COMMUNITY HEALTH, SAFETY, AND SECURITY MANAGEMENT PLAN

ROVUMA LNG PROJECT

MZLN-EL-RPPLN-00-0006

REVISION MODIFICATION LOG

Revision	Section	Description
0		Issue for Use

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LIST OF REFERENCES

International Finance Corporation. (2012). International Finance Corporation's Performance Standards on Social and Environmental Sustainability. Washington, D.C.: International Finance Corporation
International Finance Corporation. (2012). International Finance Corporation's Guidanc e Notes: Performance Standards on Social and Environmental Sustainability. Washington , D.C.
International Finance Corporation International Finance Corporation. (2009). Introduction to Health Impact Assessment. Washington, D.C.: International Finance Corporation
International Finance Corporation. (2009). Projects and People: A Handbook for Addressing Project Induced In-Migration. Washington, D.C.: International Finance Corporation
Cowi Mozambique/SHAPE Consulting Ltd (2018), Regional Health Impact Assessment, completed for Anadarko Moçambique Área 1 Limitada
United Nations. (2011). Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework. Geneva: United Nations
World Health Organization. (2011). Guidelines for drinking-water quality – 4th edition Geneva: World Health Organization

1. PURPOSE AND SCOPE

MZLN-EL-RPPLN-00-0006 Rev 0 – Community Health Safety and Security Plan is an individual, topic specific plan comprising an integral component of MZLN-EL-RPPLN-00-0016 Rev 0 – Rovuma LNG Environmental and Social Management Plan (ESMP).

Information regarding the Project Overview, Objectives (of the ESMP), Scope, Project Components and Associated Facilities and other information regarding the context of the ESMP can be referenced in MZLN-EL-RPPLN-00-0016 Rev 0 – Rovuma LNG Environmental and Social Management Plan.

The principal objective of the ESMP is to facilitate the avoidance, reduction, and mitigation of environmental, social and community health, safety and security risks and impacts associated with the construction phase of the Midstream Project.

The ESMP sits within a broader Environmental and Social Management Framework, as illustrated in Figure 1-1 of MZLN-EL-RPPLN-00-0016 Rev 0 – Environmental and Social Management Plan.

This Framework comprises two overarching, system-level documents (Environmental and Social Management Plan and Environmental and Social Requirements for Contractors) and a set of theme and activity-specific documents that collectively describe how the Project will manage its environmental and social (E&S) risks. The listing of the ESMP set of documentation is contained below:

- MZLN-EL-RPPLN-00-0016 Rev 0– Environmental and Social Management Plan (ESMP)

- MZLN-EL-RAZZZ-00-0001 Rev 0 – Requirements for Camps and Accommodation

- MZLN-EL-RBENV-00-0001 Rev 1 – Environmental and Social Requirements for Contractor (with Annexes)

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 1 Air Quality, Greenhouse Gases and Energy Efficiency

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 2 Effluent Discharges

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 3 Waste Management

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 4 Hazardous Materials

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 5 Site Development, Construction and Reinstatement

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 6 Road Traffic and Transport

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 7 Marine Operations

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 8 Water Use and Abstraction

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 9 Raw Materials and Aggregates

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 10 Dredging

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 11 Lighting and Visual Impact

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 12 Ballast Water and Biofouling

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 13 Weed and Pest Management

  - MZLN-EL-RBENV-00-0001 Rev 1 Annex 14 Wildlife Protection

- MZLN-EL-RPLCP-00-0001 Rev 0 – Local Content Management Plan

- MZLN-EL-RPPLN-00-0005 Rev 0 – Community Development Support Plan

- MZLN-EL-RPPLN-00-0007 Rev 0 – Cultural Heritage Management Plan

- MZLN-EL-RPPLN-00-0008 Rev 0 – Supplemental Land Access Management Plan

- MZLN-EL-RPPLN-00-0009 Rev 0 – Project Induced In-Migration Management Plan

- MZLN-EL-RPPLN-00-0013 Rev 0 – DUAT Encroachment Management Plan

- MZLN-EL-RPPLN-00-0014 Rev 0 – Employment and Worker Relations Plan

- MZLN-EL-RPSEP-00-0001 Rev 0 – Stakeholder Engagement Management Plan

- MZLN-EL-RPPLN-00-0006 Rev 0 – Community Health Safety and Security Management Plan

- MZLN-EL-RPPLN-00-0004 – Biodiversity Strategy

- MZLN-EL-RPPLN-00-0011 – Biodiversity Action Plan

EMML has developed this document to describe actions that will be undertaken by EMML and Contractor to manage risks and potential impacts to community health, safety and security impacts arising from the Project.

While the focus of this Plan is direct impacts arising from Project construction activities, the Plan also considers indirect health, safety and security impacts to communities that can result from these activities, such as the consequences of deploying a large workforce to a rural location like Afungi (including employment of largely semi and unskilled people from local communities), population increases due to in-migration, and changes to lifestyle due to the introduction of cash into a predominantly subsistence-based society.

This Plan forms part of the Environmental and Social Management Plan (ESMP) and should be read in conjunction with the ESMP and its appendices, particularly the following:

- Camps and Accommodation (MZLN-EL-RAZZZ-00-0001 Rev 0)

- Employment and Worker Relations (MZLN-EL-RPPLN-00-0014 Rev 0)

- Project Induced In Migration (MZLN-EL-RPPLN-00-0009 Rev 0).

1.1. Objectives

The objectives of this Plan are to:

- Describe actions required to implement the construction-related management and mitigation measures outlined in the Environmental Impact Assessment (EIA) for the Liquefied Natural Gas Project in Cabo Delgado and the Regional Health Impact Assessment (Cowi Mozambique/SHAPE Consulting Ltd, 2018).

- Describe the processes and actions required to meet Environment License conditions imposed by the Government of the Republic of Mozambique (GoM), and Lender environmental and social (E&S) requirements, including International Finance Corporation (IFC) Performance Standards (PS) on Environmental and Social Sustainability (IFC, 2012)

- Describe additional measures required to implement Good International Industry Practice (GIIP)

- Facilitate the addition and/or modification of control measures as new data become available via monitoring activities, medical clinics and community-based sources

- Outline the roles and responsibilities of the organization in charge of implementing the Plan, including monitoring and evaluation

- Describe the processes for recording and reporting non-conformances, as well as measurement and reporting of E&S performance indicators.

1.2. Scope

This Plan applies to Project construction activities and the associated risks and potential impacts that these activities may have on community health, safety and security, as identified in the Environmental Impact Assessment (2014) and the more recent Regional Health Impact Assessment (2018).

The geographical scope is described by the Project Area of Influence which comprises two parts:

- The physical footprint of the project, comprising the area occupied by direct components and Associated Facilities (Area of Direct Influence). Direct components are centered on the DUAT (Direito de Uso e Aproveitamento da Terra) and the nearshore area fringing the DUAT (including the LNG Marine Terminal and associated marine shipping corridor, and the Materials Offloading Facility), while the Associated Facilities will typically be located outside these areas[1].

- The area directly and indirectly affected outside the physical footprint, as determined by the presence and interaction of Project aspects with the environmental and social characteristics of the surrounding area (Area of Indirect Influence). The Area of Indirect Influence encompasses the 'Project Affected Communities' referred to in the Regional Health Impact Assessment.

The risks and potential project impacts to community health, safety, and security can emanate from both within and outside the so-called "project fence." For this reason, the scope of this plan focuses on the management of aspects associated with the interaction of construction activities, the workforce, and the community.

The central element of the Plan is a set of control measures designed to avoid or mitigate the adverse effects of project activities on the health, safety, and security of the community, while at the same time, enhancing the beneficial effects and capitalize on opportunities that may contribute to improving overall community well-being. This element of the Plan is supported by management programs, organization structures and monitoring and evaluation processes required to achieve the desired outcomes of the control measures.

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[1] Resettlement activities and associated risks, mitigations and management plans are managed via the Resettlement Action Plan and the Resettlement Teams and are therefore deemed outside this scope / plan.

2.   ACRONYMS AND TERMS

Term	Definition
AIDS	Acquired Immune Deficiency Syndrome
CHIS	Community Health Information System
Contractor	A third-party supplier providing services to the Project, including EPC Contractor, the Early Works/Infrastructure contractors, and logistics contractors.
DHIS2	District Health Information System
DUAT	Direito de Uso e Aproveitamento da Terra. Mozambique's 1997 Land Law established a right to use land which is inheritable and—subject to certain restrictions—transferable
EIA	Environmental Impact Assessment
EHA	Environmental Health Area
ESMP	Environmental and Social Management Plan
GIIP	Good International Industry Practice
HGSF	Host Government Security Forces
HIV	Human Immunodeficiency Virus
HSS	Health Systems Strengthening
IEC	Information / Education / Communication
IFC	International Finance Corporation
LNG	Liquefied Natural Gas
Project	ROVUMA Project
MOH	Medicine and Occupational Health
NCD	Non-Communicable Diseases
NGO	Non-Government Organisation
NMCP	National Malaria Control Program
OIMS	Operations Integrity Management System
PIIM	Project Induced In-Migration
QA/QC	Quality Assurance/Quality Control
P&GA	Public and Government Affairs
SHE	Safety, Health and Environment
Socioec	Socioeconomic
STI	Sexually Transmitted Infection
TB	Tuberculosis
UXO	Unexploded ordinance

3.   LEGAL AND OTHER PROJECT STANDARDS AND REQUIREMENTS

The Project EIA provides a detailed review of the applicable Mozambican legislation and regulations, international financing institution best practice guidelines and industry guidelines relevant to community health.

The following requirements apply to community health, safety, and security, however, they should not be assumed to be an exhaustive list of all regulatory requirements and Project commitments.

3.1.   Mozambican Laws and Regulations

The following Mozambican laws, regulations and strategies have references to community and public health (refer Regional Health Impact Assessment, 2018):

- General Laws

    - Mozambique's 2004 Constitution

    - The Labor Law (Law 23/07 of 1 August 2007), with articles 216 through 236 outlining occupational health and safety requirements

    - Law on Local State Administration no 8/2003 and Decree no 15/2000 on Local Authorities, which both expand on the level of control and responsibility to local authorities for development and decentralization

    - Guidelines on Safety and Health in the Workplace. Ministry of Health (December 2008).

- Environmental Laws

    - The Environmental Law 20/97, of 1 October 1997

    - The Environmental Impact Assessment Regulation (approved by Decree 54/2015) that updates the decree 45/2004. This updated decree was enacted on 1 April 2016

    - The Environmental Regulations for Petroleum Operations is set out in Decree 56/2010, of 22 November

    - The Regulation on the Resettlement Process Resulting from Economic Activities, approved by Decree 31/2012, of 8 August

    - Regulation to Prevent Pollution and Protect Marine and Coastal Environment, approved by Decree 45/2006, of 30 November

    - The Forests and Wildlife Law (Law 10/99, of 7 June) and specific regulations

    - The Land Law (Law 19/97, of 1 of October)

    - The Land Planning Law (Law 19/2007 of 18 July) and its regulations

    - Mine (14/2002) and Oil (3/2001) Laws

    - The National Water Law (1991)

    - Pesticides Regulation (153/2002, of 11 September).

- Specific Health and Community-related Policies and Legislation

    - Regulation on Environmental Quality and Waste Emission (Decree 18/2004 of 2 June)

    - Pesticides Regulation (Ministerial Diploma 153/2002, of 11 September)

    - Regulation on Medical Waste Management (Decree 8/2003, of 18 of February)

- Housing Policy

- Occupational health and safety management

- National Water Law in 1991 and the National Water Policy from 1995 (plus updates from 2007)

  - Law on HIV/SIDA. Law 5 of 2002.

- General Strategies

- Poverty Reduction Action Plan 2011-2014. This strategy places emphasis on the need for economic growth as a means to reducing poverty.

3.2. International Treaties and Conventions

No specific treaties and conventions addressing community health, safety and security have been identified by EMML however, the Regional Health Impact Assessment, (2018) provides details of various international conventions that are relevant to the broader topic of health, and to which Mozambique is signatory.

3.3. International Guidelines and Standards

International standards, guidelines and practices that are relevant to community health, safety and security, and that informed this Plan, include:

- IFC Performance Standard 4: Community Health, Safety and Security

- Voluntary Principles for Security and Human Rights (2000)

- Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework (United Nations, 2011)

- Guidelines for drinking-water quality – 4th edition (World Health Organization, 2011)

- Introduction to Health Impact Assessment (IFC, 2009)

- Projects and People: A Handbook for Addressing Project Induced In-Migration Design Standards (IFC, 2009)

- The Migration Effect- Risk Assessment and Management Strategies for Addressing Project-Induced In-Migration; IFC, 2009

- IFC's Introduction to Health Impact Assessment Toolkit, 2009

- A guide to Health Impact Assessments in the Oil and Gas Industry, IPIECA 2016

- International Labor Organizations Code of Good Practice on HIV/AIDS

- U.N. Code of Conduct for Law Enforcement Officials; and U.N. Basic Principles on the Use of Force and Firearms by Law Enforcement Officials.

3.4. EIA License Conditions

The Project EIA identified a number of mitigation and enhancement measures designed to avoid or minimized potential adverse effects or enhance beneficial aspects. These measures are also contained within a set of Environmental Management Plans and form the basis of the Project License conditions. This set of License conditions is therefore a key element of this Plan (refer Section 3).

3.5.   EMML Policies

EMML has a set of policies that are relevant to community health, safety, and security, as outlined in the following sections. More broadly, EMML will follow the ExxonMobil Operations Integrity Management System OIMS, which defines ExxonMobil and Affiliates (EMML) commitment to managing risk and achieving excellence in performance.

3.5.1.   Health

It is EMML's policy to:

- Identify and evaluate health risks related to its operations that potentially affect its employees, contractors or the public

- Implement programs and appropriate protective measures to control such risks, including appropriate monitoring of its potentially affected employees

- Communicate in a reasonable manner to potentially affected individuals or organizations and the scientific community, knowledge about health risks gained from its health programs and related studies

- Determine at the time of employment and thereafter, as appropriate, the medical fitness of employees to do their work without undue risk to themselves or others

- Provide or arrange for medical services necessary for the treatment of employee illness or injuries and for the handling of medical emergencies

- Comply with all applicable laws and regulations and apply responsible standards where laws and regulations do not exist

- Work with government agencies and others to develop responsible laws, regulations, and standards based on sound science and consideration of risk

- Undertake appropriate reviews and evaluations of its operations to measure progress and to ensure compliance with this health policy

- Provide voluntary health promotion programs designed to enhance employees' and well-being, productivity, and personal safety. These programs may include periodic health evaluations, immunizations, and health risk factor reduction and they are tailored to local business circumstances. These programs should supplement, but not interfere with, the responsibility of employees for their own health care or their relationships with their personal physicians

- EMML owned and operated work sites, to include office buildings, fabrication yards, and temporary / permanent accommodations are smoke free (to include electronic cigarettes) except in specifically designated and posted smoking areas at each location.

ExxonMobil's Statement on Strategic Health Management prescribes that the EMML maintains an active commitment to the communities in which it works. ExxonMobil believes that self-sustaining improvements in public health are a key enabler for broader economic and social gains. By incorporating workforce and community health considerations in project planning, ExxonMobil plays a role in addressing the broader economic and social development of the communities in which it operates.

The Statement on Strategic Health Management has been adopted by the Project.

3.5.2. Safety

The EMML is committed to continuous effort to identify and eliminate or manage safety risks associated with its activities and, in general, to continuous improvement of its performance in health, safety, and environment. This commitment is contained in EMML's Safety Policy which is to:

- Design and maintain facilities, establish management systems, provide training, and conduct operations in a manner that safeguards people and property

- Respond quickly, effectively, and with care to emergencies or accidents resulting from its operations, cooperating with industry organizations and authorized government agencies

- Comply with all applicable laws and regulations and apply responsible standards where laws and regulations do not exist

- Work with government agencies and others to develop responsible laws, regulations, and standards based on sound science and consideration of risk

- Stress to all employees, contractors, and others working in its behalf their responsibility and accountability for safety performance on the job and encourage safe behavior off the job

- Undertake appropriate reviews and evaluations of its operations to measure progress and to ensure compliance with this safety policy.

3.5.3. Human Rights

ExxonMobil is committed to conducting business in a way that protects the security of its personnel, facilities and operations and respects human rights.

ExxonMobil's Standards of Business Conduct establishes its approach. Its practices and operations reflect the spirit and intent of the Universal Declaration of Human Rights (United Nations, 1948) as it applies to private companies and the spirit and intent of the ILO Declaration on Fundamental Principles and Rights at Work (International Labor Organization, 1998).

ExxonMobil policies support its commitment to human rights and include freedom of association, elimination of forced or compulsory labor, abolition of child labor, and equal employment opportunity. ExxonMobil condemns human rights violations in any form.

While recognizing that host governments have the responsibility of maintaining law and order, security and respect for human rights, the private sector also has a responsibility to respect human rights within the role of business.

Therefore, ExxonMobil believes that:

- It has an important role to play in promoting respect for human rights

- Its business presence can and should have a positive influence on the treatment of people in the communities in which it operates

- Security and respect for human rights can and should be compatible

- Human rights violations are not acceptable and should be condemned.

ExxonMobil formally documented its support of the Voluntary Principles on Security and Human Rights (Secretariat for the Voluntary Principles on Security and Human Rights, 2000), referred to herein as the Voluntary Principles, in 2005 through its Statement of Principles on Security and Human Rights. Through this Statement, EMML is required to assess security

requirements from a risk perspective, and consider available information regarding private security providers' past compliance with laws and respect for human rights.

The Human Rights commitments outlined above have been adopted by the Project.

3.5.4.   Security

EMML will continuously reinforce the importance of security and implement appropriate and balanced security measures, based on existing corporate systems. This is achieved by:

- Establishing practices and guidelines

- Providing perspective

- Setting objectives

- Providing appropriate resources.

Appropriate and balanced security measures take into account:

- Perceived versus actual risk

- The cost and practicality of potential countermeasures

- The relationship with the communities in which EMML operates

- Compliance with applicable laws

- Recognition of unique cultural and social norms.

4. MANAGEMENT

The risks and potential impacts of proposed construction activities on community health, safety and security, and the related impact avoidance and mitigation measures, are based on the conclusions of the original EIA (2014) and the more recent Regional Health Impact Assessment (2018). These assessments involved an extensive range of activities including:

- Desk-top literature reviews from standard sources and peer-reviewed articles and reports

- Follow-up field surveys and assessments with the objective of identifying potential health impact areas of concern and associated data gaps through the triangulation of data

- A participatory data collection exercise based on a Focus Group Discussion methodology, conducted in eight communities

- An epidemiological baseline health survey which collected primary data on key indicators from a variety of axes including: questionnaire studies, biomedical sampling and evaluation of environmental health conditions

- A rapid field validation trip in March 2018, focusing on key informant interviews with stakeholders in Pemba, Mocimboa da Praia and Palma.

An Environmental Health Areas (EHA) framework was used to define the types of health impacts and provide a structure for organizing and analysing risks and potential project impacts on the community (Table 4-1); (IFC, 2009; IPEICA, 2016). Some additional categories have been added to cover topics that span all EHAs, such as Emergency Response; Information, Communication and Education; Project Induced In-Migration (PIIM); Occupational Health and Safety; Security; etc.

The strategy adopted by this Plan is based on a combination of three key elements: **primary disease prevention, health promotion / education,** integrated with **security** considerations.

Primary disease protection focuses the application of well-established, simple, cost effective public health interventions, with an emphasis on prevention. These interventions recognize the continuum between the Project and the community, linked by the section of the Project workforce that is part of the broader community.

A workforce health promotion / education approach can impact or influence behaviors and practices in local communities. Management activities, whether directed towards workers, family members or the general community, all seek to positively influence community health, while also recognizing that the overall responsibility of improving community health rests with the Government, and not with the Project.

Another key consideration captured by the strategy is that community health and management require an understanding of the social and cultural processes through which communities experience, perceive, and respond to risks and impacts. Community perceptions are often conditioned less by technical or quantitative assessments, and more by the ways in which community members experience change in their environments. They are, for example, likely to have greater perception of risk where it is involuntary, complex, beyond their personal control, or where the distribution of risks and benefits is considered inequitable (IFC, 2012). This element of the strategy highlights the need for community engagement and extends into the third key element, security.

Table 4-1: Summary of Identified Environmental Health Areas

No.	Environmental Health Area
1	**Communicable diseases** linked to the living environment (e.g., housing). Transmission of communicable diseases (e.g. acute respiratory infections, pneumonia, tuberculosis, meningitis, plague, leprosy, etc.) that can be linked to inadequate housing design, overcrowding and housing inflation. It also considers indoor air pollution related to use of biomass fuels
2	**Vector-related diseases**—Mosquito, fly, tick and lice-related diseases (e.g. malaria, dengue, yellow fever, lymphatic filariasis, rift valley fever, human African trypanosomiasis, onchocerciasis, etc.)
3	**Soil, water and waste-related diseases**—Diseases that are transmitted directly or indirectly through contaminated water, soil or non-hazardous waste (e.g. diarrheal diseases, schistosomiasis, Hepatitis A and E, poliomyelitis, soil-transmitted helminthiases, etc.)
4	**Sexually transmitted infections** (STIs) including HIV/AIDS—Sexually-transmitted infections such as syphilis, gonorrhea, chlamydia, hepatitis B and, most importantly, HIV/AIDS. Linkages of TB will be discussed where relevant under HIV, but often linked to EHA1
5	**Food and nutrition related issues**—Adverse health effects such as malnutrition, stunting, wasting anemia or micronutrient deficiencies (including folate, Vitamin A, iron, iodine) due to e.g. changes in agricultural and subsistence practices, or food inflation; gastroenteritis, food-borne trematodiases, etc. This will also consider feeding behaviors and practices. Access to land plays a major role in developing subsistence farming contexts
6	**Non-communicable diseases**—hypertension, diabetes, stroke, and cardiovascular disorders, and cancer
7	**Accidents and injuries**—road traffic related, spills and releases, construction (home and project-related) and drowning
8	**Veterinary medicine and zoonotic diseases**—Diseases affecting animals (e.g. bovine tuberculosis, swinepox, avian influenza) or that can be transmitted from animal to human (e.g. rabies, brucellosis, Rift Valley fever, Lassa fever, leptospirosis, etc.)
9	**Exposure to potentially hazardous materials, noise and malodors**—pesticides, fertilizers, road dust, air pollution (indoor and outdoor related to vehicles, noise, exposure to malodours, cooking, heating or other forms of combustion/incineration), landfill refuse or incineration ash, any other project-related solvents, paints, oils or cleaning agents, by-products or release events
10	**Social determinants of health**. Psychosocial (social, including Key Determinants of Health)—resettlement/relocation, violence, security concerns, substance misuse (drug, alcohol, smoking), depression and changes to social cohesion
11	**Cultural health practices**—role of traditional medical providers, indigenous medicines and unique cultural health practices
12	**Health services infrastructure and systems issues**—physical infrastructure, staffing levels and competencies, technical capabilities of health care facilities at district levels; program management delivery systems – coordination and alignment of the project to existing national- and provincial-level health programs (e.g. TB, HIV/AIDS) and future development plans
13	**Health programs**—coordination and alignment of the project to existing national and provincial level health programs, (e.g., TB, HIV/AIDS, malaria), and future development plans

Community security requires the consideration of an additional set of factors that, while linked, are not specifically covered by the EHAs. These are based on EMML requirements summarized in Section 2.5.4 and include:

- Assessment of the risks posed by its security arrangements to those within and outside the project site, guided by the principles of proportionality and good international practice in relation to hiring, rules of conduct, training, equipping, and monitoring of such workers, and by applicable law

- Vetting of candidates for security positions with respect to previous deployments and association with past abuses

- Training of security team with respect to the appropriate use of force (and where applicable, firearms), appropriate conduct toward workers and Affected Communities

- Development of a grievance mechanism for Affected Communities to express concerns about the security arrangements and acts of security personnel.

Table 4-2 presents a summary of the potential impacts related to community health, safety and security, together with management measures to avoid or reduce these impacts.

Table 4-2: Community Health, Safety and Security Impact and Risk Mitigation

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA1: Housing and respiratory (Communicable Disease – TB and other communicable diseases linked to the living environment)	• Increased burden of disease in community resulting from increased population (workforce and in-migration) and crowded accommodation (community and camps)	• Increased burden of disease in workforce, resulting in increased demand on Project health services and reduced productivity • Reputation damage • Community resentment	01	• Develop and implement a Workforce TB program that includes Project employees, all contractors and local laborers, with consideration to resources required for increased workforce numbers and diversity	C_CH06	EMML and Contractor
	• Increased number of occupants per room, mixing of occupants (children / elderly / adults) with different vulnerabilities)		02	• Implement TB prevention and control program with medical confirmation of TB status before assignment		Contractor
	• Transfer of disease from workforce to community • Increased demand on local community health services • Diminished quality of health care and treatment for local communities as existing limited capacities are overwhelmed		03	• Proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan, and include: TB management policy and program for the workforce; vaccination program for all employees, contractors and visitors; contractor management and compliance with the TB and vaccination programs; ensuring that adequate housing is available to the workforce so that overcrowding does not occur	EIA - 13.5.1 SE 39, SE40, SE41, SE42	Contractor
			04	• Provide worker education on TB and its prevention to enable workers to take knowledge into community		Contractor
			05	• Project to notify Government of TB cases (Government to follow up with family members of workers diagnosed with TB at work camp as part of national TB program)		EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
			06	• Medical clearance required for return to work for all employees and contractors diagnosed with TB		Contractor
			07	• Conduct close contact investigation in accordance with TB control program		Contractor
			08	• Adhere to appropriate worker accommodation design and capacity		Contractor
EHA1: Housing and respiratory (Cont'd) (Vaccine preventable diseases)	• Potential increase in measles, mumps, rubella, chicken pox, pneumococcal pneumonia, influenza, typhoid outbreaks in the community related to population influx or the introduction of personnel who are not immunized	• Increased burden of disease in workforce, resulting in increased demand on Project health services and reduced productivity • Reputation damage • Community resentment	09	• Define and implement pre-employment medical requirements (per minimum health requirements for Project)		Contractor
	• Increased burden of disease in community • Increased demand on local community health services		10	• Implement infectious disease outbreak management program for workers to reduce potential for outbreaks and if they occur to contain them and reduce the risk of migration out to local communities		Contractor
	• Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed		11	• Require active vaccinations to workforce as necessary	C_CH008	Contractor
			12	• Require immunization for transferable diseases for Project workers focused on higher risk profiles (e.g. kitchen staff)		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA2: Vector-related diseases (Communicable diseases – malaria and other vector related diseases)	• Open water sources are created and/or enlarged, as a result of construction activities and storage of plant, materials and equipment, with the potential for increased mosquito breeding sites	• Increased burden of disease in workforce, resulting in increased demand on Project health services and reduced productivity • Reputation damage • Community resentment	13	• Perform a baseline entomological study to define the most predominant vector species in the area, as well as determining the susceptibility of mosquitoes to the different classes of insecticides	C_CH016	EMML
	• Potential exposure to water-borne, water-based, water-related and vector-borne diseases		14	• Develop a robust baseline to describe the malaria burden	EIA - 13.5.2 SE 43	EMML
	• Increased burden of disease in community • Increased demand on local community health services		15	• Ensure health design specifications are considered and incorporated into facility and infrastructure design to reduce vector proliferation, human contact and reduction in breeding sites	EW_CH020	Contractor
	• Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed		16	• Develop vector-breeding source reduction procedures at near- and on-shore activities, specifically around earthworks, camps and where goods from international origin is stored. Consider the appropriate storage / cover of goods or, where this cannot be avoided, drainage or application of larvicide	C_CH017	Contractor
			17	• Maintain and expand good housekeeping and waste management on all Project sites to prevent the creation of potential vector breeding sites as per Early Works	C_CH020	Contractor
			18	• Provide information for training of workers in malaria awareness so they can take knowledge back to communities		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA2: Vector-related diseases (Cont'd)			19	• Evaluate opportunities to develop a Community Malaria Control Program as an extension of the workplace program	C_CH016	EMML.
			20	• Undertake an integrated vector surveillance and control program in Project premises and immediate surrounding areas		Contractor
			21	• Provide bed nets to workers for take home use		EMML
			22	• Conduct insecticide resistance testing		EMML
			23	• Continue the development and implementation of health design specifications that consider malaria and other vector related diseases in any new Project-related developments that may occur in construction or later on in operations. The location of the development and nature of the design should consider the risk of all vector related diseases	C_CH-018	EMML
			24	• Evaluate including the training of health facility staff and community health workers on Integrated Management of Childhood Illness principles	C_CH024	EMML
			25	• Maintain and expand the integrated workplace malaria and vector control program as in the early works phase, including all required program elements. Resources and activities are to be scaled up proactively to accommodate the ramp-up of Project personnel numbers and activities during the construction phase	C_CH021	Contractor
			26	• Evaluate supporting the district health authorities with lymphatic filariasis eradication programs to ensure adequate coverage of target areas with community directed treatment programs	C_CH025	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA2: Vector-related diseases (Cont'd)			27	• Place polystyrene balls in pit latrines to reduce the number of *Culex spp.* as they may create an impression that mosquito activity has increased. While these mosquitoes do not transmit malaria, they have been implicated in the transmission of lymphatic filariasis. This will be especially important in latrines constructed in resettlement areas	C_CH026	Contractor
			28	• Provide a vector control and dengue management program with case definitions, diagnostics at work sites etc		Contractor
			29	• Educate workers about reducing dengue risks in the home		Contractor
			30	• Proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan, and will include, developing an integrated malaria and vector control management plan that includes: • Chemical control programs, which should be based on integrated vector/pest management principles; • Effective case management of suspected and confirmed cases; and • Appropriate information, education and communication (IEC) programs within the workforce mobilization plan that occur prior to secondment and are ongoing at site.	EIA - 13.5.2 SE 45	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA3: Sexually transmitted diseases (Communicable diseases – HIV/AIDS and other STIs)	• Mixing of high and low prevalence groups (in-migration and establishment of large construction workforce)	• Increased burden of disease in workforce leading to increased demand on Project health services and reduced productivity	31	• Develop a clear HIV policy and program in the workplace. It is important that this framework is established at an early stage, so that the programs are functional prior to construction	EIA - 13.5.4 SE 50	Contractor
	• Facilitating the movement of high-risk groups into rural settings (e.g., truck drivers)	• Reputation damage • Community resentment	32	• Operate a closed camp policy for expatriates, Third Country Nationals and the rotational national workforce to limit exposure of impacted communities to the Project workforce, and therefore to potential communicable diseases and potential transmission	EIA - 13.5.1 SE 35	Contractor
	• Men with money mixing with vulnerable women		33	• Worker education to focus attention on the identification and treatment of curable STIs in Project workers, including making condoms and femidoms available to workers		Contractor
	• Transfer of disease from in-migrants and workforce to community		34	• Maintain voluntary counselling, testing, and referral testing for HIV consistent with local laws		Contractor
	• Increased burden of disease in community		35	• Develop an effective interface with community / traditional leaders / APEs as well as district authorities to report any increase in high risk sexual behavior from elements of the workforce and development of commercial sex work in communities especially linked the Project workforce	C_CH043	Company
	• Increased demand on local community health services		36	• Develop a Project Community communicable disease strategy that considers HIV and Sexually Transmitted Infections and is integrated and aligned with the Project Occupational HIV program as well as other strategy elements	C_CH045	Company

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA3: Sexually transmitted diseases (Cont'd)	• Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed		37	• Gather key data on reproductive health and STIs in the Project area	EIA - 13.5.4 SE 49	Company
			38	• Proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan, and will include: developing HIV and STI management programs for the workforce; encouraging widespread availability and social marketing of condoms in the workplace	EIA - 13.5.4 SE 54, SE55	Contractor
			39	• Implement health service planning and strengthening to ensure adequate health service capacity for TB diagnosis and management in the Study Area	EIA - 13.5.1 SE 36	EMML
			40	• Develop a clear HIV policy and program in the workplace. It is important that this framework is established at an early stage, so that the programs are functional prior to construction	EIA - 13.5.4 SE 50	Contractor
			41	• Maintain and expand IR, HSE and transport management measures related to Project drivers and Project related logistics contractors based on outcomes of the early works phase. Ensure management measures are sufficiently scaled up to accommodate the increased resource requirements during the construction phase	CH042	Contractor
			42	• Support the national TB, HIV/AIDS control program through information, training, education of workers and screening processes in camp clinic when indicated		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA3: Sexually transmitted diseases (Cont'd)			43	• Develop and maintain Project pandemic preparedness policies and programs to reduce the impact of any suspected or confirmed outbreak of communicable disease at the Project level. These need to include effective surveillance mechanisms by the Project medical services and business continuity plans	E_CH13	EMML
EHA4: Soil, water and sanitation related diseases	• Sewage Treatment Plant overflowing into area impacting surface drinking and bathing water sources, contamination of nearshore marine areas used for fishing and gathering of marine resources increasing faecal-oral diseases	• Increased burden of disease in workforce leading to increased demand on Project health services and reduced productivity • Reputation damage • Community resentment • Compensation claims	44	• Operate and monitor Sewage Treatment Plants according to design capacity		Contractor
			45	• Provide surge capacity and monitoring of the system		
			46	• Continue to ensure that Project facilities design consider the development of adequate and appropriate sewerage treatment facilities (in both capacity and number) for the management of sewerage and waste water generated by Project infrastructure	C_CH029	Contractor
	• Depletion of quantity and quality of local water supplies due to Project demand, impacting community drinking, bathing and laundry water supplies, and increasing water-related diseases		47	• Monitor water-related impacts according to the relevant Environmental Management Plan		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA4: Soil, water and sanitation related diseases (Cont'd)	• Increase in faecal-oral diseases resulting from open defecation by the workforce		48	• Ensure adequate number of appropriate mobile sanitation facilities in all work areas. Associated with code of conduct and sanctions for non-conformance	E_CH038	Contractor
	• Over-burdening existing services and systems leading to community water-related outbreaks (e.g. cholera) in nearby communities or worker populations		49	• Implement infectious disease outbreak management program for workers to reduce potential for outbreaks and if they occur to contain the outbreak and reduce the risk of transmission to unaffected populations		Contractor
			50	• Perform longitudinal monitoring of water conditions. These should be conducted in partnership with the district health authorities as well as the district water / sanitation utility authorities and should include monitoring of longitudinal data sets as well as specific indicators collected at baseline and linked to mitigation activities	C_CH001	EMML
			51	• Evaluate opportunities to develop an effective surveillance system to monitor the impacts of water and sanitation conditions, in partnership with the local authorities	EIA - 13.5.3 SE 46	EMML
			52	• Maintain and extend the support of sustainable WASH programs in Afungi communities. Develop specific initiatives based on findings from CHIS to focus on areas of greatest need	C_CH034	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA4: Soil, water and sanitation related diseases (Cont'd)			53	• Maintain and expand (based on outcomes of the early works phase) WASH initiatives implemented during early works to manage the potential influx related impacts in the RV and other PACs, focusing on Information, Education and Communication, improved hygiene and sanitation practices and improved sanitation infrastructure	C_CH036	EMML/Contractor
			54	• Maintain (and possibly expand) WASH programs in the broader Palma and MDP communities that may be subject to sanitation and waste management related impacts. Close collaboration with local authorities is advised	C_CH34	EMML
	• Camp environment could create increases in skin diseases among workers that are then transmitted back to their home environment (lice infestations due to laundry and cleaning practices; scabies transmission due to close personal contact).		55	• Provide training/education for workers on how to avoid and manage skin diseases		Contractor
	• Home environments could create increases in skin diseases among workers that are then transmitted back to work camps (lice infestations due to laundry and cleaning practices; scabies transmission due to close personal contact)		56	• Provide treatment for skin diseases for workers at site clinics		Contractor
	• Project waste could create fly breeding sites, increasing rates of eye infections and fly / sanitation related diarrheal diseases		57	• Monitor waste management practices within Project premises and at landfills		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA4: Soil, water and sanitation related diseases (Cont'd)	• Contamination of soil and water by project wastes		58	• Maintain and expand water management processes for all Project sites and scale in accordance with the requirements for the construction phase	C_CH031	Contractor
			59	• Maintain and extend implementation of waste management plans for all Project and contractor sits to ensure proper disposal of all waste streams that is generated by the Project and reducing the risk of ground and surface water contamination	C_CH032	Contractor
			60	• Maintain and expand (as required and based on outcomes of the early works phase) management measures for Project infrastructure related to waste water and sewerage management processes	CH037	Contractor
			61	• Ensure that the Project medical services maintain capability and capacity to screen for sanitation related diseases that may pose an infectious risk or has outbreak potential to the workforce and potentially, the surrounding communities	C_CH039	Contractor
			62	• Conduct Information / Education / Communication (IEC) campaigns in the workforce on proper water use, hygiene and sanitation	EIA - 13.5.3 SE 47 C_CH038	Contractor
			63	• Provide worker accommodation camps and work areas with sufficient potable water facilities, and conducting monitoring and surveillance activities to ensure water is potable	EIA - 13.5.3 SE 48	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA5: Food and nutrition related illnesses	• Inflation of food prices due to increased demand resulting from in-migration and Project workforce could affect household's access to food and nutrition levels, exacerbating the prevalence of diseases such as stunting, wasting, anemia, micro-nutrient diseases, etc.	• Reputation damage • Community resentment	64	• Monitor food cost inflation and where significant changes to affordability occur, assess economically displaced households to identify any newly vulnerable people	EIA - 13.5.5 SE 58	EMML
	• Influx of extended family resulting in more mouths to feed		65	• Support programs that promote local farming practices to increase yields through improved farming techniques	C_CH056	EMML
			66	• Consider supporting community initiatives in both the Resettlement Village and other PACs in the Local Study Area that focus on nutrition	C_CH055	EMML
			67	• Implement and extend local economic development initiatives associated with agriculture, farming and entrepreneurial activities that were started in early works. Seek to establish a linkages program where different elements in the supply chain can support each other to promote sustainable and effective programs	EIA - 13.5.5 SE 56	EMML
			68	• Undertake a baseline nutritional and micronutrient deficiency survey in the Study Area	C_CH051	EMML
			69	• Develop and implement community initiatives on nutrition	EIA - 13.5.5 SE 58	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA5: Food and nutrition related illnesses (Cont'd)	• Transmission of food- related illnesses, originating within Project facilities, to nearby communities via various forms of interaction (e.g. employment)	• Increased burden of disease in workforce leading to increased demand on Project health services and reduced productivity	70	• Conduct health assessment of Project catering facility services, facilities and food waste disposal		Contractor
	• Food waste could attract poisonous snakes and rodents	• Reputation damage • Community resentment	71	• Monitor on-site food waste management		Contractor
			72	• Establish and enforce policies and practices for leftover site catering facility food products		Contractor
			73	• Implement Vector Surveillance and Control Management Plan		Contractor
			74	• Develop educational materials regarding food related disease prevention		Contractor
	• Disease burden on local workforce		75	• The proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan, and will include: IEC programs and nutritional programs in the workplace that promote proper feeding practices to prevent obesity and non-communicable diseases (NCD)	EIA - 13.5.5 SE 59	Contractor
EHA6: Non-communicable diseases	• Changes in diet of local workforce		76	• As part of the medical surveillance activities in the workforce, screen for Non Communicable Diseases. This is an important fitness for duty requirement and should be incorporated into the occupational health program as an essential health promotion intervention	C_CH062	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA6: Non-communicable diseases (Cont'd)	• Changes in non-communicable disease rates (diabetes, hypertension, etc.) in Mozambican workforce employees due to changes in nutrition habits, food availability and shift from high physical activity to more sedentary lifestyle		77	• Develop and implement Information, Education and Communication programs and nutritional programs in the workplace that promote proper feeding practices to prevent obesity and Non Communicable Diseases	C_CH054 C_CH060	Contractor
			78	• Raising awareness regarding alcohol abuse, drug dependency associated with a breakdown in household structures, community tensions and social dysfunction associated with the potential negative impacts of PIIM	EIA - 13.4.4 SE 33	Contractor
			79	• Manage the onsite catering facilities in the type of food and the size of portions that are provided. Seek guidance from dieticians to support the design of menus in the canteens	C_CH061	Contractor
			80	• Develop and implement education programs in the local workforce on financial management and support of the household units in employees that have traditionally followed a subsistence lifestyle. This may require specific education of men who may earn a wage from the Project and the need to support the family unit	C_CH053	Contractor
			81	• Ensure the workplace medical service provider is able to recognize, manage and effectively follow up chronic diseases	C_CH063	Contractor
			82	• Initiate wellness programs in the workplace for the prevention of chronic diseases through management of modifiable risk factors	C_CH064	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA6: Non-communicable diseases (Cont'd)			83	• Support Information, Education and Communication programs as part of community-based outreach programs that should focus on lifestyle risk factors such as diet, exercise, smoking, oral health and alcohol consumption	C_CH058	EMML
			84	• Support school-based Information, Education and Communication programs as they are the generation who are most likely to be affected by these diseases in the medium to long term	C_CH059	EMML
			85	• Consider promoting well-being and healthy lifestyle programs in the communities through different planned interventions	C_CH065	EMML
			86	• Support the local health authorities to implement an integrated Non Communicable Disease intervention program based on national or WHO programs with the intent to reduce risk factors in the community	C_CH066	EMML
EHA7: Accidents and injuries	• Increased road traffic and associated risk of accidents and injuries (livestock and people)	• Community resentment • Reputation damage	87	• Ensure drivers successfully complete the Project driving safety requirements and possess a valid driver's license for Mozambique		Contractor
		• Blockages and stoppages	88	• Develop and implement fitness for work programs for drivers and personnel operating mobile equipment and machinery including vessels operating in the near shore area	C-CH072	Contractor
		• Lost productivity • Legal and compensation claims	89	• Maintain and expand on the required community road safety initiatives that were started during early works phase. Adapt and refine these as required to ensure they remain relevant and address risks. Data should be evaluated on accident trends and high-risk areas to focus interventions as required	C-CH069	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA7: Accidents and injuries (Cont'd)			90	• Implement road safety awareness and education programs for impacted communities, including school programs		EMML
			91	• Project to set speed limits and monitor driver behavior		Contractor
			92	• Maintain an emergency response capability to address contingencies for emergency assistance for drivers and third parties as necessary		Contractor
			93	• Developing and effectively communicating a policy for the management of emergencies or accidents in the community as a direct result of the Project's activities. This will be developed as part of the Project's community safety and security management plans and Emergency Response Plan	EIA - 13.5.6 SE 60	Contractor
			94	• Maintain and, as required, update (based on outcomes from the early works phase) the documented agreement with provincial and district authorities regarding the interface and roles and responsibilities of stakeholders during non-Project related and Project related health emergencies / incidents	C_CH005	EMML
			95	• Provide PPE to employees, based on risks associated with each activity	EIA - 13.5.6 SE 65	Contractor
			96	• Develop and implement workplace illness/injuries compensation fund in accordance to the national laws and good international industry practice	E_CH065	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY

(Occupational health and safety- Driver training and behavior)	• Injury and death to people and animals
	• Damage to property and community assets
		• Legal and compensation claims
		• Damage to reputation
		• Community resentment
		• Work disruption due to blockages and stoppages
			97	• Proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan, and will include:
				  • Managing mobile equipment and machinery, which will assessment of their fitness to work as drivers, supported by specific medical surveillance programs
				  • Strictly enforcing drug and alcohol policies for all work-related vehicles, including contractor transport vehicles
				  • Employee and contractor management for Project transport vehicles. These need to include specific requirements for driver training, rest periods, vehicle roadworthiness, speeding, etc.
					EIA - 13.5.6 SE 62 / SE 63 / SE 64	Contractor

EHA8: Zoonotic diseases	• Movement, migration and mixing of livestock due to in-migration		98	• Monitor new construction or changes to footprints of animal husbandry activities adjacent to the Project Plant site		EMML
	• Creation and / or movement of livestock watering locations		99	• Evaluate supporting the improvement of veterinary public health services in study area	C_CH091	EMML
	• Proximity of people and animals (particularly pigs and poultry operations) presents a risk to health of workforce and community through disease transmission		100	• Evaluate support with the local markets where animals are sold or slaughtered, to prevent transmission of disease	C_CH092	EMML
			101	• Based on the demand for local meat, evaluate the need and, if required, support the development of an abattoir	C_CH093	EMML

Rovuma LNG

COMMUNITY HEALTH, SAFETY, AND SECURITY MANAGEMENT PLAN

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TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA9: Exposure to potentially hazardous materials, noise, and malodors	• Releases to air, soil, groundwater and surface water of potentially hazardous materials	• Breach of Duty-of-care • Legal claims and claims for compensation • Reputation damage	102	• Implement environmental monitoring programs (air emissions, noise, water, etc.)		Contractor
			103	• Manage noise exposure to community per design specifications		Contractor
			104	• Design and develop appropriate environmental health program to reduce the potential risk of airborne pollutants such as dust, which may impact on community health	EIA - 13.5.1 SE 37	Contractor
	• Used / discarded hazardous materials containers could be used for rainwater catchment in local communities	• Breach of Duty-of-care • Legal claims and claims for compensation • Reputation damage	105	• Monitor chemical control and container/waste management programs		Contractor
			106	• Implement materials control program to address proper disposal and/or improper use of containers		Contractor
			107	• Ensure the development and implementation of effective waste management so the communities do not use Project-related discarded containers that may have contained hazardous materials for collecting of water or storage of water or related domestic products	C_CH104	Contractor
	• Community exposure to insecticides used for malaria control activities within Project premises via air, soil and water routes	• Breach of Duty-of-care • Reputation damage	108	• Implement an insecticide selection process so that, where appropriate, substitutes are used following the management of change procedure)		Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA9: Exposure to potentially hazardous materials, noise, and malodors (cont'd.)			109	• Ensure that pest control activities and associated selection of insecticides for malaria control and other pest control activities conform to national programs and policies.	C_CH082	Contractor
	• Spills, leaks and other accidental releases from Project facilities or related activities (transport) resulting in community safety- related risks and impacts (e.g. contamination of water supplies, soil contamination, etc.)	• Community resentment • Blockages and stoppages • Legal claims and claims for compensation	110	• Evaluate the potential for substituting hazardous materials with safer alternatives		Contractor
	• Exposure to hazardous materials from the Project		111	• Implement measures to avoid spills affecting communities, as defined in the Emergency Preparedness Plan		Contractor
			112	• Utilize international practices for the management of hazardous wastes		Contractor
			113	• Develop a system that requires both environmental and health/safety approvals to request new hazardous chemical substances for procurement	C_CH105	Contractor
			114	• Undertake a risk assessment on all hazardous chemical substances on site and determine the specific human health risks that may potentially result from exposure to a product or by product of a process or emission	C_CH106	Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA9: Exposure to potentially hazardous materials, noise, and malodors (cont'd.)	• Explosion of an Unexploded UXO disturbed by a community member	• Community resentment • Risk to reputation	115	• When the need arises, the Community Relations team can integrate awareness talks about this subject into engagements with the Project-affected communities; ensure discovered UXO is safeguarded until authorities arrive		EMML
EHA10: Social determinants of health	• Mixing of cultural groups in Project camps could contribute to cross cultural violence within communities	• Workforce disharmony • Reduced productivity • Enhanced risk of accidents and incidents	116	• Manage cross cultural issues at work camps for other country nationals and Mozambican ethnic groups		Contractor
	• Opening of roadways creating in-migration of different cultural groups with potential to disrupt social cohesion		117	• Conduct worker education on cultural sensitivity, violence, contraband and harassment etc.		Contractor
	• Increased income by some community members disrupting social cohesion, increasing drug and alcohol use and increasing violence		118	• Establish system to monitor violence at the community level		EMML
	• Cultural shock due to rapid social change • Transformation from rural to peri-urban/urban lifestyle • Sudden influx of cash into a barter-based economy		119	• Indirectly advocating awareness through partnerships with community-based organizations		EMML
EHA11: Cultural Health Practices	• Introduction of new practices/elimination of existing practices		120	• Evaluate opportunities to support the retention of the role of traditional and cultural authorities and governance structures in communities to limit the development of social ills in communities (if not implemented during early works)	C_ CH119	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
EHA12: Health services infrastructure and services;	• Increased demand on local community health services		121	• Evaluate opportunities to support specific health systems strengthening (HSS) activities in the District	EIA - 13.5.4 SE 52	EMML
EHA13: Health Programs	• Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed. (NOTE: Project policies typically do not provide for treatment of community populations)		122	• Implement health service planning and strengthening to ensure adequate health service capacity for TB diagnosis and management in the Study Area	EIA - 13.5.1 SE 36	EMML
	• National employee expectations for medical treatment of family members		123	• Consider health systems strengthening (HSS) in the Palma District to extend the National Malaria Control Program (NMCP) policies and activities into the Study Area and District to mitigate the effects of increased local disease patterns and PIIM mitigations	EIA - 13.5.2 SE 45	EMML
	• Fitness for Duty medical requirements have consequences for follow up and treatment that cannot be delivered locally, e.g. TB, eye exams, hypersplenomegaly (enlarged spleen), periorbital abscess		124	• Engage and partner with the Ministry of Health in these elements, so that the service delivery options are structured appropriately into the national and provincial models	EIA 13.5.8 SE 72	EMML
			125	• Consider the upgrading of Palma Hospital to the level of a district hospital, to cater for population growth in the area	EIA - 13.5.8 SE 71	EMML
			126	• Consider supporting access to healthcare services in the Study Area	EIA - 13.5.8 SE 70	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
			127	• Project national employees will come under the Project Human Resources benefits program		Contractor
			128	• Facilitate partnerships for improvement of training and education for staffing of aid posts, community-based health care and health centers		EMML
			129	• Identify service provider for follow up treatment of issues identified in fitness for duty exams		Contractor
			130	• Develop and implement Project Community Health Information System (CHIS) with selected key indicators to longitudinally track community health metrics. Performed in alignment with Health Systems Strengthening initiatives to support data collection through the existing District Health Information System (DHIS2) on a health facility and community level	C_CH001	EMML
			131	• Consider supporting the development of institutional capacity in the local health and water/sanitation authorities to support the long-term planning, development and maintenance of infrastructure in the district	C_CH033	EMML
			132	• Evaluate the opportunity to partner with the local health care authorities to improve the functionality of health care services and to improve health seeking behavior towards the formal health sector for serious conditions	CH134	EMML
Information / Education / Communication (IEC)	• Exposure to risks and impacts due to lack of information and education		133	• Implementing health, hygiene and sanitation, communicable disease, STI and HIV/AIDS education campaigns to raise awareness among communities of the potential health impacts associated with increasing population, and pressure on water and waste disposal services	EIA - 13.4.4 SE 33	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
			134	• Consider supporting IEC programs in local communities as part of an integrated approach, together with water and sanitation and malaria programs	EIA - 13.5.5 SE 57	EMML
			135	• Maintain and expand IEC campaigns in the entire Project workforce (including Project employees, all contractors and local workforce members), focusing on water use, hygiene and sanitation principles	C_CH030	EMML
Conflict	• Abandonment of local communities • Regional destabilization • Threat to well-being of local residents	• Hostility and suspicion directed at project by impacted communities • Need for increased security measures • Loss of confidence by residents and regional government	136	• Evaluate opportunities to work with local authorities on security intelligence and addressing the risk of acts of terrorism in the area	E_CH052	EMML
Security personnel—Private: hiring, rules of conduct, training, equipment and monitoring.	• Inappropriate use of force by Host Government Security Forces (HGSF) or absence of Government support when needed • Human Rights abuses • Failure to identify security risks to communities and to employees	• Loss of trust and support of local communities • Potential radicalization of local residents directed at project • Reputational risk for Project and Sponsors • Legal claims and claims for compensation • Perception that HGSF are working for the Project	137	• Train security contractors on the Voluntary Principles of Security and Human Rights and USA Foreign Corrupt Practices Act is provided and apply • Audit the performance of security providers • Ensure regular training on Human Rights • Initiate and maintain effective community engagement on security arrangements • Record and track any security incidents due to the use of inappropriate, disproportionate or unlawful use of force • Ensure that community members have access to the grievance mechanism and know they can lodge any security issue through it	E_CH058	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
Security personnel—Government: assess and document risks	• Inappropriate use of force by HGSF or absence of Government support when needed • Human Rights abuses • Failure to identify security risks to communities and to employees	• Loss of trust and support of local communities • Potential radicalization of local residents directed at project • Reputational risk for Project and Sponsors • Legal claims and claims for compensation • Perception that HGSF are working for the Project	138	• Prior to Project mobilization, identify when HGSF will be required and how they may be able to respond • Assess and document risks arising from the Project's use of government security personnel deployed to provide security services • Put in place a Memorandum of Understanding with the HGSF that details how they will respond to security situations related to the project and what types of training their forces are required to complete prior to mobilizing • Maintain Memorandum of Understanding with HGSF, updating where necessary to reflect changes to Project status and community security context • Record and track any security incidents due to the use of inappropriate, disproportionate or unlawful use of force • Ensure that community members have access to the grievance mechanism and know they can lodge any security issue through it		EMML

Occupational health and safety	• Transfer of disease from workforce to community
	• Increased burden of disease in community
	• Increased demand on local community health services
	• Diminished quality of health care and treatment for local communities
		• Transfer of disease from community to workforce
		• Increased burden of disease in workforce
		• Increased demand on Project health services
		• Reduced productivity
		• Reputation damage
			139	• The proposed occupational health and safety mitigations will be outlined in an Occupational Health and Safety Management Plan and include:
				  • Developing and designing an appropriate site-based medical service that is managed by a reputable medical service provider
				  • Planning and managing the recruitment strategies to employ staff in the workplace medical service so medical staff are not taken from local services within Mozambique
					EIS 13.5.8 SE73, 74, 75	Contractor

			140	• Maintain and extend effective occupational health recording, reporting and monitoring system so that injuries on duty and occupational illness/ disease can be effectively monitored	C_CH083	Contractor

Rovuma LNG

COMMUNITY HEALTH, SAFETY, AND SECURITY MANAGEMENT PLAN

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TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
Emergency preparedness and response	• Spills, leaks and other accidental releases from Project facilities or Project-related activities (transport) resulting in community safety-related risks and impacts (e.g. contamination of water supplies, soil contamination, etc.)	• Damage to Project assets • Lost opportunity to contain impact • Loss of business continuity • Failure to maintain schedule and costs • Potential to impact on license to operate • Reputation damage • Community resentment • Blockages and stoppages • Claims for compensation	141	• Identify emergency scenarios and develop emergency preparedness and response plans with allocation of responsibilities to local communities and authorities, (where appropriate)		Contractor
			142	• Develop a documented agreement with the provincial and local district authorities regarding the management of emergencies and incidents in both the communities and Project facilities that may affect the health of communities and / or the Project workforce. This includes interface requirements as well as clearly defined roles and responsibilities for all stakeholders	E_CH007	EMML
			143	• Develop appropriate emergency preparedness and response capabilities. These should include rescue capability to support both water rescue efforts (for accidents at sea) as well as for vehicle accidents involving Projects vehicles	C-CH073	Contractor
			144	• Developing and effectively communicating a policy for the management of emergencies or accidents in the community as a direct result of the Project's activities. This will be developed as part of the Project's community safety and security management plans and Emergency Response Plan	EIA - 13.5.6 SE 60	Contactor
			145	• Develop specific stakeholder engagement plan based on consultation and participation with government and communities regarding the nature and potential consequences of the risks		EMML
			146	• Evaluate supporting district or provincial authorities in the development of an outbreak management and response plan for conditions such as pandemic influenza in the study area to promote local capacity	C_CH013	EMML

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
Infrastructure and equipment design and safety—New buildings, structures and facilities	• Failure of containment or retention structures (e.g. bunds, dam, pond etc.), stockpile, reclaimed areas etc. leading to safety risks for communities or harm to resources on which they depend (e.g. groundwater)	• Community resentment • Blockages and stoppages • Claims for compensation • Damage to reputation	147	• Adopt appropriate design standards		Contractor
			148	• Check and maintain bunding, containment structures, surface conditions; monitor for leaks, loss of integrity etc.		Contractor
			149	• Civil works designed and maintained with water and stormwater management in mind, including sediment traps and other erosion control measures as appropriate		Contractor
Infrastructure and equipment design and safety— Transportation / Moving equipment	• Injury or accident to community members, Project employees or livestock resulting from Project-related transport	• Community resentment • Blockages and stoppages • Claims for compensation • Damage to reputation	150	• Optimize road transport requirements including consideration for logistics management (minimization of vehicle movements etc.)		Contractor
	• Dust generation from transport impacting air quality and causing nuisance impacts for communities		151	• Implement speed restrictions for Project and contractor vehicles		Contractor
	• Contamination of water supplies (e.g. dust on roofs used as catchments for water tanks)		152	• Establish and maintain community grievance process		EMML
			153	• Continue road safety awareness and education programs for impacted communities, including school programs		EMML and Contractor

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
			154	• To the extent possible, provide access for pedestrians and vehicles in areas where pedestrians and Project vehicles mix including but not limited to alternative temporary pathways and roads to ensure ongoing access to major community assets		Contractor
Infrastructure and equipment design and safety – Transportation	• Decommissioning of temporary access roads developed for construction period result in perceived loss of access within community	• Community resentment • Blockages and stoppages • Claims for compensation • Damage to reputation	155	• Regular stakeholder engagement to initially explain, and subsequently reinforce, the temporary nature of relevant roads		Contractor
In-Migration[2]	• Population increases leading to increased demand for and pressure on ecosystem services (water, food, fuel etc.); increased demand on health services, shelter/ accommodation (leading to overcrowding further compounding high local TB, HIV/AIDS rates), increased cost of food)	• Increased burden of disease in workforce, resulting in increased demand on Project health services and reduced productivity • Reputation damage • Community resentment	156	• Monitor, as best as practicable, changes in population densities, behaviors and risks to communities outside and in proximity to Project fence lines		EMML
			157	• Support regular census in the Local Study Area and potentially assist in the development of strategic district-level plans to ensure adequate provision of basis services such as housing, water and sanitation, power, education and health care	C_CH004	EMML
			158	• Develop PIIM mitigation measures as part of multidisciplinary planning	EIA - 13.5.7 SE 66	EMML

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[2] Refer to the Project Induced In-migration Management Plan (MZLN-EL-RPPLN_00-0009) for a full discussion of risks, potential impacts and mitigation measures.

TOPIC	RISK / IMPACT TO COMMUNITY	RISK / IMPACT TO PROJECT	ID	CONTROL (MITIGATION) MEASURES	EMP/SHAPE ID (where relevant)	RESPONSIBILITY
			159	• Consider supporting town planning in especially communities that are likely to expand and develop (the hot-spots for influx) to support better access to provide services but also to allow road and urban planning to limit the risk of road traffic accidents, access to rescue vehicles and associated services. This will require collaboration with local authorities	C_CH079	EMML
			160	• Maintain the support the provision of improved water sources in Project Affected Communities that are experiencing significant PIIM, or that may in the future	C_CH034	EMML
			161	• Maintain capacity building initiatives for local authorities to ensure adequate planning and provision for sanitation services and waste management services in communities where PIIM is anticipated	C_CH035	EMML
			162	• Continue with the surveillance of food inflation as initiated in the early works phase. Vulnerable groups should be identified as part of this monitoring where it is possible	CH052	EMML
			163	• Raising awareness regarding alcohol abuse, drug dependency associated with a breakdown in household structures, community tensions and social dysfunction associated with the potential negative impacts of PIIM	EIA - 13.4.4 SE 33	EMML

5.   ORGANIZATION, ROLES, AND RESPONSIBILITIES

The requirements of this Plan will be stewarded and implemented by the Project. The Safety, Security, Health, Environmental (SSHE) and Regulatory Manager will own this Plan.

The following roles and responsibilities are examples of the type of roles that will apply during the construction phase. As the needs of the Project change over time, some roles may be replaced and or combined with others that are more appropriate to the Project's needs at the time.

- SSHE and Regulatory Manager:

  - Responsible for overall implementation including coordination with ERB and AMA1

  - Responsible for ensuring safe behaviors by Project personnel such that community safety is protected

  - Investigates and analyses community safety events when/if they occur and escalates findings and required remedial actions to Management as required

  - Responsible for notification of community safety incidents, as described in the Environmental and Social Management Plan.

- Medicine and Occupational Health Manager:

  - Responsible for health support coordination, delivery and implementation of health services to the production workforce

  - Ensure health specifications and programs/procedures meets Mozambique health regulatory requirements

  - Develops and coordinates the implementation of EMML health inspection and audit programs to monitor compliance with health requirements

  - Provides review of disease prevalence data and recommends changes to address disease prevalence and severity.

- Community Health Manager:

  - Identifies and evaluates community health risks

  - Identifies mitigation steps to address community health issues affected by production activities

  - Conducts inspections and audits for effective implementation of community health programs

  - Budgetary stewardship

  - Collects, analyses data, reports on and provides recommendations on initiatives for continuous improvement in the community health program performance and compliance.

- Security Manager:

  - Management and coordination of security guards employed by the Project

  - Management of security incidents which occur both on the Project site and outside the site

- Responsible for the relationship with the Mozambique Host Government Forces

- Overall responsibility for ensuring the Voluntary Principles are complied with, that training on the principles is provided to security guards (employees) and a contractual item for contracted security guards and that performance against these principles is measured.

- Socio-economic Manager:

  - Overall responsibility for the interface between the Project and community members

  - Manages the team who facilitate access to community members for community health, safety and security issues/topics

  - Supports MOH Manager in the identification and implementation of community health projects which can deliver community development benefits.

Where the Contractor is undertaking scopes of work related to this Plan (Table 4-2), the Contractor will ensure sufficient resources are allocated on an ongoing basis for effective implementation. Examples where this will apply include:

- The appointment and management of security guards by Contractor

- Operation of camp facilities

- Transportation of workforce and personnel

- Construction of project facilities outside of the DUAT

- Transportation of materials through communities.

6.   TRAINING, AWARENESS AND COMPETENCY

EMML and Contractor will ensure that personnel responsible for the execution of tasks and requirements in this Plan are competent on the basis of education, training, and experience.

This Plan requires training be provided to workers who may be exposed to hazards (health, safety or security) associated with Project activities. This training is considered to be part of the mitigation framework to be developed and implemented by the Contractor, so it is not addressed in detail within this document. The training and increase in Project worker awareness associated with health, hygiene and sanitation, communicable disease, STI and HIV/AIDS education campaigns are a key component in minimizing health risks to the community posed by presence of the Project.

This Plan requires workforce awareness program/training be provided as part of camp initiation as well as incorporated into ongoing and regular training commitments, particularly with regard to the management of communicable diseases. This training is applicable to all EMML, Contractor, and sub-contractor personnel and will be developed and implemented by the Contractor following EMML review and approval. Training will include, but not be limited to:

- Voluntary Principles for Security and Human Rights training for all Project security guards and security management, including the appropriate use of force and protection of human rights

- STI and HIV/AIDS prevention and awareness training for all employees

- Sanitation and nutrition awareness and education for all employees, with a focus on messages which can be taken home to families to encourage good sanitation and nutrition practices in village environments

- Respiratory illness and infectious disease management, including TB

- Vector-borne disease awareness including malaria and dengue

- Speed restrictions in populated areas, safe driving in rural areas, safe driving in dusty environments, defensive driving and basic first aid

- Benefits of vaccinations and disease prevention

- Adverse impacts of Drug and Alcohol usage.

7. PERFORMANCE INDICATORS

EMML will review and endorse indicators which will be monitored to determine the effectiveness of the Community Health, Safety, and Security impact and risk mitigation measures.

Examples of indicators may include, but should not be limited to:

- Rates of communicable disease in the Project workforce
- Rates of communicable disease in the community
- Project related safety, security incidents in the community
- Numbers of grievances or claims of Project related impacts on the community.

The development of risk and impact management strategies will include specific performance indicators. Indicators will be included in a monthly report with the aim that regular reviews for effectiveness and achievement of desired outcomes are part of the report development process. This will ensure that improvements and additional mitigations can be implemented as and when required

The EIA includes provisions for specific community health monitoring which may be undertaken in partnership with government, NGOs, or third parties with the intent to share the data with Government or appropriate health planning and consideration by the Government of Mozambique.

Community health indicators may include, but not be limited to:

- Rates of malaria, and other vector-borne diseases
- Community health aspects, i.e., rate of STI's, TB, HIV/AIDS.

The Project Community Health Surveillance and Monitoring Plan addresses community health indicators, which are outside the scope of this plan.

EMML may, at its discretion, audit any contractors, subcontractors, or suppliers to assess compliance with this Plan. EMML may also, at its discretion, undertake audits of other third party facilities and providers associated with the Project, as relevant to the Environmental and Social Management Plans.

8. REPORTING AND NOTIFICATION

Contractor is required to provide a monthly report that provides a descriptive summary of all Community Health, Safety, and Security activities that it has undertaken in that month, including the number of participants in each activity, the objective(s) of each activity, status against EMML endorsed Key Performance Indicators, and applicable photographs.

Contractor's information will be submitted to Project SSHE Department.

The Project will review Contractor's community health, safety, and security reports to ensure actions and feedback are tracked and recorded appropriately.

Any community health, safety, and security grievances submitted by community members will be directed to the Project SSHE Department within 24 hours and captured in the Project community grievance management mechanism.