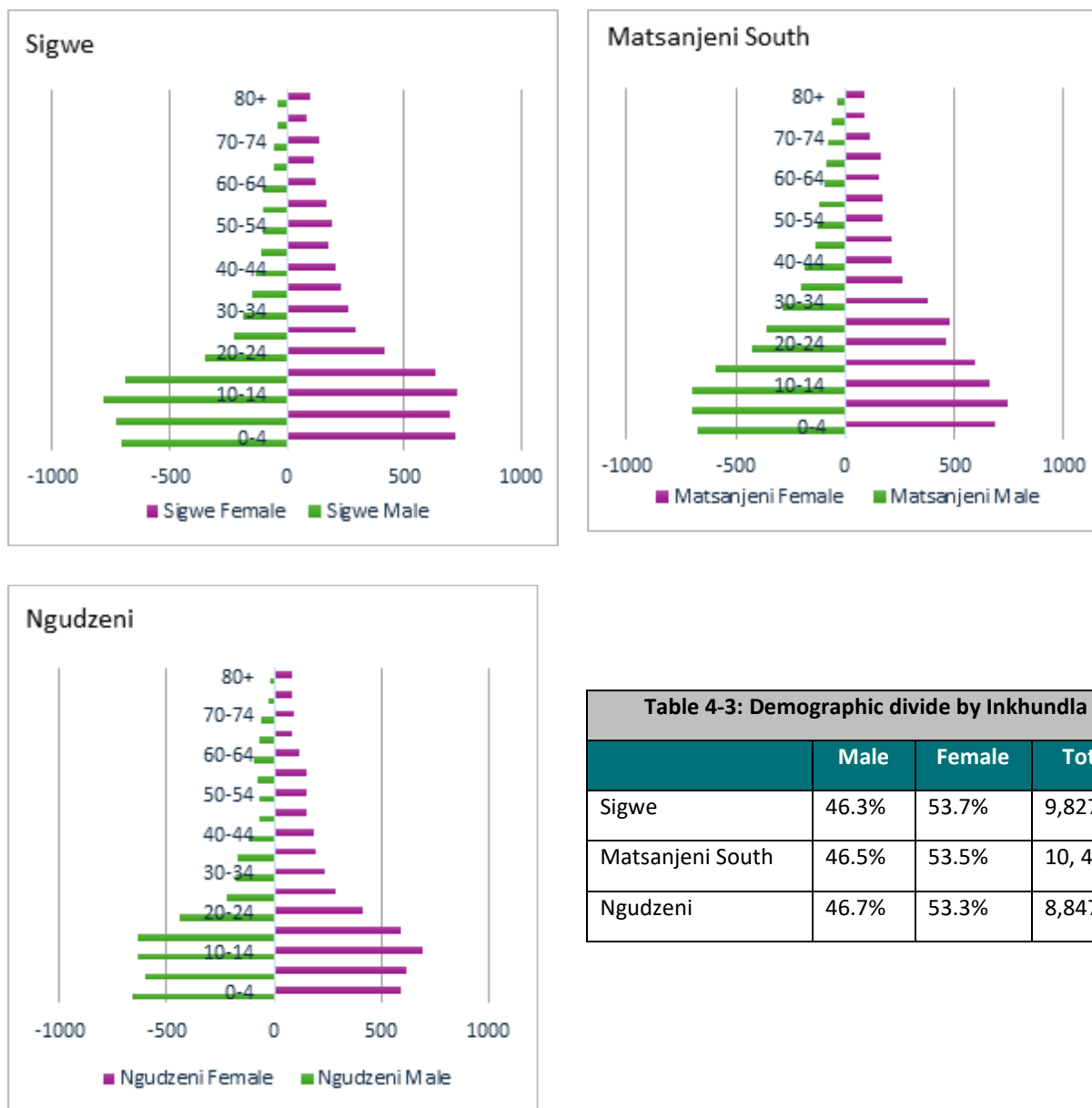
Table 4-2: Selected demographic indicators.

	Shiselweni
Population growth rate (%)	-0.2
Population density (persons/km ²)	54
Dependency ratio	81.63
Fertility rate (live births/woman)	3.4
Death rate (%)	1.12

Source: Central Statistics Office, 2017.

The population of the project affected areas is young. There are more males than females in the Constituencies traversed by the MR21 namely, Sigwe, Ngudzeni and the Matsanjeni South Tinkhundla.

Figure 4-3: Demographic divide



Source: CSO, Eswatini Population Census 2017

Along the project corridor, the sampled households approximately 60.6% were female headed households while 39.4% were male headed households. The age distribution of the heads of households in the sample is largely between 35 years and 79 years.

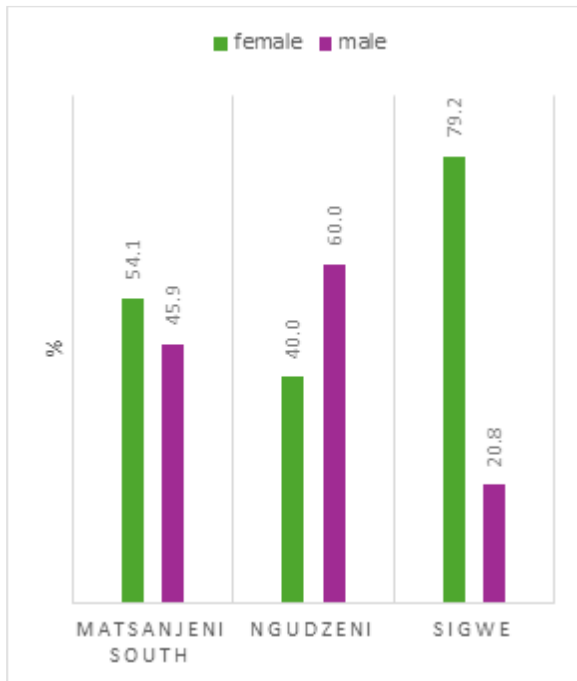


Figure 4-4: Gender distribution of head of households

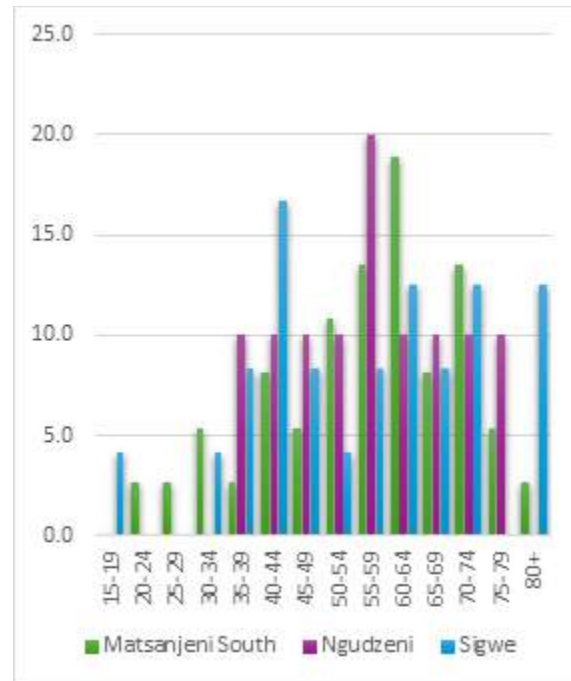


Figure 4-5: Age structure of sampled households along MR21

4.4. EMPLOYMENT, SOURCES OF INCOME AND LIVELIHOOD

Unemployment levels have been a growing concern to the GoE. Unemployment reached its peak at 33.2% in 2021. Unemployment is particularly acute among the youth, with a staggering 59.1% of individuals aged 15 – 24 years. Unemployment in the sampled area was found to be approximately 53.3% which were highest among females than males. Sources of livelihood along the MR21 include grants, proceeds from farm activities, seasonal work, small businesses, and regular monthly salaries.

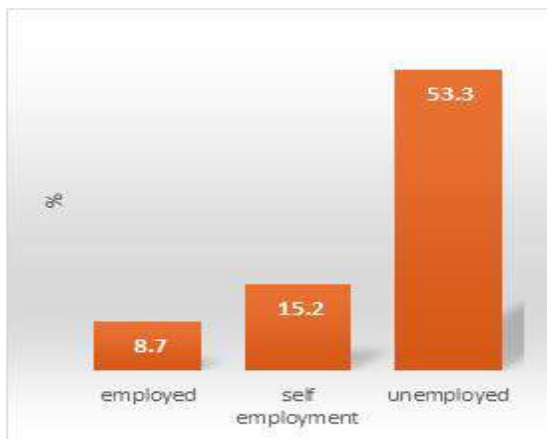


Figure 4-6: Unemployment along MR21

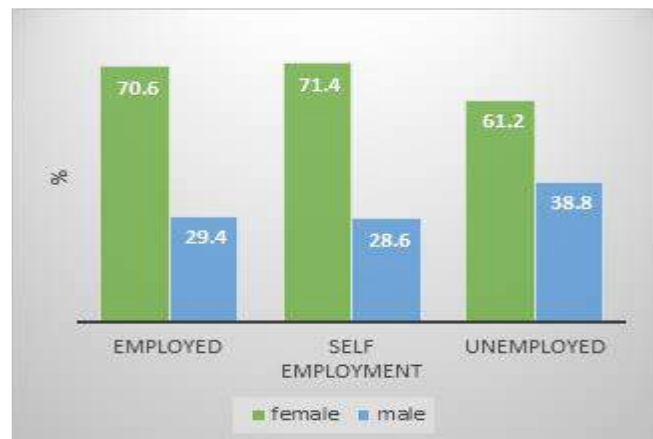


Figure 4-7: Unemployment by gender along MR21

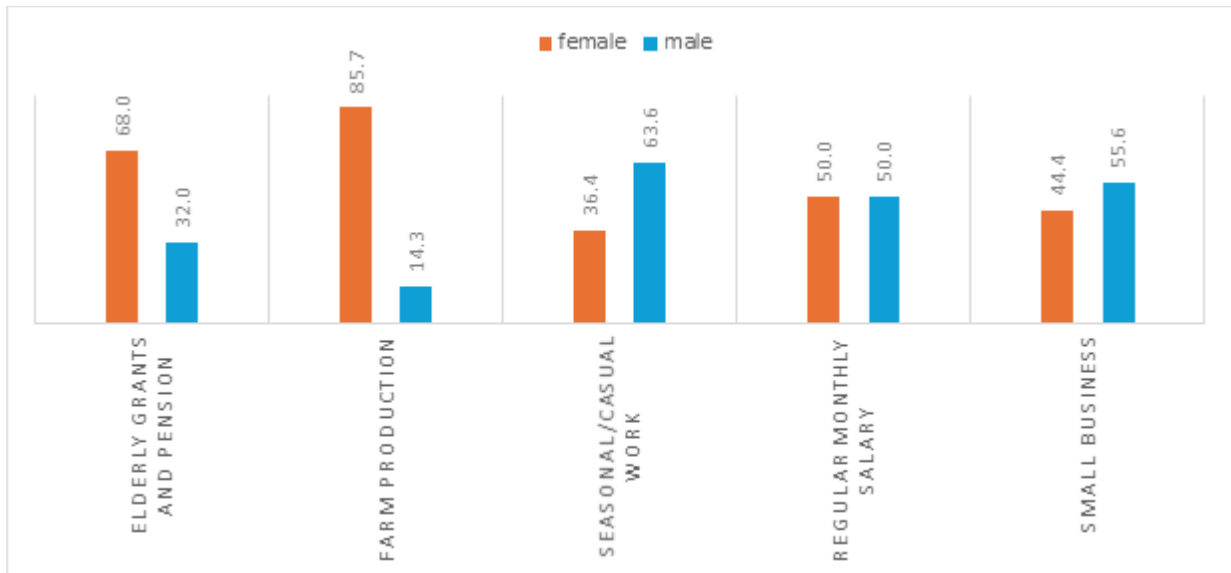


Figure 4-8: sources of livelihood

4.5. INCOME LEVELS, POVERTY, AND EXPENDITURE

Despite being classified a lower-middle-income country, Eswatini faces high vulnerability to external shocks and poor growth. Projections by the World Bank estimate that 55.2% of people fell below the poverty line for lower-middle-income countries. Approximately 32.1% of people are living below the international poverty line of \$2.15 per day. Along the project corridor, the study found that the average income from respondent primary sources in E1,098.73. Respondents also submitted that they receive income in kind such as donations of food, medication, clothes, construction materials, transport, and other necessities. These on average amounted to E2,176.87 per month. Other income sources include remittances which amount to an average of E356.34 as well as other sources of income which average E226.76.



Figure 4-9: amounts received from various income sources in Emalangeni.

The average expenditure in the sampled households amounted to E326.35 per expenditure item. Respondents indicated that they spend largely on food, education, and education related expenses.

Table 4-4: household expenditure

Item	Estimated average expenditure/household/month
Food	E314.79
Utilities	E1,433.17
Education, school uniforms, school fees	E1,072.89
Transport	E70.63
Livestock maintenance	E119.51
Equipment, tools, seeds	E276.42
Debt repayments	E255.75
Funerals, social events	E28.17
Hospitals and medications	E122.14
Traditional Doctor fees	E11.24
Construction, house repairs	E147.89
Tractor rentals	E389.90

4.6. STRUCTURES

Structures along the MR21 are predominantly of modern buildings and designs. The sampled areas approximately 86.1% have cement brick walls, 90.4% have corrugated iron/roof tiles and 91.8% have finished cement floors. The homesteads sampled along the project corridor have various fence types such as traditional fences (made from wooden sticks), barbed wire fence as well as diamond mesh fences. It is common along the project corridor to find kraals by the front entrance of the homesteads. Most of the homesteads are also characterized by modern gates made of diamond mesh and iron.

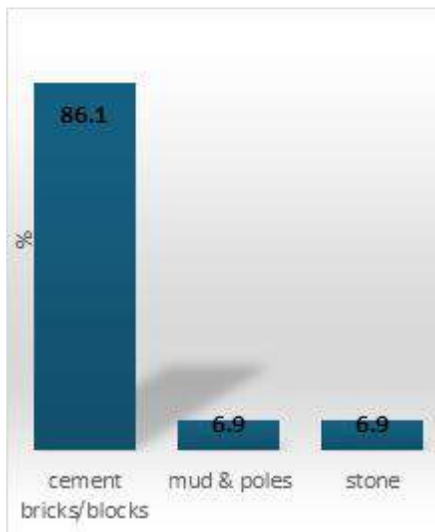


Figure 4-10: wall material

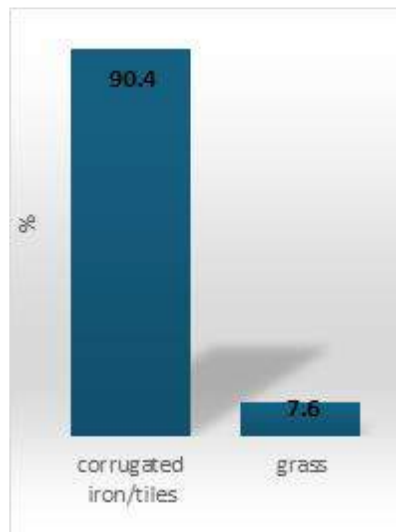


Figure 4-11: roof material

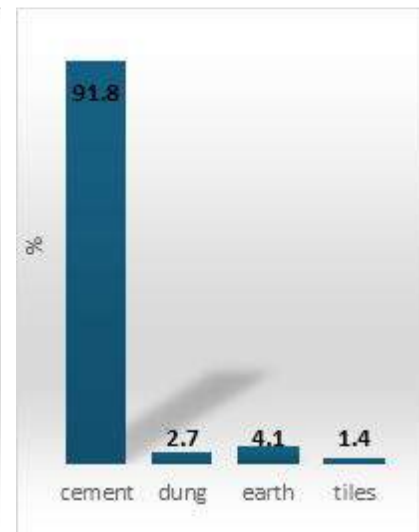


Figure 4-12: floor material



Figure 4-13: dwelling structures along the MR21

4.7. SOURCES OF ENERGY

Eswatini has made significant strides in rural electrification with the ultimate objective of providing the rural communities with clean and affordable energy. With the country's mini grid program to support rural communities which is a program that is highly sensitive to remote rural areas. Eswatini has a high national electrification rate of 83% and 69% of rural areas have access to electricity which is significantly lower than the 90% urban electrification rate. Eswatini imports approximately 70% of its electricity from South Africa. The import price is partly passed through to the consumer even though the electricity tariffs are administered. This makes it expensive for low-income households to afford the use of electricity for all their needs. It is therefore common to use different types of energy for different purposes. For example, in the sampled households, the study found that the community uses different energy sources for different house activities. Approximately 89.4% of the sampled households use electricity for cooking, 49.3% for space heating, and 74.0% of the respondents submitted that they use electricity for lighting purposes. The rural community still uses wood for some purposes such as cooking, heating and boiling water which are considered electricity intensive household activities.

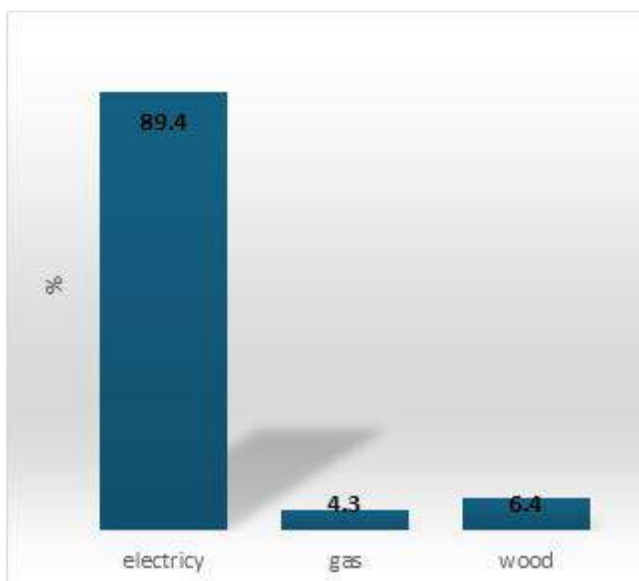


Figure 4-14: sources of energy for cooking

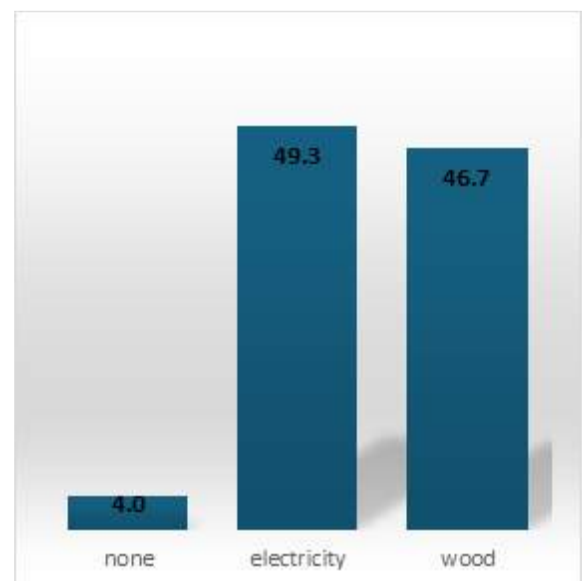


Figure 4-15: sources of energy for space heating

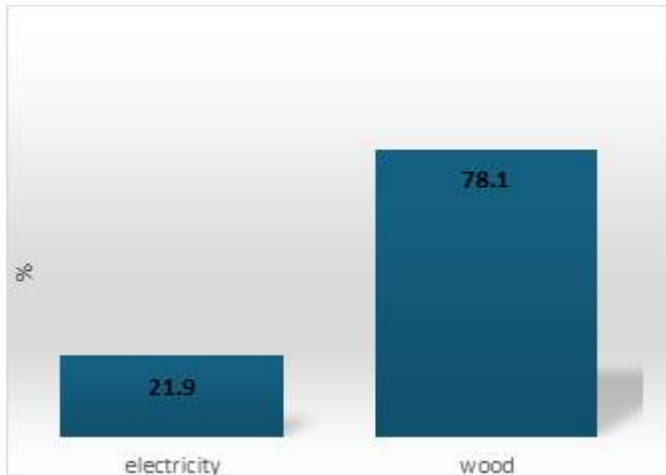


Figure 4-16: sources of energy for boiling water

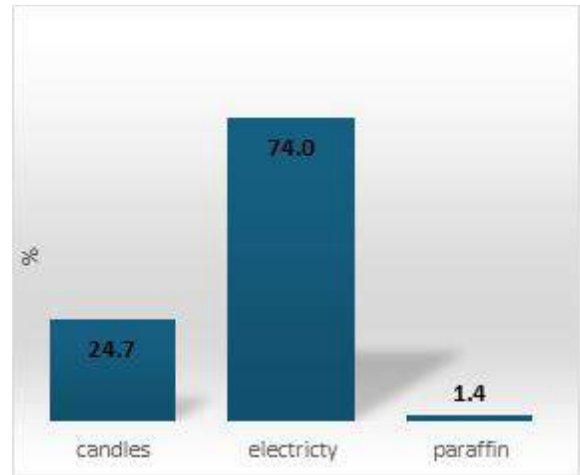


Figure 4-17: Sources of energy for lighting

4.8. HOUSEHOLD VULNERABILITIES

According to the Vulnerability Assessment Report (VAR 2023), vulnerable households in Eswatini are defined by a range of factors, including acute and chronic food insecurity, the impact of economic and environmental shocks, and the effects of health crises such as the HIV/AIDS epidemic. Hosting of vulnerable groups by households is common along the project corridor. The results revealed that 35.2% of the survey households host an orphaned member as well as other conditions such as mental disability (5.6%), autism (2.8%), limited mobility, deafness, blindness as well as albinism.

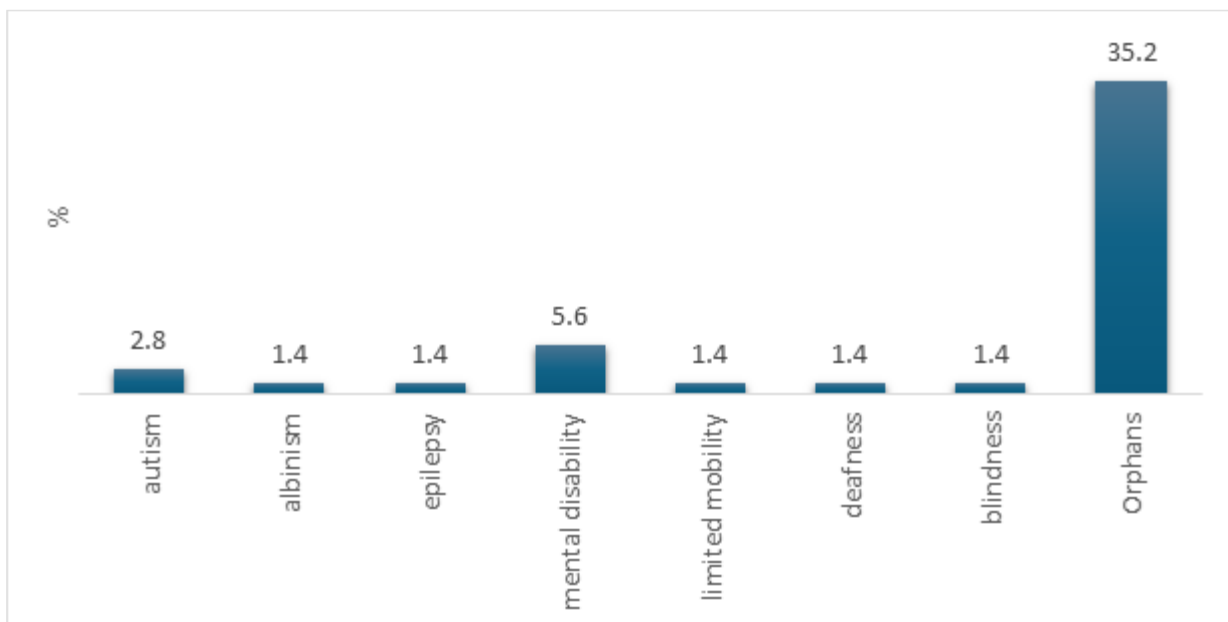


Figure 4-18: households hosting vulnerable groups

According to the VAR 2023, an estimated 25% of the population is facing acute food insecurity requiring urgent humanitarian assistance. The regions of Lubombo and Shiselweni were most affected by drought and had the highest prevalence of food insecurity. The VA estimated that along the project corridor, there are approximately 32,600 people facing acute food insecurity. Approximately 10,700 of those facing food

insecurity are categorized in phase 3+ which means they require emergency humanitarian assistance. The proportion of the population categorized in phase 3 or higher is predominantly women as shows in figure 4-19.

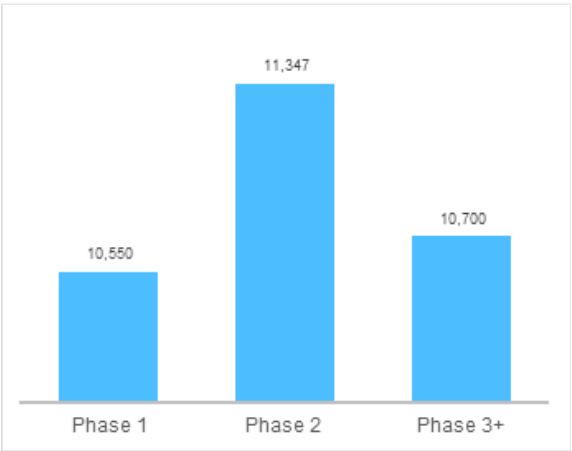


Figure 4-19: Food insecure population along the MR21

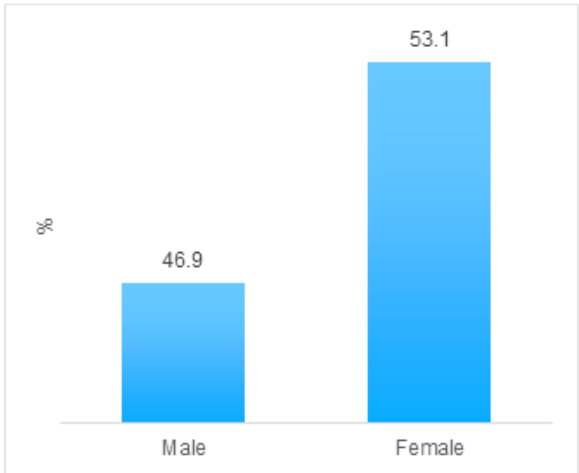


Figure 4-20: Food insecure population along the MR21 by gender

4.9. MORBIDITIES

The respondents submitted that in their families, they have people with HIV (35.2%), someone has had the common flue in the past 30 days (47.9%), typhoid (1.4%), TB (4.2%), hypertension (23.9%), cancer (2.8%), skin ailments (2.8%), kidney diseases (5.6%) and cystic fibrosis (2.8%).

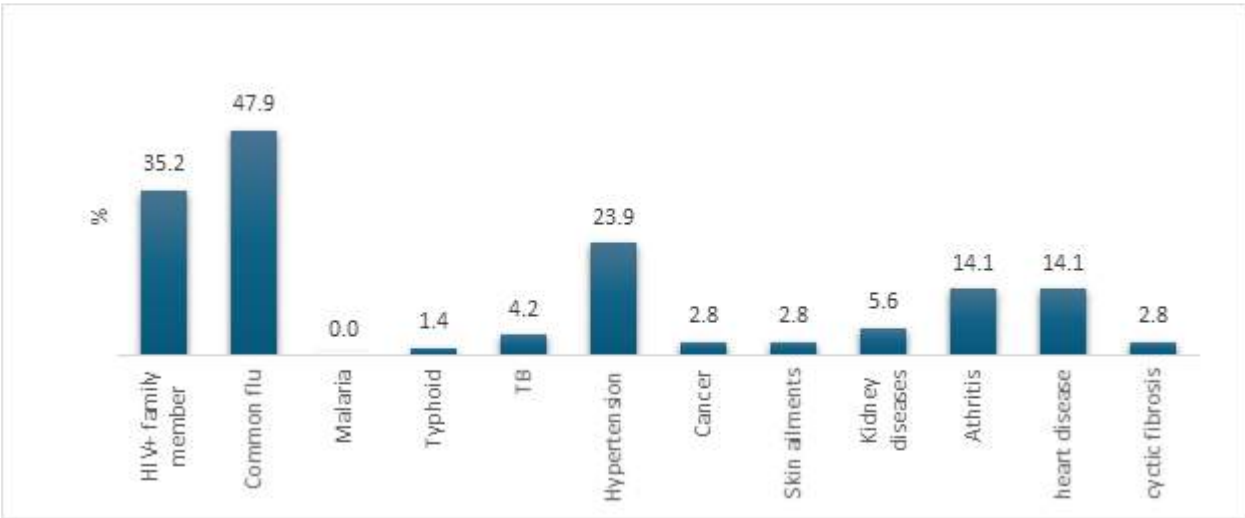


Figure 4-21: Morbidities and Conditions

4.10. CURRENT LAND USES

Communities on SNL around the project area have established homesteads and also practice both livestock and crop farming. Livestock and crop farming that is practiced at household level is mainly for subsistence purposes. Production by subsistence farmers is very poor because it is dependent on erratic rainfall. The communities on SNL also keep some livestock, including cattle, donkeys, indigenous chicken, and goats. At

household level, the major crop that is grown by the communities in the project area is maize. Some community groups also grow vegetables such as tomatoes and cabbages using irrigation water from the local streams and rivers. The produce is sold locally. Some households derive their income from informal trade such as street vending and selling of agricultural produce like beans and sweet potatoes. The use of livestock as a source of income is relatively low, as some households only keep the livestock as a sign of wealth. In addition to farming at household level, there is an increasing proportion of smallholder farmers on SNL who are now engaged in irrigated sugarcane farming for supplying the Big Bend Sugar Mill.



Figure 4-22: Settlements on SNL along the MR21 at Ngwavuma



Figure 4-23: Settlement patterns at Makhava



Figure 4-24: Grazing land along the MR21



Figure 4-25: Subsistence farming

4.11. CULTURAL RESOURCES AND ASSETS

The social fabric of the communities along the MR21 is characterized by the availability of soccer fields for the benefit of inter-school games, worship, public transportation stations and community meetings. The project corridor also has churches lining the road used as places of worship and weddings. These churches are accessible directly from the MR21 but are out of the road servitude as seen in the Figure 4-26 below.



Figure 4-26: soccer ground along the MR21



Jericho Church at Kathumbela



Unknown Church at Kamangena



The Independent Methodist Church - Esiphambanweni



Jabula Jesu Church at Kamangena

Figure 4-26: Churches along the MR21

4.12. TRANSPORTATION

The project alignment traverses rural settlement roads that are completely composed of gravel material. Certain sections of the road are maintained to the best extent feasible by Maloma Colliery. The primary focus of the mine's maintenance efforts is on routes utilized by heavy-duty trucks responsible for transporting coal from the mine. Public transportation along the MR21 is provided by big buses and minibuses (kombis). The minibuses ferry commuters to as far as Sigwe, while the buses can go as further. The buses have designated

stops along the MR21 where passengers wait. The bus stops are not sheltered due to the non-development of the pedestrian infrastructure.

The major challenges reported by the respondents regarding these buses is that:

- They are highly unreliable. This makes planning difficult to plan for travel. One respondent submitted that they got stuck mid-journey because the bus died along the route. The area where the bus broke down is also very far and it was not easy for the bus conductors to request a substitute. They usually leave the passengers to make their own way to their destinations without refunds.
- The buses supposedly have to be serviced every Wednesday. However, sometimes they are available to service their usual routes. Therefore, no one really knows whether the buses will be available or not.
- The school children are highly reliant on the buses. In extremely wet weather, the students are sometimes unable to get to school because of the flooding of low-lying bridges and transport unavailability. Even in non-wet weather conditions, the students whose parents can afford to give them fares are able to use local vans owned by community members who have taken the opportunity to fill in the transport gap.



Figure 4-28: minibus ferrying passengers and heavy truck transporting coal along the MR21

4.13. TELECOMMUNICATIONS

Along the project corridor, there is mobile service coverage provided by MTN Eswatini and Eswatini Mobile. Telecommunication antennas are situated in close proximity to the road, and commercial and economic hubs can be found along the MR21 corridor. MTN Eswatini has 4G coverage all over the country with plans for a complete 5G coverage at mature stages. The youngest mobile service provider Eswatini Mobile also has 4G network for approximately 70% of the country including the project corridor. The most reliable network in terms of coverage and availability along the MR21 was reportedly the MTN network.

4.14. WATER ACCESS, SANITATION AND HYGIENE

4.14.1. Water access

Access to clean water, good sanitation and hygiene practices are important socio-economic indicators which were investigated in the baseline survey. NGOs such as World Vision actively support the community to improve access to potable water and sanitation. The study found that along the project route, a significant portion of respondents use unimproved water sources such as surface water (34.8%), rainwater (7.2%) and groundwater (21.7%). There are some respondents who use improved water sources such as kiosks (1.4%) and rural water scheme (15.9%). 8.7% of respondents submitted to buying water from water trucks but did not know the source of the water. Even though there is EWSC pipeline infrastructure from Esiphambanweni to Sigwe, approximately 10.1% of respondents along the project corridor have access to EWSC water. 1.4% of respondents submitted to using water from a kiosk which can be found at Esiphambanweni. The kiosk charges E1 per 20 liters. The kiosk's operating hours are supposedly 8am to 5pm, however, during the survey, the kiosk was not open at 10am.

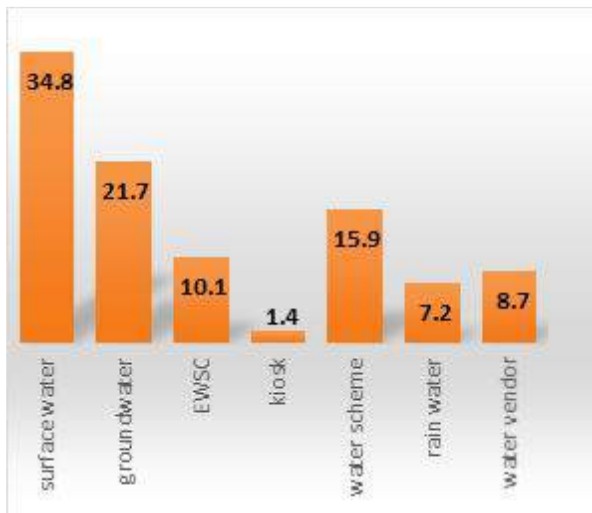


Figure 4-27: sources of water



Figure 4-28: Water Kiosk at Esiphambanweni

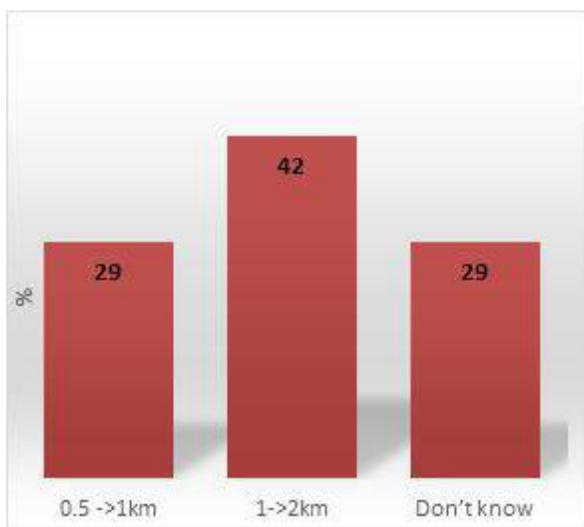


Figure 4-29: Distance to water source

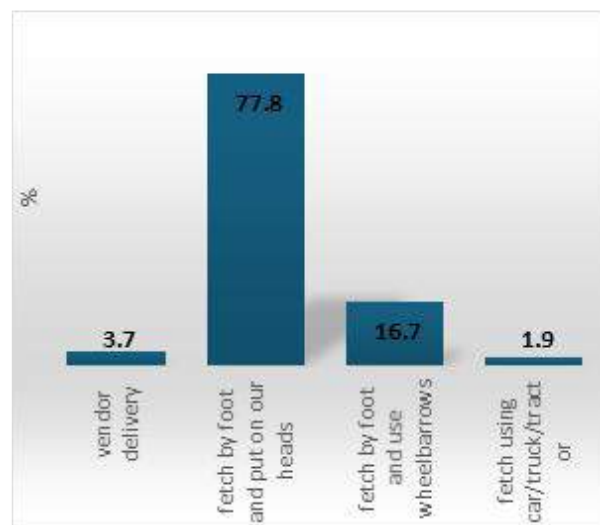


Figure 4-30: method of fetching water

Distance to water sources range between 0.5km and 2km as submitted by 29% and 42% of respondents respectively. 77.8% of respondents submitted that they fetch water by foot and carry it either on their heads (77.8%) or by wheelbarrow (16.7%). Some respondents, particularly at Kathumbela at Elulakeni submitted that they travel as much as 1 hour and 30 minutes to fetch water at Ngwavuma River.

4.14.2. Sanitation and hygiene

The World Health Organization (WHO) sets standards for what can be referred to as improved sanitation and unimproved sanitation facilities. Unimproved sanitation facilities include pit latrines which do not have a slab, open defecation, and the bucket system. Only piped sewer systems, septic tank, ventilated improved pit latrine and pit latrine with slabs are considered improved sanitation facilities. The survey used the WHO standards in order to establish if the communities under the study area currently have access to proper sanitation. The study revealed that the majority of households have improved sanitation facilities such as VIP latrines (53.4%) and indoor flush toilets (26%). Some households were found to have both outside and inside toilets. There were also households with unimproved sanitation facilities which are non-ventilated pit latrines (20.5%). To manage waste, respondents submitted that they use a variety of methods such as hiring honey suckers (15.1%), use of chemicals to manage sludge in the pit toilets (45.3%) while 26.4% of respondents simply dig another latrine if the active latrine is full. For non-sewage waste, respondents submitted that they use home pits to dispose waste. When the pits are full, they burn the waste.

Among the respondents, there is knowledge about the importance of hygiene which begins with handwashing. Respondents submitted that they wash their hands when they're visibly dirty (94.4%), before eating (77.8%), after using the toilet (80.6%) and after cleaning a child who is visibly dirty or from the toilet (18.1%).

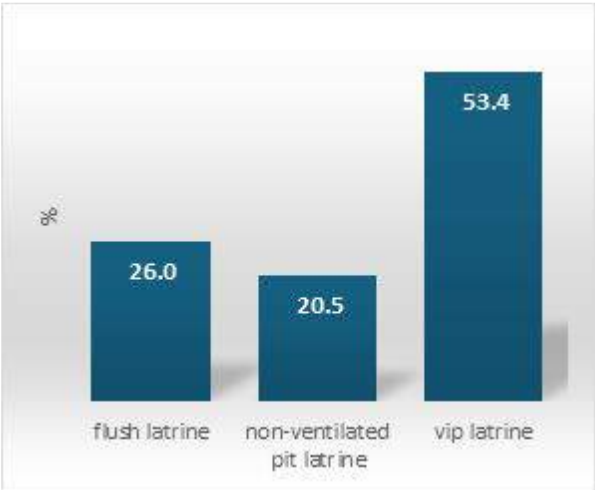


Figure 4-31: toilet facility types

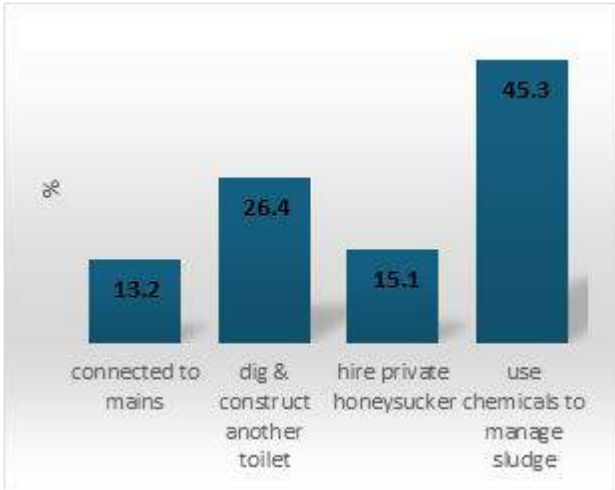


Figure 4-32: sewage management

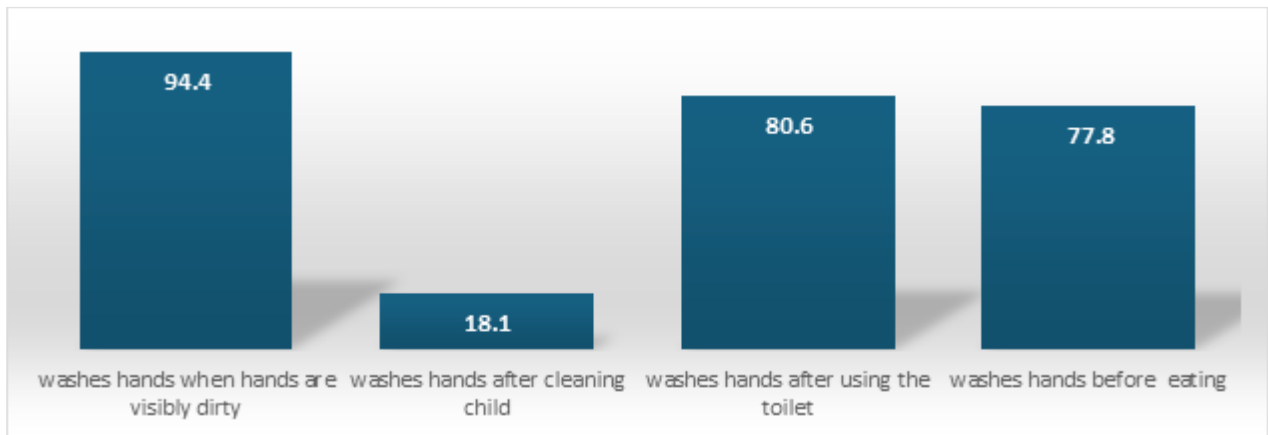


Figure 4-33: handwashing practices

4.15. GENERAL COMMENT

Challenges faced with the current transport system.

- The buses are unreliable. It is difficult to have a consistent travelling plan for the month.
- The children rely on the buses which take them to school, and they may find themselves walking back home. Keep in mind that the homesteads are usually far from the schools.
- When it rains, the buses do not operate.
- How development will impact life and activities.
- We anticipate that the road will greatly ease the burden on the buses. We look forward to having minibuses to ferry us to town. The minibuses fill up faster and are quicker on the road than the big buses.

Comments on community participation.

- The community can play a pivotal role in the development of the road by actively engaging in the planning and implementation process. It is essential to involve community representatives in meaningful public involvement, ensuring that their feedback is considered and incorporated into the project whenever possible. This can be achieved by using a variety of communication methods, including in-person use of representatives, posting notices at central places such as Tinkhundla centers to reach all community members, including those with disabilities and diverse needs.
- Collaboration with community development committees (CDCs) can be effective in disseminating information and encouraging participation. These committees could also be part of the planning and implementation teams to ensure that the community's needs are directly represented.

4.16. EDUCATION

4.16.1. School Levels

The project area is serviced by a number of schools. During the field work, it was noted that the schools are close to the road but generally observe the road servitude. This is beneficial to these schools to enable easy access to the local transport network. On the MR21, the following schools can be found:

- Zamokuhle Primary School
- Elulakeni Primary School

- Elulakeni High School
- Makhava Primary School

4.16.2. School Staff Compliment

Schools along the project corridor are dominated by female teachers who made up 61%, while their male counterparts were 39%. The support staff is also dominated by females who make up 70% while the male support staff is 30%. The female support staff are mainly secretaries, cooks, and cleaners while the male support staff are mainly security.

4.16.3. School Enrolment

Primary school enrollment is balanced between girls and boys in the primary schools. The girl to boy ratio is 47:53 as the boys outnumber the girls. In the high schools along the route, the girls were slightly outnumbered by the boys as the ratio was reportedly 51:49. Several reasons have been cited for the higher number of girls to boys in this education phase. The first being the occurrence of child headed families, where girls have to look after the homestead and their younger siblings. In some instances, the guardians are sickly and require constant attention, which is provided by the girl child. The second reason is teenage pregnancy, which forces girls to drop out of school to become mothers.

4.16.4. Vulnerable Children

In the majority of schools, at least 80% of the students are Orphaned and Vulnerable Children (OVC) where orphaned is defined as the death of one, or both parents and vulnerable as living without adequate adult support (including financial support) or living outside family support. This in turn creates absenteeism as students are bound by household duties that would ordinarily be performed by their parents. The school plays an important role in providing the main meal to most of its students, so they try to stretch their government allocated food supplies to last an entire term. When they have extra finances, they purchase meat and vegetables in an effort to provide a balanced meal. When the food supply runs out, students stop coming to school as there is no incentive to do so.

Less than 1% of students were observed to have learning disabilities although they have not been classified by medical practitioners. A few of those tend to exhibit aggressive and irrational behavior with both teachers and students. The Project is expected to enable teachers to attend workshops with ease, these workshops will equip them with the necessary skills to provide support to such students.

4.16.5. School utilities

4.16.5.1. Electricity

All surveyed schools were found to be electrified by EEC. The presence of electricity creates a security barrier during night hours, in addition to enabling the smooth running of administrative functions. The schools spend an average of E800.00 for the primary schools and E2,000 for the high schools on electricity consumption per month. Teachers are expecting the proposed road to bring industry and a transfer of skills from urban areas. They anticipate that local shops will stock supplies like solar lights which they can in turn install, in an effort to reduce expenses. Skilled labour like technicians, and electricians, is expected to be more accessible, which will enable them to service the school equipment regularly and get it fixed quickly in cases where they malfunction.

4.16.5.2. Water, Sanitation and Hygiene

The teachers anticipate that the Project will bring new connections from EWSC. At present 66% of the schools rely on community boreholes which are provided by World Vision, they employ rainwater harvesting as a secondary source of water provision. of the schools rely on rainwater harvesting for water provision.

4.16.5.3. Water, Sanitation and Hygiene

The key informant interviews revealed that Makhava Primary School relies on EWSC water while Elulakeni Primary and High Schools rely on a borehole, with rainwater harvesting as a secondary source. Hygiene and Sanitation equipment was distributed to schools during the Covid-19 pandemic. While these hand washing stations are still functional, the schools have to independently purchase hand washing soap but due to the scarcity of funds, use cleaning soap instead as they have supplies on hand.

4.16.6. Common school ailments

Schools along the MR21 submitted that common reported ailments from students include the common flu, stomach aches and a few have scheduled appointments at the clinics. Even though the teachers have no evidence, they deducted that the scheduled appointments are for collection of ARTs at the clinic. The students are not obliged to divulge their medical history. The parents are however encouraged to volunteer such information to ensure that children are properly cared for during eventful days.

4.16.7. Common state of the road issues

The respondents were asked to list the top three reasons for tardiness in the school. It was revealed that a lot of students cannot afford to take public transport and instead walk to and from school, some walk over eight (8) kilometers per day. The respondent also revealed that some children are obligated to take care of their sickly parents or siblings before coming to school. Other children have to ensure that their chores are done first before coming to school. The teachers observe the same behavior on specific days like Mondays and on days when the cows have to go to the dipping tank. Other challenges submitted include:

- There is a lot of dust, which affects visibility and necessitates constant cleaning dusting. The students also tend to arrive at school covered in dust.
- Teachers' vehicles are subject to excessive wear and tear due to the poor condition of the road. Teachers opt to use public transport instead of their personal vehicles, to reduce maintenance expenses.
- The condition of the road is a deterrent to transport providers. The majority of available transport is buses, which also break down, or are taken off the daily schedule for servicing and maintenance.
- During excessive rains, the road becomes slippery and there is no transport available, leading to teacher and student absenteeism.
- During excessive rains, small streams which student's cross daily are flooded, necessitating that students take a longer route to school or are absent.
- The current condition of the road causes reckless driving, which is a potential hazard for students of all ages who walk long distances to and from school daily.
- In one school, thirteen (13) students were recorded to have transferred to other schools due to the inefficiency and unavailability of transport. This forces their parents to enroll them in schools that are closer to their residential areas, against their preferences.

- Due to the distance between home and school, some parents opt to rent one room accommodation near schools for their children. This in turn causes administration problems, where the school has to intervene in problems arising at the rented accommodation. The students who live in the rental accommodation do not have supervision and thus absent themselves from school and generally do not perform well in examinations.

4.17. EDUCATIONAL CAMPAIGNS

The schools reported that they periodically conduct educational talks on hygiene, road safety and abuse with the students. Even though some of the topics like hygiene are embedded in the curriculum, they are not as detailed and impactful. They require consistent re-enforcement, preferably from more impactful subject experts. As a result, the schools periodically invite government departments to educate the children. For hygiene and sex related topics, the Ministry of Health is invited to speak on such topics. For road safety, the Royal Eswatini Police Service (REPS) is invited to lead the discussions. For the primary schools the REPS also have practical demonstrations for the children. The REPS and MoH also take the children through topics related to abuse and how to recognize abusive behavior, self-harm, substance abuse as well as what to do in unfortunate events.

4.18. COMMENTS FROM TEACHERS

The following are additional comments from the teachers regarding the proposed road development.

- An efficient transport system, enabling students and teachers to arrive at school punctually, every day.
- It is also expected that teachers will easily attend workshops and subsequently improve their teaching methods and school performance figures.
- When school equipment (printers, photocopiers) is malfunctional, service providers are unwilling to drive on the bad roads to fix them. The schools have developed a co-dependency network, where they borrow and share resources that are limited.
- It is expected that EWSC will provide potable water to the communities, eliminating their reliance on rainwater.
- It is expected that EPTC will introduce new landline and Wi-Fi connections, thus improving communication. Currently, some schools rely on mobile phones for official communication.
- It is anticipated that market stalls will be constructed for local market vendors as they sell their produce along the school fences.
- The students travel for more than 5km to the schools. Even though the students are used to such long walks, they are not always fully rested to tackle the day's work. Some are so little, as a teacher, you are touched by the challenges they have to overcome to make it school.

4.19. EARLY CHILDHOOD CARE AND EDUCATION

Early Childhood Care and Education (ECCE) in Eswatini, is recognized for its importance in the holistic development and learning of a child. ECCE centers in the country are typically in the form of preschools or neighborhood care points (NCPs). ECCE is the first of the four levels in Eswatini's education system. However, as of 2015, only 21.6% of preschool-age children had access to early childhood education. The primary school teachers submitted that there are issues in the area regarding the first level of education. They submitted that the grade 1 teachers struggle with the children who do not have the ECCE foundation. As a result, the students do not pick up concepts as expected due to the lack of foundation. Along the MR21,

Elulakeni and Zamokuhle Primary Schools reported to have grade zero which has been a great assist in ensuring primary school readiness for the children.

4.20. VOCATIONAL TRAINING

At Elulakeni, there is a vocational training center called Elulakeni Rural Education Center (EREC). This center offers training in Computer, Agriculture, Electrical Engineering and Sewing at approximately E1,800 per year. This fee includes teaching services and daily meals. The EREC is part of a wider program of RECs which utilize the Tinkhundla system to reach out to people in the communities in providing training in practical skills through these one-year short courses.

4.21. TRANSPORT

There are a number of big buses servicing the route along the project area. The transportation is mainly these large buses because the routes are long, and the road is coarse gravel. During extreme rainy weather, road accessibility becomes extremely poor. Therefore, having smaller minibuses (kombis) service these routes is not a good investment for the transport owners. There are designated bus stations along the routes and the buses arrive at specific times at each station for ferrying people. The bus fare depends on the distance to the destination. During the data collection, it was revealed that the public transport system is highly unreliable and makes planning decisions and routine challenges for the households, schools, and health facilities. The following reasons informed this submission:

- Bus breakdowns are common. One may take a bus to town, and it will break down before it reaches your destination.
- Every Wednesdays we are told the buses have to go for service therefore not available.
- The bus schedule is known but is extremely unreliable as the bus may pass in the morning, but not in the afternoon.

4.22. HEALTH

4.22.1. FACILITIES

The health facility types found along the MR21 not only service the three Tinkhundla but surrounding regions as well. This is particularly true for the Matsanjeni Health Center which services people from as far as Ngudezni and foreigners from South Africa.

Table 4-5: health facilities

Health facility	Area
Nhlangunjani JCI	Nhlangunjani
Matsanjeni Health Center	Matsanjeni
A1 JCI Clinic	A1

4.23. FINANCIAL LITERACY AND FINANCIAL PRODUCT USAGE

The study sought to establish the level of financial knowledge and financial product usage of communities on MR21. The study found that there is a high proportion of respondents who have a mobile money account (79.2%) and transact through electronic means. The largest mobile network operator, MTN, and a major bank (FNB) are visible along the project corridor. This provides easy access to remittances, grant withdrawals as well as sending money to their own electronic accounts or to counterparties. 59.7% of the respondents

submitted that they pay some of their bills (water bills) and buy necessities such as electricity units and airtime through their mobile money accounts.

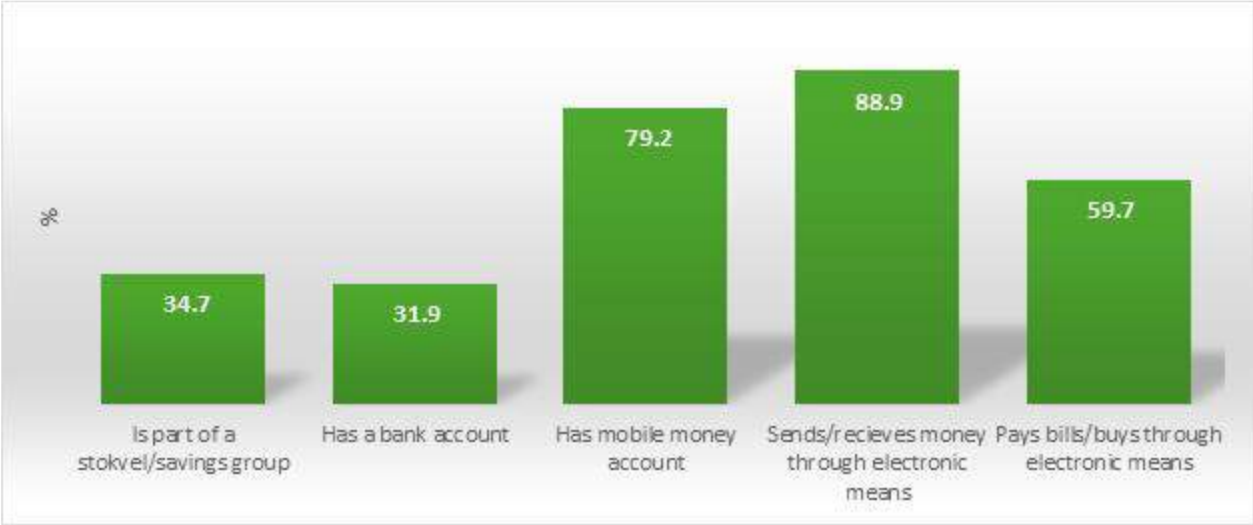


Figure 4-34: Financial services usage

4.24. UTILITIES

The project area has access to electricity and communication networks. Mobile operator antennas can be found along the project route which will be directly impacted by the development. The water supply in some areas along the MR21 such as Maphilingo, Sithobela have limited water access due to the non-reach of EWSC and defunct Rural Water Schemes (RWS). Along the MR21, there are mobile network antennas providing network service for the surrounding communities. Mobile network providers covering the project corridor are Eswatini Mobile and MTN Eswatini.

5. GENDER IMPACT ASSESSMENT

5.1. INTRODUCTION

This chapter presents the Gender Impact Assessment (GIA) for the proposed road project along the MR21 route, stretching from Siphofaneni-Maloma-Nsoko. This assessment recognizes the crucial role of gender perspectives in the design, implementation, and evaluation of such a significant infrastructure and aims to ensure that both male and female stakeholders are considered in all aspects of the project. The construction, use, and maintenance of the MR21 route will inevitably have different implications for women and men, particularly given the gendered nature of mobility and access to resources in the PACs.

This GIA is intended to identify and evaluate the potential gender-specific impacts with a focus on how the construction and subsequent use of the road may affect men and women differently. It seeks to ensure that the benefits of the project are equitably distributed and that any potential adverse impacts are adequately mitigated. The assessment also recognizes the potential of the road project as a vehicle for promoting gender equality and empowering local communities. It is based on the understanding that, when properly managed, the infrastructure will create opportunities for employment and economic development, enhance access to services and resources, as well as contribute to social and economic inclusion. This GIA is therefore not only a tool for identifying potential risks and mitigating negative impacts but also a means of maximizing the project's potential to contribute positively to gender equality and women's empowerment in the PACs.

5.2. AfDB GENDER POLICIES

The AfDB places a strong emphasis on advancing gender equality and empowering women and girls as a cornerstone of its operations. The bank has crafted and is executing strategies that weave women's issues into the fabric of its internal processes and its broader mission. In its pursuit to bolster gender equality and the empowerment of women and girls, the AfDB has adopted the "High 5" strategy. This initiative is a driving force behind the bank's commitment to catalyze change and progress throughout the African continent. The Gender Strategy for the period of 2021 to 2025 is constructed on three foundational pillars. These pillars are designed to uphold the bank's dedication to fostering gender equality, empowering women, and girls, and propelling economic and social advancement across African nations. These pillars are as follows:

Pillar 1: Empowering women through access to finance and markets.

Focuses on enhancing women's access to financial resources and opportunities. This pillar recognizes the critical role that financial inclusion and economic empowerment play in promoting gender equality and women's empowerment. By improving women's access to finance and markets, the AfDB aims to enable women to participate more fully in the economy, thereby contributing to economic development and social progress across Africa. This pillar is part of the AfDB's broader strategy to address obstacles to inclusive economic and social transformation for women across the continent.

Pillar 2: Accelerating professional integration and job creation for women, through skills enhancement.

This pillar acknowledges the importance of equipping women with the necessary skills to thrive in various fields, particularly in science, technology, engineering, and mathematics (STEM). It also emphasizes the role of technology in enhancing women's access to skills and information. By focusing on these areas, the AfDB aims to bridge the gender gap in employment and education, thereby promoting gender equality and women's empowerment across Africa.

Pillar 3: Improving women's access to social services through infrastructure.

This pillar aims to ensure that women have adequate access to and can positively benefit from infrastructure projects as stakeholders, workers, and end-users. The Bank seeks to influence gender-responsive quality infrastructure development under this pillar. This approach recognizes the role of infrastructure in providing access to essential social services and the need to ensure that women, who often face barriers to accessing these services, are adequately considered in infrastructure planning and implementation. By doing so, the AfDB aims to enhance women's social and economic inclusion and contribute to gender equality across Africa.

5.3. GENDER PROTECTION POLICIES IN ESWATINI

5.3.1. National Gender Policy 2010

This policy is aimed at redressing the inequalities between women and men. It aims to guide strategies to improve the living conditions of women and men including practical and forward-looking guidelines and strategies for implementation, monitoring, and evaluation of the related constitutional provisions.

5.3.2. Sexual Offences and Domestic Violence Act (SODVS) 2918

The Act has provisions concerning sexual offences and domestic violence. It includes requirements for commercial sexual activities, pornography, and protection of victims with special measures to protect children. It further contains provisions on the offence of sexual harassment.

5.3.3. Child Protection and Welfare Act (CPWA) 2018

The Child Protection and Welfare Act (CPWA) of Eswatini is a comprehensive legislation aimed at safeguarding children from abuse and promoting their welfare. The Act generally emphasizes the importance of children's rights to health, education, and development. It addresses critical issues such as child labor, child trafficking, and child abuse prevention. The Act also outlines the responsibilities of various stakeholders in ensuring the protection and welfare of children. These stakeholders include parents, guardians, educators, healthcare providers, and government agencies. The Act provides a framework for these stakeholders to work together to create a safe and nurturing environment for children.

5.4. GENDER MAINSTREAMING IN ESWATINI

Has implemented various policies and strategies to promote gender equality and address gender-based issues. However, disparities in education, asset ownership, decision-making, and representation in leadership positions persist. Gender-based violence and socio-cultural norms continue to hinder progress towards gender equality.

5.5. GENDER MAINSTREAMING IN CONSTRUCTION

Even with the implementation of legal changes and supportive measures, the gender disparity within the workplace remains a significant issue. In particular, the construction sector, as per data collected by the Council Industry Council (CIC), reveals an evident underrepresentation of women, with only 19% of an analyzed group of 5,283 workers being female. The study also highlighted the absence of women in roles related to mechanical labor and engineering. Predominantly, women are allocated roles in administrative

areas such as marketing, human resources, secretarial tasks, clerical work, and housekeeping. An estimated 10% of women in the sector are identified as quantity surveyors.

Around 26% of the construction industry actively promotes the employment of women, often in roles that are less physically demanding or are tailored roles like consulting and administrative duties. A promising revelation is that about 16% of the industry does employ women in all sorts of trades, equipping them with the necessary tools and resources to perform their tasks, particularly in areas like painting, carpentry, plumbing, and health and safety.

Another 26% of the industry shows support for women through anti-discrimination campaigns and promotions including women's day celebrations, implementation of company regulations, codes of conduct, and policies that shield women from sexual harassment and inappropriate or offensive language. Additionally, about 15% of the construction industry ensures open communication among all team members, primarily through regular meetings and briefings to curb unfair practices and ensure equitable treatment of women.

Some construction companies also highlight the importance of providing equal opportunities for demonstrating trade knowledge during the job application process, thereby including women in job advertisements. There are also chances for women to handle smaller tasks and show their skills and knowledge of the trade during apprenticeship and probationary phases. Once the probation period is completed and they are integrated into the existing teams, women are given opportunities to lead projects as head technicians and take complete responsibility for project outcomes.

However, it's important to note that smaller construction companies, classified by factors such as the number of employees, size of premises, turnover, and grading, are often not seen encouraging women in the construction industry, either in terms of employment or implementing initiatives or policies that facilitate their involvement. Their facilities are often structured in a way that favors the employment of men.

5.6. GENDER INSTITUTIONAL FRAMEWORK

5.6.1. The Gender Coordination Unit

The Gender Coordination Unit is tasked with mainstreaming gender and family issues into national development, including legislation, policies, programs, and projects. The unit monitors and evaluates gender and development activities, providing capacity building on gender mainstreaming. Key focus areas include gender-based violence, health, education, politics, legal rights, economic empowerment, and environment.

5.6.2. Swatini Action Group Against Abuse

SWAGAA, an independent non-governmental organization, has been ceaselessly active for an approximate span of three decades, aiming to obliterate gender-based violence (GBV), child sexual exploitation, and human trafficking within the confines of eSwatini.

SWAGAA The institution is the primary body orchestrating the national narrative on Gender-Based Violence (GBV), partnering with multi-sectoral stakeholders to impart technical expertise on best practices for GBV prevention and response. SWAGAA has adopted a holistic approach to address GBV and sexual exploitation, focusing on three main areas: Prevention, Care and Support, and Access to Justice. As a result, SWAGAA has been commissioned by EWSC to manage all GBV-related cases associated with the project. All GBV cases will be directed to SWAGAA, with regular and active updates on progress relayed to the Contractor and MoPWT.

SWAGAA collaborates with a variety of stakeholders to manage and address GBV within the country, including hospitals, police stations, psychologists, and social workers. Furthermore, SWAGAA works in conjunction with all relevant stakeholders to provide comprehensive GBV services, such as health facilities, and the DPM office.

5.7. INTERNATIONAL AND REGIONAL COMMITMENTS

Eswatini is highly sensitive and appreciative that gender equality is a key accelerator for achieving the 2030 development agenda and sustainable development goals (SDGs). SDG 5 is a goal dedicated to achieving gender equality and empowerment. In recognition of this goal, Eswatini committed to international instruments like Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Southern African Development Community (SADC) declaration on Gender and Development to promote gender equality.

5.8. OBJECTIVES OF THE GENDER IMPACT ASSESSMENT

Specific objective of this GIA include:

- Assessment of resettlement gender risks which will guide measure for minimizing resettlement effects on PAPs especially women who tend to get vulnerable with displacement given their roles of providing for home subsistence, having less decision-making power and where their concerns are rarely attended to.
- Carry out gender analysis in gender division of labor and household responsibilities, challenges in women empowerment, women's skills to participate in skilled labor/construction and identify women's needs to encourage inclusive participation in the area's development and advance gender mainstreaming agenda of the AfDB.
- Identify scope for gender mainstreaming and prepare a GAP based on these findings.
- Propose capacity building measures for the executing and implementing agencies for developing gender inclusive projects in the area.
- Analyze the social context with special attention to differences between relevant social groups and their particular needs, concerns, and vulnerabilities as well as relevant differences between men and women.
- Assess the likely gender risks associated with the project implementation.
- Assess the level of participation and involvement of women and men in the labor market, community decision-making and use and control over natural resources.
- Formulate appropriate mitigation measures on PAP and project area communities especially to women who tend to get vulnerable with displacement given their roles of providing for the household subsistence, having less decision-making power and where their concerns are rarely attended to.

5.9. GENDER ISSUES ON THE MR21

Data collection on gender issues along the corridor was embedded in the household questionnaire. Qualitative data was also extracted in the public participation meetings. The following are the issues raised.

5.9.1. Cultural norms

In Eswatini is the traditional expectation that men, having paid dowry, assume a high degree of ownership over their wives is a cultural norm. This practice is dominant in the rural areas where the MR21 traverses. This can lead to women being treated as minors and can hinder their access to healthcare services. It's also been observed that this norm can contribute to the spread of HIV, as women are often disempowered and subjected to violations that prevent them from accessing healthcare services. Some women reported that their husbands strongly influence them to choose the type of treatment they should take. Some women said they prefer modern medicine, but their husbands prefer traditional healers.

5.9.2. Common reasons for travelling.

During the data collection, respondents indicated that their main purposes for travelling using the MR21 and within the community include:

- i. Going to the nearest town to get household supplies such as groceries. Most often going to the nearest town requires careful planning as the buses are unreliable. One might get on the bus to town and end up sleeping on the road due to breakdowns or unannounced bus scheduling changes.
- ii. To seek medical assistance. The women reported to use the available transport to get to the nearest clinics. Sometimes they have to take their elderly and sickly relatives to the referral hospitals mainly at Hlathikhulu.
- iii. The women submitted that the burden of ensuring that their kids are immunized and get medical attention when sick is mainly on them. Therefore, they have to travel for immunizations and other ailments. They suggested that the Ministry of Health employ the use of mobile clinics on specified schedules to move within the communities to assist with immunizations and cut out the travelling risks for the women. The women were hopeful that such ideas will take flight after the completion of the road as it will be easy for their specialized vehicles to use it and road degradation due to the weather will not hinder service provision.

There was a noted differentiation in the complexity of travelling reasons between women and men in the area. Women travel mostly to fulfil the everyday needs of the households while men go to town to buy building material and farming supplies. Men making the more expensive purchases further from home reflects the social construct of what is masculine and what is feminine. This determines who controls the financial resources, means of production, and has implications on the economic productivity of women.

Employment and entrepreneurial opportunities

Comments from women regarding opportunities that will come with the construction phase of the project were predominantly about ensuring that they are given the opportunity to be part of the laborers. Worth noting is that women were specific in the type of jobs they would like to engage in. They requested relatively light work such as traffic controllers. None requested to be drivers or machine operators. They were also specific to request for areas where they would sell to the construction workers. Upon probing, the women submitted that they cannot engage in heavy work as they would be too tired to do other chores at home after work.

The men raised submissions regarding employment prioritization of locals for work on the project. They also requested that locals should be given priority for entrepreneurial opportunities since there are tractors and some have trucks that could be useful on the project.

Both men and women implored that they have heard of problems in other areas where there is an unfair distribution of employment opportunities among the impacted communities. They submitted that they want fairness in the employment opportunities.

5.10. GENDER RISKS

The construction industry is generally a male dominated industry. There is a paucity of women in technical and managerial roles across all levels, from civil engineers, architects, maintenance, and supervisory staff. Construction can be a high-risk environment for gender-based violence and harassment. This can affect community members, workers, service users and discourage women from seeking employment in the construction industry. Risks can intensify when there is an influx of male construction workers from outside the community. Risks to local women such as sexual harassment, violence, and exploitative transactional relationships which are traditionally aggravated by male-working environments is anticipated to increase.

Respondents mentioned the need for wage employment opportunities for the youth to provide some stability in income inflows for households. The risks to minimizing the gender gaps during the construction include:

- i. Low employment uptake by women despite special provisions made for them as they already have significant domestic responsibilities.
- ii. The temporal nature of the construction jobs would make them hesitate to leave other income generating activities.
- iii. Aversion by women from construction jobs due to their household responsibilities which they have to do after work and would be too tired to do if they engaged in construction work.
- iv. Lower wages than men due to fewer scheduling hours allocated to women because of the domestic and construction work balance.

To mitigate the challenges and risks that could arise in ensuring a narrow gender gap in employment during the construction phase, women could be accommodated indirectly through dedicated spaces for catering to laborers as a few women submitted that they recognized such an opportunity already.

5.11. IMPACTS ON GENDER EQUITY

The road project is anticipated to have varied impacts on gender and vulnerable groups. These include gender specific economic opportunity discrimination, gender differences in risk perception, higher risks for road users such as limited mobility people, increased incidence of gender-based violence as well as gender equality in employment. The impacts are anticipated to be negative and positive. Possible mitigation and enhancement measures include the following.

- Targeted recruitment efforts.
- Training programs for women on construction activities traditionally reserved for men.
- Creating a supportive work environment that encourages gender balance.
- Set gender diversity targets.

- No gender-based wage discrimination.

5.12. SEXUAL HARASSMENT

The influx of migrant and dominantly male workers will increase the risks of sexual harassment by workers on minors. Construction workers are predominantly younger males who will have enough disposable income to lure easily impressionable young girls. Even though there is a strong recommendation regarding the hiring of local community members, it is probable that the local supply of workers may not meet their demand. Therefore, an influx of workers from neighboring communities may be inevitable. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors from the local community. The influx of male labor may also lead to an increase in exploitative sexual relationships and human trafficking whereby women and girls are forced into sex work.

The contractor and Swatini Action Group Against Abuse (SWAGAA) and the construction company must have a sexual harassment policy in place and how to deal with gender-based violence cases which is also dealt with in the code of conduct and human resources handbook or policy. Complaints related to Sexual Exploitation/Abuse/Harassment (SEAH), inclusive of GBV, will not be inscribed in the publicly accessible register maintained by the project's Grievance Redress Mechanism (GRM). This also includes issues associated with HIV/AIDS. The GBV strategic blueprint will be put into action by the Swaziland Action Group Against Abuse (SWAGAA) and will be monitored by MoPWT.

5.13. SEAH GRIEVANCE PROCEDURE

The process is highlighted below:

- i. The Contractor will maintain a GBV register to document all GBV-related incidents. This register will include details such as case identifiers, the individual who initially received the case, the person who referred it, and the recipient from SWAGAA. Additionally, a status column will be included to indicate whether cases are pending or resolved.
- ii. In the event of a GBV case received through any GRM channel, the case will be directed to SWAGAA. SWAGAA has a presence in Hlatsi and Manzini, which are nearest to the project area, and the case will be referred using SWAGAA's national referral instrument.
- iii. Upon receiving cases, SWAGAA shall contact the victim within 5 days of cases being submitted and they do physical contact hence the need for 5 days (especially for sexual assaults cases).
- iv. Following this, the Contractor will await feedback from SWAGAA regarding the progression of the case. It's important to note that in some instances, full case details may not be provided due to high confidentiality requirements. The feedback will indicate whether the case is pending or has been resolved.
- v. The GBV register will serve as a valuable tool for tracking all cases. The only components of GBV cases reported to the Bank will be the case identifiers and their respective statuses.

The process and framework steps are summarized in the Table 5-1 below.

Table 5-1: SEA/SH Framework/Guideline

STEPS	RESPONSIBLE ORGANIZATION	ACTION	FEEDBACK/FOLLOW UP	TIMELINES
Receiving GBV Complaint	CLO Contractors	Logging case in logbook	Acknowledge receipt of complaint and advice that case will be referred to SWAGAA.	Within 48hrs
Make Referral	Contractor	Use national referral form and submit with SWAGAA	Record in Logbook that case has been referred so easy follow up/tracking.	Within 48hrs
Receive referral	REPS SWAGAA	Contact the person/victim reporting a case and submit to Contractor Form 2 which is the Receipt of referral form for the Client requiring care and protection	Acknowledge receipt from EWSC through signing in logbook. The victim was given a Feed-back Slip.	5 days
Case handling	REPS SWAGAA	Fact-finding, counselling, and protection, if need be, court proceedings, if need be, till the case is resolved	The victim shall be communicated throughout and at every step. The Contractor and MoPWT shall be feedback only on the status of the case (for confidentiality issues).	Dependent on the type of case (e.g. sexual vs emotional or financial abuse)
Solved Case	Contractor REPS SWAGAA	SWAGAA to feedback victim on the resolved case including the resolutions taken and assessment of if such solutions are satisfactory and do not impose any future danger to the victim.	SWAGAA to notify Contractor on case resolved and EWSC to update logbook accordingly.	Within 24hrs
Record keeping of case	Contractor REPS SWAGAA	Log all cases received, update status on cases as they are being resolved.	Contractor and SWAGAA social team to discuss Logbooks and consolidate accordingly.	Monthly

5.14. SEAH REPORTING

The reporting outlet for SEAH is varied to allow for anonymous reporting. The following will be used to report all SEAH/GBV cases within the project:

- i. Physical reporting (walk-in) – Aggrieved persons/victims may physically report to Resident Engineer, to CLO at the community level, or physically visit SWAGAA offices in Hlatsi which operate Tuesdays and Thursdays with a designated caseworker. SWAGAA’s main offices are in the Manzini Region and can be accessed on all weekdays.
- ii. Toll-free line – SWAGAA has a toll-free line for reporting any form of abuse or assaults anonymously as no number shows on their side until the victim is willing and free to share their number for further fact-finding or protection of needed on the case reported. The number is 951 which is a 24hr helpline.
- iii. Toll-free SMS - SWAGAA has a toll-free SMS line for reporting any form of abuse or assaults anonymously as no number shows on their side until the victim is willing and free to share their number for further fact-finding or protection of needed on the case reported. Victims may SMS “SWAGAA” to the number 8500 which is also a 24hr helpline. With the SMS, it works as an active conversation between the case worker and the aggrieved anonymously until the victim is willing to share real names and details. This means that such conversations can be ongoing without people revealing their names until a time such a court case is needed (where applicable).

- iv. National Reporting tool – SWAGAA has a national tool used to report/capture all GBV cases in Eswatini. EWSC shall use this form to report/refer to all GBV/SEA/SH cases received by the project.
- v. It is worth noting that in the steps discussed above, some cases will not necessarily follow step for step. For instance, some victims may choose to directly call the free line (951) for anonymity purposes or go directly to the REPS to which the Contractor may not be aware of the case at first instance.

5.15. GENDER ACTION PLAN

This section presents a GAP proposal to minimize negative impact on existing gender disparities and enhance positive impacts by attempting to narrow the gender gap. The implementation and monitoring of the project's GAP shall include:

- i. Undertaking gender and social analysis.
- ii. Ensure the implementation of gender features in all relevant project outputs.
- iii. Monitoring and reporting on GAP implementation progress.
- iv. Ensure that the expected social, economic and gender benefits of the project and its impacts on primary beneficiaries are clearly documented.

The GAP will be implemented by the Contractor who will ensure that gender issues are incorporated into its human resource strategies. The Contractor will ensure that the GAP is incorporated into the project planning and implementation including awareness training and establishment of sex disaggregated indicators for monitoring and evaluation of project performance. The progress of the GAP activities shall be included in regular progress reporting. The plan outlines the outcomes of the GAP as presented in Table 5-2 below. The outcomes are grouped into 4 categories:

Output 1: Increased economic participation of women.

Output 2: Awareness campaigns for workers and community activities promoting access to services, treatments, and counselling.

Output 3: WASH assistance

Output 4: Financial inclusion

Output 5: Gender equity, safe working, and social environment

Table 5-2: Gender Action Plan

	ACTIVITY	INDICATOR	RESPONSIBILITY
OUTPUT 1: Increased economic participation of women			
1.1	Employ local women for road maintenance and ensure equal wages for work done by both men and female skilled and unskilled labour in road works.	<ul style="list-style-type: none"> At least 50% of local maintenance workers are local women. Advertise new project related jobs with statement encouraging women to apply. 	Contractor Subcontractors
1.2	Train local women for routine road maintenance.	<ul style="list-style-type: none"> 100% women employed for maintenance are trained. Advertise new project related jobs with statement encouraging women to apply. 	Contractor Subcontractors
1.3	Ensure women's participation in road safety awareness campaigns targeting local communities	<ul style="list-style-type: none"> At least 40% female participation in at least 1 awareness session per year. Advertise new project related jobs with statement encouraging women to apply. 	Contractor Subcontractors
OUTPUT 2: Awareness campaigns for workers and communities and activities promoting access to services, treatments, and counselling.			
2.1	Provide awareness training on STIs, HIV, Gender Based Violence and human trafficking for civil works employees and local communities	<ul style="list-style-type: none"> At least 1 gender segregated awareness session per annum by contractors. 	Contractor MoH
2.2	Provide awareness training for sexual harassment in the workplace and outside.	<ul style="list-style-type: none"> At least 1 gender segregated awareness sessions per annum per district by contractors. 	Contractor MoH
2.3	Collect sex-disaggregated data and conduct gender analysis during monitoring and evaluation phase of project to ascertain location specific data that will enable effective gender targeting initiatives.	<ul style="list-style-type: none"> At least 1 gender targeted campaign per year by contractors. This could be synchronized with internationally celebrated days such as International Women's Day. 	Contractor
2.4	Awareness-raising at Regional Level of SEAH/GBV complaint/grievance process including training of Contractors and project area citizens.	<ul style="list-style-type: none"> At least 1 related training per year for workers and community. 	Contractor SWAGAA REPS
2.5	Training on GBV for the workers.		
2.6	Conducting Community GBV/SEA/SH Dialogues		
OUTPUT 3: WASH assistance			
3.1	Aid with water storage and collection to benefit households. Collect sex disaggregated of beneficiaries to ensure that women headed households are given priority in service extension.	<ul style="list-style-type: none"> At least a 20% decrease in time spent fetching water by women and children by locality/district per annum. At least 30% of female, child headed ad vulnerable households receive WASH assistance. 	MoH Department of Water Affairs (DWA) NGOs
OUTPUT 4: Financial inclusion			

	ACTIVITY	INDICATOR	RESPONSIBILITY
4.1	Aid in pulling financial services and products and financial literacy suitable for the needs of the people living around the project area.	<ul style="list-style-type: none"> At least 1 financial literacy initiatives for both men and women per year. These could include how to manage income, budgeting, understanding costs of production as well as promoting the benefits of utilizing available banking facilities or developing group savings. 	Center for Financial Inclusion (CFI) NGOs (Junior Achievement)
4.2	Ensure women's wages are paid directly to them and support the establishment of bank accounts	<ul style="list-style-type: none"> 100% of women employed receive their wages through formal financial services. 	Contractor
OUTPUT 5: Gender equity, safe working, and social environment			
4.1	Ensure that there is a sexual harassment policy in place.	<ul style="list-style-type: none"> Signed code of conduct by 100% of workers inclusive of management. Training on GBV Sexual exploitation, abuse, and harassment action plan in place 	Contractor SWAAGA
4.2	Ensure there is a gender-based violence policy in place		

6. HEALTH IMPACT ASSESSMENT

6.1. INTRODUCTION

Health impact assessments (HIAs) are essential for assessing both the direct and unintended indirect health impacts of road transport policies and interventions. By systematically reviewing the best available evidence and considering a broad range of health determinants, HIAs provide a structured approach to ensure that health considerations are integrated into transportation planning and policy decisions. This HIA aims to help inform decision makers about the potential health impacts to communities, specifically those impacting schools, school aged children, and their families that live, work, and attend nearby schools. Based on findings, the HIA proposes recommendations to mitigate any potential adverse health outcomes identified and enhance positive outcomes based on the design of the MR21.

6.2. HEALTH IMPACT ASSESSMENT OBJECTIVES

The objectives of the rapid HIA are to:

- Characterize health conditions and issues for people living in the project area.
- Assess and prioritize health risks and opportunities for workers and community members.
- Identify culturally and contextually appropriate health mitigation and enhancement measures the project should implement.

6.3. HIA METHODOLOGY

The core HIA elements were outlined in the terms of reference. Therefore, the following were considered in conducting the HIA for the MR21.

- Baseline health/HIV status in the project area
- HIV and AIDS prevalence and other communicable diseases in the project area
- HIV and AIDS/communicable diseases prevalence by age and gender
- Causes of mortality and statistics for the project area
- Incidences of diseases associated with HIV and AIDS (e.g. TB, STIs)
- Life expectancy in the project area
- Current government and NGO HIV and AIDS programs in the project area.
- Health care facilities, especially the presence of those which undertake VCT and provide ART, PMTCT, STI management, etc.
- Number of people who underwent VCT in the past year.
- The presence of peer educators in the area.
- The presence of networks of people living with HIV and community-based support groups in the area.
- Consider alternative options and recommendations for mitigation/management of priority impacts.
- Recommend measures to avoid/mitigate negative impacts and enhance project benefits which may result from the project at each project stage.
- Determine the health needs of the community based on health strategies, infrastructure, programs, service priorities, delivery plans and challenges.
- Seek to identify partners that may assist with any health support opportunities. These should include the local authorities, non-governmental agencies and even donor agencies.
- Develop a community health management plan based on the findings of the HIA.

- Recommend methods for monitoring and evaluating the potential impacts if this is possible from gathered data. Key indicators will be listed as part of the plan and a surveillance strategy.
- Develop a monitoring information system/database.
- Integrate the health management plan into the project Environmental and Social Impact Statement and ESMP.

HIA Guiding Approach

The HIA is a tool used to evaluate the potential negative and positive health impacts of proposed policies, programs, or projects during the decision-making process and integrate mitigation strategies that can minimize the potential adverse impacts and enhance the positive impacts. This systematic process typically involves six steps and uses a variety of data sources, including input from stakeholders and community members.

The rapid HIA approach was benchmarked by the AfDB’s guidance notes on health in environmental and social impact assessment of development projects. The objective of the Guidance Note is to ensure that health issues are integrated into the ESIA and ESMPs prepared for AfDB-financed projects as well as for auditing project compliance. Additionally, this is to ensure that projects are designed strategically to incorporate and manage health risks, impacts and opportunities from pre-construction to operation. The rapid HIA was undertaken between 24 February and 14 March 2024 through a process as summarized in Figure 6-1.



Figure 6-1: Rapid HIA process

Scoping

This stage aimed to identify key health issues requiring consideration and associated health data gaps which included desk-based research. A desktop review of literature, government and NGO literature associated with PAC’s health status and its determinants in the project affected communities was conducted.

Data collection.

This stage aimed to validate the findings from the scoping phase and to fill identified data gaps. This involved visits to project component locations and key informant interviews to collect additional baseline data related to health and the determinants of health. Interment field visits were conducted including key informant interviews with PAC facilities were held.

Risk assessment.

Given the strategic and rapid nature of the HIA, the risk assessment focuses on identifying and prioritizing issues requiring attention. The risk assessment was accomplished by collaboratively triangulating contextual information and data related to the core HIA issues gathered during the scoping phase and field visits. The method of assessment underpinning this stage followed two broad steps:

The definition of the risk of impacts through an impact pathway linking the project components or activities to one or more health outcomes.

Characterization of the health risk or impact to inform their prioritization.

This method of assessment is underpinned by the scientific literature on the health impact pathways of interest, baseline health conditions and health priorities in the project area, regulatory standards (where relevant) and the policy context. Prioritization was informed by professional judgement on the magnitude of the effect, the vulnerability/sensitivity of affected populations and other contextual factors such as whether the impact could make a potentially important contribution to a recognized health priority, whether the impact is a strong or consistent issue highlighted by local health stakeholders, or whether the impact could affect known national, regional, or local policy goals, aims or expectations.

Development of mitigation/management measures

The objective of this phase is to develop risk management strategies that could negatively impact the project objectives and the PACs. The measures are designed to reduce the probability of the risks occurring and minimize their impact.

6.4. LIMITATIONS OF THE STUDY

The approach of the study included face to face stakeholder participation. The Consultant approached all the health facilities through making appointments. The biggest hindrance to respondents was balancing time between their patients and the Consultant's request for a few minutes to respond to the questionnaire. For some health facilities, the questionnaire was left with a promise to follow up and response via electronic means. In one health facility, the respondent was manning the clinic alone and by the time the data collection was completed, she was still unable to respond. To bridge the gaps, the Consultant used secondary data where available. Some of the statistics required to fulfil the requirements of the HIA terms of reference are only available at the national and regional level. These include life expectancy and mortality rate.

6.5. HEALTH SYSTEM IN THE PROJECT AREA

The health system along the project corridor is made up of health centers and clinics. A health center offers a wide range of services which include laboratory services, x-ray, surgical gynecology, mental health services, voluntary counselling, and testing (VCT), prevention of mother to child transmission (PMTCT), obstetric (maternity) services, in-patient and out-patient services, pediatric services, pharmacy services, ART. On the other hand, a clinic in Eswatini is a smaller health care center where routine preventative care is provided, or where patients visit their primary care provider when they are sick. Clinics do not typically have inpatient facilities, meaning patients do not stay overnight. They are places for routine medical appointments and visits when a patient feels unwell. Some clinics may also offer more specialized services, focusing on areas like mental health, sexual health, or addiction services. An overview of the types of services offered by the health facilities along the project corridor is presented in Table 6-1.

All health facilities in Eswatini are equipped with a data management system called the Client Management Information System (CMIS). CMIS is part of a larger scale Electronic Health Records (EHR) system which is currently on roll-out. CMIS plays a crucial role in health system strengthening by improving the management and accessibility of patient data as well as supporting Eswatini's efforts in improving health outcomes and the efficiency of health service delivery.

Table 6-1: Health care facilities and services along the project corridor

	Nhlangunjani JCI	A1 JCI	Matsanjeni
Facility type	Clinic	Clinic	Health Center
TB	✓	✓	✓
ART, STI	✓	✓	✓
VCT	✓	✓	✓
OPD	✓	✓	✓
IPD	x	x	✓
X-ray	x	x	✓
PMTCT	✓	✓	✓
Electronic Database system availability CMIS			
	✓	✓	✓

Capacity of health care facilities

Health centers in Eswatini have a maximum bed capacity of 40 patients, meaning they can accommodate patients for overnight stays. They serve as important nodes in the health care network, especially in rural areas. The health centers have a bigger skill and staff capacity when compared to the clinics. The health centers are the second level in the health care system before referral hospitals. Eswatini has a health facility staffing and capacity challenge. Nurses have engaged in demonstrations over poor working conditions and drug stock outs which impair quality health delivery. The health center sees approximately 700 patients per month with varying ailments. The clinics on the other hand see approximately 120 patients on average per month. Capacity for the health facilities is as shown in Table 6-2 below.

Table 6-2: health facilities capacity

Beds		Nhlangunjani	Matsanjeni
<i>Men</i>		0	12
<i>Women</i>		0	12
<i>Maternity</i>		0	9
<i>Pediatric</i>		0	6
Doctors			
<i>Male</i>		0	2
<i>Female</i>		0	1
Nurses			
<i>Male</i>		1	11
<i>Female</i>		2	30
Pharmacists			
<i>Male</i>		0	2
<i>Female</i>		1	0
Lab Techs			
<i>Male</i>		0	2
<i>Female</i>		0	1
Orderlies			
<i>Male</i>		0	1

	Nhlangunjani	Matsanjeni
Beds		
<i>Female</i>	1	3

6.6. COMMUNITY HEALTH PROFILE

6.6.1. Non-communicable diseases

Non-communicable diseases include a wide range of conditions that are typically associated with lifestyle choices. These conditions include diabetes mellitus, hypertension, cardiovascular diseases, malignancies, and Chronic Obstructive Pulmonary diseases. All these diseases have common risk factors such as diet, physical activity, harmful alcohol consumption, and tobacco use. These diseases fall under the purview of the Non-Communicable Disease Program in Eswatini's Ministry of Health. Apart from these, the program also addresses other non-communicable diseases like epilepsy, injuries, mental health issues, and conditions affecting eye and ear health, among others. Eswatini has a high burden on NCD compared to diseases such as malaria. NCDs caused approximately 46% of deaths in 2019 (WHO, 2023).

The facilities in the study area were asked which communicable diseases were treated in the last 30 days in their facilities. The most common NCD in the study area is hypertension and diabetes. Matsanjeni Health Center reported the highest cases seen in the past 30 days of 200 cases. The Nhlangunjani and A1 Clinics reported fewer cases of approximately 8 cases for both facilities.

6.6.2. Vector-borne diseases.

There is an existence of Malaria in the PACs. Discussions with medical staff in the health facilities revealed that there are some cases of malaria treated. Matsanjeni health facility submitted that they treat some imported cases from South Africa and Mozambique. These are usually imported by the truck drivers who come through the area. In the past 30 days, Matsanjeni Health Center reported to have treated 5 malaria cases. All of them foreigners. Respondents as inward as Madubeni also submitted that the malaria mosquito is common in the area. The NMCP periodically conducts IRS to manage the mosquito. Eswatini has not had a reported malaria death but has an incidence of 1 in 1000 persons (WHO, 2023). There were no cases of malaria reported by the Nhlangunjani and A1 clinics.

6.6.3. HIV, AIDS, and ART

HIV, AIDS

Annual incidence of HIV among adults in Eswatini is approximated at 4,000 new cases per year and more prevalent among women (1.11%) than men (0.17%). HIV among adults is approximately 24.8%, which corresponds to approximately 185,000 adults living with HIV. Prevalence of HIV estimated to be higher among women (30.4%) than among men (18.7%).

HIV prevalence by age and sex

The prevalence of HIV varies across different age groups and genders. For instance, it ranges from 5.6% in adolescent girls aged 15-19 years, peaking at 57.2% in women aged 40-44 years. In contrast, it ranges from 3.0% in adolescent boys aged 15-19 years, peaking at 50.0% in men aged 45-49 years. The prevalence of HIV is consistently higher in women compared to men until the age group of 45-49 years. For example, in the age group of 25-29 years, the prevalence of HIV in women is over five times higher than in men.

As women age, the prevalence of HIV increases significantly until they reach their 40s. More than half of the women aged between 35-49 years are living with HIV. The prevalence of HIV in women aged 20-24 years is three times higher than in those aged 15-19 years. For men, the prevalence of HIV is significantly higher in their early 30s compared to younger men.

Anti-retroviral treatment

Respondents in health facilities along the project corridor submitted that they have a high number of anti-retroviral refills on a monthly basis. Matsanjeni Health Center submitted to have servicing 900 refills in the past 30 days at the time of the study. The clinics on the other hand reported having serviced approximately an average of 12 patients in the past 30 days from the date of the survey. In this period, these were refills rather than new contacts.

Eswatini has made a major breakthrough with the goal of ending AIDS as a public health threat by 2030. Eswatini is the first African country to achieve and surpass the 95-95-95 global HIV treatment targets in 2020. Eswatini has as 94% of adults (15 years and older) living with HIV aware of their status, 97% of those who are aware of their status are on antiretroviral therapy (ART), and 96% of those on ART have achieved viral suppression. The number of new HIV infections shows a steady decline over the years from 14,000 in 2010, to 4,800 in 2020 and is projected to further decline to 4,300 in 2023. HIV-related deaths have also been on the decline from a peak of about 10,000 deaths in 2005 to 2,600 in 2021 and 2,370 in 2022 (2021 UNAIDS report). The Mother-to-child transmission of HIV has also dropped from 6.3% in 2017 to 1.2% in 2022.

6.6.4. Upper Respiratory Tract Infections

Upper Respiratory Tract Infections (URTI) are common. Tuberculosis (TB) continues to be a major cause of morbidity and mortality. Consequently, Eswatini is listed among the 41 High TB/HIV burden countries (WHO,2023). Estimates of TB prevalence stand at 907/100,000 population. The TB/HIV infection rate and an incidence of TB among People Living with HIV of 73% and 464 per 100 000 people annually. Estimates for reported data in 2021 show that 199,947 people were receiving antiretroviral treatment. Since 2015, there was a steady decline in the mortality rate related to HIV and TB. Along the project corridor, at least 27 new TB diagnosis were made in the last 30 days up to the study which was submitted by the Matsanjeni Health Facility. These figures could be increased due to the anticipated influx of migrant workers into the community.

6.7. HEALTH INSTITUTIONAL ARRANGEMENTS

The government of Eswatini (GoE) has partnered with NGOs to leverage the strengths of both public and private sectors to improve public health infrastructure, service delivery and overall health outcomes. The NGOs are crucial in addressing urgent needs for services and infrastructure that government alone may struggle to meet due to financial or technical constraints. The GoE has various public private partnerships running in the health sector to achieve optimal outcomes.

The GoE also encourages and supports peer led initiative to curb the spread of HIV and AIDS in children. To counter this reality, UNAIDS and PEPFAR have co-published the Compendium of Promising Practices on the Role of African Faith Community Interventions to End Pediatric and Adolescent HIV. The Compendium documents 41 promising practices that provide evidence of the core roles that faith communities have played in identifying undiagnosed children living with HIV, improving continuity of treatment, supporting adolescents to access psychosocial support, care, and treatment, and enabling peer support groups to

empower children and adolescents living with HIV. It also documents how faith leaders have driven advocacy to tackle stigma and discrimination and pushed governments for targets to be achieved. The prominent programs are aligned with Government's priorities in the health sector which are largely funded by global partners as summarized in the following table.

Table 6-3: Public Private Partnerships in health.

Program	Private Partner/NGO	Program description
TUBERCULOSIS		
Sustainability Strategy Development	Aceso Global	+ To create a Sustainability Strategy for HIV, TB, and Malaria, with a multi-sectoral committee led by the Prime Minister's Office involving government, private sector, and civil society. This program aims to help the country begin planning early for eventual donor withdrawal.
National TB/HIV Coordinating Committee	PEPFAR	+ This program involves implementing and measuring performance of high impact TB/HIV collaborative activities, as recommended by the WHO, and supported by epidemiologic, clinical trial, and programmatic evidence. Specifically, activities included in this solution derive from successful examples of TB/HIV integration in Eswatini
Eswatini National AIDS Programs and National TB Control Program	Centers for Disease Control and Prevention (CDC)	+ To improve the coverage and quality of HIV and TB treatment services throughout the country by improving provider and client-initiated HIV testing and counseling services, prevention of mother to child transmission of HIV, pediatric and adult antiretroviral treatment programs. CDC also assists the Ministry of Health in linking people testing positive for HIV to appropriate services and retention in treatment.
National Emergency Response to TB	CDC and PEPFAR	+ Focuses on creating robust awareness about TB, building capacity and training personnel within the healthcare system, implementing innovative diagnostics, and increasing treatment sites throughout the country, as well as enhancing approaches to find, prevent and treat TB.
STOP TB Partnership		+ Intends to engage active participation of NGOs, CBS FBOs, Development partners and government in reversing the current progression of TB in Swaziland.
Vikela Ekhaya Project	Baylor Foundation Eswatini	+ A community-based TB contact management project to enhance diagnostics and linkages to healthcare services
HIV/AIDS		
Private Partner/NGO	Program description	
USAID	<ul style="list-style-type: none"> + Distribute condoms and providing HIV counseling and testing in Eswatini. + Encourages safe circumcisions performed by health professionals to reduce HIV transmission. + Referral to care + Supports the expansion of health, education, and psychosocial support services. 	
Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)	<ul style="list-style-type: none"> + Ensures access to HIV testing, high quality counseling and psychological support within a variety of easily accessible to improve local infrastructure and health systems through trainings, mentorship, and procurement of essential HIV drugs and commodities. + Work to increase community engagement in PMTCT, early infant HIV diagnosis and male circumcision. 	
Center for Global Health Practice and Impact	<ul style="list-style-type: none"> + Provide technical assistance and capacity building to community, facility, regional, and national health structures, and services to optimize effective, patient-centered, and high-quality HIV/TB services to foster sustained control of the HIV and TB epidemics and limit the impact of emerging public health threats like COVID-19 on HIV and TB programs. + Support expanding evidence-based community HIV and gender-based violence prevention and response interventions for vulnerable and at-risk populations in targeted geographic areas. + Support the Ministry of Health in strengthening integration of HPV and COVID-19 vaccination into routine service delivery under the Expanded Program on immunization, including micro-planning, service delivery efforts and community outreaches. 	

Program		Private Partner/NGO	Program description
			+ Provide intensive capacity building at national, regional, and facility levels to institutionalize Data Use and Continuous Quality Improvement to sustain program gains and promote local ownership of TB/HIV service delivery by the MoH.
PEPFAR			<ul style="list-style-type: none"> + Create a comprehensive, evidence-based national prevention program that promotes effective social, and behavior change through both the public sector and civil society. + Promote strong sexual prevention programs focused on partner reduction and gender issues through faith-based and community-based organizations, schools, youth centers, and traditional rural ruling structures. + Rapidly expand medical male circumcision to reach 15–24-year-old males. + Expand existing PMTCT services and improve their integration with other HIV related services to strengthen local capacity and ensure sustainability of high quality PMTCT services. + Rapidly decentralize and improve the quality of HIV and TB related care and treatment services as part of a comprehensive care package to ensure that greater numbers of PLWHA have timely and effective access to quality services. + Develop policies and national guidelines in support of a comprehensive pre-ART, ART, nutrition, and an end-of-life care package. + Build up existing community-based health care structures to further support the continuum of care concept and to increase the involvement of client families. + Strengthen human resource capacity at the national and district level in the areas of human resource management, policy reforms, recruitment, retention, and training. + Provide resources and technical assistance to strengthen the organizational and operational capacity of key national and district stakeholders, community and faith-based organizations working in HIV/AIDS, global fund recipients and PLWHA groups. + Strengthen national laboratory and pharmaceutical capacity and services and supply chain systems through technical assistance, training, and supervision. + Improve Strategic Information and Monitoring and Evaluation capacity including supporting the delivery of key information products.
Vector-borne diseases			
Disease	Program		Program description
Malaria	National Control (NMCP)	Malaria Program	<ul style="list-style-type: none"> + Vector control. + Cross border collaboration with Mozambique and South Africa for malaria control. + Reviews and assesses the progress of the national malaria program towards the epidemiological and entomological impact targets. This includes evaluating the level of financing of the program and the capacity of the national malaria program to implement planned activities. + Works on raising public awareness about malaria and educating the public on preventive measures. + The NMCP has been adapting to new challenges, such as the COVID-19 pandemic, by implementing measures to protect healthcare workers and the communities they serve while continuing malaria control and elimination activities.

6.8. HEALTH RISKS ON THE MR21

To identify key issues holding health relevance for workers and community members, the HIA scoping phase was completed through the review of available literature, observations from field visits and key informant interviews. Completion allowed for the systematic identification of key issues holding health risk. As the project itself will involve direct improvement to some key issues such as environmental quality, waste management strategies, improvements of roads, subsequent phases of the rapid HIA focused on issues not directly addressed by infrastructure improvement and issues highlighted in the ESIA. The analysis of health risks and impacts places workers as part of the community. As such, the risks identified during this rapid HIA are relevant for both workers and community members.

The ESIA identifies that during the pre-construction and construction periods, the social and living environment will be affected, such as traffic flows, access, land acquisition, noise and vibrations caused by construction, construction dust, earthwork excavation and etc. which will affect the residents' normal life, rest and learning environment. From the findings of the ESIA, through triangulation of additional data that informed the scoping phase along with the field mission identified the following health risks requiring management actions for this project:

Increased risk of communicable diseases transmission during construction and operation.

During the construction phase, there is a potential for an increased risk of transmission of vector-borne diseases, respiratory infections, and sexually transmitted infections (including HIV). These risks are associated with:

The project requires a migrant workforce during the construction phase. The in-migration of construction workers could import vector-borne diseases. The project is anticipated to attract workers from all over the country in the eventuality that the local pool cannot meet the demand. In Eswatini, the incidence per 1000 per population at risk increased to 1.65 in 2019 from 0.7 in 2012 (Dlamini et.al, 2019). At the back of inconsistencies in spraying, Malaria cases are still being reported albeit at low rates especially in the Lubombo region.

A pre-existing mobile population in the project area, primarily from urban areas such as Manzini and Nhlanguano or emerging economic zones like Siphofaneni and company towns such as Big-Bend. The Eswatini Population Census of 2017 reported that regions like Shiselweni and Lubombo have experienced out-migration between 2007 and 2017 of 25% and 19% respectively. According to the EPC (2017), 28.4% of migrants from the Shiselweni region and 32.2% from the Lubombo region migrate due to employment. Of these, 5.7% of the out-migrants are due to pursuit of employment in construction.

Poor environmental management of construction sites can create favorable conditions for the breeding of disease-transmitting vectors. Improper management of solid waste and construction materials and debris can favor pooling of water collections that serve as breeding sites for malarial causing mosquitos.

Unsafe sexual behaviors and workforce interactions can contribute to the spread of STI, including HIV. There are high levels of unemployment in the project area which may contribute to heightened risks of HIV and STI transmission among construction workers and local populations as transactional relationships could increase.

During operation, the increase in movement of people and trade along the route holds potential for importation of infectious diseases to the project areas. This can introduce or re-introduce vector-borne diseases to the area. The MR21 is serviced by the Matsanjeni Health Center and 2 clinics.

Increased pressure on and demand for local health services during construction.

Existing local health services currently struggle to meet the existing demand. The additional population would put additional stress on the health facilities and reduce the quality of care they are able to provide for the local population. The health center is more capacitated than the clinics in terms of human resources and equipment. The World Health Organization (WHO) advises that approximately 2.5 medical staff (including physicians, nurses and midwives) per 1000 people are needed to provide adequate coverage with primary care interventions. This is a guideline that serves as a benchmark for developing countries to aim for healthcare planning. In Eswatini, this ratio deteriorated from a below benchmark level of 0.2 medical staff to 1000 persons in 2018 to 0.1 medical staff per 1000 persons in 2021 (World Bank Databank).

Increased risk of non-communicable diseases during construction and operation.

During construction, a number of activities will generate dust, noise, and traffic. Dust-related health effects can include the exacerbation of respiratory conditions as well as decreased wellbeing. The MR21 is often laden with coal ferrying trucks from Maloma Colliery. With the possibility of reduced visibility due to dust from construction activities, the risks of traffic related injuries are elevated. The road is already quite laden with dust, particularly during the winter months. With added activity, the dust could pose health risks to sensitive individuals such as children and the sickly.

Increased risk of traffic-related injuries during construction and operation.

Increased traffic which includes heavy trucks can increase the risk of traffic related injury and mortality rates. The increase in construction traffic, especially of heavy goods vehicles, along the road local networks will affect road safety and the risk of road traffic accidents and injuries. . This risk is higher for pedestrians and near vulnerable receptors such as schools and other social services. The Eswatini National Road Safety Strategy 2023-2030 has adopted the 2030 road safety targets developed by the United Nations under the SDGs. The strategy seeks to achieve a 50% reduction in road deaths and traffic related serious injuries resulting by 2030 with a medium-term target of 30% reduction (2025).

Possible mitigants include:

- To ensure that no borrow pit is left as deep holes as they pose a danger to community livestock and children.
- In areas where homesteads and/or human and or livestock access tracks are within sites, the Contractor will ensure fencing of the perimeter of the borrow area to make the works area secure and safe. This must be the last resort after exploring low population density sites. The contractor will avoid high borrowing in high population density areas as feasibility and national laws allow.
- To ensure that access to borrow pits is controlled and only construction employees are allowed entry through the gate.
- To ensure warning signs alerting the public and the workers of the existence of a borrow pit on that area are erected to prevent unauthorized entry on site.

- To ensure that the road is fenced at all times to ensure stray animals do not access the road. To ensure the best traffic management at all times, for example traffic speeds are controlled at all times including regular traffic checks to ensure all road users adhere to traffic regulations, to avoid accidents.
- To ensure adequate pedestrian safety nets are enacted on busy intersections and barriers erected particularly for the schools.
- To ensure that adequate visible signage, warning road users of construction works is erected along the MR21 to minimize traffic disruptions and accidents.

Increased risk of noise related health impacts during construction

Construction-related traffic in the local areas is expected to increase. While vehicle drivers are expected to be qualified and their behaviors were observed to be generally safe, some instance of inconsiderate and unsafe road user behavior were observed particularly with the heavy truck drivers whose speed seemed unsuitable for the gravel road. While local project are accident rates are unknown given this project will increase traffic in the area, traffic related injuries and mortality remain a risk that needs to be addressed. Additionally, when the road is fully operational, heightened industrial traffic will be a normal part of business in the region and smaller trade-related traffic will also increase. Private traffic will also increase as the route will cut travelling time across the Lubombo and Shiselweni regions.

Noise from construction activities and construction traffic can cause sleep disturbance (at night), annoyance, cognitive impairment in children and stress-mediated cardiovascular conditions. The increase in construction traffic on local roads can also change the safety as well as community perceptions of safety of local roads and generate stress and anxiety in local road users and pedestrians. The road development is at close proximity to schools, clinics and churches which are sensitive receptors. The Government of Eswatini does not have noise level guidelines. The Contractor will consider the location and timing of loud construction works and exercise caution when it comes to volumes as well as duration of such.

Increased risk of health-related impacts associated with resettlement.

The road development is anticipated to impact on livelihood of some businesses at Maloma where a garage and grocery shops are in the right of way. The fuel station is not only a source of income for the owner, but is the only fuel station for buses, tractors and other fuel equipment between Siphambanweni (20 km). Therefore, in the period of resettlement, should owners choose not to build a new station, there would be possible implications on emergency preparedness by the community. For the grocery shop owner, a food security risk is run and would directly impact on their immediate family. Possible health implications from resettlement impacts include:

- stress-mediated mental well-being disorders such as anxiety and depression associated with loss of income due to resettlement and removal of informal market structures. Identified areas of direct impact were found at Maloma where a rented grocery shop supplying the immediate community with basic goods is in the ROW.
- a reduction in food security if some road design alignments infringe on fields at Ngwavuma and land is taken without adequate compensation or replacement.

Increased incidence of respiratory conditions.

The road construction activities can increase the incidence of respiratory conditions in nearby communities. This is primarily due to the production and dispersion of airborne toxins and particulates, such as dust and fumes, which are generated during construction activities. These pollutants can be inhaled by individuals living or working in proximity to the construction sites, leading to various respiratory health issues. Moreover, construction workers are at an increased risk of respiratory hazards and diseases compared to workers from other sectors. The exposure to dust, fumes, vapors, fibers, and gases can lead to respiratory health conditions such as cough, dyspnea, and asthma. Prolonged exposure to these hazards, coupled with lifestyle factors like smoking, can further increase the risk of contracting respiratory diseases. Eswatini's Occupational Safety and Health Act, 2001 provides a framework for the requirements for employers to ensure the health and safety of their employees. These requirements are aimed at minimizing the risks to employee health and safety as well as a by-benefit reduce production costs of operations. Enforcement of the OHS provisions promotes a preventative safety and health culture rather than a reactive one. The ILO in 2009 estimated that more than 1,500 people were killed by occupational accidents in Cambodia. These incidents included the sweeping up of building materials, presence of dust and exposures to hazardous material such as asbestos. Eswatini does not have such comparable statistics published.

Potential mitigants include:

- To efficiently speed up the construction program so as to minimize environmental dust on the roadside communities.
- To ensure that site clearance takes place in areas only earmarked for construction activities.
- To ensure that all exposed temporary roads are sprinkled with water by using water browsers especially during dry, windy days.
- To ensure that workers must be provided with nose masks at places where earthworks will be carried out.
- Mingling of construction workers could increase the spread of upper respiratory tract infections such as TB, common cold, throat infections, and COVID-19. Possible mitigants to minimize the spread of URTIs include:
 - To ensure infected workers are allowed the required recuperation time to prevent spread.
 - To implement respiratory protection programs such as the use of appropriate respiratory protective equipment such as masks or respirators to minimize cross infections.
 - To ensure that handwashing stations are available a strategic place which are easily accessible from the latrines and eating places to encourage good hand hygiene.
 - Ensure proper ventilation in the site offices.
 - There will be public consultations and training to improve worker and community members' knowledge, attitudes, and practices on the prevention of the spread of URTIs.
 - Gatherings are held in open fields.

Increased risk of delayed cognitive function development in children

While road construction activities are not directly linked to cognitive function development in children. Eswatini has a history of road projects implementation periods taking time to completion that is beyond the budgeted timelines. There are currently no studies under this subject in Eswatini, however, environmental

stressors such as construction projects that have extended implementation periods could introduce environmental stressors such as noise pollution, air quality degradation and social disruptions which may exacerbate existing vulnerabilities in children. The socio impact assessment found that at Maphilingo, there are primary school going children who were reported to have varying disabilities that should be considered in the road implementation and operation phase.

Possible mitigants include:

- Construction will be maximized during the school holidays to avoid noise and delayed cognitive development in school children.
- Implement traffic management measures to ensure children can safely navigate their surroundings.

Increased incidence of water borne diseases

Construction activities can potentially increase the incidence of waterborne diseases in rural communities through several mechanisms. Firstly, construction sites often generate pollution, which can contaminate local water sources. This contamination can occur through the improper disposal of waste or through runoff from the construction site, which can carry pollutants into local water bodies. Contaminated water can lead to the spread of waterborne diseases when it is used for drinking, cooking, or bathing. Secondly, construction activities can disrupt local water systems, potentially leading to a lack of access to safe water. In rural areas, where access to safe water and sanitation facilities is often already a concern, this can exacerbate the risk of waterborne diseases. The absence of these facilities can lead to poor health and disease outbreaks. Thirdly, construction activities can potentially disturb existing subsurface pollution. For instance, if a construction project involves digging or excavating, it could unearth pollutants that were previously contained in the soil. These pollutants could then contaminate local water sources, increasing the risk of waterborne diseases. Finally, construction activities can contribute to changes in the local environment that increase the risk of waterborne diseases. For example, the creation of stagnant water bodies during construction can provide breeding grounds for disease-carrying insects, such as mosquitoes. Eswatini is home to several types of this mosquitoes including the *Anophele funestus*, *Anophele arabiensis* and the invasive *Anopheles stephensi*. During the construction phase, the contractor shall actively manage and use the borrow pit so that there is sufficient movement of water.

Possible mitigants include:

- To ensure that toilets are not to be located nearer than 30m from a public stream whether perennial or seasonal as per the WHO standards.
- Provision of potable water at active construction sites.
- proper waste management and the use of barriers to prevent runoff.
- proper waste management and the use of barriers to prevent runoff.
- Ensure that mobile toilets are at least 30m away from water sources.
- Conducting regular campaigns addressed to all site staff and laborers as well as the immediate local communities concerning appropriate preventative behaviors with respect to Malaria.
- Increase access to malaria and other vector-borne/communicable disease prevention and control services in the project area.

- Strengthen preventative behaviors on vector-borne and communicable diseases in general through an understanding of Knowledge, Attitudes and Practices (KAP) on vector-borne and other communicable diseases in the project area.
- Indoor residual spraying (IRS) of site offices, workers' accommodation prior to the start of Malaria season and accordance to the IRS Policy of the NMP

Increased incidence of poor sanitation and hygiene induced conditions.

Basic drinking water, sanitation and hygiene services along the project corridor stand at 27.7% and 31.1% for the Shiselweni and Lubombo regions respectively (MICS, 2023¹). Construction activities in rural communities can potentially increase the incidence of poor sanitation and hygiene-induced conditions in several ways. Construction activities can lead to the contamination of local water sources, either through the improper disposal of waste or through runoff from the construction site. This can increase the risk of waterborne diseases, which are often associated with poor sanitation. Construction sites can attract large numbers of workers, often from different regions or communities, who may not have access to adequate sanitation facilities. This can lead to poor hygiene practices among the workers, which can contribute to the spread of diseases. The time taken to reach health facilities can increase significantly during construction which could exacerbate poor outcomes from these conditions.

Construction activities can lead to changes in the local environment that can exacerbate sanitation and hygiene issues. Possible mitigants include:

- To ensure that toilets are enough for the workers and that high sanitary standards are practiced at all times including provision of toilet paper and a standpipe for hand washing after business.
- To ensure that mobile toilets are provided for workers in all active construction sites.
- To discourage workers from relieving themselves or urinating in the open.
- There will be public consultations and training to improve worker and community members' knowledge, attitudes and practices on sanitation and hygiene.
- Ensure that mobile toilets are emptied as soon as they reach 85%-90% capacity.

Occupational safety risks

Workplace incidents

Road construction sites pose a variety of occupational safety risks. One of the most significant risks is the proximity of workers to vehicular traffic where workers are often forced to share space with vehicles and when traffic fails to slow down or remain in their lane, the risk of collision increases. This is further complicated by the fact that construction machinery often has limited maneuverability. Another major risk is the construction site itself which can result in injury from the different machines required to complete each task effectively and efficiently. The OSHA, 2001 of Eswatini provides clear guidance on the role of the employer in ensuring the safety and health of employees in the workplace. The total recordable incident

¹https://www.unicef.org/eswatini/media/1891/file/Eswatini_MICS_Report_2024.pdf

rate (TRIR)², a measure of OHS based on the number of workers present and the number of hours worked, should be between 0 and 3, with 0 being the most ideal target.

Possible mitigants include:

- To educate all workers about safety risks associated with the project.
- To provide safety equipment to workers, first aid kits, fire-fighting equipment, a pay telephone etc., in case any emergency arises at the site.
- To comply with the provision of the Factories Machinery and Works Act, 1972 in so far as it will apply to construction and engineering works.
- To ensure that it is compulsory for all workers to wear protective clothing at all times and declare all construction areas as hard hat areas.
- Following the award of the tender, take out insurance cover for all construction related accidents to include property and public compensation related to site accidents.
- Hiring or training of workers as emergency officers.
- Communication linkages with the nearest health facility and the Swaziland National Fire and Emergency Station to respond to such situations.
- Availing reliable telephone and transport 24 hours.
- Maintaining of all fire extinguishers, blankets, etc., on a regular basis, at all sites.
- Provide induction training for all workers to educate them on how to use construction machinery.
- Have set and clear speed limits for construction vehicles.
- Ensure that workers have appropriate PPE at all times.

Limited Accessibility of pathways and roads

The road construction is anticipated to limit accessibility of pathways and roads as physical barriers, changes in road conditions, traffic disruptions, paving of temporary pathways and limited width of pathways and roads which could make mobility difficult for users particularly those using crutches and wheelchairs. The development is anticipated to pass through economic nodes at Sithobela, Maloma and Siphofaneni as well as major junctions such as Lavundlamanti. Along the route, there are communal social assets such as churches, schools and clinics. Accessibility to services and structures may permanently or temporarily change as construction work rolls ahead.

Possible mitigants include:

- providing clear signage to indicate alternative routes.
- maintaining safe and accessible pedestrian pathways around the construction site
- scheduling construction activities during off-peak hours to minimize disruptions to traffic.
- Accessible ramps to temporary pathways and overhead bridges.
- Accessible bus stops including shelter provided in the bus stops.

² A metric by the Occupational Safety & Health Administration (OSHA) used to compare the safety performance of companies. See <https://www.osha.gov/aboutosha>

Increased incidence of HIV/AIDS

Eswatini has made major strides in response to HIV with the goal of ending AIDS as a public health threat. Eswatini has already achieved and surpassed the 95-95-95 global HIV treatment. According to WHO (2023) The country has 94% of adults living with HIV aware of their status, 97% of those who are aware of their status are on antiretroviral therapy (ART) and 96% those on ART have achieved viral suppression³. Road construction sites could inadvertently increase the incidence of HIV/AIDS due to worker mobility and separation of men and women from their partners, increased demand for sex work, connection of low and high prevalence areas and the networking of a vulnerable worker population. Possible mitigants include:

- To provide workers with basic HIV/AIDS education through information leaflets to be distributed within the site.
- Distributing condoms to project workers and educating them regarding use
- To ensure that the camp is not turned into a social or recreational facility, and employees will be warned in their employment contracts that unbecoming behavior may result in dismissal from the site.
- Conducting regular campaigns addressed to all site staff and laborers as well as the immediate local communities concerning appropriate preventative behaviors with respect to STI, HIV and AIDS.
- Provide medical exams and treatment for curable STIs.
- Provide voluntary counseling and treatment (VCT) program at the nearby health facilities.

6.9. HEALTH IMPACT MITIGATION AND ENHANCEMENT

The following recommendations support on-going activities at the project site level and prompt an active, preventative approach to health to ensure potential negative health impacts are mitigated and managed effectively. The recommendations are required to protect both workers and community members alike. The project contractors will implement precautions to protect the health and safety of construction workers. The occupational health and safety risks will be managed by applying measures in the following order of preference: avoiding, controlling, minimizing hazards, and providing adequate protective equipment. All workers will undergo a site induction/orientation that will highlight expectations on minimizing impacts to the physical and social environment. There will be an on-site and off-site code of conduct established that will outline roles, responsibilities, and consequences for non-compliance. Priority recommendations from the rapid HIA focus on:

- preventing the spread of infectious disease,
- maintaining low traffic injury and mortality rates,
- conducting on-going health risk assessments,
- promoting healthy lifestyles and preventing non-communicable diseases, and
- improving health surveillance and response.

³ See: <https://www.afro.who.int/countries/eswatini/news/eswatini-achieves-95-95-95-hiv-treatment-target-decade-ahead-2030-goal>

6.9.1. Preventing the spread of infectious disease

Strategies for the prevention, further spread and re-introduction of infectious diseases will seek to:

- i. Increase access to vector-borne/communicable disease prevention and control services in the project area.
- ii. Strengthen preventative behaviors on vector-borne and communicable diseases in general through an understanding of Knowledge, Attitudes and Practices (KAP) on vector-borne and other communicable diseases in the project area.

Specific strategies will include:

- i. Vector-borne diseases prevention activities at construction sites will be implemented.
- ii. Existing efforts for malaria elimination and control of other communicable diseases will be supported. Periodically, support from the Ministry of Health will be sought to educate the construction workers and contractor on risks of existing infectious diseases in the area and to explore options for targeted infectious disease prevention and control for migrant workers. These activities could also be implemented through the NMCP.
- iii. The contractor will develop an infectious disease outbreak preparedness plan that will outline an organization chart for response, communication and action protocols, roles and responsibilities, key points of contact and implementation resources required.

Maintaining low traffic injury and mortality rates

While low traffic injury and mortality rates should be celebrated in the project area, the reality is, construction phases involve increased industrial traffic. In addition, when the road is fully operational, heightened industrial traffic will be a normal part of business in the region. As such, the development and implementation of a traffic management plan, based on a risk assessment is an important preventative action to ensure road traffic injuries remain low in the area. A traffic control and operation plan must be prepared by the contractor in consultation with the Royal Eswatini Police Service Traffic Department prior to any construction and further defines that the plan will include:

- i. Trucks hauling construction material and waste to be fully covered.
- ii. Divert or limit construction traffic at peak traffic hours.
- iii. Construction traffic along the schools will be avoided during critical periods such as the morning and when schools release students for the day.
- iv. Contractor to strengthen traffic safety education for construction vehicle drivers.
- v. Construction vehicles on designated routes or locations such as in the crossing of densely populated areas and near sensitive locations (schools, health facilities and other social services) to drive slowly and according to designated speed limits.
- vi. Zero tolerance clauses in the worker codes of conduct for non-compliance with speed limitations.
- vii. Avoidance of overrun vehicles on the road,
- viii. No parking of construction vehicles on roads adjoining to project area is allowed; and

- ix. Engaging with local residents along transportation corridors with traffic safety awareness campaigns.
- x. This plan shall outline objectives, roles and responsibilities, management actions, a schedule, human and financial resources, and collaboration efforts required with other institutions associated with managing health risks from traffic.

Conducting on-going risk assessments and Due Diligence Reviews of Mitigation Measures

As the road construction progresses, new risks may emerge that cannot be identified or characterized at this point. It is recommended that as part of regular and social monitoring, a health risk review be conducted at regular intervals. Third party due diligence reviews of mitigation measures will enable an update of the health management or occupational health management plan where appropriate.

Promoting healthy lifestyles and preventing non-communicable diseases

The Contractor will continuously encourage laborers to engage in behavior that is sustainable and healthy. During the periodic information, education and communication events, facilitators will re-enforce the risks of engaging in unhealthy behaviors such as excessive consumption of alcohol, unsafe sexual relationships, and other risky activities.

6.10. ANTICIPATED HEALTH IMPACTS ON MR21

Road construction projects have far-reaching implications, extending beyond the realm of infrastructure development into the sphere of human health. The following analysis delves into the known health impacts associated with the proposed road project along the MR21. This section explores the potential health consequences, both direct and indirect, and how they are intrinsically linked with various aspects of the project. These include alterations in environmental conditions, the disruption of local communities, and changes in socio-economic factors. This examination aims to provide a comprehensive understanding of the potential health implications, thereby contributing to informed decision-making processes and the development of appropriate mitigation strategies.

Table 6-4: Significance of Health Impacts

Impact	Nature	Significance of impact quantification	Significance of impact category
Substance abuses	The construction process itself can lead to disturbances such as noise, vibration, and dust, which can affect the well-being of community members. A higher incidence of vector-borne and water borne diseases are anticipated due to influx of workers. The higher incomes among mostly the newly employed youth could perpetuate substance abuse which can lead to gender-based violence.	72	- high
Gender based violence		72	- high
Increased incidence of HIV, AIDS & STI		88	- very high
Increased incidence of malaria		48	- medium
Increased incidence of TB		68	- very high
Increased pressure on local health system		76	- very high
Poor sanitation and hygiene diseases		72	- low

Table 6-5: Public Health Management and Monitoring Plan

Impact	Proposed Mitigation	Monitoring & Frequency	Performance Indicator	Responsibility
Increased incidence of URTIs for construction workers and community.	PPE for construction workers.	Daily	100% workers wear PPE at all times.	Contractor
	Spraying of water along portions where activities are taking place.		No dust clouds along the construction active portions.	
Increased risk of delayed cognitive function development in children	Synchronized to greatest extent possible school calendar with noisiest construction activities	Monthly	0% complaints on excessive noise disturbance to schools, clinics, and community	Contractor
			Notice to community given 48hrs prior to excessively noisy activities.	
Increased risks of hearing related conditions for workers	Ear PPE available and worn by construction workers at noise intensive construction activities	Daily	100% of workers wear ear protectors.	Contractor
Increased incidence of poor sanitation and hygiene induced conditions	Adequate mobile toilets provided at active construction sites.	Daily	1 toilet and 1 urinal provided per 25 male workers and 1 toilet per 15 female workers	Contractor
			Toilets are situated 10 minutes or less from site.	
	Adequate mobile handwashing facilities and/alcohol-based sanitizers are provided with mobile toilets.	Daily	At least 1 handwash facility allocated per 4 mobile toilets at active construction sites.	Contractor

Impact	Proposed Mitigation	Monitoring & Frequency	Performance Indicator	Responsibility
	Mobile toilets are at minimum 30m away from water sources.	At mobile toilet installation at every site and monthly.	100% mobile toilets are not hazardous to water sources	Contractor
	Mobile toilets are emptied at 80%-90% capacity by qualified contractor.	Weekly	Toilets are emptied weekly.	Contractor
Increased incidence of HIV/AIDS	Periodic campaigns to educate workers on STIs, HIV, AIDS, ART as well as voluntary counselling.	Every 6 months	At least 2 campaigns conducted per year.	Contractor
	Avail condoms at strategic places such as toilets.	Daily	Male and female condoms available either with Safety Officer or restrooms	Contractor
	No loitering and recreational activities on sites	Daily	Restricted access to site and no loitering signs	Contractor
Increased incidence of transmission of URTI such as TB, common flue, COVID-19	Enforcement of sick-day utilization as guided by the OSH Act, 2001.	When sickness occurs and sick notes submitted.	100% sick leave utilization against submitted sick notes	Contractor
	Face masks availed to workers. Especially those who cannot observe personal distance due to nature of construction related activities	Daily	100% workers are wearing face masks at designated activities such as high dust producing phases.	Contractor
	Gatherings are held in open field and proper ventilation in site offices.	Daily	Low URTI transmissions.	Contractor
Increased incidence of water borne diseases such as cholera.	Mobile toilets are emptied at 80%-90% capacity by qualified contractor.	Weekly	No sewage overflow	Contractor
	Provision of potable water at construction sites.	Daily	Clean drinking water is accessible for workers on site.	Contractor
	Mobile toilets are minimum 30m away from water source.	At start of each construction site and every 2 months thereafter.	Water sources are at least 30m away from hazardous waste.	Contractor
Increased spread of vector-borne diseases	Ensure refill and rehabilitation of burrow pits after construction	Monthly	0% individual and animal injuries due to active and retired burrow pits.	Contractor
	IRS of indoor site offices and workers accommodation prior to start of malaria season.	Every 6 months	At least one IRS conducted per year.	Contractor
High rates of occupational incidents	Insurance coverage for occupational safety risks.	Annual	Comprehensive insurance coverage of occupational safety risks.	Contractor
	Avail appropriate PPE to construction workers	Daily	100% on site persons are wearing PPE.	Contractor

Impact	Proposed Mitigation	Monitoring & Frequency	Performance Indicator	Responsibility
	Availability of fully kitted first aid kit, serviced fire extinguishers, blankets on sites.	Daily	100% fully kitted first aid kit. Fully serviced fire extinguisher and adequate blankets.	Contractor
	Appoint first aid champions among workers and train them extensively in first aid.	3 months	At least 1 male and 1 female safety champion is a certified first aider.	Contractor
	Availability of reliable telephone and transport for emergency purposes during working hours.	Weekly	At least 1 large vehicle is always available on site.	Contractor
	Set low speed limits and put them where visible.	Daily	Visible speed limit signs along project corridor.	Contractor
	Ensure proper training for construction workers on machinery use and workplace safety.	At induction of ever new worker.	100% of all workers have undergone an induction at any given point in time.	Contractor
Community and animal injuries	Fence off dangerous construction areas from animals and pedestrians.	Weekly	Fences or barricades are visible along identified danger zones.	Contractor
	Fence off active burrow pits and rehabilitate retired ones.	Weekly	Fences or barricades are visible around active and non-rehabilitated burrow pits.	Contractor
	Restrict construction site access to authorized persons and all visitors should be required to wear reflective vests, safety shoes, hard hats, and face masks where necessary.	Daily	100% on site persons have reflective wear, hard hats, and protective shoes at any given time of the day.	Contractor
	Visible signage in both English and Siswati indicating construction activities.	Daily	Visible signage towards active construction zones.	Contractor
	Special measures such as traffic controllers at school, clinics, and bus stops.	Daily	Active traffic controllers in identified zones	Contractor
Increased GBV incidents	Campaigns to educate workers on GBV.	6 months	At least 2 campaigns held per year.	Contractor
Limited community mobility for disabled persons	Ensure all pedestrian accesses and crossings are accommodative.	Daily	100% crossings are universally user friendly	Contractor
			Provide accessible pathways for all diverted foot traffic.	
Increased pressure on and demand for local health services	Ensuring adequate medical service personnel at local clinic meet population needs.	Prior to construction, and monitoring semiannually	Doctor to population ratio meets National standards	MoH
	Development and implementation of emergency preparedness and response plan	Once prior to construction	Completion and implementation of the plan	MoH

Impact	Proposed Mitigation	Monitoring & Frequency	Performance Indicator	Responsibility
	Emergency preparedness and response capacity assessment		Completion of assessment	MoH
New emerging health risks	Conduct on-going health risk review with local health authorities	Semi-annually once construction begins	Submission of health reports to contractors on existing health risks; health risk information included in induction training	MoH Contractor

6.11. MONITORING PROGRAM AND COMPLEMENTARY INITIATIVES

6.1.1. Monitoring program

The social monitoring program will operate through all phases of the project and will monitor all aspects as detailed in the ESMP. Among others, the following aspects will be subject to monitoring:

- Impacts on road safety, including road accidents.
- Land use changes, particularly along the project road.
- Changes in socio-economic activities along the project corridor.
- Impacts on the changes in the health baseline particularly the incidence of STIs, HIV/AIDS, TB and poor sanitation induced morbidities.

The monitoring of mitigation measures construction and defects liability period will be carried out by the Contractor's competent professional consultants who will be procured to supervise on a daily basis the quality and progress of works. The MoPWT who is the project proponent shall supervise the consultants through the Project Engineer appointed by the Roads Department. The MoPWT shall provide the AfDB with periodic reports either quarterly or on ad-hoc with the ultimate objective of tracking and assessing project progress. After construction, the responsibility for monitoring will lie with the MoPWT's Roads Department.

Decommissioning: This involves the removal of the contractor's and workmen's camps, rehabilitation of all materials and work areas (including deviations/access routes or detours etc.) and removal of equipment, excess materials, and oil tank farms. A decommissioning plan will form part of the monitoring parameters and will be prepared by the contractor for approval by the resident engineer. The plan will give special attention to remediation of oil polluted areas and the relocation of oil tanks. A decommissioning plan will be prepared by the Contractor for approval by the RE, and a decommissioning audit undertaken. Special attention must be given to remediation of oil polluted areas and the relocation of oil tanks.

7. SOCIAL IMPACT AND MITIGATION MEASURES

7.1. INTRODUCTION

This section presents potential impacts on the socio-economic environment of MR21. Social impacts are anticipated from land usage, employment and economic opportunities, structural impacts, accessibility, health, gender, social relations, and infrastructural impacts. These impacts are anticipated to be both positive and negative. The SIA aims to recommend mitigation measures to minimize the negative impacts and augment the benefits from the positive impacts. Impacts are expected to manifest at all the stages of construction namely, pre-construction, construction, and operational phases.

7.2. PRECONSTRUCTION PHASE IMPACT

Impact- Economic disruptions (-): Displacement of market stalls along the MR21. The need for space to carry out construction activities often leads to the disturbance of local traders, hawkers, and residents along the MR21. This may have an impact on the income generated through these activities.

Mitigation

- Ensure access to businesses at temporary sites.
- Ensure the new business location does not disadvantage the businesses.
- Ensure pathways remain accessible.

Impact- Health risks (-): The pre-construction stage can also introduce health risks to the community. For instance, building dust, which is a common byproduct of construction activities, is a major contributor to air pollution and may impact on vulnerable persons such as school children and sickly residents.

Mitigation

- Ensure various programs are in place to educate workers and the community about ways to minimize the spread of HIV, AIDS upper respiratory tract infections (URTI), hygiene and sanitation.
- Prioritize local human resources to minimize the import of infections.

Impact- Social cohesion (-): At this stage, the economic disruptions, and displacements of social facilities such as churches may lead to changes in the social fabric of the communities.

Mitigation

- Ensure observation of communication protocols are continuously observed.
- Ensure an efficient stakeholder engagement plan is in place prior to construction.
- Ensure adequate and fair distribution of community representation in all committees that involve the community.

Impact- Socioeconomic conditions (-): The pre-construction stage may bring about changes in the socioeconomic landscape. The anticipation of new employment opportunities can lead to an influx of migrant workers which can lead to competition for limited services, potential increase in crime and social conflicts.

Mitigation

- Prioritize the employment of locals to curb influx of migrants.

Impact- Economic opportunities (+): Job creation for a variety of employment opportunities such as site clearing, provision of security for machinery and vending opportunities.

Enhancement

- Ensure that local community members are given first employment priority.
- Ensure that local community small businesses are given priority to sub-contract.
- To publicize the number of people required for construction activities.
- To give first preference to qualifying Swazi nationals to avoid disputes were foreign nationals be seen to be occupying positions that locals qualify for.
- The Contractor shall make use of an elected Community Liaison Officer to ensure that employment opportunities are fairly distributed across the different Chiefdoms.
- To ensure that local and aspiring businesspersons are given first preference through out-sourcing of certain works.
- To publicize works to be outsourced.
- To subcontract a reasonable percentage of heavy haulage traffic trucks to be used to transport earthwork materials to local owned companies.
- To preferably subcontract out to local owned companies which employ women and physically challenged citizens.
- To encourage local women to sell food items to the workforce at teatime or lunch by providing appropriate designated places for such.

Impact- Community and stakeholder engagement (+): An efficient community engagement at pre-construction may lead to better support for the project and enhanced inter-community relations.

Enhancement

- Ensure a clear stakeholder engagement and communication plan are in place to clearly define roles and communication protocols.
- Work with a community elected Community Liaisons Officer (CLO).

Impact quantification of significance: pre-construction phase

The significance of identified impacts of the pre-construction phase are presented in the following **Error! Reference source not found.** The quantification of these impacts is largely subjective and uses the methodology presented in annex 10.

Table 7-1: Quantification of social impacts: pre-construction phase

Impact	Significance of impact quantification	Significance of impact category
Economic disruptions	32	- medium
Health risks	48	- medium
Social cohesion	48	- medium
Socio-economic conditions	64	- high
Economic opportunities	84	+ very high
Community and stakeholder engagement	84	+ very high

7.3. CONSTRUCTION PHASE IMPACTS

Impact - *Employment opportunities (+)*: The project will be a boon for local employment, providing jobs for a range of professionals from engineers to construction workers, which will help alleviate poverty and improve living standards.

Enhancement

- Ensure that local community members are given first employment priority.
- Ensure that local community small businesses are given priority to sub-contract.
- To publicize the number of people required for construction activities.
- To give first preference to qualifying Swazi nationals to avoid disputes were foreign nationals be seen to be occupying positions that locals qualify for.
- The Contractor shall make use of an elected Community Liaison Officer to ensure that employment opportunities are fairly distributed across the different Chiefdoms.
- To ensure that local and aspiring businesspersons are given first preference through out-sourcing of certain works.
- To publicize works to be outsourced.
- To subcontract a reasonable percentage of heavy haulage traffic trucks to be used to transport earthwork materials to local owned companies.
- To preferably subcontract out to local owned companies which employ women and physically challenged citizens.
- To encourage local women to sell food items to the workforce at teatime or lunch by providing appropriate designated places for such.

Impact - *Local Economic Development (+)*: The influx of workers and the need for materials can stimulate the local economy, generating revenue and business for local suppliers.

Enhancement

- Local suppliers must be given first preference for economic opportunities.
- Development of a local supplier database.

Impact - *Economic Disruptions (-)*: The construction process is anticipated to disrupt existing local businesses, particularly if it leads to road closures, the displacement of businesses or shifting of business to non-profitable locations.

Mitigation

- Ensure appropriate allocation of business operation spaces for vendors.
- Ensure appropriate shelters for vendors to support their businesses.

Impact - *Pollution and Health Risks (-)*: Construction activities are anticipated to introduce air and noise pollution, posing health risks to the community.

Mitigation

- Ensure mobile toilets are allocated at least 30m away from water sources.
- Ensure that water for construction activities is not extracted from drinking water sources.
- Ensure that hazardous waste material is disposed of according to national guidelines and standards.

- Enforce a zero tolerance for open defecation.

Impact - Changes in community dynamics (-): The project will attract more people to the area, potentially leading to increased competition for limited services and changes in socio-economic conditions. Additionally, community dynamics may worsen due to inadequate stakeholder engagement which may result in project delays and complaints.

Mitigation

- Ensure that local communities are prioritized for opportunities to avoid excessive influx of migrant workers.
- Avoid the construction of construction camps.
- To design and implement a Complaints Register which shall be kept in the Site Office in which project-related complaints from any Interested/Affected Party can be recorded. The Register will have the name, address, telephone, and description of the complaint.
- The Contractor/Resident Engineer will address timeously all complaints entered into the Register with the aim of removing the source of complaint or minimizing the source of complaint.

Impact - Safety and behavior (-): Poor road conditions during construction can affect driving behaviors and pedestrian safety, impacting the quality of life for community members. The presence of unfamiliar people in the communities may perpetuate criminal activities such as theft and abuse of vulnerable groups.

Mitigation

- Ensure that before undertaking any works in any section, an approved traffic management plan is in place.
- Ensure adequate visible signage warning traffic of construction activities is erected along road, including flag men/women, marking, signs, barricades, to minimize traffic disruptions and accidents.
- Ensure that construction vehicles take extreme caution while using this road to and from construction works and must give right of way to local traffic.
- Ensure maintain the access road for the duration of the Contract including fixing potholes, regular cleaning of road surfaces to remove soil deposits, dust, pebbles etc.
- Ensure temporary lanes along the same alignment as the additional ones proposed to minimize inconvenience to motorists and regular users of the road during construction as the road will be constructed in the presence of heavy traffic.
- Notify regular road users of construction activities that are likely to disrupt traffic, and a sound traffic management system should be put in place to control traffic. Should night work be necessary, the Contractor will ensure that night working on detours and traffic diversions are safe by keeping visible signs and traffic safety measure for nighttime workers and traffic.
- Engage the services of a reputable security firm to ensure that there is no petty thievery of construction materials and diesel from site offices.
- Ensure that there are clear communication channels with the nearest Police stations.
- Ensure tamper proof designs of infrastructure such as waiting rooms.
- Ensure education regarding the consequences of stealing government property.
- Enforce a zero tolerance for using construction sites for recreational purposes such as drinking and socializing.

Impact - Accessibility and usability (-): Construction along active construction portions is anticipated to inconvenience access to businesses, residential properties, schools, churches, animal crossings and bus stops.

Mitigation

- To ensure that access roads leading to business/residential are kept open at all times for easier accessibility and that these provide safe and convenient passage. Where these will be destroyed, alternative access roads will be provided.
- To ensure that sheltered bus stops are constructed with sustainable and tamper proof material.
- To ensure that the location of bus stops prioritizes pedestrian convenience over motorist convenience.
- To ensure that overhead footways/bridges are constructed at strategic places to ensure that human traffic flow is not limited road crossing dangers.
- To ensure that all roadside fences are erected and maintained to prevent livestock from entering the roads including access roads.
- To ensure that all road surfaces, including road signs, speed calming measures, are located in a clear visible manner at all times and replaced should they be vandalized or knocked down by cars.
- To ensure that all access is not blocked without providing alternatives and re-routing signs posted.
- To ensure that rocks, debris, dust, or mud that will disturb traffic along all roads used by the project are removed as soon as practically possible.
- To ensure that community concerns regarding cattle underpasses at strategic locations are adhered to and addressed.
- To ensure that the design has provision for widening of the walkways along busy pedestrian activities especially by the schools with barrier walls built to separate the school grounds from the road traffic.
- To ensure that there is no soil, debris, dust, or mud along access/temporary roads.
- To ensure that the construction period is minimized, and motorists passing through any area of ongoing construction works will be adequately warned.
- To ensure that motor vehicle drivers drive cautiously and decrease their speed when passing busy areas to avoid accidents. Destruction of road surfaces by heavy vehicles will be prevented.
- To protect domesticated animals, the project should design cattle underpasses where possible and cattle grids provisions for where there will be a break from the fence, e.g., residential accesses.
- To ensure that all road markings are periodically repainted and are visible at all times for road users.

Impact - Relocation of services (-): Relocation of services infrastructure such as water supply pipes, electricity power lines, telephone lines may result in temporary service disruptions.

Mitigation

- The Department of Water Affairs will be notified of the proponent's intention to construct a road along the water scheme pipelines and the need to relocate the infrastructure with minimal disruption. The DWA will determine how much the relocation exercise will cost the proponent.
- The EWSC will be notified of the proponent's intention to build the road. EWSC will advise on the relocation of any pipeline to the Sithobela wastewater treatment plant.
- The proponent will notify EEC of the need to relocate power lines which are along the road corridor. A relocation plan for EEC power lines will be developed and this plan will ensure minimal disruption.

Should the relocation involve underground cables, EEC markers need to be put in place along the new power-line route for future identification.

- The proponent will notify EPTC of the need to relocate the lines which are in the road corridor. A relocation plan will be drawn up by EPTC and the Contractor as to how the infrastructure is to be relocated with minimal disruption, and to determine how much the relocation exercise will cost the proponent. Should the relocation involve underground cables, EPTC markers need to be put in place along the new line route for future identification.

Impact - Structural impacts on buildings and land use (-): Negative impacts on buildings within lasting and vibration zones could occur along the project corridor.

Mitigation

- No household must be within 500 m of active blasting sites or vibration zones. Should these be found to be within, these must be inspected prior to and after blasting or vibration inducing activities with photographs of homesteads taken by the contractor before operations begin. The inspection will take place in the presence of the owner/resident 48 hours before and after the scheduled activity. In addition, the contractor shall, record each dwelling, structure, and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths, and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc.
- Compensation - Blasting induced damage within the zone of influence will be compensated accordingly. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields.
- Comprehensive insurance cover is taken prior to any construction works.
- Construction machines are serviced to minimize the radius and intensity in the impact zone.
- Official approval for any blasting can be implemented.
- Blasting can only be done at sites approved by the Mines Inspectorate.
- Only sites approved by Mines Inspectorate are used to store explosives.
- Only a certified blaster is approved for all detonations.
- A qualified first aider is always available at blast sites, with a telephone and vehicle at their disposal.
- The nearest Fire and Emergency Station is informed prior to any blasting activity.
- An ambulance is available on site prior to any blasting activity.

Impact - Changes in land usage (-): Impacts on land usage along the project corridor are expected to be impacted by project activities. This includes the erosion of ploughing fields found in the servitude, loss of crops and trees, loss of fencing, loss of social assets and archeological/cultural resources.

Mitigation

- Even though farming fields do not qualify for compensation from the Government of Eswatini, recommendation to the respective Chiefdoms will be made to re-allocate new fields to affected households.
- To ensure compensation of all property owners fully for loss of land with no gender bias after consultations and negotiations conducted in good faith by both parties (affected and proponent) before construction commences according to the land values given by the Valuator. In case of

disagreements the issues must be referred to an Independent Arbitrator. The proponent and property owners will agree on compensation terms by signing letters of acceptance. Compensation will be paid prior to road construction.

- The market value of all crops and trees to be affected by the project will be assessed and compensated prior to commencement of construction activities.
- To ensure that graves at homesteads are relocated prior to commencement of construction activities and the owners of the graves compensated accordingly.
- To ensure that affected homesteads are allowed to carry out cultural practices such as *kuphahla* on their graves prior to commencement of construction activities. Regarding findings of objects of scientific interest, that the works, engage the National Museum about the findings, who will in turn engage an archaeologist to remove the object of interest.
- To ensure that social grounds are relocated where affected.

Quantification of construction phase impacts

The significance of identified impacts of the construction phase are presented in the following **Error! Reference source not found.**

Table 7-2: Quantification of social impacts: construction phase

Impact	Significance of impact quantification	Significance of impact category
Employment opportunities	84	+ very high
Local Economic Development	84	+ very high
Economic Disruptions (-)	32	- medium
Pollution and Health Risks (-)	64	- high
Changes in community dynamics (-)	48	- medium
Safety and behavior (-)	48	- medium
Accessibility and usability (-)	48	- medium
Relocation of services (-)	14	- low
Structural impacts on buildings (-)	56	- high
Changes in land usage (-)	22	- low

7.4. OPERATIONAL PHASE IMPACTS

At the operational phase, enhancement and mitigation of impacts will be incorporated into national budgets and developmental plans for the country. In Eswatini, road specific measures are carried out by the MoPWT as specified in the Roads Act 2007.

Improved infrastructure and property values (+)

The new road will enhance the quality of life by improving access to services and reducing transportation costs. It will also raise property values and signal progress in the surrounding communities which will ultimately attract property developers.

Enhanced mobility and accessibility (+)

The completion of the road project will foster growth by enhancing mobility and providing easy accessibility to both national and international markets. This could lead to economic development and growth through the enhancement of trade and the smooth flow of goods and services within and outside the country.

Transportation (+)

The operational stage of a road project can also influence the transportation landscape. For instance, private motor vehicles and 15-seater kombis will be economical way to meet the transport needs of people in some regions.

Increased road accidents (-)

The operational phase of the road could bring a higher number of accidents as the community continues to use the roadways and pathways as they are used to against a background of higher and faster traffic volumes.

Mitigation

- Ensure signs are erected along the newly constructed road.
- All speed limits applicable to main roads must be made visible.
- Pedestrian crossings must be prioritized to ensure that there is no mushrooming of illegal crossings.
- Ensure maintenance of the road in accordance with the national legislation.
- Ensure that animal crossings are placed strategically to minimize animal traffic on the roads.
- Fence off the road.
- Ensure adequate pedestrian crossings and walkways are developed.

Quantification of operational phase impacts

The significance of identified impacts of the operational phase are presented in the following **Error! Reference source not found.**

Table 7-3: Quantification of social impacts: operational phase

Impact	Significance of impact quantification	Significance of impact category
Improved infrastructure and property values (+)	84	+ very high
Enhanced mobility and accessibility (+)	84	+ very high
Transportation (+)	84	+ very high
Increased road accidents (-)	56	- high

8. SOCIAL MANAGEMENT PLAN, MONITORING AND ESTIMATED COSTS

8.1. PURPOSE

The Social Management Plan (SMP) comprises a comprehensive suite of mitigation, monitoring, and institutional measures to be implemented during the construction and operation stages. Its purpose is to eliminate, offset, or mitigate any adverse environmental and social impacts to acceptable levels. Additionally, the plan outlines the necessary steps for implementing these measures. The SMP is a crucial component of the Social Impact Assessment (SIA) and directly pertains to the implementation phase.

The SMP section will be integrated into the bidding and contract documentation, which the selected contractor(s) must adhere to. Moreover, the SMP is considered a dynamic document, as management actions may require adjustments based on feedback received during project implementation or in response to unforeseen impacts that differ in magnitude from those initially predicted during the finalization of the SIA.

8.2. SMP ADMINISTRATION AND MONITORING

The entity charged with the overarching obligation to administer the Environmental and Social Management Plan (ESMP) is the Roads Department (RD), a division of the MoPWT. Presently, the Ministry lacks a resident specialist in Environmental and Social domains. However, past projects of a similar nature have been effectively executed via the acquisition of external consultancy services endowed with the requisite competencies, a strategy that will be replicated for this current enterprise. Based on dialogues and analysis of diverse reports, the Eswatini possesses suitable institutional arrangements and significant capacity to carry out the ESMP for this project. For the purpose of supervising the ESMP execution, duplicates of the ratified ESMP will be disseminated to all relevant departments, kept at the project site office, and conveyed to all senior contract personnel. It is incumbent upon all senior staff to acquaint themselves with the provisions captured in this document.

8.3. IMPLEMENTATION RESPONSIBILITIES

The successful execution of the SMP necessitates the active participation of multiple stakeholders, each playing a unique yet critical role in guaranteeing effective environmental stewardship throughout every stage. All parties will collaborate with the MoPWT as the project proponent to ensure that the SMP is implemented efficiently and effectively. The Contractor will be required to develop a cumulative environmental and social management plan (CESMP) which shall be delivered from this ESMP. The individuals holding paramount responsibility for the implementation of the ESMP are discussed below.

8.3.1. The Proponent (MoPWT)

The ECO provides guidance to the proponent on the project's environmental dimensions. It is incumbent upon the proponent to understand the significance of environmental conservation and ensure that the contractor, who is executing the project on their behalf, acts in an environmentally conscientious manner. The MoPWT is also charged with the duty of ensuring that all governmental and non-governmental entities are cognizant of their distinct roles and responsibilities as stipulated by the ESMP to guarantee efficacy and compliance. These entities encompass essential service providers such as the Eswatini Water Services

Corporation, Eswatini Posts and Telecommunications Corporation, Eswatini Electricity Company, Fire and Emergency Services, various governmental ministries, and Non-Governmental Organizations.

The MoPWT as the project proponent and is obliged by law to be the entity responsible for the implementation of the mitigation plan. MoPWT shall be responsible for ensuring that all those involved in the project comply with the relevant aspects of the SMP and also be responsible for reporting to EEA on environmental compliance throughout the implementation of the project. During the construction phase, MoPWT shall monitor the implementation of the SMP by the nominated contractor/s and report directly to the EEA. During the operational phase, MoPWT shall ensure the maintenance of the road in accordance with the Road Transportation Act (2007).

8.3.2. Environmental Compliance Officer (ECO)

The MoPWT will appoint an independent Environmental Control Officer (ECO) to ensure all operations are conducted in an environmentally responsible manner, conforming to every facet of the ESMP. With in-depth knowledge of Strategic Environmental Assessment (SEA) monitoring requirements for ESMPs, the ECO will serve as the SEA representative within the project. Consequently, all issues necessitating SEA approval or review will be reported to the SEA via the ECO. It is incumbent upon the ECO to remain informed about the contractor's environmental obligations and all environmentally sensitive areas at all times. The intricacies of this role ideally mandate a full-time presence of the ECO on site. However, given the specialized expertise required for this role and the high qualification standards of the ECO, it is improbable that the contractor will retain such a specialist full-time for the project. Instead, a dedicated monitoring budget will be used to engage the services of a credible consultant who will also compile monitoring reports on behalf of the proponent. This budget will cater to travel expenses, site visits, meetings with the proponent, Interested/Affected Parties (IaPs), the contractor, communication, and the compilation of monitoring reports.

8.3.3. The Resident Engineer (RE)

The Resident Engineer (RE) bears the responsibility of overseeing all construction tasks and tracking the contractor's activities. His/her responsibilities encompass the following:

- Creation of a photographic document / inventory prior to the initiation of construction.
- Maintenance of a Site Diary to chronicle events and daily operations in relation to ESMP execution.
- Issuance of Site Instructions to the Contractor, as necessitated (prompted by the ECO), in situations where the ESMP has been breached or regarding more specific emerging issues not addressed in the ESMP.
- Forwarding copies of all records, site diary, site instructions, and other data accrued in line with the ESMP to the ECO biweekly.
- Keeping a current Site Visitors Register.
- Maintaining a Complaints & Claims Register, which includes a record of subsequent action taken.

8.3.4. The Contractor (CO)

The Contractor, by virtue of their activities, stands at the forefront of potential environmental impact. The ESMP serves to direct their actions towards minimizing environmental harm. Given the improbability that the contractor can effectively monitor their own activities, the ECO is required to oversee all of the contractor's operations. To ensure the contractor's adherence to this, and to generally safeguard the nation

from potential environmental calamities due to malintent via the SEA, the SEA will withhold the project certificate until there is tangible evidence of the contractor's commitment. This commitment is manifested by the inclusion of the ESMP in the Tender Documents. The MoPWT shall award tenders for the construction of the road as per the designs. The awarded contractors shall be responsible for the day-to-day implementation of the SMP and report to MoPWT through formal channels such as periodic reports and site meetings.

8.3.5. The Worker

It is of utmost importance that every worker on the site is cognizant of their environmental obligations and comprehends the environmental implications of their actions. The site induction must incorporate an environmental code of conduct that must be strictly observed at all times, such as prohibiting the killing of animals (even snakes) and hunting of birds, an activity deemed illegal in Eswatini. Given that the workers' actions often reflect that of the supervising contractor, the contractor will exhibit environmentally responsible behavior and will actively promote the same amongst the workers.

8.3.6. SHEQ Officer

The nominated contractor shall be obligated by contract agreements with MoPWT to engage a qualified SHEQ Officer throughout the construction period. The SHEQ officer shall enforce health and safety standards during the construction of the project. The officer shall also prepare work instructions and procedures that shall be applied to the different aspects of the construction of the project, especially those activities where the absence of work instructions would lead to deviations from the ESMP and possibly result in injury. The SHEQ Officer shall provide regular toolbox talks and monitor compliance with all the health and safety requirements for the project and report to the ECO in order to safeguard the health and safety of workers at all times, as well as public safety.

8.3.7. Community Liaison Officers (CLOs)

The MoPWT and the contractor shall work with the Chiefdom representatives for all the project affected areas to facilitate the nomination of a CLO for each community. The CLO will facilitate the Stakeholder Engagement process which is an integral part of the implementation of the ESMP. After the formal introduction of the construction works at community level by MoPWT and site handover to the contractor, the CLOs shall be responsible for conveying important information from the contractors to the community, vice versa. The recruitment of locals for participation in the construction phase will be facilitated through the CLOs. Any grievances that shall arise from the community shall be communicated to the contractors through the CLOs.

8.3.8. Traditional Authorities (TA)

This includes Bucopho and Chiefs who shall work together with the MoPWT to implement some of the requirements of the ESMP due to impacts such as resettlements, coordination between the proponent, contractor, and the PAPs. The Traditional Authorities will also form part of the Project Development Committee (PDC) who shall ensure that the welfare of PAPs is prioritized. The communication processes between the Traditional Authorities, proponent and contractor are detailed in the Stakeholder Engagement Plan (SEP).

8.3.9. The Project Implementation Unit (PIU)

The Project Implementation Unit shall be convened and composed by the project proponent. This unit shall consist of the ECO and Social Specialist who shall provide social standards support on the implementation of the project ESMP, RAP and other mitigation measures to ensure compliance and support corrective action. This unit is to be led by the Project Engineer/Project Manager from the MoPWT. The PIU should include a member of the community who shall assist with relaying information to the TA in the communities. This member may be the CLO or other as efficiency allows.

8.3.10. Social Specialist (SS)

The SS shall provide support on the implementation of the ESMP, RAP and other mitigation measures from a social standards perspective. The SS along with the CLOs will ensure compliance of the implementation of mitigations in accordance with National Laws, agreements between stakeholders and the AfDB OS standards.

8.4. PUBLIC PARTICIPATION DURING CONSTRUCTION PHASE

A continuous process of public engagement will be upheld during construction to ensure the sustained inclusion of interested and affected parties (I&APs) in a meaningful way. Public gatherings to discuss progress and any construction-related issues that may arise will be convened at least every three months, or more frequently if the RE deems it necessary. While these meetings will be organized by the ECO, the RE will facilitate them. The CO is tasked with delivering a progress report at each public meeting. All I&APs that were involved in or informed during the EIA will receive invitations to each of these public meetings.

8.5. ESTIMATED COSTS

The total estimated cost of administering the SMP is SZL19 million/USD1 million. Costs associated with certain items related to environmental management and monitoring will be incorporated into the overall project budgets as part of specific items, and there's no need for a separate budget to cover these aspects. Such items include:

The contractor's marginal costs that will be incurred in complying with environmental protection clauses in the construction contract are included in unit rates and bill items and will thus be accounted for as construction costs. It's important to note that no significant increase in construction costs is anticipated in relation to demanding compliance with environmental protection clauses. These clauses simply require the contractor to act responsibly towards the environment, in line with good construction practice.

Environmental monitoring performed by the Supervising Engineer's staff, including contributions by the Environmental Specialist hired by the Consultant, is a crucial part of general supervision duties/responsibilities and will be accounted for in the usual construction supervision cost estimates and contract.

Table 8-1: SMP and estimated Costs

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
PRE-CONSTRUCTION PHASE			8,797,783.36	518,037.64
Water supply for construction and domestic use	Project Engineer	Ensure water is sourced either from commercial sources or that contractor is in possession of a water abstraction permit.	16,000.00	868.08
Implementation of RAP, disclosure of information to PAPs.	MoPWT	Ensure all directly affected persons are compensated before construction	7,010,783.36	386,957.69
Disclosure of GRM to PAPs and community.	PIU	Familiarize themselves with the provisions of the GRM and its levels. Ensure GRM disclosure using appropriate outlets (Tinkhundla offices, Chiefdom).	2,400,000.00	130,211.87
Build capacity for the understanding of the provisions of the GRM and its application.	PE ECO PC	Ensure effective resolution of grievances and signing off of grievances.		
CONSTRUCTION PHASE			5,435,000.00	294,875.62
Implementation of health safety and environmental measures	ECO	Ensure contractors have hired qualified SHEQ Officers for enforcing SHEQ standards on site on a daily basis. Keep records of proof of academic qualifications of SHEQ Officer. Ensure all relevant safety measures are in place at construction sites, constructional tracks, site office and local roads affected by construction activity.	35,000.00	1,898.92
Sewage waste management	PE ECO PC	Monitor to ensure SHEQ Officer enforces PPE usage and other pollution control measures. Ensure proper handling, temporary storage and safe transportation of waste from project sites to designated disposal sites. Issue site instructions to the contractor when necessary. Report during progress site meetings.	20,000.00	1,085.10
Implementation of GRM	PIU ECO	Facilitate registration and timely resolution of emerging grievances. Ensure all community interests and concerns are attended to by the contractor. PIU to facilitate flow of information between communities and contractors, vice versa. Ensure grievances are registered through established channels and that they are resolved within stipulated timeframes.	4,500,000.00	244,147.25

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
Monitoring and evaluation of RAP	E&M Officer Subcontracted Experts	Use performance indicators to monitor progress. Make recommendations necessary for improving performance.	300,000.00	16,276.48
Monitor implementation of all social mitigation measures	E&M Officer Subcontracted Experts	Prepare Project Compliance Reports (PCRs) on behalf of ESWADE. Facilitate submission of PCRs to EEA at agreed times and intervals. Provide support and advice to the project team, contractor and all subcontractors in the implementation of environmental management procedures and corrective actions. Assess the efficacy of the ESMP and identify possible areas of improvement or amendment required within the ESMP. Facilitate the amendment of the ESMP in conjunction with the Engineers, SHEQ Officer and MoPWT, as and when necessary.	300,000.00	16,276.48
Participation of locals and vulnerable groups (women, youth, persons living with physical disabilities) in employment opportunities	Employment Committee CLO	Ensure eligible jobseekers are mobilized and registered with respective Chiefdoms. Develop recruitment procedures in consultation with contractors. Monitor to ensure employment of locals. o Relay information from contractors to Chiefdom level regarding labour requirements throughout the construction period. Monitor compliance with lawful labour practices and facilitate reporting of deviations to MoPWT.	30,000.00	1,627.65
Engagement of CLO is key in the feedback mechanism as a link between the contractor and the community during the construction and operations phases.	CLO	Assist contractor with recruitment procedure. Establish good working relationship between contractor and the community. Prepare community liaison meetings monthly and keep records for use by Employment Committee, Contractor and other interested parties. Investigate and respond to complaints / grievances received in collaboration with EPC, ECO and SHEQ Officer. Timely notification of the community regarding important notices issued by the contractors.	250,000.00	13,563.74
OPERATIONAL PHASE			4,300,000.00	233,296.26
M&E of effectiveness of GRM and prepare closure report	PIU	Evaluate overall implementation of GRM. Identify any outstanding issues and make recommendations for their conclusions. Prepare audit report for submission to MoPWT	300,000.00	16,276.48

Impact Description	Monitoring Authority	Duties	Estimated cost	
			SZL	USD
External auditing of the project	Appointed team of local and international experts	Periodic review of the project. Identify gaps in accomplishment of project performance targets. Prepare audit report with recommendations for improving project performance. External audit at Year 3 of project operation.	2,000,000.00	110,389.29
Sub-Total			16,532,783.36	939,579.03
Contingency at 15%			247,9917.50	140,936.85
Grand Total			19,012,700.87	1,080,515.88

8.6. IMPLEMENTATION SCHEDULE AND REPORTING

The execution of environmental and social initiatives will run throughout the entire project cycle. The primary duty of monitoring the progress of project implementation will fall upon the RD within the MoPWT. This department will be in charge of creating project monitoring systems and maintaining records. It will generate progress reports, including quarterly reports, which will need to be delivered to the Bank. The assigned staff of the RD, in conjunction with the RE, will be responsible for preparing reports on the effectiveness of the implementation of environmental and social mitigation strategies and any necessary enhancements therein.

9. SOCIAL INFRASTRUCTURE DEVELOPMENT

9.1. INTRODUCTION

The road project, as a corridor initiative, is anticipated to include social infrastructure that will be beneficial to vulnerable groups such as women, people living with conditions that limit their mobility as well as the youth.

9.2. AFRICAN DEVELOPMENT BANK GUIDELINES

The (AfDB) has a strong commitment to inclusivity and social infrastructure development, which is reflected in its policies and guidelines. These policies are designed to ensure that funded projects contribute to equitable and sustainable development across the African continent. Here are some of the relevant policies and guidelines:

The Ten-Year Strategy (2013-2022)

The AfDB's Ten-Year Strategy emphasizes inclusive growth and the transition to green growth. It focuses on key areas such as infrastructure, regional economic integration, private sector development, governance, and accountability. The strategy aims to ensure that development benefits are shared across all segments of society, including the most vulnerable.

Gender Strategy

The AfDB's Gender Strategy aims to mainstream gender considerations into its operations to ensure that both men and women can participate in and benefit from development activities. The strategy includes specific targets and indicators for gender inclusion in project design, implementation, and evaluation.

Social Safeguards and Standards

The AfDB has established social safeguards and standards to protect vulnerable populations and ensure that they benefit from development projects. These include policies on involuntary resettlement, protection of indigenous peoples, and labor conditions. The bank requires that projects funded by it comply with these standards.

Integrated Safeguard System (ISS)

The ISS is a set of policies and procedures that guide the AfDB's work on environmental and social safeguards. It includes the Environmental and Social Assessment Procedures (ESAP), which ensure that projects are designed and implemented in a way that minimizes negative impacts and enhances positive outcomes for communities and the environment.

Policy on Disability

The AfDB has a policy on disability that aims to promote the inclusion of persons with disabilities in development projects. This policy recognizes the importance of accessibility in infrastructure development and seeks to ensure that persons with disabilities have equal access to the benefits of development.

Infrastructure Development Policies

The AfDB has specific policies related to infrastructure development, which emphasize the importance of creating infrastructure that is accessible, affordable, and sustainable. This includes a focus on rural infrastructure to ensure that remote communities are not left behind.

High 5 Priorities

The AfDB's "High 5" priorities—Light up and power Africa, Feed Africa, Industrialize Africa, Integrate Africa, and Improve the quality of life for the people of Africa—emphasize inclusive development. These priorities aim to address the basic needs of the African population and ensure that development benefits are widely distributed.

Climate Change and Green Growth Framework

The bank's Climate Change and Green Growth Framework includes considerations for ensuring that projects contribute to sustainable development and are resilient to the impacts of climate change. This includes promoting infrastructure that is environmentally sustainable and benefits all segments of society.

Jobs for Youth in Africa Strategy

Recognizing the importance of addressing the high youth unemployment rate in Africa, the AfDB has a strategy to create 25 million jobs and equip 50 million youth with a mix of hard and soft skills to increase their employability and entrepreneurial success.

9.3. COMPLEMENTARY INITIATIVES

The project corridor is dominated by high unemployment especially among the youth and women. Road engineering in the country has traditionally prioritized vehicular speed and safety without considering community behaviors. This approach has not considered pedestrians and other vulnerable road users, many of whom tend to be low-income women. Road design has been mostly “gender-blind,” meaning that it largely ignores the specific mobility patterns of women and men derived from traditional gender roles. To ensure that the road has a people centered design, the following initiatives could be carried out to augment the positive spill overs from the road project. The project could also be more conscious of the plight of the youth by ensuring that the youth are given economic opportunities during the construction to increase their employability. Other initiatives could include soccer field rehabilitation and building market stalls at commercial nodes and schools.

Table 9-1: Possible Project Initiatives

Initiative	Beneficiary	Location	Features	
Bus bays	Major commercial nodes along the project route do not have designated bays to idle while awaiting passengers.	Vendors Students Commuters Public transport operators.	Siphambanweni Makhava	Basic concrete paving indicative of setting (bus bay).
Sanitation	The commercial nodes do not have adequate public sanitation facilities.	Vendors Students Commuters Public transport operators.	Siphambanweni Makhava	Sustainable improved pit latrines.
Sustainable market infrastructure	Vendors operate in market stalls built from material that is not climate resilient such as corrugated iron.	Vendors Commuters Students	Makhava Nhlangunjani	Sheltered markets with features to secure wares (e.g. security bars, lockable lockers). Inclusive of sanitation facilities.
Internships	The project corridor has a high youth unemployment rate. Offering internships during construction would provide unemployed youth with relevant experience and increase their employability.	Youth	Project corridor	A 3 to 6 months internship by contractor/s for both skilled and unskilled local youth.
Soccer ground rehabilitation	The project corridor has soccer fields which are used by the locals for school sports tournaments and inter-community tournaments. The grounds are also used for community meetings.	Schools Community Youth	Siphambanweni Sigwe Junction	Sports ground with changing rooms, sustainable improved pit latrines, sitting stands, running track and outdoor gym equipment.
Pre-school facilities	The primary school principals submitted a need for pre-schools along the project corridor.	Schools Children	Makhava Nhlangunjani	Buildings with sustainable improved sanitation facilities, playground, solar panels and potable water.
Solar panels	The schools submitted that they face high electricity bills. These would alleviate the operational costs of the schools so that budget can be re-allocated.	Schools	Zamokuhle Primary School Makhava Primary School Elulakeni Primary and High School.	Tamper proof, weather resilient, economically sustainable panels. They should generate enough power to pump water and lights including security lights.

10. CONCLUSION AND RECOMMENDATIONS

10.1. CONCLUSIONS

The SIA process for the proposed Maloma-Siphambanweni (MR21) Road Development was undertaken in accordance with the Environmental Audit Assessment and Review Regulations 2000 published in terms of the Environmental Management Act (Act No 5 of 2000) and the African Development Bank's Integrated Social Safeguard standards. The essence of the ESIA process is aimed at ensuring informed decision making and environmental accountability and to assist in achieving environmentally sound and sustainable development. In assessing the environmental and social feasibility of the proposed project, the requirements of all international and national relevant legislation have been considered as described in Chapter 3. This assessment will also inform the development of project design. Relevant regulations and guidelines informed the identification and development of appropriate management and mitigation measures that should be implemented in order to minimize potentially significant impacts associated with the project.

10.2. RECOMMENDATIONS

The proposed development is of national and regional significance that provides a vital connecting point for the country and regional East-West Road corridor link. Increased flexible mobility of private commuters and trade links within the SADC region. The project fits well with the country's umbrella development agenda outlined in the National Development Plan (2023-2028) as well as its feeder sectorial strategies such as the National Road Safety Strategy (2023-2030), Eswatini Transport Master Plan (2013-2023) as well as the Government's Programme of Action (2013 – 2018).

Social impacts that will result from the execution of this project were assessed to be significantly beneficial for the communities and the country. The presence of the negative impacts identified are significantly outweighed by the positive impacts and economic knock-on effects thereof. The following are recommended for consideration before the implementation of the project:

- The SMP is a detailed plan of action prepared to ensure that recommendations for enhancing positive impacts and preventing negative environmental impacts are implemented during the life cycle of a project. It is recommended that this plan be followed and/or enhanced as new risks are identified during implementation.
- The SMP should form part of the contract for the Contractor who will be responsible for the road construction.

11. REFERENCES

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