

**REPUBLIC OF MOZAMBIQUE  
MINISTRY OF PUBLIC WORKS, HOUSING AND WATER  
RESOURCES  
NATIONAL DIRECTORATE FOR WATER SUPPLY AND  
SANITATION**

**INVESTMENT PROJECT FINANCING (IPF)  
CONTINGENT EMERGENCY RESPONSE PROJECT  
WORLD BANK-FUNDED**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

**DECEMBER 2024**

## Table of Contents

<b>Table of Contents.....</b>	<b>2</b>
<b>List of Tables.....</b>	<b>3</b>
<b>List of Figures.....</b>	<b>3</b>
<b>Acronyms and Abbreviations .....</b>	<b>4</b>
<b>INTRODUCTION .....</b>	<b>6</b>
<b>SECTION 1: BACKGROUND .....</b>	<b>7</b>
<b>SECTION 2: BASELINE ENVIRONMENTAL AND SOCIAL CONDITIONS IN MOZAMBIQUE .....</b>	<b>9</b>
<b>SECTION 3: PROJECT ACTIVITIES .....</b>	<b>13</b>
<b>SECTION 4: NATIONAL E&amp;S REQUIREMENTS .....</b>	<b>14</b>
<b>SECTION 5: SUPPLEMENTAL E&amp;S MEASURES .....</b>	<b>19</b>
<b>SECTION 6: PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL ISSUES.....</b>	<b>25</b>
<b>SECTION 7: CONSULTATION AND DISCLOSURE.....</b>	<b>25</b>
<b>SECTION 8: INSTITUTIONAL ARRANGEMENTS AND RESOURCES .....</b>	<b>26</b>
<b>SECTION 9: MONITORING AND REPORTING.....</b>	<b>26</b>
<b>Annex 1: E&amp;S Reporting Checklist for Project Activities.....</b>	<b>28</b>
<b>Annex 2: Labor Management Procedures (LMP) .....</b>	<b>33</b>
<b>Annex 3: Occupational Health and Safety Framework.....</b>	<b>42</b>
<b>Annex 4: Grievance Redress Mechanism .....</b>	<b>67</b>
<b>Annex 5: Waste Management Framework.....</b>	<b>72</b>
<b>Annex 6: Infection Control and Medical Waste Management Framework .....</b>	<b>82</b>
<b>Annex 7: Traffic Safety Management Framework .....</b>	<b>117</b>
<b>Annex 7 GBV/SEA/SH Risk Assessment and Action Plan.....</b>	<b>126</b>
<b>Annex 8: Incident Report Form.....</b>	<b>135</b>
<b>Annex 9: Chance Finds Procedure.....</b>	<b>140</b>

## List of Tables

<i>Table 1: Indicative Positive List of Activities</i> .....	19
<i>Table 2 E&amp;S risks and impacts and supplemental mitigation measures</i> .....	21
<i>Table 3 Labor forecast</i> .....	33
<i>Table 4 Labor Risk Identification and Analysis</i> .....	35
<i>Table 5 Qualification for OHS Personnel</i> .....	44
<i>Table 6 HSE Checklist</i> .....	60
<i>Table 7 Inspection of First Aid Box</i> .....	61
<i>Table 8 Health Check</i> .....	63
<i>Table 9 Checklist for HSE Performance</i> .....	65
<i>Table 10 Waste Generated Proposed Management Method</i> .....	73
<i>Table 11 Waste Disposal Methods</i> .....	74
<i>Table 12 Waste Management Matrix</i> .....	78
<i>Table 13 Roles and Responsibilities</i> .....	80
<i>Table 14 Specific Implementer Responsibilities:</i> .....	80
<i>Table 15 Waste Categories</i> .....	83
<i>Table 16 Summary for HCW stream</i> .....	86
<i>Table 17 Three-bin and safety box system to be used at all health faculties.</i> .....	93
<i>Table 18 Summary of key parameters to be monitored</i> .....	103
<i>Table 19 Infection Control and Waste Management Baseline Mitigation Measures for HCF / Laboratory / Isolation Area/PoE</i> .....	108
<i>Table 20: Summary of Relevant Legal Instruments on GBV/SEA/SH</i> .....	128
<i>Table 21: Non-State Organizations Working in the Protection of Women's Rights and</i> .....	130
<i>Table 22: SEA/SH Risk Mitigation Measures</i> .....	132
<i>Table 23 Incident report form</i> .....	135
<i>Table 24 Incident form to be completed after investigation</i> .....	136
<i>Table 25 Incident Report Form for SEA/SH cases</i> .....	138
<i>Table 26 SEA/SH incident report form after investigations</i> .....	139

## List of Figures

<i>Figure 1 Key activities in the grievance redress process</i> .....	69
<i>Figure 2 Typical waste composition in a Health Care Facilities (Source: WHO, 2014)</i> .....	83
<i>Figure 3 Infectious Healthcare Waste Management</i> .....	91
<i>Figure 4 Waste Minimization Stages</i> .....	92

## Acronyms and Abbreviations

CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CERP	Contingent Emergency Response Project
CoC	Code of Conduct
DCCMS	Department of Climate Change and Meteorological Services
DoDMA	Department of Disaster Management Affairs
E&S	Environmental & Social
EHSG	World Bank Group Environmental, Health and Safety Guidelines
EHU	Preventive Health Services
ERTC	Emergency Response Technical Committees
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESP	Environmental and Social Policy
ESS	Environmental and Social Standards
ERP	Emergency Response Plan
GBV	Gender-Based Violence
GCP	Good Combustion Practice
GDP	Gross Domestic Product
GESD	Governance to Enable Service Delivery Project
GIIP	Good International Industry Practices
GMPP	Good Microbiological Practices and Procedures
GRM	Grievance Redress Mechanism
HAI	Hospital Acquired Infections
HCW	Health Care Waste
HDI	Human Development Index
HIRA	Hazards identification and risk analysis
HSE	Health Safety and Environment
HVAC	heating, ventilation and air conditioning
ICWMP	Infection Control and Waste Management Plan
IFC	International Finance Cooperation
IEC	Information, Education and Communication
ILO	International Labor Organization
LMP	Labor Management Procedures
LTI	Lost Time Injury
MDA	Ministries, Departments and Agencies
M&E	Monitoring & Evaluation
MoF	Ministry of Finance
MSDS	Material Safety Data Sheet
NGO	Non-Governmental Organization
NGRMC	National Grievance Redress Management Committee
NLGFC	National Local Government Finance Committee
OCP	Operation Control Procedures

OHS	Occupational Health and Safety
OSHWA	Occupational Safety, Health and Welfare Act
PAP	Project Affected Person
PCU	Project Coordination Unit
PDO	Project Development Objective
PHEOC	Public Health Emergency Information Center
PIU	Project Implementation Unit
PMRA	The Pharmacy, Medicines, and Poisons Act
PPE	Personal Protective Equipment
RRT	Rapid Response Team
PSC	Project Steering Committee
RCRP	Regional Climate Resilience Program
SCTP	Social Cash Transfer Program
SDB	Safe and Dignified Burial
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SOP	Standard Operating Procedures
SSRLP	Social Support for Resilient Livelihoods Project
T&P	Tools & Plants
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USD	United States Dollar
USSD	unstructured supplementary service data
WHO	World Health Organization
WMP	Waste Management Plan

## INTRODUCTION

The World Bank is providing support to Governments for preparedness planning to provide an optimal response to a broad range of natural or man-made disasters, drawing on undisbursed financing from across the country portfolio. Such events, which are growing more frequent, place a significant burden on Governments and Implementing Agencies, particularly where it is imperative to provide an immediate response to address the devastating impacts of such events. As such, the Bank is offering to provide the Republic of Mozambique with just-in-time support for preparedness planning through a Contingent Emergency Response Project (CERP).

The CERP is a critical mechanism for Mozambique, designed to provide rapid and flexible financial support in the wake of emergencies and disasters. It can be triggered by the Government through an official declaration that an eligible emergency or disaster has occurred, supported by a Declaration of activation of the National Contingency Plan. The CERP ensures that the country can swiftly mobilize resources to address immediate needs, mitigate impacts, and support recovery efforts, thereby enhancing resilience and reducing the long-term socio-economic consequences of such events.

This *Environmental and Social Management Plan (ESMP)* has been adopted by the Government of the Republic of Mozambique so that the Government and the relevant Implementing Agencies have the information, capacity and resources in place to mobilize as quickly as possible, once the CERP has been activated. On activation of the CERP and receipt of funds, the Implementing Agencies will proceed immediately to implement the specified Activities.

This ESMP sets out agreed mitigation measures to address the environmental and social risks and impacts associated with the Activities set out in Section 3. Implementing Agencies are required to familiarize themselves with the contents of this ESMP, the mitigation measures that relate to the Activities for which they will be responsible.

This ESMP sets out a range of mitigation measures to address the environmental and social (*E&S*) risks and impacts of the Activities. The Implementing Agency in certain circumstances, may choose to implement alternative or additional measures if, during implementation, these are more effective in addressing the E&S risks and impacts of the activity. The Implementing Agency will follow the national law requirements for each Activity as set out in Section 4, supplemented or adjusted as appropriate by the measures set out in Section 5. Together, through application of appropriate mitigation measures, the activities will be implemented in accordance with the World Bank's Environmental and Social Framework (*ESF*) and WB Environment, Health and Safety Guidelines (WB EHSG). Implementing Agencies are required to familiarize themselves with the contents of this ESMP, and with the mitigation measures that relate to the Activities for which they will be responsible.

**This ESMP contains the following:**

- **Section 1** sets out the background for the adoption of the CERP by the Government, and the way in which the ESMP will be used by the Government and Implementing Agencies

- **Section 2** sets out a general description of the baseline environmental and social conditions in the country, the type of emergencies that may arise, why the Activities identified in Section 3 may be required and some of the challenges that may be encountered
- **Section 3** sets out the specific Activities which can be implemented under a CERP project
- **Section 4** sets out a summary of the national law requirements relating to each Activity, and provides details of how risks and impacts will be managed in accordance with national requirements
- **Section 5** sets out supplemental E&S mitigation measures that will be implemented as appropriate
- **Section 6** sets out the procedures that will be used to address E&S risks and impacts of the specific Activities
- **Section 7** describes the stakeholder engagement and disclosure processes that have supported the design of the interventions
- **Section 8** relates to Institutional Arrangements and responsibility for preparation for emergency events and for implementation of the Activities.
- **Section 9** relates to Monitoring and Reporting requirements for monitoring Environment and Social aspects of implementation of the Activities.

## SECTION 1: BACKGROUND

The country is recovering from insurgency, while struggling for stabilization since 2021. Reconstruction works are ongoing in the districts of north Cabo Delgado, while sporadic attacks continue across the province, including districts in the southern part of Cabo Delgado, which were districts initially considered safer. At its peak, the conflict has displaced 1.2 million people, mostly to the southern districts of Cabo Delgado, including the capital city of Pemba. While the humanitarian situation remains critical, reconstruction of destroyed public infrastructure and restoration of basic services is underway with support from the World Bank and Development Partners, as part of the implementation of the Cabo Delgado Reconstruction Plan (PRCD), approved by the Government of Mozambique in September 2021. Further, in June 2022, the Government approved the Integrated Development and Resilience Program of Northern Mozambique (PREDIN) aiming at addressing the drivers of fragility and conflict and unleashing the potential of the North for a sustainable and inclusive recovery.

Climate change is increasing the frequency and severity of climate shocks. Mozambique is highly exposed to impacts of natural hazards, ranking among the most vulnerable countries to climate change as per the Notre Dame Global Adaptation Index (ND-GAIN) . Over the last five years, successive strong tropical cyclones and associated widespread flooding, have hit the country, including cyclones Idai and Kenneth in 2019 with US\$1.4 billion damages and 1.7 million people affected; cyclone Eloise in 2021 affected 467,000 people with damages of US\$295 million;

Tropical storm Ana in 2022 affected 185,000 people caused damages of up to US\$231 million; and more recently cyclone Freddy affected 1.18 million people caused US\$1.5 billion in damages in 2023. Vulnerable people, infrastructure and economic assets located in southern, central and central regions of Mozambique, including the coastline areas of Mozambique face major risks as the frequency and magnitude of cyclones, flooding and heavy rainfall are projected to increase in future.

The Government has made progress on improving local capacity relating to preparedness and response to emergency, but still lacks basic conditions, including safety for emergency shelters. With the support from the recently closed DRM Program funded by the World Bank, the Government has strengthened a network of 1,500 local committees serving 3 million people living in at high-risk communities across the country. The Government has also created an electronic platform that provides real time early warning information to around 1,9 million people, particularly among members of these committees and their communities. As a result, with these capacities created, local communities are now able to anticipate any impending disaster and seek refuge in the closest emergency shelters. However, most of these shelters lack basic conditions such as functional water and sanitation systems, health facilities and office for emergency coordination. Further, except for resilient classrooms retrofitted under the with DRM Program World Bank support, the safety of existing infrastructures (such as schools, hospitals, and churches) that are typically used to shelter affected communities that is frequently used by local authorities and communities as emergency shelter remains unknown. This represents a serious safety risk of safety and a permanent life threat to life of dozens of thousands of evacuees.

The country is gradually building resilience of existing vulnerable education infrastructure in areas prone to cyclones. Between 2015-2024, the government of Mozambique, with the World Bank support, With World Bank support, between 2015-2024, Mozambique has retrofitted 2,200 classrooms out of a total stock of 7,362 known vulnerable classrooms. This stock includes 2,362 classrooms affected by disasters in 2015 in central and northern Mozambique, and 3,000 classrooms recently (2020-2022) as vulnerable classrooms out of the stock of 5,000 classrooms built by Government between 2005-2009 under the Accelerated Classrooms Construction Program. More recently (2023), cyclone Freddy has further damaged other 2,800 classrooms, mostly in the provinces of Inhambane and Zambezia- the most affected the two landfalls, and further increasing the current deficit of 34,000 classrooms in the country. Most of the classrooms damaged classrooms by cyclone Freddy were either built before 2005 without following any resilient standards or were still waiting for retrofitting under the Mozambique DRM Program. In average, the education sector loses around 500 classrooms are damaged each per year due to natural hazards , but damages are proportional to the magnitude of the disaster higher in years of bigger disasters. For instance, alone cyclone Idai damaged 4,222 classrooms, in 2019. Around 700 classrooms rehabilitated or constructed between 2018-2021 under the WB-financed Emergency Resilient Recovery Project (P156559) in the provinces of Niassa, Nampula and Zambezia withstood with no damages to all cyclones and storms that affected those regions since then, and . These those classrooms have served as emergency shelters. In 2021, the education sector adopted technical norms for construction of resilient education infrastructure . There is a need for continued retrofitting of existing venerable classroom as to prevent further losses and consequent increase of infrastructure deficit in the education sector.

7. There is also an urgent need to scale up resilience to the health sector for protection of existing vulnerable health infrastructure against cyclones. Over 70% of the existing 1,600 public



health infrastructure units are at risk of being damaged by natural hazards. There is potential to generate likely to cause interruption in the provision of primary health care services to for 125,000 people per day. Primary health care units are the most at risk. Every year the health infrastructures are affected by low intensity hazards, and. However recent major disasters have resulted in extensive damages to the sector infrastructure and seriously disrupted provision of health care services. In 2019 cyclone Idai damaged 94 health units, and triggered cholera outbreak and an upsurge in diarrheal diseases, fevers, and malaria. More recently, Cyclone Freddy damaged 123 health units and caused loss of medicines and equipment and interruption of provision of health care services across all affected regions. There is urgent need to protect the sector from future damages and losses and ensure continuity and safer provision of health care services to vulnerable population at local level during and the aftermath of larges disasters.

The Contingent Emergency Response Project seeks to operationalize the World Bank’s expanded Crisis Preparedness and Response Toolkit (CRRT) in the context of Mozambique.. Incorporating the CERP into its portfolio allows Mozambique to balance immediate needs with longer term resilience in a more strategic way.. Improvements in crisis response may be realized through the multi-year engagement under the CERP, which offers a rapid, scalable response mechanism.

## SECTION 2: BASELINE ENVIRONMENTAL AND SOCIAL CONDITIONS IN MOZAMBIQUE

This section provides general information on relevant baseline conditions in the country, as they are relevant to the Activities identified in Section 3. The following section describes key environmental and social features of the country as the project activities shall be carried out in various areas of the country.

### **Geography**

Mozambique covers an area of over 800,000 sq. km, three times the size of Great Britain. Situated to the south east of the African continent, it shares borders with six other countries, Tanzania, Malawi and Zambia to the north, Zimbabwe to the west, South Africa and Swaziland to the south. The 2,500 km long coastline boasts numerous superb beaches fringed by lagoons, coral reefs and strings of small islands.

The Geography of Mozambique apprises a vast, low, grassland plateau which rises from the coast towards the mountains in the north and west covers nearly half the country's land area. The population is concentrated along the coast and the fertile river valleys. The Zambezi is the largest of the country's 25 rivers. Mozambique is rich in mineral resources such as gold, emeralds, copper, iron ore and bauxite and is currently engaged in oil exploration.

**Climate:** Tropical to sub-tropical Mozambican climate with coastal temperatures high for much of the year while the interior is warm to mild, even in the cooler, dry season from April to September. In the south the hot, humid rainy season is from December to March, farther north this period lengthens by a few weeks. Coastal northern Mozambique climate is occasionally affected by tropical cyclones. It is usually sunny throughout the year.

**Climate Change:** Mozambique's extensive coastline heightens the country's vulnerability to tropical cyclones and storm surge flooding. More than half of the population lives in low lying coastal areas, putting communities and key resources at risk. Increased flooding and drought threaten the agriculture sector, which employs roughly 75% of Mozambique's workforce. In addition to economic implications, these stressors also increase risks of food insecurity and water-related illness such as cholera. Agricultural expansion, wildfires, and excessive harvesting are driving greenhouse gas emissions in Mozambique's highest emitting sector, land use and forestry change.

**Disaster Vulnerability:**

Mozambique is the third most vulnerable country in Africa to disaster risks (according to the UN's Global Assessment Report on Disaster Risk Reduction). Frequent natural disasters disrupt livelihoods and food production of the most vulnerable people, undermining the fight against extreme poverty. During the last 35 years there were 75 declared disasters in Mozambique consisting of 13 drought events, 25 floods, 14 tropical cyclones and 23 epidemics (Instituto Nacional de Gestao de Calamidades, 2016). The regional El Niño-induced drought emergency of 2015-2016 was the worst in 35 years.

According to the Technical Secretariat for Food Security and Nutrition's (SETSAN) November 2016 report, an estimated 2.1 million Mozambicans had limited or uncertain access to food, and needed assistance prior to the March-April 2017 harvest. This figure represents an increase of 700,000 persons over 2016 and illustrates the vulnerability of the Mozambican people. The depletion of family assets (food stocks, seed stock, livestock and family savings) as a result of the 2016 drought left many households destitute and dependent on food and other assistance provided by the Government of Mozambique (GRM) and assistance provided by development partners such as USAID.

Approximately 80 percent of the Mozambican population relies on rain-fed agriculture for their subsistence, which is sensitive to extreme climatic events as well as pests. The recent introduction of new pests such as the fall armyworm is now creating additional food security concerns through the country. The fall armyworm (*Spodoptera frugiperda*), FAW, is an insect pest that feeds on more than 100 crop species, causing damage to economically important cultivated crops such as maize, rice, sorghum, various legumes as well as vegetable crops, pasture grasses and cotton. It is native to tropical and subtropical regions of the Americas, with the adult moth able to move over 100 km per night. Highly prolific, it can produce up to 12 generations per year. It lays its eggs on plants, from which larvae hatch and begin feeding. High infestations can lead to severe and significant crop damage and yield loss.

**Economic Outlook and Macroeconomic Performance:** Mozambique's economic growth remains resilient and is projected at 4.3 percent in 2024. Non-mining GDP growth is expected to accelerate from 2.8 percent in 2023 to 3.5 percent in 2024, as tight financial conditions continue to weigh on economic activity. The medium-term outlook for the extractive sector is strong as large LNG projects are expected to resume activities.

A fiscal correction of around 3 percentage points of GDP took place in 2023. Further fiscal consolidation in 2024 is necessary to secure fiscal and debt sustainability and preserve macroeconomic stability. Challenges in implementing the new single salary scale have resulted in wage bill spending overruns, which are crowding out important spending priorities including social

transfers and infrastructure. Rationalizing wage bill spending should underpin fiscal consolidation, social spending should be prioritized, and debt management could be further strengthened to avoid arrears.

Inflation has been low for several months, reaching 3.3 percent in April 2024. The Bank of Mozambique has started easing monetary policy, reducing the policy rate by 150 basis points in the first quarter of 2024. However, with the nominal policy rate at 15.75 percent and high reserve requirements, the overall monetary stance remains tight. With inflation expectations well anchored, fiscal consolidation continuing, and credit to the private sector decreasing, further easing of monetary policy would be appropriate.

The government has made progress on structural reforms set out under the program. A Sovereign Wealth Fund (SWF) Law, approved in December 2023, will help manage LNG revenues. Secondary legislation necessary to implement the SWF law has been finalized and will be sent to the Council of Ministers for approval.

**Population:** As of 1 January 2024, the population of Mozambique was estimated to be 34,406,558 people. This is an increase of 2.80 % (935,841 people) compared to population of 33,470,717 the year before. In 2023 the natural increase was positive, as the number of births exceeded the number of deaths by 942,201. Due to external migration, the population declined by 6,359. The sex ratio of the total population was 0.950 (950 males per 1,000 females) which is lower than global sex ratio. The global sex ratio in the world was approximately 1,016 males to 1,000 females as of 2023. Mozambique population density is 43.0 people per square kilometer (111.5/mi<sup>2</sup>) as of December 2024. Density of population is calculated as permanently settled population of Mozambique divided by total area of the country. Total area is the sum of land and water areas within international boundaries and coastlines of Mozambique.

While urban growth is mainly caused by natural population growth (2.7%), rural-city migration contributes with 0.8% growth per year, often with peaks of acceleration caused by natural disasters, conflicts, or by population resettlement resulting from economic activities. Urban expansion in Mozambique has occurred mainly on the periphery of cities, along development corridors or in secondary cities, and smaller urban centers in strategic locations.

### **Governance:**

For Mozambique, governance and corruption indicators have been progressively deteriorating. Over the past ten years, the Worldwide Governance Indicators (WGI) deteriorated on all six dimensions. While Mozambique still fares better than Sub Saharan Africa's (SSA) averages on two indicators, (voice & accountability and regulatory quality), it continues to fall behind neighboring countries in government effectiveness, control of corruption, and rule of law. The gap between its percentile ranking for control of corruption (21) and SSA average (31) stands out and marks a rapid drop since 2010 (41 percentile rank) (WGI 2016). This is in line with findings from other governance and perception of corruption indices, including the Corruption Perception index (CPI), the Ibrahim index of African Governance (IIAG), and the survey of business leaders by the World Economic Forum. Several factors underlie this progressive deterioration in governance and corruption in Mozambique. These include: (i) a large informal economy with limited financial inclusion, which allows for a high share of cash transactions, and makes it difficult to track and control illicit transactions; (ii) a large, complex and obscure structure of beneficial ownership of state owned enterprises; (iii) a patronage political culture that often relies on the provision of

benefits and public goods in exchange of political support; and (iv) weak and underfunded oversight and regulatory institutions.

**Education:** While 94 percent of girls in Mozambique enroll in primary school, more than half drop out by the fifth grade, only 11 percent continue to study at the secondary level, and just 1 percent continue on to college. Among children who finish primary school, nearly two-thirds leave the system without basic reading, writing, and math skills. The Government's capacity to enhance school access has not kept up with its ability to improve quality. The rapid expansion has placed intense pressure on school management, teaching personnel, and the overall quantity and quality of effective classroom instruction, resulting in many overcrowded multi-shift schools, growing student/teacher ratios, and plummeting reading and math test scores.

**Health:** Mozambique has made great strides in reducing mortality rates and improving access to primary healthcare in the past two decades. However, the country's health outcomes and expenditure efficiency have not kept pace. For those in rural areas and the extremely poor, women, adolescent girls, and children, quality healthcare is still unsatisfactory and hard to reach, exposing health system inequalities between genders and geographic regions. In addition, health infrastructure is limited, and the training and supervision of frontline community health workers needs improvement. In 2015, over half of deaths were associated with communicable, maternal, neonatal, and nutritional diseases. Malaria still contributes to over one-third of deaths among children. Stunting is prevalent, affecting over one in three children under five years of age, and lack of access to clean water and sanitation is widespread.

**Livelihoods and Poverty:** The national poverty rate surged from 48.4% to 62.8% between 2014/15 and 2019/20. The number of poor increased from 13.1 to 18.9 million, partly reflecting the impact of COVID-19 on families. There has been a disproportionate increase in poverty in urban areas. This can be explained by the fact that, while there has been a generalized contraction in consumption, urban areas appear to have been disproportionately impacted by the global pandemic due to the heavier impacts of reduced mobility and slower economic activity.

With regards to inequality, the Gini Coefficient (which measures inequality on a scale from 0 to 1, where higher values indicate higher inequality) fell from 56.1 to 50.4 between 2014/15 and 2019/20. Multidimensional poverty has also worsened. The share of households experiencing deprivation rose from 71% to 78.3% between 2014/15 and 2019/20. In rural areas, conditions went back to the levels observed in 2002/03, with over 95% of households falling into multidimensional poverty. Urban households also saw a sharp increase in multidimensional poverty, from 32% to 46% during the same period. Gender Equality Dynamics: Mozambique ranked 181st out of 188 countries in the 2015 UNDP Human Development Index, and 139th out of 159 countries in the UNDP Gender Inequality Index. Extreme poverty and the HIV/AIDS epidemic have contributed to the precarious status of women and girls in the country. Low levels of education, high maternal health risks, pressure to marry at a young age, limited economic prospects, gender-based violence, and accepted cultural norms place women at a high disadvantage. Few girls finish primary school (46%), even fewer finish secondary school (22%), and 56% of women are illiterate (upwards of 70% in rural areas). Though women comprise the bulk of the unskilled workforce, especially in agriculture (63%), their work is largely unpaid, and they face many obstacles and discrimination because of strongly held beliefs about gender roles. The media reinforces negative stereotypes by portraying women as deserving of violence and overlooks gender issues by not providing in-depth coverage. High HIV infection in young women and adolescent girls (11%) when compared with

men and boys of the same age, combined with maternal, newborn and child mortality lead to a grave health situation for a large portion of the country's growing population. USAID/Mozambique works to achieve gender equality and female empowerment through cross-sectoral initiatives dedicated to improving educational opportunities for women and girls, encouraging the coverage of women's issues in the media, supporting women farmers, expanding economic opportunities for women, and improving the quality of healthcare for women and adolescent girls, including nutrition services, family planning, gynecological care, child health services, and HIV/AIDS prevention and treatment.

## SECTION 3: PROJECT ACTIVITIES

**The Project Development Objective (PDO)** is to respond promptly and effectively to an eligible crisis or emergency in Mozambique.

Eligible project activities under the Project are provided hereafter.

### **Emergency Livelihood Support to Households**

The operation will provide direct emergency income support to people/ households affected by disasters by scaling cash transfers. This will aid in stabilizing their livelihoods, smoothen consumption and enhance their ability to source food and items for basic needs. Cash transfers will be disbursed using existing mechanisms including Social Cash Transfer Program (SCTP) and emergency cash transfer initiatives to ensure timely and efficient delivery. Specifically, under a Vertical Expansion, the Social Cash Transfer – SCT will provide a time-bound cash top-up to existing SCT households in the priority impacted districts. Under Horizontal Expansion, new eligible households in the impacted districts will be enrolled on a temporary basis for emergency cash assistance.

### **Livelihoods Support Packages and Provision of Essential Services/Supplies**

Support will be provided to sustain delivery of critical services and accessibility of supplies during and after emergencies. This is intended to mitigate the immediate impacts of crises on vulnerable populations by aiding access to critical production inputs and the resources needed for recovery. This includes acquisition of direct food staples. Additionally, technical assistance will be provided to ensure the efficient and effective utilization of these resources, optimizing the recovery process, and enhancing the resilience of affected populations. It will finance the procurement of necessary supplies to meet immediate needs of affected persons such as provision of water, emergency response supplies, healthcare supplies, and veterinary care. Supplies critical for the response will depend on the nature of the crisis and will be sourced from both local and international suppliers to ensure rapid delivery to the most affected areas.

### **Emergency Response Coordination and Management**

Support will be provided for incremental operational expenditure incurred by the government for response and early recovery efforts including, inter alia, shelter operation, increased electricity bills for the public sector, staff overtime. It is also envisaged that critical technical assistance may become necessary include sourcing international and local specialized expertise (consultancy) to support recovery, provide just-in-time technical assistance, and/or support preparation of technical documents for procurement.

### **Project Beneficiaries**

The direct beneficiaries of the project are the citizens of Mozambique. The project is national in scope, and therefore, the benefits will accrue to all citizens, encompassing a broad range of demographic and socioeconomic groups. Vulnerable groups, including women, children, the elderly, and people with disabilities, will receive targeted support to ensure their safety and resilience during and after disasters.

## SECTION 4: NATIONAL E&S REQUIREMENTS

This section provides a discussion of the policy and legal framework for the activities envisaged under the CERP.

Firstly, the Constitution raises the environment to the category of a fundamental juridical good of the community, beside other classic goods like life, physical integrity and the various freedoms. Constitutional protection of the environment as a juridical good was significantly reinforced in the 2004 Constitution, which not only underlined the fundamental right of all citizens to a balanced environment, and the corresponding duty to defend it, but also maximized the public interest in environmental protection (see Article 117 and paragraph 2 of Article 90, foreseeing general and specific obligations on the part of the State as regards the environment), created an overall standard foreseeing duties on the part of the citizens toward the community, including that of defending the environment (see Article 45), established the right to popular action as a guarantee for defending juridical goods of a diffuse or collective nature, amongst which the environment (this right is foreseen in Article 81), and set out as one of the anchors principles, that of sustainable development (references expressed in Articles 11, 96, 101 and 117). It should be added that land-use zoning (*ordenamento do território*) is enshrined in the 2004 Constitution, through paragraph 2 of Article 117, which raised it to the category of a matter of public interest, in the following terms: with the objective of ensuring the right to the environment within the framework of sustainable development, the State ought, amongst other aspects, to “foster land-use zoning with a view to a proper siting of the activities and a balanced socio-economic development”.

The Constitution thus includes an important set of principles and rules directed to oversight of the environment as a juridical good of a fundamental nature, making up a true “Environmental Constitution”, and consequently assigning to the ordinary legislator the important responsibility of laying the foundations as constitutionally defined, through the passing of the proper legal instruments (be they laws of Parliament, regulations of the Government or Ministerial Orders issued by the various Ministries), thus making the fundamental right to a balanced environment a reality—a right held by each and every citizen of the Republic of Mozambique.

**The National Disaster Risk Management:** Mozambique has a strong disaster risk management and reduction framework. The main legal and guiding instruments are the National Policy on Disaster Management (1999); Act no. 15/2014 - Disaster Management Act (2014); and the Master Plan for Disasters Prevention and Mitigation 2017-2030. Despite Mozambique's achievements in this field, the country still faces some challenges, particularly in what concerns data collection and institutional coordination mechanisms at district levels. Nevertheless, Mozambique has recently reaffirmed a strong commitment to accelerate Sendai Framework implementation (UNISDR,

2019). Public Health: Article 89 of the 2004 Constitution of Mozambique states that “All citizens shall have the right to medical and health care, within the terms of the law, and shall have the duty to promote and protect public health”. Article 116 further stipulates “medical and health care for citizens shall be organized through a national health system, which shall benefit all Mozambican people ... [and] the State shall promote the expansion of medical and health care and equal access of all citizens to the enjoyment of this right”. These constitutional provisions allowed for legislative milestones in 2007, through the Social Protection Law (4/2007), which establishes the foundations for the organization of the social protection system through basic, obligatory and complementary social security. The National Strategy for Basic Social Security adopted in April 2010 aims to promote an integrated approach to social protection and makes specific provisions for health care as a core component of national social security.

Regulation of pharmaceutical products is governed by Law no. 12/2017 of 8th September (“Law 12/2017”), which establishes the rules applicable to the production, distribution, use and marketing of medicines, vaccines, biological products and health products. Medicines are generally subject to medical prescription. Medicines that are not subject to medical prescription are those included in a list that is periodically approved by the Ministry of Health. Medicines can only be purchased by and used within the NHS if they are included in the National Medicine Form or in the List of Essential Medicines. Both the National Medicine Form and the List of Essential Medicines are periodically revised and published by the Ministry of Health, which is also responsible for ensuring that the medicines included in these documents are, in fact, used. Only private sector providers of healthcare services can prescribe medicines and other health products that are not included in these documents, provided that these products are included in the list of medicines that are registered and authorized in Mozambique.

**Veterinary Regulation:** (Decree No. 26/2009 approving the Regulation on Animal Health): This Decree approves the Regulation on Animal Health. The Regulation, consisting of 124 articles and 1 Table is divided into 10 Chapters and regulates the sanitary norms to carry out epidemiological controls on animal diseases in all the territory of Mozambique. The Regulation, aiming at the protection of public health and livestock exports’ market, identifies the competent authorities and rules on conditions and requirements for import, transport and circulation of livestock and derived products. Moreover, it regulates certification procedures, animal health measures and management of diseases. Finally, it regulates control measures for products of animal origin and wildlife animals. Particular attention is paid to the regulation of communication requirements and to the definition of applicable penalties. The Regulation is divided as follows: Definition and objective (Chap. I); Import and circulation and transportation of animals (Chap. II); Provisions for Sanitary Control (Chap. III); Sanitary Measures and declaration of diseases (Chap. IV); Sanitary measures for Wildlife (Chap. V); Controls on Animal products and for veterinary uses (Chap. VI); Indentisation, Administrative Procedures and Sanctions (Chaps. VII-IX); General provisions (Chap. X). Annex lists in details all fines to be paid for illegal activities.

**Workers Compensation (Labor Law No. 13/2023):** By law, Mozambican businesses must provide compensation to all employees in the event of a workplace accident and our Workmen’s Compensation policy provides the required protection for your permanent, independent and voluntary workers, as well as apprentices, probationers and trainees. Legislation provides options for both full and partial cover which we will be happy to explain on request. Employee benefits include Workmen’s Compensation cover for death, as well as permanent, partial or temporary

disability, in the event of an accident that: (i) Causes injury or disease to an employee while they are at work; (ii) Occurs while workers are being transported to or from the workplace, or in any vehicle that is owned by the business; (iii) Happen outside of work hours, if the workers reside at the workplace (iv) Stipulated pension pay-outs and employee benefits will be provided to the insured, or the insured's spouse - as long as the resulting widowhood continues. . The Act is relevant as the Project will finance public works.

**Labor Law No. 13/2023:** The Employment Act establishes, reinforces, and regulates minimum standards of employment with the purpose of ensuring equity necessary for enhancing industrial peace, accelerate economic growth and social Justice and for matters connected therewith and incidental thereto. The Act covers: Administration; Employment of Young People; Contracts; Hours of Work, Weekly Rest and Leave Wages; and Discipline and Dismissal. The Act is relevant, as the Project will include the employment of a variety of Project workers.

**The Labor Relations (Labor Law No. 13/2023) :** The Act promotes sound labor relations through the protection and promotion of freedom of association, the encouragement of effective collective bargaining and the promotion of orderly and expeditious dispute settlement, conducive to social justice and economic development. The act covers the following: Freedom of Association; Trade Unions and Employers' Organizations; Collective bargaining and Organizational Rights; Dispute Settlement; Tripartite Labour Advisory Council; and Establishment of Industrial Relations Court. The Act is relevant, as the Project will employ a variety of workers.

**Gender Equality:** The country's legal environment is also conducive to gender equality. The last Gender Profile recommended the passage of relevant legislation, and since its drafting, the country has passed several strategic legal instruments for the promotion of gender equality. In late 2015, the National Strategy to Prevent and Combat Premature Marriages (2016 - 2019) was approved. In the year 2018, important legal and programmatic instruments were adopted, such as the Gender Policy and its Implementation Strategy, the IV National Plan of Action for Advancement of Women 2018- 2024, the National Plan to Prevent and Combat Gender Based Violence 2018-2021, and the National Plan of Action on Women, Peace and Security 2018-2022. In addition, the Health Sector Gender Inclusion Strategy 2018-2023 and the Education Sector Gender Strategy 2018-2022 were also approved. A significant milestone was the approval of the Gender Strategy in Public Administration 2020-2024 in 2020 that highlights the strengthening of equitable representation in decision-making bodies and the need for training of governors in gender matters and the increase of activities and responsibilities for men in advancing the promotion of gender equality at all levels of the sector. In the current legislative forum, the Law to Prevent and Combat Premature Unions (Law No. 19/2019, of October 22) was passed. This law, which had contributions from Civil Society Organizations (CSOs), establishes 18 as the age of consent to marry, criminalizes and stipulates sanctions for persons involved in unions with persons under 18, (including for family members, community members, and state personnel who have knowledge and fail to report), as well as forms of reparations for damages to girls who are victims of such practices. That same year, the Law on Succession was revised (Law No. 23/2019, December 23) to ensure that the surviving wife is the primary beneficiary in the event of her husband's death. This assessment is relevant, as the Project will employ a variety of workers, including women and men.

**Climate Change:** The Government of Mozambique presents its National Strategy for Adaptation and Mitigation of Climate Change (ENAMMC) for the period 2013-2025, which includes strategic and priority lines to be adopted and implemented as well as the action plan for 2013-2014.



ENAMMC consists of five chapters: 1. introduction and rationale of the strategy; 2. methodology used to prepare the document; 3. assessment of vulnerability, impacts of Climate Change (CC), opportunities, and the current state of integration of CC into national development policies; 4. strategy vision, mission, principles, general and specific objectives and strategic actions grouped under two main pillars: climate risk adaptation and mitigation and low carbon mitigation and development. ENAMMC is also based on a set of cross-cutting issues that contain actions that facilitate the implementation of the two relevant pillars; 5. implementation mechanisms, including coordination, implementation of the ENAMMC itself, monitoring and evaluation, and funding.

This Strategy is based on the United Nations Framework Convention on Climate Change (UNFCCC) and the Hyogo Framework for Action on Disaster Risk Reduction. The strategy is therefore based on the basic principles of these international treaties and on national policies on gender and social equity and MC, as well as a set of sectoral policies and strategies aimed at facilitating and promoting a harmonious and resilient development of MC and the mechanisms of energy efficiency and the sustainable use of natural resources.

ENAMMC's overall objective aims to establish action guidelines for building resilience, including the reduction of climate risks, in communities and national economy, and to promote the development of low carbon and green economy through their integration into the sectoral and local planning process. The specific objectives are as follows: make Mozambique resilient to the impacts of CC, minimizing climate risks to people and goods, restoring and ensuring the rational use and protection of natural and built capital; identify and implement opportunities to reduce GHG emissions that contribute to the sustainable use of natural resources and access to affordable financial, technological resources and reduce pollution and environmental degradation by promoting low carbon development; and create institutional and human capacity, as well as explore technological and financial resource opportunities to implement ENAMMC.

## **International Conventions Signed**

**The 1992 United Nations Framework Convention on Climate Change.** The primary purpose of the Convention is to establish methods to minimize global warming and in particular the emission of greenhouse gases. The Convention was adopted in 1992 and came into force in 1994. On 12 June 1992, Mozambique signed the United Nations Framework Convention on Climate Change (UNFCCC)

**The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal** was adopted on 22 March 1989. The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as “hazardous wastes” based on their origin and/or composition and their characteristics, as well as two types of wastes defined as “other wastes” - household waste and incinerator ash. The provisions of the Convention center around the following principal aims:

- the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal.
- the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and

- a regulatory system applying to cases where transboundary movements are permissible.

**Convention on the Rights of the Child:** The Convention on the Rights of the Child from 1989 is the most comprehensive compilation of international legal standards for the protection of the human rights of children. It acknowledges children as individuals with rights and responsibilities according to their age and development, as well as members of a family or community. This includes non-discrimination, the best interest of the child, the right to life, survival and development and the right to participation. Mozambique signed the Convention on the Rights of the Child (CRC) without reservation and the Convention was incorporated into the country's internal legal structure following its publication in the Government Gazette on 23 October 1990. The CRC was ratified in April 1994.

**ILO 182 Worst Forms of Child Labor Convention (1999).** The convention calls for immediate action to prohibit and eliminate the worst forms of child labor. The predefined forms of child labor include all forms of slavery, trafficking of children, debt bondage or any other form of bonded labor, forced or compulsory labor, commercial sexual exploitation of children, prostitution and the production of pornography, as well as work that is likely to harm the health, safety or morals of children. Mozambique ratified the convention in 2003.

**ILO Convention 138, Minimum Age.** The convention provides for the possibility of initially setting the general minimum age at 14 (12 for light work) where the economy and educational facilities are insufficiently developed.

**Constitution of the International Labor Organization:** The constitutional principle is that universal and lasting peace can be established if it is based on social justice. The ILO has generated such hallmarks of industrial society as the eight-hour workday, maternity protection, child labor laws, and a range of other principles.

**ILO Convention 029 on Forced Labor.** The Objective of the convention is to suppress forced labor in all its forms.

**ILO Convention 100 on Equal Remuneration.** The convention aims at equal remuneration for work of equal remuneration between men and women.

**ILO Convention 111 on Discrimination.** The convention calls upon states to enable legislation prohibiting all forms of discrimination and exclusion on any basis, including race, sex, religion, etc.

**Convention on the Elimination of all forms of Discrimination against Women.** CEDAW places explicit obligations on states to protect women and girls from sexual exploitation and abuse.

**Convention on the Elimination of all forms of Discrimination against Women.** CEDAW places explicit obligations on states to protect women and girls from sexual exploitation and abuse, among other issues. Mozambique ratified the CEDAW on 21 Apr 1997. The accession to CEDAW enabled the country to address issues of customary law involving women's right to inherit and own productive assets, as well as their lack of voice and decision making in family and community matters and the denial of their right of choice to find a family especially in rural settings.

**The Beijing Declaration and Platform for Action** (1995) is an agenda for women’s empowerment, which consists of 12 areas of concerns, including women and the environment, women in power and decision-making, the girl child, women and the economy, women and poverty, violence against women, human rights and women etc.

**The Protocol to the African charter on Human and Peoples’ Rights on the Rights of Women in Africa (Maputo Protocol)** is an international human rights instrument established by the African Union, which came into effect in 2005.

## SECTION 5: SUPPLEMENTAL E&S MEASURES

This Section describes the supplemental E&S measures that will need be implemented in addition to the national requirements described in Section 4.

Mitigation measures will be based on national requirements, supplemented where necessary by the measures described below. In implementing the activities, it is acknowledged and agreed that the emergency nature of the activities means that priority will be given to the need for urgent interventions and the protection of people and assets most affected by the emergency. For all activities, the risks of exclusion for different groups and individuals will be considered, so that the activity is implemented in as fair, equitable and inclusive manner as possible.

Identified mitigation measures are based on national legislation, the relevant ESS as well as the World Bank Group Environmental, Health and Safety Guidelines (EHSB).

### Indicative Positive List of Activities

*Table 1: Indicative Positive List of Activities*

<b>Tier 1: Activities to be financed under Tier 1</b>
<p><b>Emergency Livelihood Support to Households</b></p> <ul style="list-style-type: none"> <li>• Direct emergency income support to households through cash transfers</li> </ul>
<p><b>Provision of Essential Services and Supplied for Emergency Response</b></p> <ul style="list-style-type: none"> <li>• Acquisition of food staples (maize, grain etc.)</li> <li>• Procurement of pharmaceuticals, medicine, medical supplies (excluding chlorine), and critical medical equipment such as ventilators, personal protective equipment (PPE) and various diagnostic tools which exclude any equipment containing radioactive materials</li> <li>• Acquisition of veterinary medicine and supplies including animal first aid kits, medications, vaccines and medical supplies</li> <li>• Purchase of agricultural inputs such as seeds, livestock feed</li> <li>• Acquisition essential supplies such bailey bridges, tents, sleeping bags, personal Hygiene kits, household kits etc.</li> <li>• Rental of light critical machinery for restoration of critical services and implementation of CERP (this includes the rental of small-scale tools and equipment such as spades, shovels, hoes, wheelbarrows, and other hand tools. Generators for emergency use may also be rented; however, fuel for generators is not included. Large machinery such as bulldozers, tipper trucks, or other heavy equipment is not included)</li> <li>• Purchase of green cookstoves</li> </ul>

### **Emergency Response Coordination and Management**

- Financing for surge of responders and repair crews, excluding law enforcement officials
- Shelter administrative support and essential goods to support shelter operations (covers the administrative aspects of shelter operations, including the payment of salaries for shelter managers and personnel responsible for overseeing the functioning of shelters. It also includes the acquisition of essential goods necessary for shelter administration, such as office supplies and basic furniture (e.g., tables, chairs, cots etc.). Direct operation of shelters, including activities such as camp establishment, land agreements and compensation, and the provision of sanitation and waste management services, is not included)
- Additional transportation costs (i.e. use of other transportation), increased electricity bills for the public sector, staff overtime and Funding for technical assistance including international and local specialized expertise (consultancy) to support recovery and provide just-in-time technical assistance and preparation of technical documents for procurement
- Incremental Emergency Response Operational Administrative Costs
- Financing implementation of E&S instruments
- Audit costs (financial and technical)

For each of the Activities, the following potential risks and impacts have been identified and supplemental mitigation measures include the following:

Table 2 E&S risks and impacts and supplemental mitigation measures

ACTIVITY/GENERAL ISSUES	Risks and Impacts	SUPPLEMENTAL MITIGATION MEASURES
Cash transfers to households	<p>The cash transfers will follow established procedures from the Social Protection Projects, which includes the identification and servicing of vulnerable groups.</p> <ul style="list-style-type: none"> <li>- Risk of exclusion of beneficiaries, especially from vulnerable groups</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation of social protection procedures for cash distribution (see CERP Manual)</li> <li>- Implementation of stakeholder engagement CERP SEP</li> <li>- Operate an effective Grievance Redress Mechanism (See Annex 4)</li> <li>-</li> </ul>
Acquisition of food staples (maize, grain etc....)	<p>The acquisition of food staples focuses on the procurement of food items by either selected government agencies, UN agencies or other implementers. It will not include storage or distribution.</p> <ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among suppliers</li> <li>- Traffic related risks during transport of goods</li> <li>- Downstream risks of waste production through packaging</li> </ul>	<ul style="list-style-type: none"> <li>- Identify procurement procedure to ensure rapid purchase of required quantities of food and water.</li> <li>- Where possible, execute agreements for specific volumes.</li> <li>- Implement Traffic Management Framework (Annex 7)</li> <li>- Comply with Labor Management Procedure (Annex 2)</li> <li>- Implement General Waste Management Framework (see Annex 5)</li> </ul>
Procurement of pharmaceuticals, medicine, medical supplies (excluding chlorine), medical equipment such as ventilators, personal protective equipment (PPE), and various diagnostic tools that exclude any equipment containing radioactive materials.	<p>The types of medicine or medical equipment are unknown at this point. The activity will likely be implemented through or in coordination with the Ministry of Health. It may be implemented by governmental agencies, UN agencies or other implementers. The activities will only include procurement, but no storage or distribution of the medicines and supplies.</p> <ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among suppliers</li> <li>- Downstream risks related to medical waste production</li> <li>- Traffic related risks during transport of goods</li> </ul>	<ul style="list-style-type: none"> <li>- Identify procurement procedure to ensure rapid purchase of required quantities of medicine. Where possible, execute agreements for specific volumes.</li> <li>- Prepurchase (where feasible) medicine</li> <li>- Ensure medicine is stored in accordance with the manufacturer's specifications, including temperature controls, humidity controls, security measures, proper shelving and labeling</li> <li>- Ensure only licensed entities transport or store medicines. Vehicles used for transporting medicines must meet specific standards, including cold chain management and documentation</li> <li>- Implement LMP (see Annex 2)</li> <li>- Implement Traffic Management Framework (see Annex 7)</li> <li>- Ensure that all medicine to be procured complies with relevant technical specifications, including manufacturers requirements, relevant WHO guidelines and GIIP</li> <li>- Implement medical waste management framework (Annex 5).</li> </ul>
Acquisition of veterinary medicine and supplies including animal first aid kits, medicine, vaccines and medical supplies	<p>The types of medicine or medical equipment are unknown at this point. The activity will likely be implemented through or in coordination with the Ministry of Agriculture, specifically the Department of Animal Health and Livestock Development. It may be implemented by governmental agencies, UN agencies or other</p>	<ul style="list-style-type: none"> <li>- Identify procurement procedure to ensure rapid purchase of required quantities of veterinary medicine. Where possible, execute agreements for specific volumes.</li> <li>- Prepurchase (where feasible) medicine.</li> </ul>

ACTIVITY/GENERAL ISSUES	Risks and Impacts	SUPPLEMENTAL MITIGATION MEASURES
	<p>implementers. The activities will only include procurement, but no storage or distribution of the medicines and supplies.</p> <ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among suppliers</li> <li>- Downstream risks related to medical waste production</li> <li>- Traffic related risks during transport of goods</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure medicine is stored in accordance with the manufacturer’s specifications, including temperature controls, humidity controls, security measures, proper shelving and labeling</li> <li>- Vehicles used for transporting medicines must meet specific standards, including cold</li> <li>- Implement medical waste management framework (Annex 5).</li> <li>- Implement LMP (see Annex 2)</li> <li>- Implement Traffic Management Framework (see Annex 7)</li> </ul>
<p>Purchase of agricultural inputs, such as seeds, livestock feed</p>	<p>The activity will likely be implemented through or in coordination with the Ministry of Agriculture, a UN agency or other implementers. The activities will only include procurement, but no storage or distribution of goods.</p> <ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among suppliers</li> <li>- Downstream health &amp; safety risks related to agricultural inputs</li> <li>- Traffic related risks during transport of goods</li> </ul>	<ul style="list-style-type: none"> <li>- Implement LMP (see Annex 2)</li> <li>- Implement Traffic Management Framework (see Annex 7)</li> <li>- Implement Health &amp; Safety Framework (see Annex 3)</li> </ul>
<p>Acquisition of essential supplies such as bailey bridges, tents, sleeping bags, personal hygiene kits, household kits etc.</p> <p>Rental of light equipment for removal of access and implementation of the CERP (e.g. removal of boulders and debris). Light equipment includes shovels, spades, or generators.</p> <p>Purchase of green cook stoves</p>	<ul style="list-style-type: none"> <li>- The activity will likely be implemented through a governmental agency, a UN agency or other implementers. The activities will only include procurement, but no distribution of goods, and no installation of bailey bridges.</li> <li>- Labor-related risks, labor conditions among suppliers</li> <li>- Traffic related risks during transport of goods</li> </ul>	<ul style="list-style-type: none"> <li>- Implement LMP (see Annex 2)</li> <li>- Implement Traffic Management Framework (see Annex 7)</li> </ul>
<p>Shelter administration, including, acquisition of goods necessary for shelter operation administration</p>	<ul style="list-style-type: none"> <li>- Risks in relation to labor management and conditions</li> <li>- Risks related to OHS for surge and repair crews</li> </ul>	<ul style="list-style-type: none"> <li>- Implement LMP (Annex 7)</li> <li>- Implement Health &amp; Safety Framework (see Annex 3)</li> </ul>
<p>Evacuation procedures</p> <p>Shelter administrative support and essential goods to support shelter operations (covers the administrative aspects of shelter operations, including the payment of salaries for shelter</p>	<ul style="list-style-type: none"> <li>- Risk of exclusion of vulnerable groups during evacuation</li> <li>- The activity will likely be implemented through a governmental agency, a UN agency or other implementers. The activities will only include procurement of goods or payment of salaries.</li> </ul>	<ul style="list-style-type: none"> <li>- Provide all necessary information tailored to vulnerable groups, as per the SEP.</li> </ul>

ACTIVITY/GENERAL ISSUES	Risks and Impacts	SUPPLEMENTAL MITIGATION MEASURES
managers and personnel responsible for overseeing the functioning of shelters. It also includes the acquisition of essential goods necessary for shelter administration, such as office supplies and basic furniture (e.g., tables, chairs, cots etc.).	<ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among suppliers and workers</li> <li>- Traffic related risks during transport of goods</li> </ul>	
Additional transportation costs (i.e. use of other transportation), increased electricity bills for the public sector, staff overtime and Funding for technical assistance including international and local specialized expertise (consultancy) to support recovery and provide just-in-time technical assistance and preparation of technical documents for procurement	<p>The activity will likely be implemented through a governmental agency, a UN agency or other implementers. Technical assistance does not include any substantive products with downstream E&amp;S risks and impacts.</p> <ul style="list-style-type: none"> <li>- Labor-related risks, labor conditions among workers</li> <li>- Traffic-related risks during transport funded</li> </ul>	<ul style="list-style-type: none"> <li>- Implement LMP (Annex 2)</li> <li>- Implement Traffic Management Framework (see Annex 7)</li> </ul>
Excavation activities or use of heavy machinery	<p>While it is unlikely that the construction activities envisaged under the project will adversely affect the built heritage, intangible heritage or natural heritage, the absence of impact will need to be confirmed during the screening and implementation of project activities specially where excavation is involved. A Chance Finds Procedure are presented as Annex 9 of this ESMP, which complies with Mozambique's legal requirements and World Bank ESS 8.</p>	<ul style="list-style-type: none"> <li>- Chance Finds Procedure (Annex 9)</li> </ul>

## Negative List

The following goods, services or activities are prohibited under this Project:

- Procurement of goods and services through security forces (including but not limited to Mozambique Defense, Mozambique Police, Forestry Officers, Wildlife Officers and Rangers, etc.).
- Staff overtime payments for members of security forces (as per the above).
- Use of prison labor, child labor, or forced labor
- Any civil works including but not limited to boreholes, water supply schemes, irrigation schemes, temporary road repairs, repairs/ refurbishment to infrastructure and buildings.
- Installation of bailey bridges
- Construction or refurbishment of storage facilities
- Activities involving land acquisition, restrictions on land use or resettlement (both temporary and permanent).
- Activities in protected and sensitive areas including riverbanks, key biodiversity areas, and critical habitat.
- Activities in known national or internationally recognized cultural heritage sites.
- Any activities requiring site specific environmental and social risk and/ or impact assessment.
- Sanitary waste management.
- Procurement, storage, or distribution of fuel.
- Procurement, storage, or distribution of goods with chlorine or other hazardous substances.
- Storage and distribution of medicine and veterinary medicine.
- Direct operation of shelters, including activities such as camp establishment, land agreements and compensation, and the provision of sanitation and waste management services.
- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.
- Production or trade in alcoholic beverages.
- Production or trade in tobacco.
- Gambling, casinos and equivalent enterprises.



- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where the Association considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

## SECTION 6: PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL ISSUES

This ESMP sets out the mitigation measures that will be implemented for the activities. It is recognized that this ESMP cannot specify all details of the activities that will be required by the Government in the event of an emergency response. These could be in response to a natural or man-made disaster, such as a hurricane, earthquake, flood, conflict, pandemic or severe economic or financial shocks. The Implementing Agency will depend on the context of the emergency and the type of emergency response the Government wishes to implement, which are described in Section 4.

Once the CERP has been activated, the Implementing Agency will commence implementation of the activity. The Implementing Agency will screen the activity to confirm that key environmental and social risks and impacts will be mitigated in accordance with the Frameworks included in this ESMP.

## SECTION 7: CONSULTATION AND DISCLOSURE

The Government will disclose this ESMP and conduct stakeholder engagement and consultation prior to appraisal, including on the mitigation measures that may be implemented and the existence of a grievance mechanism. It is acknowledged that in an emergency, it may not be possible to conduct stakeholder engagement on a specific activity as the priority is to respond provide a rapid response. The Implementing Agency will communicate the nature of the Activities to relevant government agencies (for example, the local government, office of health, labor office), affected people and key stakeholders and, where possible, enlist their assistance and support to implement the Activities. The Implementing Agency will also engage with relevant affected people and stakeholders so that they are aware of the grievance mechanism and how it operates. For activities related to ongoing World Bank funded projects, existing Project SEPs may be utilized to guide the stakeholder engagement activities (e.g. identification of relevant stakeholders) that can be reasonably undertaken within the available timelines. As part of project preparation, consultations at national level were undertaken and the outcomes are reflected in the project SEP.

## SECTION 8: INSTITUTIONAL ARRANGEMENTS AND RESOURCES

This section describes the institutional arrangements and resources that have been established to support this project and conduct the Activities.

The CERP will be managed by the Ministry of Economy and Finance (MEF) which will coordinate across relevant Ministries, Departments and Agencies (MDAs) for the activation and implementation of CERP activities. The National Directorate for Water Supply and Sanitation (DNAAS) under the Ministry of Public Works, Housing and Water Resources (MOPHRH) has been designated as the CERP PIU. Its experience and performance with World Bank financing are well established. It will, through the implementation capacity established under the Rural and Small Towns Water Security Project (P173518), be responsible for fiduciary management, monitoring, reporting, and environmental and social compliance, while government departments will be responsible for implementation of CERP activities in their respective sectors.

A Project Steering Committee (PSC) and a Project Technical Committee (PTC) under the leadership of the MEF are established with representatives of key Ministries, Departments and Agencies (MDAs). The PSC will provide strategic oversight and governance of the project, including approval of response budgets and the CERP resources for different sectors. The PSC will include high-level representatives of key stakeholders, such as the MEF, MOPHRH, Ministry of Agriculture and Rural Development (MADER); Ministry of Gender, Child and Social Action (MGCAS), Ministry of Health (MISAU), and the National Institute for Disaster Management and Risk Reduction (See Annex 9 for more details). The PSC will meet quarterly, or more often as required, upon the invitation of its Chairperson. In addition, it will ensure coordination among the various MDAs involved, facilitating seamless implementation, and addressing any inter-ministerial issues that may arise during the project execution. The PSC will also provide a platform for addressing stakeholders' concerns and ensuring that the project aligns with national priorities and policies on disaster management and climate resilience.

The PTC will include national directors and senior technical officers, procurement experts, environmental and social specialists from various sectoral agencies and Project Implementation Units (PIUs). This PTC will be responsible for coordinating sector-specific expertise and ensuring that the CERP responds effectively to the unique needs of each crisis. Working closely with the DNAAS the PTC will provide hands-on, practical support to the DNAAS, ensuring that all technical, procurement, and operational processes, including E&R risk management are in place and functional to address the specific eligible CERP emergency. For this purpose, the PTC will bring together the sector-relevant technical and procurement expertise to support the DNAAS in conducting the activities as needed for each emergency or crisis response for which the CERP is activated. DNAAS will serve as the secretariat for both the PSC and the PTC, facilitating coordination and communication between relevant stakeholders.

## SECTION 9: MONITORING AND REPORTING

The CERP PIU will be responsible for monitoring and reporting on results, with support from relevant stakeholders. The Results Framework will guide progress monitoring, and the PIU will update indicator values regularly based on stakeholder inputs and submit reports to the World Bank. To ensure accurate reflection of the project's progress, the PIU will collect and analyze data from stakeholders, periodically updating the Results Framework to capture on-the-ground realities. In the event of a CERP activation, additional response-specific indicators will be incorporated.

The recipient will submit quarterly CERP reports that assess progress against the ESCP, integrating M&E results and proposing adjustments to ensure effective implementation. These reports will be provided annually when no crisis is present, and at least semi-annually during an active crisis. Six months after the CERP activation ends, a completion report will be prepared, evaluating the performance of all parties and outlining a plan to sustain the CERP's achievements.

The CERP PIU E&S Specialists will submit quarterly reports based on monitoring reports by the implementing agency's E&S Specialists of the implementation of E&S obligations under the relevant activities in accordance with the ESCP and this ESMP and prepare quarterly monitoring reports on the environmental, social, health and safety (E&S) performance of the Project. The reports shall include (see Annex 1):

- Status of implementation of E&S documents required under the ESCP.
- Summary of stakeholder engagement activities carried out.
- Complaints submitted to the grievance mechanism(s), the grievance log, and progress made in resolving them.
- E&S performance of the project.
- Number and status of resolution of incidents and accidents reported under action C below.
- Any other aspects requested by the Association.

Implementing Partners will report on the relevant obligations in relation to their activities to the CERP PIU E&S Specialists. The content of partner reports will be included into the overall quarterly E&S report to the World Bank.

## Annex 1: E&S Reporting Checklist for Project Activities

The template below is presented for the quarterly E&S report, which the PIU will provide to the World Bank. The PIU will prepare tailor-made reporting formats to the Implementing Partners and contractor, capturing necessary information from their respective activities.

### **Template for the Quarterly Report on the Environment and Social Aspects of the CERP**

The objectives of the periodic report are:

- To record environmental and social impacts and risks resulting from the project activities and to ensure implementation of the mitigation, monitoring and institutional measures identified in the Environment and Social Commitment Plan (ESCP) and the ESMP, functionality of the GRM, accidents, and any other environmental and social instruments e.g. LMP, in order to reduce adverse impacts and risks and enhance positive impacts from specific project activities;
- Identify and address any unexpected or unforeseen environmental and social impacts or risks, that may arise during the period of the reporting;
- Address any unexpected issues that may impact on the implementation of the project or compliance with the E&S requirements;
- To ensure that the implementation of the project is in line with the WB ESS;
- To ensure development and implementation of necessary occupational health and safety management plans to identify hazards and mitigate risks, to ensure safe working procedures;
- To report any changes in the project activities requiring a material change in the ESCP and/or other project instruments (e.g. ESMP, LMP etc) during the monitoring period; and
- To propose mitigations and corrective measures or actions for unforeseen adverse environmental and social risks and impacts identified during the monitoring period of the Project.

Please fill in ALL of the following information in the following template. If there is not an applicable heading for particular information, please include a section called Other or another appropriate heading and include the information. In addition, text can be included under any table, or as an additional Annexure, to further justify, provide additional details on a topic as needed.

If there is more information that you would like to report, please do so. If you require additional columns or rows to complete the tables, please add as necessary. However please DO NOT delete columns from tables, or sections from the template. Rather indicate as not relevant, or not applicable to this reporting period.

*Please delete this Guidance note section when compiling the report.*

**Proposed Template**

Project Name	
Project Code	
Project Amount (or Component Amount if relevant)	
Board Approval Date	
Implementing Agency	
Applicable ESS standards/ Safeguard Operational Policies	
Monitoring Period	

**If this is not the first report, please indicate any changes as compared to the previous reporting period.**

**Planned/Undertaken CERP Activities**

*Please provide a synopsis of the main CERP activities planned/undertaken during the reporting period.*

**Synopsis of the Project Activities Implemented During the Reporting Period**

Description of Project work/activities	Monitoring Indicators during reporting Period	Frequency (monthly, quarterly)

**Pending/Delayed Actions (If any)**

*Please highlight any pending or delayed actions of the precedent report (if any), as well as activities planned but not undertaken in the current reporting period, indicating reasons and/or challenges and actions to address the delay. If there are no pending or delayed actions please mark the Table as not applicable.*

**Table for Delayed Actions of the Project**

No.	Activities (components, subcomponents) planned but not implemented	Safeguards requirements associated with the activities	Reason for delay	Actions to be taken	Timeline

**Status of Implementation of the Environmental and Social Commitment Plan (ESCP).**

*Please use the ESCP with the following columns in sequence. (The Table can be made landscape to accommodate text or included as an annex.)*

**Status of the Implementation of the ESCP.**

ESS#	ESCP obligations	Timeframe of ESCP obligations	Status of implementation	Justification of delays/shortcomings	Actions to be taken and timeline

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### Status of the Implementation of the ESMP

This section will inform/update on the status of the mitigation and monitoring measures of significant project risks, using a matrix approach including the relevant community health and safety measures. Please use the ESMP matrix with the following columns in sequence as shown below.

#### Status of Implementation of the ESMP

Reference	E&S Mitigation Measures	Monitoring Indicators	Linked to Investment Activity or the ESSs	Status of Implementation	Justification of delays/shortcomings	Actions to be taken and timeline

### Status of the Implementation of the Project's Grievance Mechanism

This section will inform/update on the status of grievances filed and how the CERP PIU is responding to the concerns and grievances (including labour, social, environment grievances) of project-affected parties related to the environmental and social performance of the project.

State total number of grievances recorded during the reporting period;

How many were resolved?

How many were referred elsewhere? Is the GRC/ GRM following up?

How many issues are unresolved and why?

What is the plan for the unresolved issues?

In Annex D, please attach copies of the GRMs for this reporting period.

#### Overview of Grievances During the Reporting Period

#	Stakeholder	Nature of Grievance (s)	Total Grievances	Status	Remarks/ Comment(s)
	<i>(e.g. institution, community members, local leaders, etc)</i>			Resolved/ unresolved	

### Stakeholder Engagement

This section will inform/update on the status of stakeholder engagement and how the CERP PIU is ensuring that stakeholders are being met with in line with the requirements of the Project and / or SEP as relevant. The section should outline:

- The number of engagement activities undertaken during the reporting period and types of stakeholders met with (e.g., communities, districts, neighbouring facilities, etc)
- Key issues raised or discussed during the meetings

- To what extent are the stakeholders being engaged during the implementation of E&S risks and impacts management measures?
- Do they participate in monitoring the implementation of E&S risk and impact management measures?
- Is the engagement/consultations organized according to the SEP?
- Were the participants informed before the meeting and minutes were shared with the participants?

## Health and Safety Accidents

This section summarizes the Environmental, Health and Safety accidents and incidences that occurred during the reporting period. Importantly, the section includes detailed descriptions of the procedures to mitigate recurrence and avoid further injury. The section includes reports on near-misses and treats these as incidents in line with comparative accidents. The section includes a table for follow-up of earlier accidents, incidents, and near-misses.

### Accident and Incident Reporting

Date and time of accident/Incident	Name of Victim	Description of the accident	Severity of Accident (Minor /Major injury/ death)	Mitigating measures taken by the contractor/proponent	Actions to be taken to prevent the occurrence of the accident	Status of the accident (open /closed <sup>1</sup> )

## Environmental and Social Management Capacity

This section details the E&S supervision arrangements for the activities. The section includes a diagram of the reporting arrangements as well as roles and responsibilities, any vacant positions and timelines to fill them if relevant. The description may require several diagrams for various project sites.

### Administration:

State any changes or updates on administrative requirements e.g. E&S personnel, location, etc.; Any changes in terms of applicable national and international requirements.

### Capacity Building:

Provide an update on any E&S safeguards related CB activities undertaken. Indicate outstanding CB activities and timelines for undertaking them.

### Other Project specific issues to flag, raise, report on:

### Other Specific Issues

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<sup>1</sup> Closed incident referring to those that have all the actions completed

Please answer the following questions:

Is the CERP PIU adequately staffed with skilled and permanent E&S specialists? Do they have resources (finance and equipment) to carry out field visits and supervisions?

Are the Implementing Partners adequately staffed with skilled and permanent E&S staff. Are they preparing their periodic E&S reports to the Owner?

Is the project GRM still robust enough to respond to complaints? How many complaints have been received and resolved (provide current and cumulative data)?

Is there sufficient budget allocation for implementing the ES instruments?

What are the constraints to the achievement of the ESCP and ESMP?

### **Conclusions and Recommendations**

Please summarize the major conclusions during this periodic report and recommendations for actions to be implemented in the next monitoring period. Include a summary (in a table) of measures or activities that were planned vs achieved; And state reasons why some activities are still outstanding.

Include a table of planned activities for the next quarter/ reporting period.



## Annex 2: Labor Management Procedures (LMP)

ESS2 on Labor and Working Conditions were identified as applicable for the CERP activities. In accordance with the requirements of ESS2, these Labor Management Procedures (LMP) were prepared. The purpose of the LMP is to set out the ways in which the PIU and all other implementers will manage all project workers in relation to the associated risks and impacts for the Project activities in Mozambique. The objectives of the LMP are to:

- (a) Identify the different types of project workers that are likely to be involved in the project
- (b) Identify, analyze and evaluate the labor related risks and impacts for project activities
- (c) Set out procedures to meet the requirements of ESS2 and applicable national legislation.

The LMP will be applied with due consideration to the requirements of national laws, the interrelatedness of ESS2 with other ESS.

The LMP will be administered to different types of project workers as follows:

- (a) **Direct Workers.** People employed directly by the PIU to work specifically in relation to the project at the Ministry.
- (b) **Contracted Workers.** People engaged through third parties to perform work related to core functions of the project, regardless of location. Under this category are included employees of contractors or third-party providers contracted to implement project activities. This can include UN personnel, NGOs and others.
- (c) **Primary Supply Workers.** People engaged as primary suppliers. These include, for example, suppliers of goods to be procured under the project.

The LMP will apply to Project workers including fulltime, part-time, temporary and seasonal.

For Tier 1 activities there will be no use of community labor. This LMP will be updated as needed to include any community labor requirements associated with cash for works.

### Labor Forecast

The following types of labor requirements are expected per type of activity. Numbers of workers cannot be estimated at this point, as activities and their scope are not known. Direct workers may come from different Ministries, as activities may require the involvement of different Ministries.

*Table 3 Labor forecast*

Project Activities	Types of workers
Cash transfers to households	Direct workers and contracted workers
Acquisition of food staples, medicine, medical supplies, veterinary medicine, agricultural inputs, other essential supplies, light equipment, green cookstoves, shelter materials, etc....	Direct workers, contracted and supply workers
Finance for surge responders, repair crews, shelter operations, transportation costs	Direct workers and contracted workers

Project Activities	Types of workers
Project Management	Direct workers

The labor requirements of the Project show that the LMP will have to cater for three categories of project workers as described in ESS2, namely direct workers, contracted workers, and primary supply workers.

**Labor Risk Assessment**

As part of the labor risks and impacts identification, the following activities will assist in understanding the exposure pathways. However, it has to be pointed out that presented here are only key risks related to workers of predictable activities:

- (a) The main types of activities for direct workers will be activities in the coordination of the project activities.
- (b) The main types of activities for contracted workers will be activities related to the coordination and implementation of procurement activities
- (c) The main types of activities for supply workers will be related to the production and transporting of goods.

The table highlights and analyses the potential labor risks and impacts in view of the anticipated labor utilization and general baseline settings of the project areas.

*Table 4 Labor Risk Identification and Analysis*

Risk/Impact	Analysis (Magnitude, Extent, Timing, Likelihood, Significance)	Risk Mitigation Measures
<b>ESS2: Labor and working conditions</b>		
Labor standards are not in accordance with national laws and international standards	Actual labor practices may differ from labor standards and laws	Through the implementation of this LMP these gaps are addressed.
Underpayment of contracted workers or supply workers	Despite the existence of a legally defined minimum wage, there is a risk that contracted, and supply workers are underpaid.	The project will enforce the minimum wage and implement it throughout the project / cascade it down to suppliers. A workers' grievance mechanism will be adopted and implemented.
Labor disputes over contracts	It is possible that disputes over contracts emerge among contracted and supply workers	The project will provide workers' GRM with an appeals mechanism outside of the direct employer.
Poor working conditions: Unsafe work environment	The working conditions of supply workers may be poor. The impact is significant, as it is not known as yet where supplies will be sourced from	Supervision of Supplier Labor Management Practices is essential to mitigate against this risk. A supplier checklist will be used.
Discrimination against women in employment	Women are often still discriminated against in employment, withing Mozambique, but also possibly among foreign suppliers.	Contractors and suppliers are compelled to safeguard the interests of women, including gender parity at the workspace, appropriate sanitation facilities at workplace, and appropriate PPE for women.  The Project will monitor these measures during field visits where possible and will require every contracted worker to sign a CoC, as well as adopt and implement workers' GRM.
SEA/SH risks among workers	There is a high incidence of SH of female workers by other workers. However, given that the main activities consist of procurement, the magnitude of this risk is moderate.	The Project takes a zero tolerance stand vis-à-vis SEA/SH toward all workers by other project workers. It will require the signing of CoCs by every direct worker.
Use of child labor	The general minimum age for work is 14 (which is in accordance with ILO standards on minimum age where a country's economy and educational facilities are insufficiently developed). Given that the main activities consist of procurement, the risk of child labor is low among contracted workers. However, given that it is not known yet where goods are sourced from, there is a moderate to substantial risk of child labor among suppliers.	The minimum age of 18 will be enforced in recruitment for direct workers on the Project. Suppliers will be contractually bound to comply with child labor prohibitions. During the procurement process, potential suppliers will be assessed for past abuses.  The Project will apply the IFC Exclusion list as guidance for procurement and the PIU/PCU will ensure that suppliers are not involved in any of the listed activities.
Forced Labor	Given that the main activities consist of procurement, the risk of forced labor is low among contracted workers. However, given that it is not known yet where goods are sourced from, there is a moderate to substantial risk of forced labor among suppliers.	Suppliers will be contractually bound to comply with forced labor prohibitions. During the procurement process, potential suppliers will be assessed for past abuses.  The Project will apply the IFC Exclusion list as guidance for procurement and the PIU/PCU will ensure that suppliers are not involved in any of the listed activities.

Risk/Impact	Analysis (Magnitude, Extent, Timing, Likelihood, Significance)	Risk Mitigation Measures
<b>ESS2: Labor and working conditions</b>		
Traffic accidents	Given that goods will be transported to their storage location, there is a risk of traffic accidents affecting community members and contracted and supply workers.	Implement Traffic Management Framework

## **Institutional Arrangements for Implementation of LMP**

Given the categories of project workers (direct workers, contracted workers, primary supply workers), this section lays out the operational arrangements amongst the various institutions that are collaborating with the Project to ensure the smooth implementation of the LMP. The requirements of the LMP apply to all categories of project workers and where there is a special emphasis for a particular category of workers, it is highlighted within the applicable section of the LMP.

The requirements of the LMP as applicable to the direct workers will be the responsibilities of the respective PIU. The PIU will however have an oversight role vis-à-vis other contractors or third party providers through direct reporting arrangement on the requirements of the LMP in particular and other ESMP requirements in general.

Contracted workers are those who will be employed by contractors or third-party providers to execute the project activities. Where the LMP refers to contractor responsibilities, it also refers to any other third-party provider. The contractor has the responsibility to ensure LMP implementation at the interface with its respective sub-contractors, while the PIU oversees the LMP implementation at all levels.

The Primary Suppliers are identified by the PIU or by an implementing partner. Upon the selection of the supplier, the LMP will be affirmed. Implementing partners have the obligation to ensure that all the procedures for primary supply workers are observed, though the PIU/PCU will have the overall responsibility. ESS2 applies a proportionality approach to oversight responsibility towards suppliers.

## **Terms and Conditions**

Government civil servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement as provided in the Mozambique Public Service Regulations. The Project staff and consultants will remain subject to the terms and conditions of currently in place at the MoF. The following terms and conditions will guide management of workers engaged by the implementing partners under the project:

- Workers to be involved should be at least 18 years of age;
- Workers will have an opportunity to negotiate their wages equal or above the government set minimum wage rate;
- Difference in wages will not be influenced by race, color, sex, language, religion, political or other opinion, nationality, ethnic or social origin, disability, property, birth, marital or other status or family responsibilities or other matters arising out of the employment relationship;
- Payment of wages will be done at most on monthly basis on the last day of each month.

During recruitment of workers the Implementing Partners will explain the terms and conditions prior to commencement of work. The labor law makes it mandatory for employers to give employees a copy of the written particulars of employment, signed by both parties within one

month of employment. Violation of the workers' Code of Conduct will constitute misconduct. In ensuring full compliance with the law in this regard, contractors will be required to furnish PIU with copies of the Written Particulars of Employment or copies of contract of all its workforce.

## **Key Procedures**

The Project will promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions.

The PIU and implementing partners and all project workers will follow up in ensuring the full accomplishment of the objectives of ESS2 in specific.

## **Recruitment and Replacement Procedure**

### **Procedure Objective**

The objective of this procedure is to ensure that the recruitment process and placement of project workers is conducted in a manner which is non-discriminatory, and employees are inducted to all essential work-related matters.

### **Procedure**

1. Contractors submit a recruitment plan to the PIU for review and approval. The following details will be shown:
  - i. Number of staff required
  - ii. Intended working condition
  - iii. Intended locations of staff
  - iv. Job specifications in terms of qualification and experience
2. Contractor publishes the job invitation in the appropriate media (local press or direct invitation for contracted worker, or word of mouth through local leaders for community workers) to ensure all potential candidates have access to the information, including women and persons with disabilities, actively addressing risks of nepotism, or other forms of recruitment or employment discrimination.
3. Shortlist and recruit candidates ensuring the following;
  - i. As far as possible, 50% shortlisted candidates are women.
  - ii. As far as possible, 50% engaged employees are women.
  - iii. Screen out candidates under the age of eighteen years.
4. On recruitment, ensure a contract of employment is signed voluntarily, for both contracted workers and community workers.
5. Before commencement of work, the contractor will ensure the employee is inducted on the essential work-related issues, which include the following;
  - i. Key Job Specifications
  - ii. Terms and Conditions of Employment
  - iii. Special Codes of Conduct
  - iv. Disciplinary Procedures
  - v. Workers' Grievance Redress Mechanism

- vi. Freedom to join and participate fully in Workers Association activities, Employment Council or Trade Union
  - vii. Key E&S aspects of the Project and its ESMP and other E&S instruments
  - viii. Emergency Preparedness
6. Maintain all such employment records available for review by the respective PIU, the World Bank, or Regulatory Authority.

## **Workers' Grievance Redress Procedure**

### **a. Objectives of the procedure**

The objective of this procedure is to settle the grievance between an employer and employee or between employees bilaterally before recourse to formal dispute resolution. Under the provisions of ESS2, the project will provide a grievance mechanism for all direct and contracted workers to raise workplace concerns. Workers will be informed of this grievance mechanism at the time of recruitment and the measures put in place to protect them from any reprisal for its use. The project will put in place measures to make the worker grievance mechanism easily accessible to all project workers.

### **b. Procedure**

1. The PIU will only engage contractors with registered CoC or who sign an undertaking to comply with the relevant provisions for contracted workers and contractors who will comply with community meetings resolutions on applicable rules in the case of community workers.
2. Implementing partners induct the employees on the applicable workers' GRM to be aware of their rights. All records of induction shall be kept and made available to the PIU.
3. In case of violation, the aggrieved employee must capture and present the details of the grievance to the person they report to or the supervisor's superior in case of conflict of interest.
4. The supervisor will verify the details and seek to address the matter within the shortest time (up to 48 hours).
5. The supervisor will escalate the matter if not resolved within 48 hours if a resolution is not found.
6. Where no resolution is found, the employee can escalate the matter to the sector specific institutions or courts who will resolve the matter between employer and employee. The Supreme Court's decision is final, where it has exercised lawful jurisdiction.
7. Where the formal courts are not accessible, do not exist in an area, or cannot render a judgment, the matter shall be reported to and handled under the PIU, for example through the Project Grievance Redress Mechanism (GRM). The PIU, in this case, will accommodate a fair agreement between the worker and the implementing partner.
8. The implementing partner shall keep records of all proceedings of grievance redress that are within their jurisdiction and furnish the PIU as part of the periodic progress reporting to the PIU.
9. In case of risk of retaliation, the employee may immediately escalate to the court system. If confidentiality is requested, the PIU will ensure it to avoid any risk of retaliation, including in its follow-up actions.

## **Procedure for Primary Suppliers**

Primary supply workers are employees of suppliers who, on an ongoing basis, provide goods and services to the Project. PIU/PCU have oversight of the implementation of the LMP requirements in this category.

### **Objective of the procedure**

The objective of the procedure is to ensure that labor-related risks to the project from primary supply workers are managed in line with the requirements of ESS2.

### **Procedure**

PIU will undertake the following measures:

- i. Procure supplies from legally constituted suppliers. The legal registration ensures that the company is legally obliged to comply with all applicable labor laws and other laws in Mozambique. This will include evidence of
  - Certificate of incorporation
  - Tax Clearance
  - Value Added Tax certificate
  - Registration of supplier with regulatory body for the goods or services where required
- ii. Make a physical check on the supplier's labor management system, including
  - employee contracts
  - OHS
  - any past work-related environmental or occupational incidents
  - workers committee in place
- iii. Check products quality certification and environmental rating where required
- iv. Undertaking to take back waste for reuse, for example containers and packaging where applicable
  - i. Possibility of training in safe use of product by community users where applicable
  - ii. Where potential child labor or forced labor or serious safety risks are identified in a specific sector or industry, in connection with the supply of goods, a mapping exercise should be conducted to identify suppliers relying on such goods.
  - iii. Where it is not possible to identify specific primary suppliers, the mapping should identify general industry labor issues relating to the supply of the respective goods.

## **Terms and Conditions of Project Workers**

The specific terms and conditions for the different categories of project workers and different types of activities will be defined in the inception phase of the project, they will draw on currently applied terms and conditions by the PIU.

## **Monitoring and Supervision**

The performance monitoring of this LMP will follow the same institutional arrangement as the monitoring and supervision of the ESMP. In general, the respective PIU will be responsible for



the monitoring of the implementation of the LMP. In particular, the Social Specialist in the PIU will work directly to ensure that the LMP is fully implemented.

The Social Specialist will undertake supervision missions and spot checks as per a schedule to be developed once sites have been selected. Through the initial activity- or site-specific screening process, the Social Specialist will be aware of potential labor-related risks and impacts of activities and will develop a monitoring schedule around these.

Non-compliance of the LMP will be reported to the PIU Project Manager and will be taken up in the regular E&S reporting.

## Annex 3: Occupational Health and Safety Framework

### **PURPOSE**

The purpose of this OHSE Framework is to provide guidance for the systematic identification, evaluation, prevention and control of general workplace hazards, specific job hazards, potential hazards and environmental impacts that may arise from foreseeable conditions during the implementation of the CERP.

This document shall be followed by all implementers and suppliers. In case World Bank specific documents are to be implemented, this document will be followed in conjunction with World Bank's specific documents and WB Environment Social and Health Guidelines.

Although every effort has been made to make the procedures and guidelines in line with statutory requirements, in case of any discrepancy, relevant statutory guidelines must be followed. In case World Bank, the financier, has any specific requirement, the same is to be fulfilled.

### **SCOPE**

The document is applicable for CERP implementers at all project sites during the implementation of the activities as per the relevant contractual obligations.

### **OBJECTIVES AND TARGETS**

- The OHSE Framework reflects that the implementer places high priority upon the Occupational Health, Safety and Environment at workplaces;
- Ensure that the Health and Safety of all persons at work site is not adversely affected by the work;
- Ensure protection of environment of the work site and adjacent community;
- Comply at all times with the relevant statutory and contractual OHSE requirements and Good International industry Practice and WB ESHGs;
- Provide trained, experienced and competent personnel. Ensure medically fit personnel only are engaged at work;
- Provide and maintain plant, places and systems of work that are safe and without risk to health and the environment;
- Provide all personnel with adequate information, instruction, training and supervision on the safety aspect of their work;
- Effectively control, co-ordinate and monitor the activities of all personnel on the Project sites including suppliers and contractors in respect of OHSE;
- Establish effective communication on OHSE matters with all relevant parties involved in the Project works;
- Ensure that all work planning takes into account all persons that may be affected by the work;
- Ensure fitness testing of all equipment are certified by competent persons;

- Ensure timely provision of resources to facilitate effective implementation of OHS requirements;
- Ensure continual improvements in OHS performance;
- Ensure conservation of resources and reduction of wastage;
- Capture the data of all incidents including near misses, process deviation etc. Investigate and analyze the same to find out the root cause;
- Ensure timely implementation of correction, corrective action and preventive action.

## OHS TARGETS

Explosion	zero
Fatality	zero
Lost time injury	zero
Fire incidents	zero
vehicle incidents	Zero

## TERMS AND DEFINITIONS

### Definitions

**Incident:** Work- related or natural event(s) in which an injury, or ill health (regardless of severity), damage to property or fatality occurred, or could have occurred.

**Near Miss:** An incident where no ill health, injury, damage or other loss occurs, but it had a potential to cause, is referred to as “Near-Miss”.

**Man-Hours Worked:** The total number of man hours worked by all employees including Contractors working in the premises. It includes managerial, supervisory, professional, technical, clerical and other workers including contract laborers. Man-hours worked shall be calculated from the payroll or time clock recorded including overtime. When this is not feasible, the same shall be estimated by multiplying the total man-days worked for the period covered by the number of hours worked per day. The total number of workdays for a period is the sum of the number of men at work on each day of period. If the daily hours vary from department-to-department separate estimate shall be made for each department and the result added together.

**First-Aid Cases:** First aids are not essentially all reportable cases, where the injured person is given medical treatment and discharged immediately for reporting on duty, without counting any lost time.

**Lost-Time Injury:** Any work injury which renders the injured person unable to perform his regular job or an alternative restricted work assignment on the next scheduled work day after the day on which the injury occurred.

**Medical Cases:** Medical cases come under non-reportable cases, where owing to illness or other reason the employee was absent from work and seeks medical treatment.

**Types of Incidents & Their Reporting:** The three categories of Incident are as follows:

***Non-Reportable Cases:***

An incident, where the injured person is given medical help and discharged for work without counting any lost time.

***Reportable Cases:***

In this case the injured person is disabled for 48 hours or more and is not able to perform his duty.

***Injury Cases:***

These are covered under the heading of non-reportable cases. In these cases, the incident caused injury to the person, but he/she still continues his duty.

**Total Reportable Frequency Rate:** Frequency rate is the number of Reportable Lost Time Injury (LTI) per one Million Person hours worked. Mathematically, the formula read as:

$$\frac{\text{Number of Reportable LTI} \times 1,000,000}{\text{Total Person Hours Worked}}$$

**4.1.9 Severity Rate**

Severity rate is the Number of days lost due to Lost Time Injury (LTI) per one Million Person hours worked. Mathematically, the formula reads as:

$$\frac{\text{Days lost due to LTI} \times 1,000,000}{\text{Total Person Hours Worked}}$$

**Incidence Rate**

Incidence Rate is the Number of LTI per one thousand manpower deployed. Mathematically, the formula reads as:

$$\frac{\text{Number of LTI} \times 1000}{\text{Average number of manpower deployed}}$$

**HSE ORGANIZATION**

**Number of Safety Officers:** The implementer must deploy one safety officer for every 500 workers or part thereof in each package. In addition, there must be one safety-steward/safety-supervisor for every 100 workers.

**Deployment:** The Contractor should deploy sufficient safety officers and safety-steward/Safety-supervisor, as per requirement given above, since initial stage and add more in proportion to the added strength in work force. Any delay in deployment will prompt the CERP to order temporary suspension of works until the issue is resolved.

No	Designation	Qualification	Experience
1.	Health and Safety officer	Degree in Engineering or Public Health/ Environmental Health	Minimum two years in the field of Construction or Occupational Health and safety.
2	Health and Safety Supervisor	Degree or diploma in any discipline with full time diploma in Industrial Safety with construction safety as one of the subjects	Minimum two years

## Responsibilities

### Site In -Charge of Contractor

- Shall engage qualified safety officer(s) and steward (s) as per clause;
- Shall adhere to the rules and regulations mentioned in this code, practice very strictly in his area of work in consultation with his concerned engineer and the safety coordinator;
- Shall screen all workmen for health and competence requirement before engaging for the job and periodically thereafter as required;
- Shall not engage any employee below 18 years of age;
- Shall arrange for all necessary PPEs like safety helmets, belts, full body harness, shoes, face shield, hand gloves etc. before starting the job;
- Shall ensure that no person lifts, carries or move any load which, by reason of its weight, is likely to injure his health or jeopardize his safety as stipulated in the Occupational Safety, Health and Welfare provisions of the Republic of Mozambique;
- Shall ensure that all Tools & Plants (T&Ps) engaged are tested for fitness and have valid certificates from competent person;
- Shall ensure that provisions for the welfare of the employees such as canteen, rest rooms/washing facilities are provided for at the site;
- Shall adhere to the instructions laid down in Operation Control Procedures (OCPs) available with the site management;
- Shall ensure that person working above 2.0 meter should use Safety Harness tied to a life line/stable structure;
- Shall ensure that materials are not thrown from height. Cautions to be exercised to prevent fall of material from height;
- Shall report all incidents (Fatal/Major/Minor/Near Miss) to the Site engineer /HSE officer;
- Shall ensure that Horseplay is strictly forbidden;
- Night work is forbidden;
- Shall ensure that all personnel working under Contractor are working safely and do not create any Hazard to self and to others;
- Shall ensure display of adequate signage/posters on OHSE;
- Shall ensure conductance of OHSE audit, mock drills, medical camps, induction training and training on OHSE at site;
- Shall ensure full co-operation during OHSE audits;
- Shall ensure submission of look-ahead plan for procurement of HSE equipment's and PPEs as per work schedule;
- Shall ensure good housekeeping;
- Shall ensure adequate valid fire extinguishers are provided at the worksite;

- Shall ensure availability of sufficient number of toilets /restrooms and adequate drinking water at work site and labor colony;
- Shall ensure adequate emergency preparedness;
- Shall be member of site OHSE committee and attend all meetings of the committee;
- Temporary fencing should be done for open edges if Hand – railings and Toe-guards are not available.

### **Health, Safety and Environment Officer of Contractor**

- Carry out safety inspection of Work Area, Work Method, Men, Machine & Material, processes and materials and other tools;
- Facilitate inclusion of safety elements into Work Method Statement;
- Highlight the requirements of safety through Tool-box talks/ other meetings;
- Help concerned heads of sections to prepare Job Specific instructions for critical jobs;
- Conduct investigation of all incident/dangerous occurrences & recommend appropriate safety measures;
- Advice & co-ordinate for implementation of HSE permit systems;
- Convene HSE meeting & minute the proceeding for circulation & follow-up action;
- Plan procurement of PPE & Safety devices and inspect their healthiness;
- Report to OHS specialist on all matters pertaining to status of safety and promotional program at site level;
- Facilitate administration of First Aid;
- Facilitate screening of workmen and safety induction;
- Conduct fire Drill and facilitate emergency preparedness;
- Design campaigns, competitions & other special emphasis programs to promote safety in the workplace;
- Notify site personnel non-conformance to safety norms observed during site visits / site inspections;
- Recommend to Site In-Charge, immediate discontinuance of work until rectification of such situations warranting immediate action in view of imminent danger to life or property or environment;
- To decline acceptance of such PPE / safety equipment that do not conform to specified requirements;
- Encourage raising Near Miss Report on safety along with, improvement initiatives on safety.

### **PLANNING BY THE CONTRACTOR**

Monthly planning and review of HSE activities shall be carried out by Contractor jointly with the implementer.

### **Mobilization of Machinery/Equipment/Tools by Contractor**

As a measure to ensure that machinery, equipment and tools being mobilized to supplier or consultant are fit for purpose and are maintained in safe operating condition and complies with legislative and owner requirement, inspection shall be arranged by in-house competent authority for acceptance as applicable.

## **Mobilization of Person power by Contractor**

- The Contractor shall arrange induction and regular health check of their employees as per requirement in the Occupational Health and Safety legal provisions.
- The Contractor shall take special care of the employees affected with occupational diseases. The employees not meeting the fitness requirement should not be engaged for such job.
- Ensure that the regulatory requirements of excessive weight limit (to carry/lift/ move weights beyond prescribed limits) for male and female workers are complied with.
- Appropriate accommodation to be arranged for all workmen in hygienic condition.

## **Provision of PPEs**

Personnel Protective Equipment (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured.

- All the PPEs shall be checked for its quality before issue and the same shall be periodically checked. The users shall be advised to check the PPEs themselves for any defect before putting on. The defective ones shall be repaired/ replaced.
- The issuing agency shall maintain register for issue and receipt of PPEs.
- The Helmets shall have logo or name (abbreviation of agency name permitted) affixed or printed on the front.

## **Arrangement of Infrastructure**

### **Drinking water**

Drinking water shall be provided and maintained at suitable places at different elevations. Container should be labeled as “Drinking Water”

### **Washing Facilities**

In every workplace, adequate and suitable facilities for washing shall be provided and maintained. Separate and adequate cleaning facilities shall be provided for the use of male and female workers. Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition and dully illuminated for night use.

### **Latrines and Urinals**

- Latrines and urinals shall be provided in every work place.
- They shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times, by appointing designated person.
- Separate facilities shall be provided for the use of male and female worker if any.

### **Provision of Shelter During Rest**

Proper Shed & Shelter shall be provided for rest during break.

### **Medical Facilities**

#### **Medical Centre:**

- A medical center shall be ensured/identified at site with basic facilities for handling medical emergencies. The medical center can be jointly developed on proportionate sharing basis with permission from the implementer.
- A qualified medical professional shall be deployed at the medical center
- The medical center shall be equipped with one ambulance, with trained driver and oxygen cylinder.
- Medical waste shall be disposed as per prevailing legislation.

#### **First Aider:**

- Ensure availability of Qualified First-aider throughout the working hours.
- Every injury shall be treated, recorded and reported.
- Refresher course on first aid shall be conducted as necessary.
- List of Qualified first aiders and their contact numbers should be displayed at conspicuous places

#### **First Aid Box:**

- The Contractor shall provide necessary first aid facilities at every work place.
- The first aid box shall be kept by first aider who shall always be readily available during the working hours of the work place. His name and contact number to be displayed on the box.
- The first aid boxes should be placed at various elevations so as to make them available within the reach and at the quickest possible time.
- The first aid box shall be distinctly marked with a Green Cross on white background.
- Monthly inspection of First Aid Box shall be carried out by the owner.
- The Contractor should conduct periodical first –aid classes to keep his supervisor and Engineers properly trained for attending to any emergency.

#### **Health Check Up**

The persons engaged at the site shall undergo health checkup before induction.

#### **Provision of Canteen Facility**

- Canteen facilities shall be provided for the workers of the project inside the project site.
- Proper cleaning and hygienic condition shall be maintained.
- Proper care should be taken to prevent biological contamination.
- Adequate drinking water should be available at the canteen.
- Fire extinguisher shall be provided inside the canteen.
- Regular health check-up and medication to the canteen workers shall be ensured.

#### **Provision of Emergency Vehicle**

Dedicated emergency vehicle shall be made available at workplace by the Contractor to handle any emergency.

#### **Pest Control**

Regular pest control should be carried out at all offices, mainly laboratories, canteen, labor colony and stores.

#### **Scrapyard**



Scrapyard shall be developed to store metal scrap, wooden scrap, waste, hazardous waste in line with the Waste Management Framework.

Scrap/Waste shall be segregated as Bio-degradable and non-bio-degradable and stored separately.

### **Illumination**

- The Contractor shall arrange at his cost adequate lighting facilities e.g. flood lighting, hand lamps, area lighting etc. at various levels for safe and proper working operations at dark places and during night hours at the work spot as well as at the pre-assembly area.
- Adequate and suitable light shall be provided at all work places & their approaches including passage ways.
- Lamp (hand held) shall not be powered by mains supply but either by 24V or dry cells.
- Lamps shall be protected by suitable guards where necessary to prevent danger, in case of breakage of lamp.
- Emergency lighting provision for night work shall be made to minimize danger in case of main supply failure.
- If the Contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions issued by the authorized official, the implementer shall have the right to take corrective steps at the risk and cost of the Contractor.

## **HSE TRAINING AWARENESS**

### **HSE Induction Training**

All persons entering into project site shall be given HSE induction training by the HSE officer of Contractor before being assigned to work.

In-house induction training subjects shall include but not limited to:

- Briefing of the Project details.
- Safety objectives and targets.
- Site HSE rules.
- Site HSE hazards and aspects.
- First aid facility.
- Emergency Contact No.
- Incident reporting.
- Fire prevention and emergency response.
- Rules to be followed in the camp
- Proper safety wear & gear must be issued to all the workers being registered for the induction (i.e., Shoes/Helmets/Goggles/Leg guard/Apron etc.)
- They must arrive fully dressed in safety wear & gear to attend the induction.
- Any one failing to conform to this safety wear & gear requirement shall not qualify to attend.
- On completing attending Contractor's in-house HSE induction, each employee shall sign an induction training form to declare that he/she had understood the content and shall abide to follow and comply with safe work practices. They may only then be qualified to be issued with a personal I.D. card, for access to the work site

### **HSE Toolbox Talk**

HSE tool Box talk shall be conducted by frontline foreman/supervisor of Contractor to specific work groups prior to the start of work. The agenda shall consist of the followings:

- Details of the job being intended for immediate execution.
- The relevant hazards and risks involved in executing the job and their control and mitigating measures.
- Specific site condition to be considered while executing the job like high temperature, humidity, unfavorable weather etc.
- Recent non-compliances observed.
- Appreciation of good work done by any person.
- Any doubt clearing session at the end.
- Tool box talk to be conducted at least once a week for the specific work.

### **HSE Training During Project Execution**

- Other HSE training shall be arranged by Contractor as per the need of the project execution and recommendation of HSE committee of site.
- The topics of the HSE training shall be as follows but not limited to:
  - Hazards identification and risk analysis (HIRA)
  - Work Permit System
  - Incident investigation and reporting
  - Fire fighting
  - First aid
  - Fire-warden training
  - T & Ps fitness and operation
  - Storage, preservation & material handling
- A matrix shall be maintained to keep an up-to-date record of attendance of training sessions carried out.

### **HSE Promotion-signage, Posters, Competition, Awards etc.**

#### **Display of HSE posters and banners**

Site shall arrange appropriate posters, banners, slogans in local languages at work place

#### **Display of HSE signage**

Appropriate HSE signage shall be displayed at the work area to aware workmen and passersby about the work going on and dos and don'ts to be followed

#### **Competition on HSE and award**

Contractor shall arrange HSE awareness program periodically on different topics including medical awareness for all personnel working at site

### **HSE COMMUNICATION**

#### **Incident Reporting**

The Contractor shall submit report of all incidents, fires and property damage etc., not later than 24 hours of the occurrence. The Engineer shall report the same to the OHS Specialist immediately. Such reports shall be furnished in the manner prescribed by the implementer. (Refer to HSE procedure for incident investigation, analysis and reporting for details).

In addition, periodic reports on safety shall also be submitted by the Contractor to the implementer from time to time. Compiled monthly reports of all kinds of incidents, fire and property damage to be submitted to the Specialist as per prescribed formats.

HSE incidents of site shall be reported to the implementer site Management as per Procedure for Incident Investigation and Reporting. Corrective action shall be immediately implemented at the work place and compliance shall be verified by the implementer's OHS Specialist and until then, work shall be put on hold by Construction Manager.

### **Work Permit System**

“HSE Procedure for Work Permit System” shall be followed while implementing permit system.

- Permit applicant shall apply for work permit of particular work activity at particular location before starting of the work with Job Hazard Analysis.
- Permit signatory shall check that all the control measures necessary for the activity are in place and issue the permit to the permit holder.
- Permit holder shall implement and maintain all control measures during the period of permit. He will close the permit after completion of the work.
- The closed permit shall be archived in HSE Department of site.

### **Safety During Work Execution**

Respective Operation Control Procedures (OCPs) are to be followed and adhered to and the same would be contractually binding.

### **Cylinder Storage and Movement**

All gas cylinders shall be stored in upright position. Suitable trolley shall be used. There shall be flash-back arrestors conforming to IS-11006 at both cylinder and burner ends. Damaged tube and regulators must be immediately replaced. Number of cylinders shall not exceed the specified quantity as per OCP.

Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dragged, struck or permitted to strike each other violently. When cylinders are transported by powered vehicle they shall be secured in a vertical position.

### **Chemical Handling**

Displaying safe handling procedures for all chemicals such as lube oil, acid, alkali, sealing compounds etc., at work place. Where it is necessary to provide and/or store petroleum products or petroleum mixture & explosives, the Contractor shall be responsible for carrying out such provision / storage in accordance with the rules & regulations. All such storage shall have prior approval.

### **Electrical Handling**

- Providing adequate number of 24 V sources and ensure that no hand lamps are operating at voltage level above 24 Volts.
- Fulfilling safety requirements at all power tapping points.
- High/ Low pressure welders to be identified with separate color clothing. No welders will be deployed without passing appropriate tests and holding valid welding certificates. Approved welding procedure should be displayed at work place.

- The Contractor shall not use any hand lamp energized by Electric power with supply voltage of more than 24 volts in confined spaces like inside water boxes, turbine casings, condensers etc.
- All portable electric tools used by the Contractor shall have safe plugging system to source of power and be appropriately earthed. Only electricians licensed by appropriate statutory authority shall be employed by the Contractor to carry out all types of electrical works. Details of earth resource and their test date to be submitted to OHS specialist.
- The Contractor shall use only properly insulated and armored cables which conform to the requirement.
- The implementer reserves the right to replace any unsafe electrical installations, wiring, cabling etc. at the cost of the Contractor.
- All electrical appliances used in the work shall be in good working condition and shall be properly earthed.
- No maintenance work shall be carried out on live equipment.
- The Contractor shall maintain adequate number of qualified electricians to maintain his temporary electrical installations.
- Area wise Electrical safety inspection is to be carried out on monthly basis as per "Electrical Safety Inspection checklist" and the report is to be submitted to the implementer's safety officer
- Adequate precautions shall be taken to prevent danger for electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public
- The Contractor shall carefully follow the safety requirement of the implementer/ the purchaser with the regard to voltages used in critical areas.

### **Fire Safety**

- Providing appropriate firefighting equipment at designated workplace and nominate a fire officer/warden adequately trained for his job.
- Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, temporary structure in labor colony etc. Such fire protection equipment shall be easy and always kept open.
- The fire extinguishers shall be properly refilled and kept ready which should be certified at periodic intervals. The date of changing should be marked on the Cylinders.
- All other fire safety measures as laid down in the emergency preparedness and response plan shall be followed.
- Non-compliance of the above requirement under fire protection shall in no way relieve the Contractor of any of his responsibility and liabilities to fire incident occurring either to his materials or equipment or those of others.
- Emergency contact numbers must be displayed at prominent locations
- Tarpaulin being inflammable should not be used (instead, only non-infusible covering materials shall be used) as protective cover while preheating, welding, stress relieving etc. at site.

### **Lifting Safety**

- It will be the responsibility of the Contractor to ensure safe lifting of the equipment, taking due precaution to avoid any incident and damage to other equipment and personnel.
- All requisite tests and inspection of handling equipment, tools & tackle shall be periodically done by the Contractor by engaging only the Competent Persons as per law.

- Defective equipment or uncertified shall be removed from service.
- Any equipment shall not be loaded more than its recommended safe working load.

## **Environmental Control**

Environment protection has always been given prime importance. Environmental damage is a major concern of the principal Contractor, and every effort shall be made, to have effective control measures in place to avoid pollution of Air, Water and Land and associated life. Chlorofluorocarbons such as carbon tetrachloride and trichloroethylene shall not be used. Waste disposal shall be done in accordance with the guidelines laid down in the Waste Management Plan. Any chemical including solvents and paints, required for construction shall be stored in designated bonded areas around the site as per Material Safety Data Sheet (MSDS).

In the event of any spillage, the principle is to recover as much material as possible before it enters drainage system and to take all possible action to prevent spilled materials from running off the site. The Contractor shall use appropriate MSDS for clean-up technique.

All Contractors shall be responsible for the cleanliness of their own areas.

The Contractors shall ensure that noise levels generated by plant or machinery are as low as reasonably practicable. Where the Contractor anticipates the generation of excessive noise levels from his operations the Contractor shall inform the Construction Manager accordingly so that reasonable and practicable precautions can be taken to protect other persons who may be affected. It is imperative on the part of the Contractor to join and effectively contribute in joint measures such as tree plantation, environment protection, contributing towards social upliftment, conversion of packing woods to school furniture, keeping good relation with local populace etc. The Contractor shall carry out periodic air and water quality check and illumination level checking in his area of workplace and take suitable control measure.

## **Housekeeping**

Keeping the work area clean/ free from debris, removed scaffoldings, scraps, insulation/sheeting wastage /cut pieces, temporary structures, packing woods etc. will be in the scope of the Contractor. Such cleanings must be done by Contractor on daily basis by an identified group. If such activity is not carried out by Contractor is not satisfied, then the implementer may get it done by other agency and actual cost along with overheads will be deducted from contractor's bill. Such decisions shall be binding on the Contractor.

- Proper housekeeping to be maintained at workplace and the following are to be taken care of on daily basis.
- All surplus earth and debris are removed/disposed of from the working areas to identified locations.
- Unused/Surplus cables, steel items and steel scrap lying scattered at different places/elevation within the working areas are removed to identified locations.
- All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from workplace to identified locations. Sufficient waste bins shall be provided at
- Different workplaces for easy collection of scrap/waste. Scrap chute shall be installed to remove scrap from high location.

- Access and egress (staircase, gangways, ladders etc.) path should be free from all scrap and other hindrances.
- Workmen shall be educated through toolbox talk about the importance of housekeeping and encourage not to litter.
- Labor camp area shall be kept clear and materials like pipes, steel, sand, concrete, chips and bricks, etc. shall not be allowed in the camp to obstruct free movement of men and machineries.
- Fabricated steel structures, pipes & piping materials shall be stacked properly.
- No parking of trucks/trolleys, cranes and trailers etc. shall be allowed in the camp, which may obstruct the traffic movement as well as below LT/HT power line.
- Utmost care shall be taken to ensure overall cleanliness and proper upkeep of the working areas

## **Waste Management**

Take suitable measures for waste management and environment related laws/legislation as a part of normal construction activities. Compliance with the legal requirements on storage/ disposal of paint drums (including the empty ones), Lubricant containers, Chemical Containers, and transportation and storage of hazardous chemicals will be strictly maintained.

### **Bins at a Workplace**

- Sufficient rubbish bins shall be provided close to workplaces.
- Bins should be painted yellow and numbered.
- Enough drip trays shall be provided to collect oil and grease.
- Enough broomsticks with handle shall be provided.
- Adequate strength of employees should be deployed to ensure daily monitoring and service for waste management.

### **Storage and Collection**

- Different types of rubbish/waste should be collected and stored separately.
- Paper, oily rags, smoking material, flammable, metal pieces should be collected in separate bins with close fitting lids.
- Rubbish should not be left or allowed to accumulate on construction and other workplaces.
- Do not burn construction rubbish near working site

### **Segregation**

- Earmark the scrap area for different types of waste.
- Store wastes away from building.
- Oil spill absorbed by non-combustible absorbent should be kept in separate bin.
- Clinical and first aid waste stored and incinerated separately.

### **Disposal**

- Sufficient containers and scrap disposal area should be allocated.
- All scrap bin and containers should be conveniently located.
- Provide self-closing containers for flammable/spontaneously combustible material.
- Keep drainage channels free from choking.
- Make schedule for collection and disposal of waste.

### **Warning and Signs**

- Appropriate sign to be displayed at scrap storage area
- No toxic, corrosive or flammable substance to be discarded into public sewage system.
- Waste disposal shall be in accordance with best practice.
- Comply with all the requirements of Pollution Control Board (PCB) for storage and disposal of hazardous waste.

### **Emergency Preparedness and Response**

- Emergency preparedness and response capability of site shall be developed and implemented accordingly.
- Availability of adequate number of first aiders and fire warden shall be ensured with the implementer and its Contractors
- All the Contractor's supervisory personnel and enough workers shall be trained for fire protection systems. Enough number of such trained personnel must be available during the tenure of contract. Contractor should nominate his supervisor to coordinate and implement the safety measures.
- Assembly point shall be earmarked and access to the same from different location shall be shown
- Fire exit shall be identified, and pathway shall be clear for emergency escape.
- Appropriate type and number of fire extinguisher shall be deployed as per Fire extinguisher deployment plan and validity shall be ensured periodically through inspection
- Adequate number of first aid boxes shall be strategically placed at different workplaces to cater emergency need. Holder of the first aid box shall be identified on the box itself who will have the responsibility to maintain the same.
- First aid center shall be developed at site with trained medical personnel and ambulance
- Emergency contact numbers (format given in EPRP) of the site shall be displayed at prominent locations.
- Tie up with fire brigade shall be done in case Contractor is not having a fire station.
- Tie up with hospital shall be done in case Contractor is not having a hospital.
- Disaster Management group shall be formed at site
- Mock drill shall be arranged at regular intervals. Monthly report of the above to be given to the OHS Specialist
- Mock drill shall be conducted on different emergencies periodically to find out gaps in emergency preparedness and taking necessary corrective action

### **HSE INSPECTION**

Inspection on HSE for different activities being carried out at site shall be done to ensure compliance to HSEMS requirements. The Contractor shall maintain and ensure necessary safety measures as required for inspection and tests as applicable, to enable inspection agency for performing Inspection. If any test equipment is found not complying with proper safety requirements, then the Inspection Agency may withhold inspection, till such time the desired safety requirements are met.

### **Daily HSE Checks**

- Both the Site Supervisors and safety officer of Contractor are to conduct daily site Safety inspection around work activities and premises to ensure that work methods and the sites

are maintained to an acceptable standard. The following are to form the common subjects of a daily safety inspection:

- Personal Safety wears & gear compliance.
- Complying with site safety rules and permit-to-work.
- Positions and postures of workers.
- Use of tools and equipment etc. by the workers.
- The inspection should be carried out just when work starts in beginning of the day, during peak activities period of the day and just before the day's work ends.

### **Inspection of PPE**

PPEs shall be inspected by HSE officer at random once in a week for its compliance to standard and compliance to use and any adverse observation shall be recorded in the PPE register.

### **Inspection of Tools and Plants (T&Ps)**

- A master list of T&Ps shall be maintained by the Contractor.
- All T&Ps being used at site shall be inspected by HSE officer once in a month
- The T&Ps which require third party inspection shall be checked for their validity during inspection. The third-party test certificate should be accompanied with a copy of the concerned competent person's valid qualification record.
- The validity of T&P shall be monitored as per "Status of T&Ps" format.

### **HSE PERFORMANCE**

- Contractor shall be assessed on monthly basis for HSE Compliance by Safety In-charge at the site.
- The implementer shall reserve the right to use this assessment for evaluating bidder's capacity for future tenders
- Suitable HSE reward system shall be developed at site level to promote HSE compliance amongst workmen by the Contractor. To decide HSE reward, performance towards HSE shall be evaluated for workmen and it shall be awarded regularly in public gathering.
- If safety record of the Contractor in execution of the awarded job is to the satisfaction of safety department of the implementer, issue of an appropriate certificate to recognize the safety performance of the Contractor may be considered by the implementer after completion of the job.

### **OTHER REQUIREMENTS**

- In case of any delay in completion of a job due to mishaps attributable to lapses by the Contractor, the implementer shall have the right to recover cost of such delay from the payments due to the Contractor, after notifying the Contractor suitably.
- If the Contractor fails to improve the standards of safety in its operation to the satisfaction of the implementer after being given reasonable opportunity to do so and/or if the Contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instruction regarding safety issued by the implementer, the implementer shall have the right to take corrective steps at the risk and cost of the Contractor after giving a notice of not less than 7 days indicating the steps that would be taken by the implementer .
- If the Contractor succeeds in carrying out its job in time without any fatal or disabling injury incident and without any damage to property, the implementer may, at its sole discretion, favorably consider rewarding the Contractor suitably for the performance.



- In case of any damage to property due to lapses by the Contractor, the implementer shall have the right to recover the cost of such damages from the Contractor after holding an appropriate enquiry.
- The Contractor shall take all measures at the sites of the work to protect all persons from incidents and shall be bound to bear the expenses of defense of every suit, action or other proceeding of law that may be brought by any persons for injury sustained or death owing to neglect of the above precautions and to pay any such persons such compensation or which may with the consent of the Contractor be paid to compromise any claim by any such person, should such claim proceeding be filed against the implementer, the Contractor hereby agrees to indemnify the implementer against the same.
- The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
- The Contractor shall notify the implementer of his intention to bring to site any equipment or material which may create hazard.
- The implementer shall have the right to prescribe the conditions under which such equipment or materials may be handled, and the Contractor shall adhere to such instructions.

#### **NON-COMPLIANCE**

*NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND THE IMPLEMENTER HAS THE RIGHT TO IMPOSE PENALTIES ON THE CONTRACTOR FOR EVERY INSTANCE OF VIOLATION NOTICED:*

#### **HSE AUDIT/INSPECTION**

Regular HSE Audit/inspection shall be carried out by Contractor as per Site HSE audit calendar. HSE checklist shall be used for carrying out audit/inspection and report shall be submitted to site management.

All non-conformities and observations on HSE identified during internal or external HSE audit shall be disposed of by site in a time bound manner and reported back the implementation status. Corrective action and Preventive action on HSE issues raised by certification body issued by Regional HQs shall be implemented by site and reported to Site management.

#### **MONTHLY HSE REVIEW MEETING**

Site shall hold HSE review meeting every month to discuss and resolve HSE issues of site and improve HSE performance. It will also discuss the incidents occurred since previous meeting, its root cause and Corrective action and Preventive action. The agenda is given below:

- HSE performance
- HSE inspection
- HSE audit
- HSE training
- Health check-up camp
- HSE planning for the erection and commissioning and installation activities in the coming month
- HSE reward and promotional activities

The meeting shall be chaired by Construction Manager, convened by HSE coordinator and attended by all relevant staff including Site In-charge of Contractors and HSE officer of Contractors.

### **Annex 01: FIRST AID BOX**

The first-aid box shall be distinctively marked with a Red Cross on a white background and shall contain the following items, namely:

***For establishments in which the number of contract laborers employed does not exceed fifty, each first aid box shall contain the following equipment:***

- 6 small, sterilized dressings
- 3 medium size sterilized dressings
- 3 large size sterilized dressings
- 6 pieces of sterilized eye pads in separate sealed packets.
- 6 roller bandages 10 cm wide.
- 6 roller bandages 5 cm wide.
- One tourniquet
- A supply of suitable splints
- Three packets of safety pins.
- Kidney tray.
- 3 large, sterilized burn dressings.
- One (30ml) bottle containing a two percent alcoholic solution of iodine
- One (30 ml) bottle containing Sal volatile having the dose and mode of administration indicated on the label
- One snake bite lancet
- One (30gms) bottle of potassium permanganate crystals.
- One pair scissors
- A bottle containing 100 tablets (each of 5 grains) of aspirin
- Ointment for burns
- A bottle of suitable surgical anti-septic solution

***(b) For establishment in which the number of contract labor exceeds fifty each first-aid box shall contain the following equipment:***

- 12 small, sterilized dressings
- 6 medium size sterilized dressings
- 6 large size sterilized dressings.
- 6 large size sterilized burn dressings
- 6 (15 grams) packets sterilized cotton wool
- 12 pieces of sterilized eye pads in separate sealed packets.
- 12 roller bandages 10 cm wide.
- 12 roller bandages 5 cm wide.
- One tourniquet.
- A supply of suitable splints.
- Three packets of safety pins.
- Kidney tray.
- Enough eye washes bottles filled with distilled water or suitable liquid clearly indicated by a distinctive sign which shall be visible at all times.

- 4 per cent Xylocaine eye drops, and boric acid eye drops and soda by carbonate eye drops.
- One (60ml) bottle containing a two percent alcoholic solution of iodine
- One (two hundred ml) bottle of mercurochrome (2 per cent) solution in water.
- One (120ml) bottle containing Sal volatile having the dose and mode of administration indicated on the label.
- 2roll of adhesive plaster (6 cmX1 meter)
- 2rolls of adhesive plaster (2 cmX1 meter)
- A snake bite lancet.
- One (30 grams) bottle of potassium permanganate crystals.
- One pair scissors
- A bottle containing 100 tablets (each of 5 grains) of aspirin for burns
- A bottle of a suitable surgical anti septic solution.
- Adequate arrangement shall be made for immediate recoupmnt of the equipment when necessary.

## Annex 02: HSE AUDIT/INSPECTION CHECKLIST / COMPLIANCE REPORT

Table 6 HSE Checklist

<b>Project..... Contractor.....</b>				
<b>Date.....</b>				
<b>Inspection by.....</b>				
Item	Yes	No	Remarks	Action
<b>Housekeeping</b>				
Waste containers provided and used				
Passageways and walkways clear				
General neatness of working area				
Other				
<b>Personnel Protective Equipment</b>				
<b>Vehicle and Traffic</b>				
Rules and regulations observed				
Inspection and maintenance				
Licensed drivers				
Other				
<b>Temporary Facilities</b>				
Emergency instructions posted				
Fire extinguishers provided				
First-aid equipment available				
General neatness				
Others				
<b>Fire Prevention</b>				
Personnel instructed				
Fire extinguishers checked				
No smoking in prohibited areas				
Hydrants				
Clearance				
Others				
<b>Electrical</b>				
<b>Handling &amp; Storage of Materials</b>				
Properly stored or stacked				
Passageways clear				
Other				
<b>Flammable Gases and Liquids</b>				
Containers clearly identified				
Proper storage				
Fire extinguisher nearby				
Other				
<b>Environment</b>				
Lubricant waste/engine oils properly dispose.				
Waste from Canteen disposed properly. offices, sanitation etc.				
Disposal of surplus earth, stripping materials, expired batteries, oily r				
<b>Health Checks</b>				
Hygienic conditions at camps O.K.				

Availability of first-aid facilities				
Proper sanitation at site, office & labor camps.				
Arrangement of medical facilities.				
Measures for dealing with illness.				
Availability of potable drinking water for workmen & staff				
Provision of crèches for children.				

### Annex 03: INSPECTION OF FIRST AID BOX

Table 7 Inspection of First Aid Box

<b>Name of Site</b>	
<b>Name of Contractor</b>	
<b>Inspection by</b>	
<b>Date of Inspection</b>	

#### Number of Employees on the Site.....

No	Item	No Available	Remarks
	No. of small, sterilized dressings		
	No of medium sized sterilized dressings		
	No of large sized sterilized dressings		
	No of dressings large sized sterilized burn		
	No of (15 grams) packets sterilized cotton wool		
	No of pieces of sterilized eye pads in separate sealed packets		
	No of roller bandages 10 cm wide.		
	No of roller bandages 5 cm wide		
	Whether tourniquet available		
	Whether supply available. of Suitable P splints		
	No of packets of safety pins		
	Whether kidney tray available		
	Whether enough eye wash bottles, filled with distilled water or suitable liquid, clearly indicated by a distinctive sign which shall be visible at all times, available.		
	Whether 4%-xylocaine eye drops, and boric acid eye drops and soda by carbonate eye drops available		
	Whether (60ml) bottle containing a two percent alcoholic solution of iodine available		
	Whether (two hundred ml) bottle of mercurochrome (2 per cent) solution in water available.		
	Whether 120ml bottle containing Sal volatile having the dose and mode of administration indicated on the label, available		
	Whether roll of adhesive plaster (6 cm x 1 meter) available		
	No of rolls of adhesive plaster (2 cm x 1 meter)		
	Whether snake bite lancet available.		
	Whether (30 grams) bottle of potassium permanganate crystals available		
	Whether a pair of scissors available		
	Whether bottle containing 100 tablets (each of 5 grains) of aspirin available		
	Whether Ointment for burns available		

No	Item	No Available	Remarks
	Whether bottle of a suitable surgical anti-septic solution available		

**Signature of Contractor's Site Manager:**

## Annex 04: HEALTH CHECK UP

Table 8 Health Check

<b>Name of Site</b>	
<b>Name of Contractor</b>	
<b>Name of Employee</b>	
<b>Name of Inspector</b>	

<b>History of Illness</b>	H/O Epilepsy
	H/O Drug Allergy
	H/O Diabetics/ Hypertension
	H/O Unconsciousness

Personal History

<b>EXAMINATION</b>	<b>OBSERVATION</b>
--------------------	--------------------

<b><u>General Physical Examination</u></b>
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Height
--------

Weight
--------

BMI
-----

Built And nourishment
-----------------------

Pallor
--------

Temperature
-------------

Chest Expansion:	Inspiration	Expansion
------------------	-------------	-----------

Lymph Node Enlargement
------------------------

<b><u>Ear, Nose, Throat</u></b>
---------------------------------

Ear:
------

Nose:
-------

Throat:
---------

<b><u>Cardiovascular System Examination:</u></b>
--

Inspection	:
------------	---

Palpation :	Pulse	BP
-------------	-------	----

Auscultation (Heart Sounds)	:
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<b><u>Respiratory System</u></b>
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Inspection	:	Respiratory Rate
------------	---	------------------

Palpation	:
-----------	---

Percussion	:
------------	---

Auscultation (Breath Sounds) :
--------------------------------

<b><u>Examination of Abdomen</u></b>
--------------------------------------

Inspection
Palpation
Auscultation (Bowel Sounds)
<b><u>Any Other</u></b>
<b><u>Clinical Impression</u></b>

**Signature of examining doctor.....**



## Annex 06: CHECKLIST FOR EVALUATION OF HSE PERFORMANCE

Table 9 Checklist for HSE Performance

No	Parameter for Measurement	M/O	Supporting Documents
1	Induction training for new workers conducted through audio-visual medium & documented?	M	Induction training records
2	Tool box talk conducted regularly as per plan, and documented?	M	Toolbox records
3	Contractor in charge and safety in charge attended safety meetings?	M	Minutes of meetings
4	Whether observations in safety meetings are complied before next meeting	M	Minutes of meetings
5	Preparation and submission of Monthly HSE report within stipulated time	M	Report submission date
6	Preparation and submission of Incident/near-miss report and RCA Report (as applicable) within stipulated time	M	Incident/near miss records
7	Carrying out Inspections and submission of Inspection reports within stipulated time	M	Inspection records
8	Regular Job Specific Training ensured for High-Risk Workers (through audio-visual medium) as per plan	M	Training and attendance records
9	Whether the contractor is registered under construction regulatory authority	M	Registration certificates
10	Availability of Qualified safety officer (1 for every 500 labor)	M	Safety officers' qualification and experience records
11	Availability of Qualified safety supervisor (1 for every 100 labor )	M	Safety supervisor qualification and experience records
12	All the workers are provided PPE	M	PPE Issue Records, Inspection/ non-conformity records
13	Housekeeping done on regular basis and scrap removal at site	M	Housekeeping records, Inspection/ non-conformity records
14	Usage of PPE		PPE Issue Records, Inspection/ non-conformity records
15	Wall openings & floor openings are guarded?		Inspection/ non-conformity records
16	Adequate illumination provided in all working area?		Inspection/ non-conformity records
17	Safety posters, sign boards and emergency contact numbers in all prominent location are displayed?		Inspection/ non-conformity records
18	Availability of automatic reverse horns, Main horn, hook latches for Vehicles,		Inspection/ non-conformity records
19	Availability of Tags & Inspection Certificates for Winches of all capacities		Master T&P List with internal & external test details
20	Availability of Tags & Inspection Certificates, color coding for Chain pulley blocks		Master T&P List with internal & external test details
21	Availability of Tags & Inspection Certificates for Vehicles -		Master T&P List with internal & external test details
22	Use of Any other Applicable Permit as per requirement		Permit Records
23	Material safety data sheet (MSDS) available for all chemicals and displayed in usage and storage area?		Inspection/ non-conformity records
24	Spillages of oil/concrete and other chemical is controlled and cleaned by proper method in case of spill?		Inspection/ non-conformity records
25	Availability of adequate number of urinals in workplace and in elevations and maintained	M	Inspection/ non-conformity records
26	Availability of rest rooms for workers at site	M	Inspection/ non-conformity records
27	Availability of Drinking water facility at work spot		Inspection/ non-conformity records
28	Hygienic rest area for workers		Inspection/ non-conformity records
29	If First aid trained personnel are available and their names are displayed at site?	M	
30	Periodical medical check-up is conducted for all the workers and submitted?		Medical check records

No	Parameter for Measurement	M/O	Supporting Documents
31	Availability of sufficient number of first aid box as per standard list and maintaining record		Inspection records
32	Availability of Fire extinguishers, buckets at all vulnerable points		Fire extinguisher records
33	Periodic fire mock drill conducted?		Fire, Mock drill records
34	Are all flammable materials are stored separately?		

**Note:** M: Mandatory; O: Optional. Points other than mandatory can be excluded with appropriate justification (scope etc.)

## Annex 4: Grievance Redress Mechanism

During design and implementation of the Project activities, stakeholders may be adversely impacted directly or indirectly. The grievances that may arise might relate to social issues such as exclusion from cash transfers, traffic management concerns, or gender-based violence, and other social and cultural issues. Should such a situation arise, there must be a mechanism through which concerns from affected parties are handled in an efficient, unbiased, transparent, timely and cost-effective manner. The project will therefore institutionalize a Grievance Redress Mechanism (GRM) to address concerns and grievances that arise in connection with the project activities. Under the World Bank ESSs, Bank-supported projects are required to facilitate mechanisms that address concerns and grievances that arise in connection with a project. This Project GRM should facilitate the project to provide a timely response to concerns and grievances of the project-affected parties related to the environmental and social performance of the project. The Project will provide mechanisms to receive and facilitate resolutions to such concerns. This Annex lays out the GRM for the CERP.

The goal of the GRM is to strengthen accountability to beneficiaries and to provide channels for project stakeholders to provide feedback and/or express grievances related to project supported activities. By increasing transparency and accountability, the GRM aims to reduce the risk of the project inadvertently affecting citizens/beneficiaries and serves as an important feedback and learning mechanism that can help improve the project impacts.

The GRM will be operated in addition to a specific workers' GRM, which is laid out in the Labor Management Procedures (LMP).

The GRM is designed to ensure that project related grievances and perceived injustices are timely and effectively handled by the Project. The Project will ensure that the GRM is efficient and accessible to project affected parties. The GRM shall have a well defined institutional framework, instruments and methodological approach that will guide the grievance resolution process. The GRM therefore provides an effective avenue for expressing concerns, providing redress, and allowing for general feedback from community members.

Information on the GRM will be readily available to all project-affected parties. The GRM is designed in a culturally appropriate and socially inclusive way and is able to respond to all needs and concerns of project-affected parties. The availability of the GRM does not prevent recourse to judicial and administrative resolution mechanisms.

The Social Specialist recruited as part of the respective PIU will be responsible for ensuring that grievances are resolved. The Project GRM provides for multiple channels through which complaints can be registered in a safe and confidential manner can be enabled. The complaint should be related to the project activities and/or to its implementation and management. Any complaint not directly related to the Project will be referred to the relevant Traditional or Government Authority. The Project GRM will involve the following main steps:

- Receipt of grievance: any stakeholder including people from the affected communities can submit a grievance (written, verbal, text message, telephone, etc. as appropriate for the complainant).

- Registering the complaint: the complaint will be registered in the GRM logbook.
- Referral and examination of complaints: a GRM Committee shall be established (comprising of members from representatives of implementing agencies, elders, community facilitators, etc.) who will examine the complaint, resolve, or escalate the grievance as needed.
- Notifying the complainant: the decision/solution/action by the grievance committee shall be communicated to the complainant as per the stipulated timeline for feedback.
- Closing the complaint: where the decision/solution of the complaint is accepted by the complainant, or complaint that is not related to the project or any of its components, or a complaint that is being heard by the judiciary will be closed following the appropriate procedure based on the acknowledge and signed of complainant.

## Special cases

It is not always appropriate for a case to be handled by a committee within the GRM structure. Accordingly, committee members will be trained on the appropriate channel to use in special cases:

- **Criminal cases**: All cases recorded by the GRM that are found to be criminal in nature shall immediately be reported to the police. Stakeholders will also be sensitized to report criminal cases directly to the police. Furthermore, the project will raise awareness among communities to make use of the existing anonymous tip-off facility that may exist. to report suspected cases of fraud to the Anti-Corruption Bureau.
- **Gender based violence and sexual abuse**: Gender based violence (GBV) and sexual exploitation and abuse cases are substantively different from other complaints that are typically handled by grievance redress mechanisms. These cases are handled in a special way within the GRM to ensure that the information is treated with confidentiality. All GRM actors will be oriented on how to approach survivors and refer such Project Affected Persons (PAPs) to a safe and ethical GBV service provider in the area. Participating communities will also be made aware of the national GBV, and child protection toll free lines for reporting gender-based violence and child protection issues. A Comprehensive and specific **GBV Action Plan for the project is presented in Annex 7**. Please note that this Plan is indicative and should be read in conjunction with existing instruments and the PIU level of the implementing agencies.
- **Child labor**: Any form of child labor is not allowed under social support programs. Any household found to be engaging in this malpractice will be automatically removed from the programs.
- **Courts**: Where the case is not closed by the Project, the PAP shall be advised to seek justice from a court of law, and the decision made by the courts shall be final.

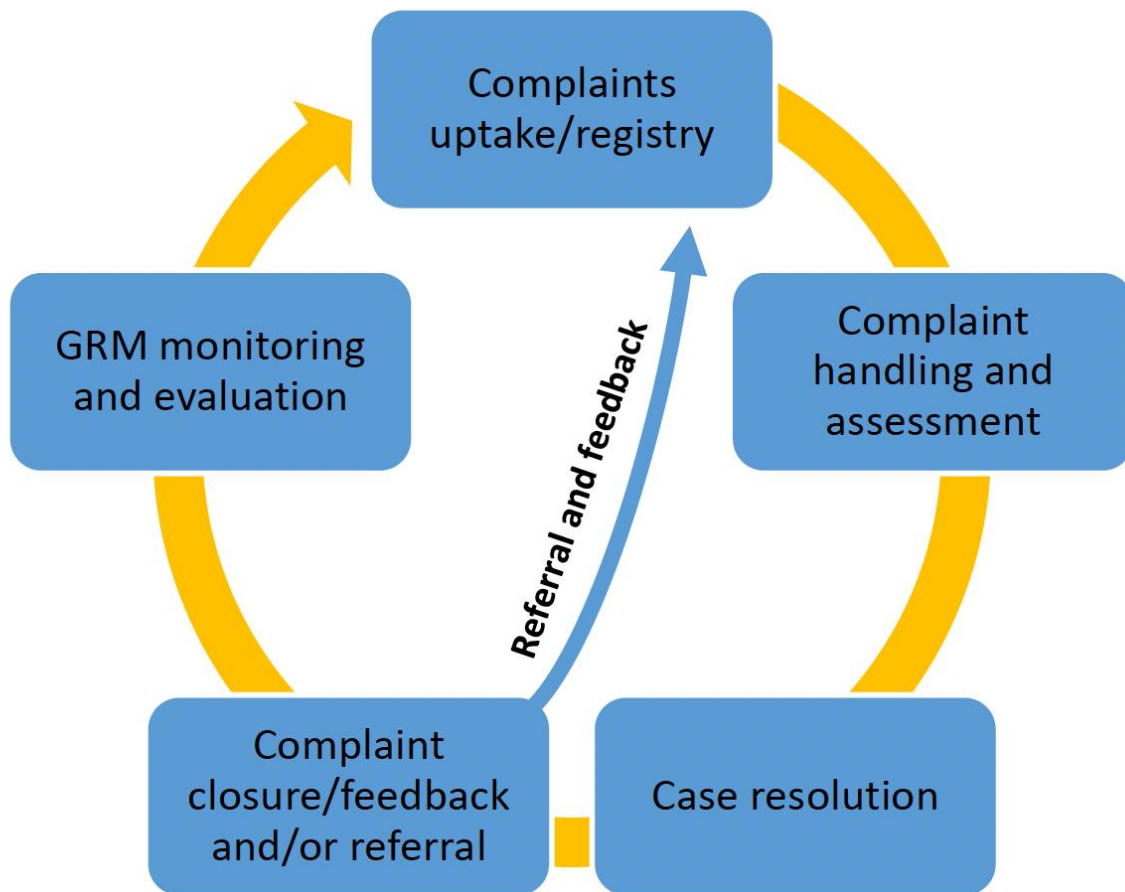


Figure 1 Key activities in the grievance redress process

The GRM process will consist of five key activities performed in managing grievances.

### Complaints uptake

The harmonized GRM has provided multiple options for the submission of grievances by PAPs in order to minimize barriers that may prevent them from raising their issues. These channels include the following:

**Face-to-face:** This includes verbal or written submissions through face-to-face interactions with members of committees, program officials, local structures (chiefs, councilors, members of parliament) at any time or at the pay-point help desk.

**Tipoff line:** The existing anonymous tipoff facility used for reporting suspected cases of fraud and corruption, will be made use of. The stakeholders will be sensitized as to which cases to report through this channel. The contact details of the facility are as follows:

Once the case has been received, regardless of the channel, it shall be recorded manually in the case register or electronically on the GRM dashboard or responsible program MIS Module to initiate case handling.

### **Case assessment**

When a complaint is received, a maximum of 15 days is provided for the committee to respond to the PAP. This is to ensure that there is ample time for assessment and investigation of the grievance and that it is resolved thoroughly and in a timely manner. Where possible, provision of instant feedback will be done depending on the nature of the case.

Once a complaint is received, the committee shall assess the issue by looking at, among other things, the following:

- Whether the complaint is related to the project or not
- Whether the case can be effectively handled by the project committee or referral to an alternative mechanism is needed (e.g. in special cases)

If the committee is confident in its ability to handle the case it will proceed to hear the case and carry out the necessary investigation. If, for whatever reason, the committee determines that it cannot ably handle the complaint, the PAP shall be advised to channel their complaint to an alternative grievance redress level or mechanism and a referral will be recorded to accelerate the case, with adequate information of the alternative channel.

### **Case resolution**

Following case validation and investigation, the responsible committee shall deliberate on a resolution. This resolution will then be submitted to the PAP for their consideration. Where a resolution has been arrived at and the PAP accepts the resolution, the PAP shall be required to sign the resolution and the closure section in the Grievance Log and Resolution Form. Two members of the committee (preferably the chairperson and secretary) shall be required to counter sign. This shall signify that the complaint or grievance has been fully discussed, resolved and closed. All grievances received will be publicly entered into an accessible recording system known as the GRM registry, which will be maintained at all levels.

### **Feedback of resolution or referral**

Where a case resolution has been reached and presented to the PAP, it will be the responsibility of the committee to provide its feedback to the PAP. The committee should present the PAP with the resolution in written format using the GRM Form. It is the responsibility of the committee to read out the resolution to the PAP if the PAP is unable to do so him/herself.

Following communication of the resolution, the PAP can either accept the committee's resolution (by co-signing or placing their thumb print on the resolution section of the form), or he/she can reject the resolution. If the resolution is rejected, a summary of the resolution and how it was arrived at is recorded in the referral section of the GRM Form. It is the responsibility of the

committee to provide options for referral of the case, either to a higher committee or other structures that could handle the case.

To ensuring confidentiality, only key information such as sex and age of complainant, date that case was reported, nature of case, resolution made, and date of closure or referral shall be sent.

### **Monitoring and Evaluation**

Monitoring and evaluation of the GRM will be undertaken regularly alongside any other monitoring and evaluation exercises for the project. This will assist in establishing the levels of functionality and identify areas for improvement to optimize the efficiency of the GRM system.

The committee will keep a Grievance Resolution Form or a Grievance Log that will indicate the date the complaint was lodged, action taken, and personnel or team responsible for the complaint.

## Annex 5: Waste Management Framework

This framework allows taking stock of the existing situation, defining the objectives that need to be met, formulating appropriate strategies, and identifying the necessary implementation means. This General Waste Management Framework will guide for reducing, reusing, recycling, and last resort disposing of waste during the project activities, such as packaging deriving from food and water supply, and including associated handling, storage, transport, and disposal procedures. Detailing all types of waste and their origins, the steps taken to lower the level of waste, and plans for removing and eliminating waste, is what constitutes effective waste management planning.

This General Waste Management Framework presents the activities to be conducted to support the safe handling of general waste during the project implementation in compliance with relevant legal provisions regarding Occupational Safety, Health and Welfare, Environment Management, the Public Health, Sanitation and the World Bank's General Environmental, Health, and Safety (EHS) Guidelines on Waste Management.

It should be noted that this Annex focuses on the handling and management of only non-hazardous waste. This Framework will assist in the development of activity or site-specific Waste Management Plans. It will be given to implementers and suppliers for keeping waste at a minimum. The Framework is therefore a binding document that shall be legally recognized and is expected to be implemented at the same level of importance as any other legally binding contractual document.

The Project will ensure that this instrument, alongside the rest of the E&S instruments are disseminated to the implementing partners and the rest of the project team. Capacity building training will be organized to ensure that the contents of all the instruments are well understood and that every stakeholder fully understand their roles and that they have the capacity to perform those roles.

This framework has been prepared to explain the management of the different types of waste that will be generated during the CERP. The likely wastes are pieces of packaging from food and water supply, or general waste produced by office work. Traffic operations may produce small amounts of waste plastic containers for oils and lubricants, broken filters and belts, and damaged tires will be generated. Managerial staff will also generate some waste such as paper, bottles, cans, plastics, and food scraps. Waste related to medical supplies is handled in a separate plan.

This Framework will reduce the risk(s) of destroying and/or polluting the environment. It therefore, expresses the commitment to prevent of any adverse impacts to the local environmental conditions from any construction activities that generate waste by the implementation of waste management principles and best practice strategies.

### **The Objectives are as follows:**

- Minimizing waste generation in line with the principles of the waste hierarchy as reduce, reuse and recycle.
- Safely disposing of all non-reusable and non-recyclable hazardous and non-hazardous wastes and.



- Complying with relevant regulations and standards.
- Increase the efficiency of the use of raw material.
- Reuse, reduce or recycle material where feasible.
- Promote awareness of and adhere to proper waste management procedures.
- Managing waste as close to the source as practicable.
- Take cognizance of our Duty of Care to the environment.

## TYPES OF WASTE AND MANAGEMENT

This procedure describes Non-Hazardous Waste as waste that causes no harm to humans or environmental health. Such waste can be categorized into biodegradable and non-biodegradable waste. Biodegradable waste includes any organic matter which can be broken down into carbon dioxide, water, methane, compost, humus, and simple organic molecules by micro-organisms. Non-biodegradable waste is those that cannot be decomposed or dissolved by natural agents. – During the site activities, waste will be generated from sources such as the project mini camps and distribution and transmission line worksites.

*Table 10 Waste Generated Proposed Management Method*

Type of Waste	Management Measures
Wood (timber, slash, stumps, etc.)	Reuse, donate, dispose
Treated wood (poles, cross arms)	Reuse, donate, dispose
Metals (Ferrous and Non-Ferrous) (But not including drained electrical equipment (transformers, etc.) refer hazardous substances.	Reuse, Recycle, dispose.
Food waste	Composting, dispose
Wooden Cable Spools & Pallets	Reuse, donate, Dispose
Paper and Cardboard	Recycle
Concrete wastes	Reuse, Dispose in landfill
plastics	Reuse, Dispose, Recycle
Office waste	Recycle, dispose.

## Waste Management Plan

**Waste Management Process:** Any existing unidentified waste exposed or uncovered on site prior to the initialization of site activities will be brought to the attention of the implementing partner. All wastes identified pre-project will be clearly documented, and pictorial evidence taken if necessary.

**Waste Avoidance and Minimization:** The opportunity for avoidance and minimization of waste production identified in the observation as described above can be summarized as follows:

- Non-hazardous or low toxicity materials/products will be selected instead of hazardous material/products, whenever feasible.
- As far as possible, it must be ensured that all materials are stored and handled correctly to minimize damage to the materials which will render it unusable; and
- Minimization of waste will also include the reduction of waste toxicity. This may be performed by selecting low toxic chemicals used during the Project.

**Waste Collection Points:** The main waste collection point will be in an easily accessible area within the main area. The waste collection point will be selected, taking into considering the

prevailing wind direction, surface runoff patterns, topography and visual context and will as far as possible, cause the minimum of nuisance to adjacent properties. It will be ensured that the waste disposal area will not be located near any drainage areas, wetlands or wells and boreholes.

The selected waste area will comprise of a cordon-off and contained area. The waste area will make provision for the segregation of waste into non-hazardous and hazardous waste. Non-hazardous waste will further be divided into organic and non-organic waste. Organic waste will consist of general domestic food waste.

Non-organic waste will consist of:

- Glass;
- Plastic; and
- Metals.

All waste containers on site (bins, skips, drums, etc.) will be clearly labelled with visible signs to indicate which wastes it contains.

**Waste Treatment and Disposal:** If waste produced cannot be reused or recycled, the waste will be disposed of at a waste disposal facility as guided by the District Council

**Option for disposal of non-hazardous non-organic waste:** Most of the camp’s non-hazardous non-organic waste is recyclable. Where it is not recyclable or too dirty for recycling, it shall be disposed of at a waste disposal facility.

*Table 11 Waste Disposal Methods*

Waste	Disposal Method
METALS: Scrap metal, tins, cans, foil	Separate Bin - Metals
Plastic bottles and polythene	Separate Bin – Plastics Empties of water etc.
Cardboard boxes and papers	Separate Bin – Card & Paper
Bottles and Glass	Separate Bin - Glass

### **Procedure for Handling and Storage of Waste**

**Waste Handling:** All personnel who are involved in the handling of non-hazardous waste will undergo specific training in:

- The procedure to be followed to ensure adequate segregation;
- Waste handling (and PPE requirements) including collection;
- Waste storage; and
- Correct waste disposal procedures.
- Waste from litter bins will be collected from site on a weekly basis or as required. Accumulated hazardous waste will be removed from the site daily and will be transported to the main waste collection point.

- Waste will be removed from site on a monthly/weekly basis. The frequency of waste collection will be determined based on the rate in which the waste accumulates during the construction activities.

### **Temporary Waste Storage**

**Waste Storage Area:** All waste produced during activities at site and servicing activities and camps shall be collected using appropriate personnel protective equipment and they shall be sorted out and temporarily stored in special containers at the camp.

The waste storage areas are to be indicated on relevant site Procedures and will be located at least 100m from any watercourses. Wastes will be stored in a manner to prevent:

- Accidental spillage or leakage, contamination of soils and groundwater, loss of integrity from accidental collisions or weathering by provision of suitable secondary containment and/or roofing;
- Corrosion or wear of containers both from the weather, by protecting waste storage areas, and from the wastes themselves, by selecting containers suitable for storage of intended waste,
- Theft by people by storing waste within security of camp perimeter; and
- Scavenging by animals by storing putrescible waste in closed bins before composting.

The waste storage containers used will be appropriate in terms of volume, composition, shape and opening for the material that is being stored. Only containers in good condition will be utilized. Lids will be securely fastened, or other forms of covering shall be provided. No containers will be used that are susceptible to reaction with the wastes, which may lead to the release of harmful substances. All hazardous wastes will be strictly segregated. Only one category of hazardous waste may be placed in any one container. Solid and liquid wastes will not be mixed, as well as hazardous waste of incompatible nature.

### **Best Waste Management Practices**

These include the following:

- The Implementing Partner to obtain permits regarding waste management from relevant authorities.
- The Implementing Partner to provide handling containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the project.
- The Environmental management personnel to be responsible for matters of managing the environment including being responsible for implementing, monitoring, and reporting status of this procedure and shall be full time on worksites throughout the project.
- All workers, subcontractors, and suppliers to be trained on proper waste management plans, as appropriate for the work occurring at Project Site(s). Information, Education and Communication (IEC) materials shall be distributed and/or made available to everyone concerned and to all entities when they first begin works.

- To provide specific designated and labeled areas on project site(s) necessary for separating materials that are to be recycled, reused, donated, and sold. Recycling and waste bin areas are to be kept neat, and clean, and clearly marked in order to avoid contamination of materials and.
- Hazardous wastes to be separated, stored, and disposed of according to local regulations and according to the Hazardous Materials and Waste Management Plan and should not be included in management of the other waste streams.

## **Community Safety**

The primary goal of waste management planning is to protect members of the community in which the project is being executed from harming to effectively manage waste, debris and all waste materials generated. While the amount of waste varies between projects, the generated waste is often greater than the amount of waste many communities handle each year. Additionally, projects may generate waste streams, such as chemical, biological and radiological-contaminated wastes, which typically are not handled by communities or waste management facilities. Some of this are absorbed or processed through natural resources outlets like air and water. In addition to managing the project wastes in such a manner that does not negatively impact the surrounding communities, the Project will need to prepare the community by disclosing the types of potential of wastes that will be generated through sensitization campaigns.

While this at source intervention planning should be documented in a Waste management plan (WMP), the community's preparation provides the most benefits, such as:

- Saves valuable time and resources.
- Allows more efficient and effective waste management decision-making.
- Encourages stakeholders (e.g., state, local, tribal and local governments; owners of private storage, treatment and disposal facilities; residents) to work together before an incident occurs such as children collecting and playing with hazardous wastes, pollution of water sources, pollutions of soil etc. Boosts the community's resilience, resulting in a quicker and less costly recovery to potential misconducts by the contractors as well as the communities.

**Consultation with interested stakeholders and link with GRM:** Community members need to have information or resources related to various waste management-related activities such as (e.g., transportation, sanitation, emergency response, environmental health, public health, and business leaders viz a viz potential generators of waste). The communities must have a chance \ to express their grievances around waste management through the provided Grievance Redress Mechanism (GRM) should that need arise. Each stakeholder's role, in terms of waste management should be clearly spelt out in stakeholder consultation meetings, disclosures and consultative meetings.

The Waste management plan should define ways in which the community where the project is being implemented should be informed of waste management-related information, including the transportation and management of incident-related wastes in or near the community. The most effective methods of notifying the community about the risks that each waste stream may present to human health and the environment should be clearly spelt out and disseminated at stakeholder engagement opportunities. Communication channels for waste management information should

be clearly stipulated be it through the media, community meetings and any other channels that may be identified. If there are possible ways to increase public understanding and acceptance of decontaminated wastes, reused materials and recycled products, let this be known to all stakeholders and members of the community.

Table 12 Waste Management Matrix

No.	WASTE MANAGEMENT MATRIX					
	Implementer Measures	Output Indicator	Means of Verification	Time Frame	Responsible Person	Legal Limits / acceptable criteria
1.0	<b>General Measures</b>			<b>Construction phase</b>		
1.1	Develop & implement staff training program	Number of staff trained	Training/toolbox talks/progress reports	Continuous	Implementing Partner	IFC Performance Standards (2012) 1 & 3, ESS 1 & 3 & EIB ESS 1& 3, GIIP, WBG General EHS Guidelines
1.2	Work fronts and office waste handling activities	Clean sites	Progress reports	Continuous	Implementing Partner	IFC Performance Standards (2012) 1 & 3, ESS 1 & 3 & EIB ESS 1& 3, GIIP, WBG EHS Guidelines.
1.3	Identification and implementation of measures for avoiding or reducing waste generation at work fronts as far as practicable.	Amount/type of waste generated	Waste register/progress reports	Continuous	Implementing Partner	IFC Performance Standards (2012) 1 & 3, ESS 1 & 3 & EIB ESS 1& 3, GIIP, WBG General EHS Guidelines.
	<b>Waste handling &amp; storage</b>					
1.3	Waste segregation at source: color coding/bin labelling	Labeled storage containers for different types of waste onsite	Inspection/progress reports	Continuous	Implementing Partner	Mozambique waste Handling Standards
1.4	Designation of secure temporary waste storage areas on sites for various waste types: hazardous/general. Provision of proper storage containers, waterproof flooring and signage	Availability of secure waste storage yards	Inspection/progress reports	Continuous	Implementing Partner	Mozambique waste Handling Standards
	<b>Non-Hazardous Waste Transportation and Disposal</b>					
1.5	Collection and transportation of waste without spilling while in transit to disposal site.	Covered vehicle with tarpaulin	Inspection/progress reports	Continuous	Implementing Partner	Mozambique waste handling standards
1.6	Regular (weekly) emptying and collecting waste for disposal	Frequency & quantity of waste disposed	Waste registers/progress reports	Continuous	Implementing Partner	Mozambique waste handling standards
1.7	Prohibition of open burning of waste	No evidence of waste	Inspection/progress reports	Continuous	Implementing Partner	Mozambique waste Handling Standards

No.	WASTE MANAGEMENT MATRIX					
	Implementer Measures	Output Indicator	Means of Verification	Time Frame	Responsible Person	Legal Limits / acceptable criteria
		burning on site				
1.8	When necessary, License shall be obtained from District Councils for handling, transportation and disposal of waste2017	Licenses obtained	Copies of the Licenses	The first 2 months of commencement	Implementing Partner	EMA 2017
1.10	Prohibit dumping of waste in water bodies and general littering shall not be allowed.	No trace of waste dumped in water bodies	Waste registers/ progress reports	Continuous	Implementing Partner	IFC Performance Standards (2012) 1 & 3, ESS 1 & 3 & EIB ESS 1& 3, GIIP, WBG General EHS Guidelines
1.121	Other alternative disposal options will be evaluated on a situation-situation basis during construction and / or at start-up of work Phase.	Identified alternative disposal methods.	Progress reports	Continuous	Contractor Implementing Partner	Mozambique waste Handling Standards

## Performance Monitoring

**Inspections:** Sites inspections will be performed by the Health, Safety and Environment (HSE) Officer of the Implementing Partner on weekly basis. Waste quantity shall be recorded (as number of 200L waste bins collected and disposed per week). These inspections will ensure that all commitments in this plan are being enforced and that specific waste management elements are verified.

**Data collection:** Waste material register should be maintained to ensure the measurement of eliminated waste and of residual matter sent for reuse, recycling and others.

**Audit:** Six months since commencement of the project, a waste management audit should be performed, on sites all waste data collected, to identify waste streams and fate and develop ways to reduce waste production.

**Responsibilities:** The roles and responsibilities inherent to this waste management plan are as per table below:

*Table 13 Roles and Responsibilities*

ENTITY	RESPONSIBILITY
PIU/PCU	Enforce the Waste Management Framework. Contractually obligate the Implementing Partner to meet the requirements of this Waste Management Framework.
Implementing Partner	Employ a person responsible for overseeing matters of environmental management. Provide garbage receptacles to allow for waste segregation. Develop a site-specific Waste Management Plan for the activities the Contractor is undertaking. Educate all members of staff on the waste hierarchy. Education is to be provided to each staff member prior to commencement of work, and regular refresher sessions are to be undertaken Provide and distribute Information, Education and Communication (IEC) materials to everyone on sites
District Councils/other stakeholders and authorities	Conduct audit and monitoring activities

*Table 14 Specific Implementer Responsibilities:*

Responsible Person	Responsibility
Project Director	Will ensure that there are enough resources (people and money) to manage and monitor the waste issues of the project. Will ensure that the General Waste management plan reflects any changes during the construction process that may have a significant environmental impact and manage them accordingly. Will ensure the waste records are returned to Head Office for review.
Project Manager	Will be responsible for ensuring that all site staff, including sub-contractors, and activities comply with the General Waste management plan. Will ensure that all environmental incidents are reported and dealt with effectively.
HSE Officer	Will ensure that environment and waste management activities comply with applicable ESHS standards and all project E&S Instruments. Ensure that signage for waste segregation and other relevant safety signs are clearly posted as required.



**Record Keeping:** Data on waste production and disposal will be gathered continually via waste registers. These records will be maintained on site and made available to all authorities and any other body to audit or assess the waste management practices on site. This data will include the final destination of each waste stream and where disposal has occurred proof of safe disposal will be required (such as stamped waste disposal ticket issued by a sanitary landfill). A cost will be paid for safe disposal of any hazardous wastes. Evidence of waste disposal will always be maintained.

## Annex 6: Infection Control and Medical Waste Management Framework

### **Rationale / Objectives of the Infection Control and Waste Management Plan (ICWMP)**

Wherever healthcare service is provided, there is a risk of acquiring or transmitting infections more especially if Infection Prevention and Control measures are not followed. Health care wastes are also generated. There is a considerable amount of waste that is generated as well as the increased need of following standard precautions for infection prevention and waste management. This ICWMP has been put in place to mitigate these risks and impacts.

The overall objective is to detail steps that will ensure that Health Care Wastes generated as a downstream impact of the Project activities in the health care facility are handled appropriately and safely, consistent with international good practices. It also aims to facilitate the implementation of appropriate waste management practices which include generation, segregation, collection, storage, treatment, and disposal to avoid the spreading of infection and environmental pollution. The ICWMP is to be used by relevant stakeholders including health care facilities, the community, and the Ministry of Health. It has been developed using the best available sources of information, including the WHO and national guidelines or policies.

ICWMP plays a key role in achieving sustainable waste management and infection control. The purpose of this plan is to ensure that effective procedures are implemented for the generation, segregation, collection, storage, transportation, treatment, and final disposal of waste that is generated from the health care services occurring in the Health Care Facilities.

### **Infection Control and Waste Management**

**Health Care Waste (HCW)** includes all the waste generated within health-care facilities, research centres and laboratories for medical procedures; and includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals, medical devices and radio-active materials (WHO, 2014). This waste carries greater potential for causing infection and injury than any other form of waste due to its contamination state (*Ibid*) and this necessitates its proper handling and management. Between 75% and 90% of the waste produced by health care providers is equivalent to domestic waste which is usually called ‘non-hazardous’ or general health care waste (See Figure below).

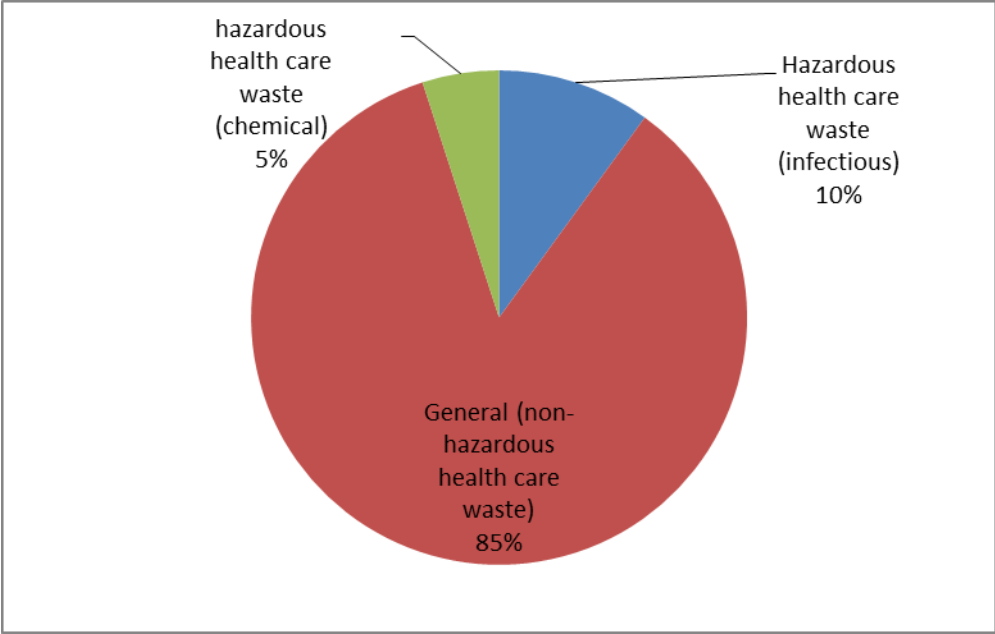


Figure 2 Typical waste composition in a Health Care Facilities (Source: WHO, 2014)

There are generally two major classifications of waste: hazardous and non-hazardous waste. Hazardous waste includes cytotoxic drugs and clinical waste (e.g. sharps and non-sharps) while non-hazardous waste includes biodegradable waste (e.g. kitchen waste or generally domestic waste) and inorganic waste (i.e. waste that is recyclable and can be sold at the market). The Table below shows more categories of waste (hazardous and non-hazardous) according to WHO (2014) classifications.

Table 15 Waste Categories

Waste category		Descriptions and examples
<b>Hazardous HCW</b>		
1	Sharps waste	Used or unused sharps (e.g. hypodermic, intravenous or other needles; auto-disable syringes; syringes with attached needle infusion sets; scalpels; pipettes; knives; blades; broken glass)
2	Infectious waste	Waste suspected to contain pathogens and that poses a risk of disease transmission (e.g. waste contaminated with blood and other body fluids; laboratory cultures and microbiological stocks; waste including excreta and other materials that have been in contact with patients infected with highly infectious diseases in isolation wards).
3	Pathological waste	Human tissues, organs or fluids; body parts; foetuses; unused blood products.
4	Pharmaceutical waste	Pharmaceuticals that are expired or no longer needed; items contaminated by or containing pharmaceuticals.
5	Cytotoxic waste	Cytotoxic waste containing substances with genotoxic properties (e.g. waste containing cytostatic drugs – often used in cancer therapy; genotoxic chemicals)
6	Chemical waste	Waste containing chemical substances (e.g. laboratory reagents; film developer; disinfectants that are expired or no longer needed; solvents; waste with high content of heavy metals, e.g. batteries; broken thermometers and blood-pressure gauges)
7	Radio-active waste	Waste containing radioactive substances (e.g. unused liquids from radiotherapy or laboratory research; contaminated glassware, packages or absorbent paper; urine and excreta from patients treated or tested with unsealed radionuclides; sealed sources).
<b>Non-hazardous or general HCW</b>		
Waste that does not pose any particular biological, chemical, radioactive or physical hazard.		

Hazardous healthcare waste is of primary concern, due to its potential to cause infections, disease or injury. On the other hand, Infection prevention and control (IPC) is defined as the discipline concerned with prevention of the spread of infections within the health-care setting and at community level. IPC are evidence-based practices and procedures that are applied consistently in health care settings to prevent or reduce the risk of transmission of micro-organisms to health care providers, clients, residents and visitors. Therefore, either at health care or community setting, IPC is concerned with interventions relating to health and environment, which can be divided into 4 parts; Personal (staff) protection; Patient protection; Population (Community) Protection and Environment protection.

According to WHO, about 15-25% of total health-care waste should be infectious waste, and improper handling of health care waste can cause serious health problems for workers, community and environment. WHO reports showed that worldwide, about 5.2 million people (including 4 million children) die each year from waste related diseases. The hazards of exposure to health care waste can range from gastro-enteric, respiratory, and skin infections to more deadly diseases such as HIV/AIDS, and Hepatitis (Babanyara et. al 2013). WHO reported that globally, injections with contaminated syringes caused 21 million hepatitis B infections (32% of all new infections), 2 million hepatitis C infections (40% of all new infections) and 260,000 HIV infections (5% of all new infections). More specifically medical waste has a high potential of carrying micro-organisms that can infect people who are exposed to it, as well as the community at large if it is not properly disposed of. Many of these infections were avoidable if the wastes had been disposed of safely (WHO 2004).

Although treatment and proper disposal of health-care waste reduces risks, indirect health risks may occur through the release of toxic pollutants into the environment through treatment or disposal. For instance, landfills can contaminate drinking-water if they are not properly constructed. Occupational risks exist at disposal facilities that are not well designed, run, or maintained. Furthermore, incineration of waste has been widely practiced but inadequate incineration or the incineration of unsuitable materials results in the release of pollutants into the air and generate ash residue.

Incinerated materials containing chlorine can generate dioxins and furans, which are human carcinogens and have been associated with a range of adverse health effects. Incineration of heavy metals or materials with high metal content (in particular lead, mercury and cadmium) can lead to the spread of toxic metals in the environment. Dioxins, furans and metals are persistent, and bio accumulate in the environment. Materials containing chlorine or metal should therefore not be incinerated.

The beneficiary health-care activities in the laboratory, vaccination centres, quarantine, isolation and treatment centres will protect and restore health and save lives however, the amount of infectious waste and by-products being generated may cause adverse potential health and environmental impacts. The average distribution on types of medical waste for purposes of waste management planning is approximately 80% non-infectious and 20% infectious such as biological/pathological waste, chemical/pharmaceutical waste and sharp materials. The quantity of infectious wastes generated will increase due to infectious nature of the infectious disease.

According to WHO guidelines, all the waste generated in and around the care of patients is treated as infectious waste.

### **Health Care Waste Management in the Health Care Facilities (HCFs).**

Mozambique like other developing countries faces the problem of HCWM. While less percentages of waste could be considered as infectious, this is not the case in many health facilities with poorly developed waste-segregation practices, hence many waste is being categorized as infectious. The main reason for this is the increased generation of diverse types of healthcare waste due to the multiplication and expansion of healthcare facilities as a result of population growth, ongoing immunizations and treatment of various conditions including emerging (i.e. infectious diseases) and re-emerging communicable and non-communicable diseases. The different types of health care wastes generated from these health care services poses potential health risks to the health workforce, the environment and community at large.

Health care settings produce infectious waste that may lead to Hospital Acquired Infections (HAIs) and HIV/AIDS among health care workers, waste handlers, and patients. HAIs have been a major contributor to morbidity and mortality burden in the developing world.

### **Health Care Waste Generation**

Appropriate handling, treatment, and disposal of waste by type can help to reduce costs and in the same breath serve as safeguard in the protection of public health and the environment. Critical here is the observance of health care waste production with the following being key result areas:

**Waste Generation:** Most health facilities generate varying quantities of waste ranging from one health facility to the other in accordance with their patient workload and treatment offered in the health care facilities. However, the facilities are not able to quantify the volume of the amount of waste generated.

**Waste Minimization:** Waste minimization is a strategy for sound management of health care waste although most health facilities have difficulties in practicing waste minimization or showing any efforts geared towards waste minimization.

**Waste receptacles:** The containment of waste from points of generation is critical towards the achievement of sound management of health care waste. Many health care facilities have inadequate waste receptacles; hence the poor management of the health care wastes in Mozambican health care facilities.

The Table below presents an overview of the minimal procedures that should be followed to effectively manage HCW from point of generation to point of disposal.

Table 16 Summary for HCW stream

step	location	healthcare waste stream	key points
0		waste minimization	purchasing policy; stock management; recycling of certain types of waste...
1	in medical unit	generation	
2		segregation at source	one of the most important steps to reduce risks and amount of hazardous waste
3	in health facility	collection + on-site transport	protective equipment; sealed containers; specific easy to wash trolleys
4		on-site storage	lockable easy to clean storage room; limited storage time of 24-48 hours
5		on-site treatment / disposal	adequate storage room; limited time of max 48 hours
6	outside of health facility	off-site transport	appropriate vehicle and consignment note; HCF is informed about final destination
7		off-site treatment / disposal	appropriate vehicle and consignment note to ensure...

**Source:** Secretariat for Basel Convention & WHO, National Health-Care Waste Management Plan: Guidance Manual. Can also be accessed at [www.who.int](http://www.who.int) website

## Health Care Waste Handling

Health-care waste management options may themselves lead to risks in human health and environment and no perfect readily achievable solution exists in the management of health-care waste. Waste, whether generated at smaller rural clinics or larger facilities, can be managed where adequate well-operated infrastructures exist. In order to achieve sound implementation of waste management, most healthcare institutions have adopted the following steps as a strategy for success:

**Waste Segregation Practices:** Segregation of waste by type is observed in some facilities in the country which have embraced segregation practices using color-coded bins. Segregation of HCW is done according to the following categories: infectious or clinical waste (hazardous waste), Non-infectious or general waste, highly infectious waste, and sharps waste. Use of colour codes for waste containers is low in many facilities.

Careful segregation of waste into different categories helps to minimize the quantities of hazardous waste. Poor segregation and poor choice of technology for treatment and disposal of waste are two problems that exist due in part to inadequate management practices or simply because of absence of adequate provision of waste receptacles.

Packaging of Healthcare waste: The packaging involves putting waste in colour-coded waste bags. Many facilities in Mozambique do not have the required temporary waste storage facilities, hence waste is just kept in the corner or where health care is being provided.

Labelling: Labelling of waste bags is a recommended practice to ensure each waste category is easily identified, and waste loads can be traced back to their point of generation.

## **Waste Transportation and Storage**

**Waste Transportation:** It is common practice that most hospitals continue to use wheelbarrows and wheelchairs for the transportation of waste within the health care facilities and within its compounds, while only a few of the facilities use standard trolleys mainly in private and CHAM facilities. The use of wheelbarrows and wheelchairs should be discouraged since it leads to spillage of waste. The recommended practice for waste transportation within hospitals should be dedicated trolleys with separate ones for infectious waste to be drawn on paved surfaces to waste treatment sites.

**Waste Storage:** Generally, most health care facilities in Mozambique do not have a standard storage area for the waste generated. Mostly the waste is just kept somewhere in a corner close to where health service delivery is occurring. In some facilities, they do improvise some small room for waste storage. Other facilities store their waste right beside the incinerators (batch burners) so that they should be treated at the right time. This makes waste collection time differing even within the facilities.

## **Waste Treatment and Final Disposal**

The goal of treating health care waste is to render the waste safe for disposal, therefore it aims at eliminating hazards and exposures. WHO and Stockholm convention guidelines among other related global best practices recommend “prioritizing consideration of alternative waste treatment processes” that do not generate dioxins and furans.

It may be safer for some wastes to be treated or pre-treated on site. Laboratories are uniquely capable of treating some wastes to eliminate hazards or reduce the amount of waste for disposal, thereby cutting costs. However, the technologies are rather sophisticated and capital intensive, requiring elaborate maintenance capacity. Best practices recommend **Incineration**, which when done properly is a highly advanced technology that can adequately treat all types of special healthcare waste. The key parameters of controlled incineration are combustion at a sufficiently high temperature (between 1,000°C and 1,200°C) for long enough time in a combustion chamber with sufficient turbulence and oxygen for complete combustion to be achieved; and problematic gases to be minimized.

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## **Occupational Health & Safety**

**Personal Protective Equipment:** Awareness of the danger of disease transmission from infectious waste among health workers in most health facilities raised demand for provision of personal protective equipment (PPEs) to waste handlers. Use of gumboots for protection of waste handlers' feet, and possession of heavy-duty gloves for hand protection is common. The provision of respirators or face masks, overalls, helmets, and plastic goggles for eyes protection is poor in most health facilities. The use of the PPEs is what has not been internalized among expected users. In most waste treatment sites, waste operators have possession of face masks or goggles, however most of them do not utilize them accordingly.

Overall, adherence to occupational health and safety measures, which include occupational health and safety provisions, employer responsibility, use of PPEs and workers protection and coordination of OHS activities in the management of health care waste is still weak.

## Capacity Building

***Training plans on HCWM:*** Best practices in Health Care Waste Management require that all healthcare staff receive induction and repeated training on health care waste management. Information was not found on how many health staff have received training in health care waste management per facility, but many have received trainings. However, most staff members who are deployed to handle waste are also engaged in doing other chores apart from waste management.

***Development of Waste Management Plans:*** A good waste management plan is a good basis for implementing waste management plans that has allocation of roles, responsibilities and resources. A well-thought-out plan describes the actions to be implemented by authorities, health-care personnel and waste management workers. At the national level, a plan is critical for government to define its intentions to make improvements, and the resources required across the country for successful implementation of environmental safeguards.

The government and the respective health facilities in the countries are expected to develop their health care waste management plans and allocate resources for their operationalization in accordance with the relevant strategic objectives.

## Infection Control Measures

IPC strategies to prevent or limit transmission in health care settings as per the WHO [Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#), include the following:

- Ensuring triage, early recognition, and source control (isolating patients with suspected infectious disease).
- Applying standard precautions for all patients.
- Implementing empiric additional precautions (droplet and contact and, whenever applicable, airborne precautions) for suspected cases of infectious disease.
- Implementing administrative controls.
- Using environmental and engineering controls.
- Healthcare facilities should adopt IPC measures to limit the infection to the healthcare workers and community members in general; including the acquisition of specialised medical equipment and supplies as enlisted below:



- Management of the Healthcare Personnel
- Healthcare personnel should not report to work if they have a febrile respiratory illness.
- In communities where transmission is occurring, healthcare personnel who develop a febrile respiratory illness should be excluded from work and should be tested for the infectious disease. If negative, then they should stay away from work until symptoms resolve. If positive, then they should proceed to isolation for 14 days; and
- Healthcare personnel, who develop a febrile respiratory illness and have been working in areas of the hospital where SARS-COV-2 patients are present, should be excluded from work for 7 days or until symptoms have resolved, whichever is longer.

Stewardship of personal protective equipment, antivirals, medical equipment and supplies: Health Facilities will implement plans to ensure appropriate allocation of personal protective equipment, including gloves, masks, N95 respirators, and antiviral medications. Referral isolation centres should be adequately staffed, equipped with functional mechanical ventilators, oxygen, patient monitors and consumables.

Environmental and engineering infection control: Routine cleaning and disinfection strategies will be applied to the environmental management of SARS-COV-2. Management of laundry, utensils and medical waste will be performed in accordance with procedures for infectious waste management (refer to the National Guidelines for the Management of COVID-19 (2020)).

Implementation of Respiratory Hygiene/Cough Etiquette: To prevent the transmission of all respiratory infections in healthcare settings, including SARS-COV 2, respiratory hygiene/cough etiquette measures will be implemented. Elements of Respiratory Hygiene/Cough Etiquette include:

- Education of healthcare facility staff, patients, and visitors
- Posted signs in language appropriate to the population served with instructions to patients and accompanying family members or friends
- Source control measures (e.g., covering the mouth/nose with a tissue when coughing and disposing of used tissues, using surgical masks on the coughing person when tolerated and appropriate) and
- Hand hygiene after contact with respiratory secretions and
- Spatial separation, ideally 1-2 meters of persons with respiratory infections in common waiting areas when possible.

N.B. Covering sneezes and coughs and placing masks on coughing patients are proven means of source containment that prevent infected persons from dispersing respiratory droplets into the air. Physical proximity of 1-2 metres apart has been associated with a decreased risk for transmission of infections via the droplet route and therefore supports the practice of distancing infected persons from others who are not infected.

## **Infection Control and Hand hygiene**

WHO notes that management of healthcare waste is an integral part of health facility or hospital hygiene and infection control. Healthcare waste can be considered as a reservoir of pathogenic

micro-organisms, which if someone is exposed could give rise to an avoidable infection. If waste is inadequately managed, these micro-organisms can be transmitted by direct contact, by inhalation or by a variety of animal vectors (e.g. flies, rodents, roaches), which could come into contact with waste.

Standard precautions are the basic level of infection control precautions which are to be used, as a minimum, in the care of all patients. Hand hygiene in both health care and non-health care settings is one of the most important measures that can be used to prevent transmission of infection. In health care settings, health care workers (HCWs) should apply the WHO's 5 Moments for Hand Hygiene approach before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings. Functioning hand washing facilities with water and soap should be available within 5 meters of toilets.

### **Waste Management Guiding Principles for the Project**

Improper management of health care waste can cause serious health problem for health workers and other workers along the waste management chain, community and the environment. Medical wastes have a high potential of carrying micro-organisms that can infect people who are exposed to it, as well as the community at large if it is not properly disposed of. Wastes that will be generated from vaccination centres, labs, quarantine, isolation and treatment facilities and screening posts readiness and response could include solid and liquid contaminated waste (e.g. blood, other body fluids and contaminated fluid) and infected materials (used water ; lab solutions and reagents, syringes, bed sheets, majority of waste from labs and quarantine and isolation centres, etc.), which requires special handling and awareness, as it may pose an infectious risk to healthcare workers in contact or handle the waste. It is also important to ensure that sharps are properly disposed of.

Infectious waste if not managed properly has the potential to endanger the health of patients, health-care workers, waste-handlers, waste-pickers and the general population. To manage the waste generated from the health facilities (vaccination areas, laboratories, isolation, quarantine, treatment centres and PoE), the following waste mitigation strategies, usually referred to as key steps in management of HCWM will be implemented:

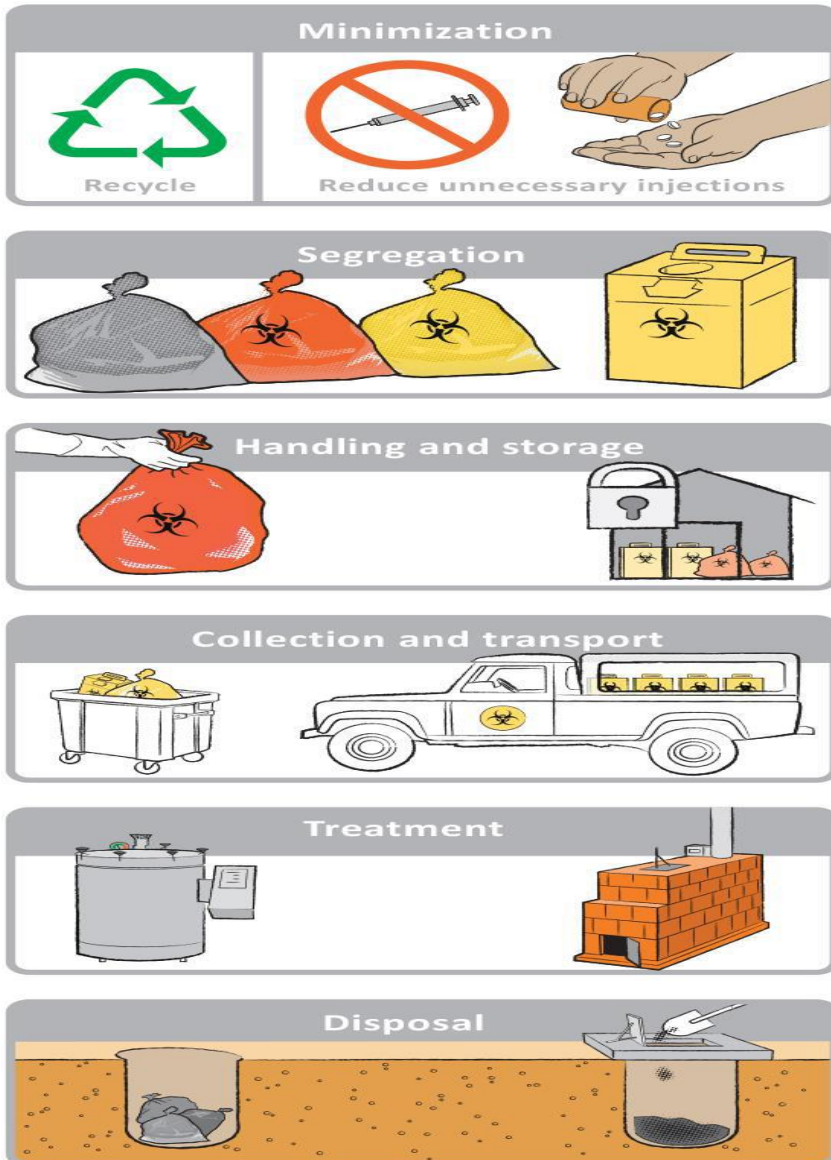


Figure 3 Infectious Healthcare Waste Management

In achieving sound management of waste, a hierarchy of waste management should always be applied. This is a ranking of waste management methods in terms of their ‘desirability’. The hierarchy is based largely on the concept of the 3R’s – reduce, reuse, recycle. The most preferable approach is that which produces as little waste as possible, thus minimizing the amount entering the waste stream, taking cautious and very careful attention to the risks involved. Therefore, while applying this to HCWM, ensuring safety of the workers and protection of the environment at every level of control is very critical.



Figure 4 Waste Minimization Stages

## Waste Minimization

The best practice is to ensure that all health facilities (vaccination centres/points, laboratories, isolation, quarantine, treatment centres) should minimize their waste generation to the barest possible minimum amounts. Appropriate plans, strategies and actions should be established to ensure adequate medical waste minimization at source by implementing the following waste minimization strategies:

- Source reduction. Purchasing and supplying materials which are less wasteful and/or generate less medical waste.
- Stock management. Frequent auditing; use of the oldest stock first and checking the expiry date of products during receiving and issuing of commodities.
- Encouraging the use of recyclable products. Using materials that can be reused both off-site and on-site.
- Centralized purchasing, supply of medical goods to ensure the selection of less wasteful materials.
- Source suppliers who may deliver chemicals and pharmaceuticals in small quantities, this will encourage the hospital administration to make purchase in small manageable quantities,
- Ensure good management and control practices especially in the purchase and use of pharmaceuticals; and
- Enforcing a rigorous and careful segregation of the infectious waste at source.
- Segregation of waste at the point of generation. Sorting the waste into different categories helps to minimize the quantities of infectious waste generated.
- Reduction of unnecessary injections to reduce on sharps waste
- Training of relevant staff on waste minimization and benefits especially the medical staff to make changes towards less wasteful clinical practices.

## Waste Segregation and Colour Coding

In the case of an infectious disease all the waste generated in care of patients is considered as infectious waste and will be segregated in the yellow bags and adhere to MoH Infection Prevention & WASH Guidelines as well as recommended by [WHO Safe management of wastes from health-care activities](#) with the following colour- coding system:

**Black:** All bins or bags containing non-risk HCW.

**Yellow:** Any kind of container filled with infectious HCW, including safety boxes.

**Red:** Any kind of container filled with heavy metal or effluent.




Double layered bags should be used for the collection of waste from isolation and treatment wards to ensure that no accidental leakage occurs from the bags.

In the case of an infectious disease all the waste generated in care of patients is considered as infectious waste and will be segregated in the yellow/red bags. The waste generated from treatment facilities and vaccination points, will be segregated and colour coded as outlined below in table 3 as recommended by WHO. Other measures include:

Facility containing a Person Under Investigation (PUI) or Person Under Monitoring (PUM) should be encouraged to segregate all medical waste (face masks, wipes, tissues).

Keep separate coded bins/bags/containers in wards and maintain proper segregation of waste.

*Table 17 Three-bin and safety box system to be used at all health facilities.*

Segregation category	Colour Coding	Container	Examples	Marking
Sharp Waste	White or yellow (Marked 'Sharps')	Bag or bin (Puncture Proof)	Syringes with needles, blades	Biohazard symbol and appropriate MOH messages on injection safety
Infectious clinical waste (different type)	Yellow	Bag or bin (Strong leak proof plastic bag with biohazard symbol)	Laboratory waste, materials potentially not infected with blood.	 BIOHAZARD
Highly Infectious	Red (Marked Highly Infectious)	Containers capable of being autoclaved	Laboratory waste, materials potentially infected blood, swabs, cultures / TB laboratories, contaminated blood clots, glassware, swabs containers /specimen bottles and culture media.	 BIOHAZARD
Non-Infectious/ non-hazardous (non-clinical)	Black	Plastic Bag or container.	Paper, ash, cardboard, carton boxes	
Chemical and Pharmaceutical	Brown	Plastic bag or Container	Waste containing chemical substances (e.g. laboratory reagents; film developer; disinfectants that are expired or no longer needed; solvents; waste with high content of heavy metals, e.g. batteries; broken thermometers and blood-pressure gauges), Cytotoxic waste, expired drugs	Marking will vary with classification of the chemical
Radioactive waste	Yellow with black radioactive Symbol	Lead Box	Waste containing radioactive substances (e.g. unused liquids from radiotherapy or laboratory research; contaminated glassware, packages or absorbent paper; urine and excreta from patients treated or tested with unsealed radionuclides; sealed sources)	 Radio Active symbol

## Packaging and Labelling of Healthcare Waste

The packaging involves putting wastes in the colour-coded waste bags (bin liners) and label it for easy identification of waste streams and easy tracking back. All waste bags or containers should be labelled with basic information in English language and or in Chichewa (local language). Basic label information should include type of waste in the container, name of the health department, date of collection and, warning of hazardous nature. In general, labelling is important to:

- Identify the source of infectious or date of generation in case of an accident or improper segregation of the waste, ensure that the workers responsible for infectious management handle the different types of wastes safely, ensure that each staff member feels more responsible for what they put into the bag/receptacle.
- Ensure that Medical Departments gather data on the amount of waste produced in each department.
- The packaging should be appropriate for the type of waste involved. In order to reduce the risk of exposure to medical waste, stringent packaging protocols including decontaminating the waste containers at point of origin must be adhered to. The following guidelines should be included for packaging sharps and other health care wastes:
  - o The bio-medical waste should be collected and stored separately by the same common bio-medical waste treatment facility staff prior to handling it. A dedicated collection bin labelled as infectious waste should be used to store waste from the isolation wards.
  - o At the waste treatment area, prioritize treatment within 48 hours and disposal of waste coming from the treatment and isolation areas immediately upon receipt.
  - o The inner and outer surface of the containers, bins and trolleys used for storage of infectious waste should be disinfected with sodium 0.5% chlorine solutions.
  - o There would be special packaging characteristics for some treatment techniques; incineration requires combustible containers while steam sterilization requires packaging material that allow steam penetration and air evacuation,
  - o Once the waste generated has been containerized/packaged for disposal it must not be in a position to be exposed again as it is moved from site to site to final disposal.

## **Waste Collection and Handling**

Collection of waste from beneficiary health care facilities is extremely important particularly to avoid over spilling of infectious waste out of collection containers to medical staff and general public; collection should be done promptly and routinely or as often as required. Collection of waste should be done by approved and trained personnel fully equipped with appropriate PPEs and conveying machinery such as waste trolley and carts. Administrators or managers, health care workers and laboratory staff of health facilities should be actively involved in collection of waste as well as the waste handlers. They should ensure that their containers/bags (Bins/safety boxes and collection receptacles) are never more than three-quarter full before sealing them at their points of generation. Replacement bags should be made available at each waste collection period. They should also ensure that such collection containers are appropriately labelled as per WHO Health Care Waste Management.

- As a precaution double layered bags (using 2 bags) should be used for collection of waste from isolation wards so as to ensure adequate strength and no leaks.

- Dedicated medical waste collection should be made available by the facility management, to ensure the double-bagged waste bags are disposed of immediately.
- Collect and store biomedical waste separately prior to handing over in case the facility is utilizing the services of an off-site treatment facility. It is important to use a dedicated collection bin labelled as infectious waste to store all medical waste and keep separately in temporary storage room prior to handing over to authorized Biomedical Waste Collectors; and
- Maintain a separate record of waste generated from vaccination, Isolation, quarantine and treatment areas.

### **Waste Handling Safety Measures**

All health care waste handlers should wear appropriate PPE (that is, gumboots, apron, long-sleeved gown, heavy duty gloves, mask, and goggles or a face shield) and perform hand hygiene after removing it. For more information refer to the WHO guidance, Safe management of wastes from health-care activities. PPE should be disposed of accordingly as infectious waste.

When performing procedures where splashing may occur or when infectious medical waste bags or containers may contact more than the worker's hands and wrists, the following medical protective clothing and PPE should be provided in addition to gloves:

### **Waste Storage**

There will be designated multiple waste storage area designed for different types of wastes with appropriate design and capacity to store the generated waste and be classified into internal and external. Consideration for storage shall be based on the classification or type of waste being dealt with and the potential risk of infection to health-care workers and waste disposal staff. The storage place must be identified depending on the type of waste. WHO guidelines provide key recommendations for storage facilities of health care waste which includes: i) the storage area should have a hard standing floor with good drainage that allows easy cleaning and disinfection, ii) adequate water supply and supply of cleaning equipment and PPE for staff, iii) easy access by staff handling the waste and lockable to prevent unauthorized entry of persons, iv) should be away from any food preparation areas and patients' wards.

The following rules will be observed for proper storage of infectious waste:

- Initial packaging and storage should take place where infectious waste is generated.
- Medical waste from isolation/quarantine areas should be pre-treated or decontaminated to reduce the microbial load,
- Treatment processes methods may include autoclaving, incineration, chemical disinfection, grinding/ shredding/disinfection methods,
- Storage of waste shall then be moved to a temporary on-site storage location that is secure and completely closed or lockable,
- The facility should have earmarked segregation points, as close to the generation points of infectious waste as possible.

The facility should ensure availability of good quality and adequately sized containers for waste segregation and on-site storage. These should preferably be thick plastic and should be lined with

non- chlorinated plastic liners, refer to additional information in WHO [water, sanitation, hygiene and waste management for COVID-19](#) and [WHO Safe management of wastes from health-care activities](#).

Internal storage is the temporary placement of waste at the point of generation before transfer to external storage points. A temporal storage location for the infectious waste should be designated within the health-care facilities, PoE, isolation and quarantine areas and laboratories. External storage refers to the transit point where waste is stored after removal from primary storage to the time it is collected and transported for treatment and final disposal. External storage location should be isolated and stored in the larger containers found near the waste treatment facilities awaiting treatment. Infectious waste should not be stored for more than 48 hours after generation before treatment.

To ensure infectious waste is kept separately, the central storage receptacles for each color-coded bag should be placed in similarly color-coded receptacles. This waste should be pre-treated (autoclaving, chemical treatment) before being transported to final treatment point.

## **Transportation**

Consideration for transportation will be based on the classification or type of waste being dealt with and the potential risk of infection to health-care workers and waste disposal staff. Transportation is classified into On-site transport and Off-site transport, the waste generated from HCF is treated and disposed both at (on-site) and also there shall be off-site transport. On-site transport involves conveying of wastes from the various points of generation to a temporary storage location also within the same area. Waste transportation within hospitals should be done by using dedicated trolleys with separate ones for infectious waste to be drawn on paved surfaces to waste treatment sites.

**On-site Transportation:** On-site transport should take place during less busy times whenever possible. Set routes should be used to prevent exposure to staff and patients and to minimize the passage of loaded carts through patient care and other clean areas. Depending on the design of the health-care facility, the internal transport of waste should use separate floors, stairways as far as possible. Regular transport routes and collection times should be fixed and reliable. Transport staff should wear adequate personal protective equipment, gloves, strong and closed shoes, overalls and masks.

Hazardous and non-hazardous waste should always be transported separately. In general, there are three different transport systems; the following should be adhered to when carrying out On Site transportation.

Waste transportation trolleys for general waste should be painted black, only be used for non-hazardous waste types and labelled clearly “General waste” or “Non-hazardous waste”.

Infectious waste should not be transported together with other hazardous waste, to prevent the possible spread of infectious agents. Trolleys should be coloured in the appropriate colour code for infectious waste (yellow) and should be labelled with an “Infectious waste” sign.



- Waste should never be transported by hand even if the distance is short due to risks of accident/exposure to infectious material,
- Other hazardous waste, such as chemical and pharmaceutical wastes, should be transported separately in boxes to central storage sites.
- The collected waste should not be left even temporarily anywhere other than at the designated storage room.
- Containers should be covered with lids during storage and transport.

**Off-site Transportation:** During the transportation of waste outside the vaccination sites, Labs, HCF, quarantine and isolation centers the following safety precautions should be included: -

Off-site transportation of waste should comply with WHO guidelines.

- Single-bagged waste and containers of sharps and liquids should be placed within a rigid or semi rigid container such as a bucket, box, or carton lined with a plastic bag.
- When transporting plastic bags of infectious waste, care should be taken to prevent tearing of the bags.
- Infectious waste should not be compacted before treatment.
- Outside selected HCFs, infectious waste should be transported in closed, leak-proof, rigid containers.
- The transportation should be properly documented, and all vehicles will carry a consignment note from the point-of collection to the treatment facility.
- Staff should be fully aware of emergency procedures for dealing with accidents and spillage.
- Recycling of waste **MUST** be avoided to prevent human contact with infections.
- Landfill sites with informal waste picking shall need increased education awareness, management and security.

**Vehicle requirements:** Off-site transportation of infectious waste should follow i) the WHO guidelines for the vehicle requirements for transporting infectious waste for both the Pick Up and Truck ii) carry adequate supplies of protective clothing, waste bags, cleaning tools and disinfectants in case of spillage iii) internal finish of the vehicle should be good to allow for ease in cleaning and disinfecting the vehicle after use.

**Labelling of the transport vehicle:** The transport vehicle should be labelled according to the type of waste that is being transported. The label that is displayed will depend on the United Nations classification of the waste. Before sending hazardous health-care wastes off-site, transport documentation (commonly called a “waste tracking note”) should be prepared and carried by the driver with the following information: i) waste classes ii) waste sources iii) pick-up date iv) destination v) driver name vi) number of containers or volume vii) Receipt of load received from responsible person at pick-up areas; On completion of a journey, the transporter should complete a consignment note and return it to the waste producer for filing.

## **Waste Treatment and Disposal Methods**

**Waste Treatment:** The CERP will adopt the World Health Organization (WHO<sup>2</sup>) waste treatment techniques which minimize the formation and release of chemicals or hazardous emissions. In

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<sup>2</sup> WHO Safe management of wastes from health-care activities, Second edition.

general, proper treatment and disposal of healthcare waste is necessary to ensure that its impact on the environment and human health is minimized or eliminated. Among all the current existing technologies for the treatment and disposal of infectious waste, the most appropriate technology shall be applied, and this should be the safest, reliable, affordable, and sustainable taking into considerations technical, human, financial and available infrastructure and resources (power and fuel) available. Foremost, the technology so chosen should be able to guarantee minimization of the immediate public health risks associated with infectious waste management as well as with the lowest negative impact on the environment.

There are several methods appropriate for infectious waste treatment, depending on the type of waste material. These treatment methods shall include one of the following options or combination of options: steam sterilization (autoclaving), incineration, thermal inactivation, gas/vapor sterilization, chemical disinfection, shredding, maceration, and sterilization by radiation, or electromagnetic radiation.

All biological wastes from health Care facilities (isolation and quarantine centres) should be decontaminated and marked as “Treated Biohazard Waste” prior to disposal in designated containers for treated infectious waste. HCFs, Isolation & Quarantine Centres Infectious Medical Waste should be handled in the following ways:

- Workers shall be provided with adequate PPEs, including three (3) layer masks, splash proof aprons, gowns, nitrile gloves, gumboots and safety goggles.
- All PUI related waste should be double bagged, “swan neck” tied and the outside sprayed with a 0.5% chlorine disinfectant solution (1% household bleach solution).
- If dedicated medical waste collection is available, then the double-bagged waste should be disposed of immediately.
- The surface of containers/bins/trolleys (inner and outer) used for storage of waste should be disinfected with 1% Sodium Hypochlorite Solution.

### **Incinerator control method**

Proper design and operation of incinerators should achieve desired temperatures, waste residence time inside the furnace, and other conditions necessary to destroy pathogens, minimize emissions, avoid clinker formation and slagging of the ash (in the primary chamber), avoid refractory damage destruction, and minimize fuel consumption. Good Combustion Practice (GCP) elements also should be followed to control dioxin and furan emissions.

If existing on-site incinerators are used, mitigation measures will be taken to control emissions to air in line with [WBG EHS guidelines for healthcare facilities](#) and [WHO Safe management of wastes from health-care activities](#).

The good practices include:

- Waste reduction and segregation to minimize quantities of waste to be incinerated
- Siting incinerators away from patient wards, residential areas or where food is grown
- A clearly described method of operation to achieve the desired combustion conditions and emissions; for example, appropriate start-up and cool-down procedures, achievement and maintenance of a minimum temperature before waste is burned, use of appropriate loading/charging rates (both fuel and waste) to maintain appropriate temperatures, proper disposal of ash and equipment to safeguard workers

- Periodic maintenance to replace or repair defective components
- Improved training for operators and management including the availability of an operating and maintenance manual, visible management oversight, and regular maintenance schedules
- Ensure provision of well sited ash pits to properly dispose of contaminated ash from incineration
- The incinerator housing should have adequate water supply and provision of sanitation facilities (toilets and wash areas) for use by the staff and
- Installed incinerators should be compliant with the Environmental standards; national regulations as well as the World Bank Group EHS guidelines.

**Caution:** Due diligence of an existing incinerator will be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended. Health and safety provisions should be made available at the incinerator's facilities including fire extinguishers, sand buckets, first aid kits.

**Waste Disposal:** Final disposal of the non-hazardous healthcare waste and residues or by-products from the treatment of waste will be disposed of in the following ways among others;

- Burial in pits: Infectious waste pits, placenta pits, ash pits.
- Sterilized and shredded microwaved or autoclaved waste can be channelled to waste reprocessing facilities or be disposed of through the municipal waste stream to the landfills.
- Please note that incineration is not a disposal method because the ash residue has to be disposed either in a protected ash pit or municipal landfill.
- Liquid Waste Generated Treatment and Disposal
- Liquid contaminated waste (e.g. pathological sample, blood, faeces, urine, other body fluids and contaminated fluid) from healthcare facilities requires special handling, as it may pose risks to healthcare workers who contact or handle the waste. Typically, a system of sewer pipes linked to form a sewerage system should collect wastewater from around a facility and carry it below ground to a central location for treatment at selected HCFs (quarantine/isolation/treatment/Blood centers) and Laboratories. The treatment plant should be located at a facility, and waste water collected from laboratory by pipe system and passed into different units of liquid waste treatment units in line with [WHO Water, sanitation, hygiene and waste management for COVID-19 technical guidance](#). All infectious waste generated from healthcare facilities (including sample packaging materials, culture materials, petri dishes, PPE and associated process wastes) should leave the facility only after decontamination using the autoclave or after being chemically sterilized.
- The virus of the infectious disease is an enveloped virus with a fragile outer membrane that can be destroyed by applying the following method of disinfection using 0.5% or 0.05% chlorine solution in accordance with the materials to be treated.

### **Managing Blood / Body fluid Exposure<sup>3</sup>**

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<sup>3</sup> Interim Infection Prevention and Control Recommendations for Coronavirus Disease 2019 (COVID-19) in Health Care Settings

Persons including HCWs with percutaneous or muco-cutaneous exposure to blood, body fluids, secretions, or excretions from a patient with suspected or confirmed infectious disease, should immediately and safely stop any current tasks, and leave the patient care area.

- Safely take off PPE according to the steps in the procedure room.
- Treat affected exposed area:
  - wash the affected skin surfaces or the percutaneous injury site with soap and water
  - Irrigate mucous membranes (e.g. conjunctiva) with copious amounts of water or an eyewash solution, and not with chlorine solutions or other disinfectants.
- Immediately report the incident to the chief of unit, IPC focal point (following hospital exposure procedure) as soon as the HCF staff exit the isolation room/ unit.
- Exposed persons should be medically evaluated for:
  - infectious disease (ID) (of isolated patient)
  - other potential exposures (e.g., HIV, HBV, HCV) if sharp/needle-stick injury
- Exposed persons must receive follow-up care, including:
  - fever monitoring, twice daily period of recording symptoms will depend on the ID, and
  - Counselling and psychological support.
- Immediate consultation with an expert in infectious diseases for any exposed person who develops fever, symptoms after exposure.
- If fever appears and other symptoms, isolate HCF staff, and follow procedure for ID suspected until a negative diagnosis is confirmed, Or
- People suspected of having infected should be cared for/isolated, and the same recommendations outlined in this document must be applied until a negative diagnosis is confirmed.
- Conduct contact tracing and follow-up of family, friends, co-workers and other patients, who may have been exposed to ID virus through close contact with the infected HCW/ staff.

## **Handling of Dead Bodies**

Discourage any local practices (touching/ being in contact with the corpse) by HCW, family, friends. The corpse/remains should not be sprayed, washed or embalmed. Use fully PPE to safely handle the dead body/corpse including disposable gown with long-sleeves, waterproof apron, disposable, non-sterile gloves (over the cuffs of the gown), surgical mask (wear particulate mask if autopsy), eyes protection (preferable face-shield, or goggle), rubber gloves and rubber boots. Other measures include:

- Put corpse in waterproof/ impermeable body bag immediately; and transfer to the mortuary as soon as possible after death,
- Bury or incinerate corpse without delay,
- Train and pre-position a Safe and Dignified Burial (SDB) Team in local communities, preferably adopting a member of the local community on this team; and
- Ensure SDB teams are fully knowledgeable about WHO SDB protocols and associated activities including decontamination, community involvement and psychosocial support.
- Any staff and visitor who is entering in the isolation room/ isolation unit (IU), or has any contact with contaminated equipment, linen, waste, dead body MUST:
  - Register their name and contact details in the logbook of isolation room/ unit, for contact tracing purpose,

- Follow up health status, fever & other symptoms (refer to suspect case definition/ triage form)
- Take and record temperature twice daily, for the entire incubation period after the last contact
- Notify to head of unit, IPC team, focal point if any symptoms,
- Have a good hygiene, drink plenty of safe drinking water, and rest to avoid mistake due to overwhelmed, severe fatigue.
- Provide supervision and support from chief of IU, IPC focal point and director of hospital, by promoting preventive medicine:
- No pregnant women should be working in isolation room/ unit
- Provide psychological support to the staff/team who work in isolation room/ unit
- Prevent heat illness/ dehydration (serious risk of heat illness while wearing PPE in tropical conditions).
- For HCWs who are developing symptoms
- Stop work immediately or do not report to work;
- Limit interactions with others (self-quarantine / isolation);
- Exclude themselves from area (self-quarantine / isolation);
- Notify the chief of unit or focal point if any fever > 38°C. and/ or other symptoms (refer to case definition);
- Exposed persons must receive follow-up care (e.g. antiviral therapy when available), counselling and psychological support; and
- Inform supervisor, for contact tracing and follow-up of family, friends, co-workers and other patients, who may have been exposed to the disease through close contact with the infected HCW/staff.

Get additional information from the WHO [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#).

## **Emergency Preparedness and Response (EPR)**

The purpose of this section is to provide emergency response for the healthcare facilities (vaccination centers, hospitals, PoE, isolation & quarantine centers and laboratories) with regard to the potential threat associated with both novel pathogen identified and other risks that could affect Health Care Facility operations (including risks to workers and patients and on operation of waste treatment and disposal options) in line with the requirements of ESS4. Emergency incidents occurring in an HCF may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, and fire. These emergency events are likely to seriously affect medical workers, communities, the HCF's operation and the environment.

### **Emergency Response Plan for Waste Treatment Facility**

In the event that an emergency situation occurs in which the activities at the waste treatment facility poses a threat to the public's health as well as environmental contamination, the following need to be addressed immediately:

- Identify the cause of emergency,

- Call for the external support from the Country responsible agency for Emergency situations.
- Notifying the workers and surrounding residents to take necessary protective measures according to the nature of the incident;
- Liaise with the county disaster department to organize the evacuation of the residents to safety, and determining the means of evacuation according to the weather and geographical conditions and the population density;
- Set up the emergency shelter outside the safety boundary of the incident site;
- The responsible entity in the emergency environmental incidents should take immediate actions to control or cut-off the source of pollution, taking all possible measures to control the situation, in order to prevent the secondary pollution and the derivative incidents;
- The field rescue team should be organized immediately, if necessary, to reduce the casualty and property loss; and
- Individuals in the contaminated area should be evacuated to safety, and irrelevant individuals should be barred from the area.
- Termination of emergency
- The emergency for the situations above that meet the following requirement is qualified to be terminated:
- The scene of incident has been under control, and the conditions for the incident to occur are removed.
- The leakage or release of pollution source has been limited within a stipulated scope.
- The hazard caused by the incident has been thoroughly removed and cannot cause any new incident.
- It is not necessary to continue to adopt professional emergency disposals at the incident site.
- Necessary measures have been taken for protecting the public from any secondary danger.

NB: If the existing waste disposal facility has the Emergency Response Plan, the plan will be updated to meet the minimum requirement for handling potential infectious healthcare waste and the workers trained on the emergency response plan of the HCF.

The Ministry of Public World and Water Resources is likely to be the main implementing agency for the activities and will designate a team to oversee the implementation of the project activities and ensure compliance of E&S instruments and World Bank ESF requirements.

At the National level institutional responsibility for implementation of E&S instruments will rest with the PIU. The PIU shall have an environmental officer who will support the project implementation and monitoring of project activities as well as adherence to the environment and social due diligence requirements.

Table 18 Summary of key parameters to be monitored

Monitoring parameter	Indicator	Methods	Frequency	Responsibility for Implementation
<b>Waste segregation and collection</b>	Number of HCFs (supported by the project) with color coded and labelled HCW Receptacles	Physical verification Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs practicing waste separation	Rapid Assessments, Supervision Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCWs trained in HCW segregation and collection	Routine data	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard PPE for HCW segregation and collection	HCWM Rapid Assessment Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with national standard guidelines on HCW segregation and collection	Rapid Assessment Reports	Monthly	Heads of HCF/ Institution, PIU
<b>Waste Storage</b>	Number HCFs with designated temporary storage facilities for HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with temporary storage facility which is inaccessible to unauthorized persons and animals	-Rapid Assessments Routine reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with designated temporary storage facilities for HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU

<b>Monitoring parameter</b>	<b>Indicator</b>	<b>Methods</b>	<b>Frequency</b>	<b>Responsibility for Implementation</b>
	Number of HCFs with designated temporary storage facilities for HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard storage containers	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard PPE for HCW storage PERSONNEL	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with national standard guidelines on HCW storage	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard storage containers	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard PPE for HCW storage PERSONNEL	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
<b>Waste Transportation</b>	Number of HCFs with standard PPEs for transporting HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard equipment for transporting HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs aware of risks associated with improper handling of HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs catchment population aware of health risks of HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs trained in HCW transportation	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard PPEs for HCW transportation	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU



Monitoring parameter	Indicator	Methods	Frequency	Responsibility for Implementation
	Number of HCFs with standard equipment for HCW transportation	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with national standard guidelines on HCW transportation	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
<b>Waste Treatment and Disposal</b>	Number of HCFs with standard treatment equipment for HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard treatment plant/facilities for HCW	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard guidelines for HCW treatment	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of H/Ws trained in HCW treatment and disposal	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard PPEs for treatment and disposal.	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number HCFs with standard equipment for HCW treatment	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number HCFs with standard equipment for HCW disposal	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with national standard guidelines on HCW treatment and disposal	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU

Monitoring parameter	Indicator	Methods	Frequency	Responsibility for Implementation
	Number of HCFs with designated supervisor to man incinerators and disposal facilities	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with standard treatment equipment for HCW	- Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with designated supervisor to man incinerators and disposal facilities	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
<b>Health care waste related accidents and spillages</b>	Number of health institutions with annual emergency response plan for HCW related accidents and spillages	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs using national standard PPEs for preventing accidents and spillages	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs reporting on HCW related accidents and injuries	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HWs treated after HCW related spillages following IP standard guidelines	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU

<b>Monitoring parameter</b>	<b>Indicator</b>	<b>Methods</b>	<b>Frequency</b>	<b>Responsibility for Implementation</b>
	Number of H/Ws vaccinated against Hepatitis B	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs with national standard guidelines on accidents and spillages	Assessment reports Distribution report	Monthly	Heads of HCF/ Institution, PIU
	Number of H/Ws trained in Accident and spillage management	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of health institutions with annual emergency response plan for HCW related accidents and spillages	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of HCFs using national standard PPEs for preventing accidents and spillages	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
<b>Infection Prevention and Control</b>	Number of HCFs able to follow standard precautions namely e.g. hand hygiene	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU
	Number of health facilities performing environmental cleaning according to standards	Rapid Assessments Routine Reports	Monthly	Heads of HCF/ Institution, PIU

Table 19 Infection Control and Waste Management Baseline Mitigation Measures for HCF / Laboratory / Isolation Area/PoE

SN	Activities and potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibilities	Timeline	Budget (MZN)
<b>1</b>	<b>Waste Generation in HCF (PoE, Vaccination points, Laboratory, quarantines and isolation areas)</b>				
1.1	In emergency situations, all waste from clients arriving at a HCF should be classified as potentially infectious to minimize the transmission of infection.	Wastes generated at the HCF should be segregated on generation and placed in the appropriate bin as per the segregation rules.	Patients, Health Care Waste Workers (HCWWs)	On Generation	HCF Operational Budget
1.2	Direct exposure of HCF workers and HCWWs to infectious and biohazard waste from the generate source leading to risks of exposure to infectious disease and other conditions	All HCF workers involved in infectious disease health care services must follow all standard precautions of infections which are; Hand hygiene, respiratory hygiene/ cough etiquette, use of PPE, environmental cleaning, prevention of needlestick injuries, and appropriate health care waste management.	MoH; HCF Management	At all times within HCF	HCF Operational Budget
1.3	Looking at waste minimization, reuse, and recycling where possible and in the long term within the HCF. This will facilitate in the reduction of waste that needs to be handled, especially in smaller HCFs, more in the longer term.	Facilities should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations.	MoH; HCF Management	At all times within HCF	HCF Operational Budget
		Source reduction by purchasing and supplying materials that are less wasteful and/or generate less medical waste.			
		Stock management through frequent auditing; use of the oldest stock first and checking the expiry date of products during receiving and issuing of commodities.			
		Encouraging the use of recyclable products. Using materials that can be reused both off-site and on-site.			
		Enforcing rigorous and careful segregation of the infectious waste at source helps to minimize the quantities of infectious waste generated.			
		Training of relevant staff on waste minimization and benefits especially the medical staff to make changes towards less wasteful clinical practices.			
<b>2</b>	<b>Segregation and Storage Before Collection</b>				
2.1	<b>All Infectious Waste/ Biohazardous Waste</b> generated from infectious disease health care related activities will be placed under this category.	All waste indicated here should be placed in red biohazard bags, labelled, "Biohazardous Waste" or with the international biohazard symbol and the word, "Biohazard".	Health Care Workers (HCWs); HCWWs	On Generation	HCF Operational Budget
		Full red bags must be tied so that leakage or expulsion of contents does not occur and should be contained in a rigid container.			
		A strong, leak-proof plastic bag or container capable of being autoclaved should be used			

SN	Activities and potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibilities	Timeline	Budget (MZN)
		<p>The container can be of any (preferred to be red) colour with a tight-fitting lid and labelled "Biohazard," readable from any lateral direction.</p> <p>Staff should use impermeable bags and hard standing containers</p> <p>Containers must have handles and be easy to clean</p> <p>Staff should ensure the use of easy to clean surfaces for storage and placement of containers containing HCW</p> <p>Management and staff should ensure the availability of water supply for convenient cleanliness and hygiene of storage surfaces.</p> <p>Storage areas, containers, or bags should not be readily accessible to non-staff or animals.</p> <p>Staff must ensure that the maximum storage time of infectious wastes is 48 hours in the cool dry season and 24 hours in the hot dry season.</p> <p>All storage sites should be enclosed to ensure that they are not accessible to the public and livestock and in areas not at risk of flooding.</p>			
2.2	<b>Sharps Waste:</b> Patient care and clinical support areas generate sharps that are infectious and can spread disease and cause minor injuries to HCWs unless properly handled.	<p>Used sharps should be placed into the appropriate sharp's container immediately after use- containers must be puncture-proof.</p> <p>All sharps are disposed of in either a labelled sharps container or a pharmaceutical/chemo sharps container.</p> <p>Containers should be labelled "SHARPS WASTE" or "BIOHAZARD," with the international biohazard symbol</p> <p>¾ full sharps containers must be collected regularly and replaced with empty containers</p> <p>As per WHO guidance, they should be marked INCINERATION ONLY" so that they can be visible from any lateral direction.</p> <p>Pharmaceutical waste, including empty vials and syringes, is placed into a sharp's container or chemo container at the point of generation, stored in a utility room.</p>	HCWs; HCWWs	On Generation	HCF Operational Budget
2.4	<b>General Waste generated</b>	<p>General healthcare waste such as food waste should be disposed off accordingly</p> <p>General waste will be collected via a separate stream from all health care waste and should not be mixed under any circumstances.</p>	HCWs; HCWWs	On Generation	HCF Operational Budget
<b>3</b>	<b>Transport of HCW Within HCFs for Storage or Direct Final Treatment</b>				
3.1	Onsite transport of waste from point of generation to storage needs to be	Waste transportation should take place during less busy times whenever possible. Set routes should be used to prevent exposure	HCWs; HCWWs	On Generation	

SN	Activities and potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibilities	Timeline	Budget (MZN)
	managed in a planned manner to avoid environmental risks associated with cross-contamination with general waste, accidental spillage, and exposure of HCWs and patients	<p>to staff and patients and to minimize the passage of loaded carts through patient care and other clean areas.</p> <p>Depending on the design of the HCF, the internal transport of waste should use separate floors, stairways, or elevators as far as possible. Regular transport routes and collection times should be fixed and reliable.</p> <p>Associated staff should wear adequate personal protective equipment, gloves, strong and closed shoes, overalls, and masks.</p> <p>Health-care waste can be bulky and heavy and should be transported using wheeled trolleys or carts that are not used for any other purpose.</p> <p>Waste, especially hazardous waste, should never be transported by hand due to the risk of accident or injury from infectious material or incorrectly disposed sharps that may protrude from a container.</p> <p>All waste bag seals should be in place and intact at the end of transportation.</p>			HCF Operational Budget
3.2	Routing of the infected waste in HCFs should be maintained to minimize risks of exposure and accidents during operating hours.	<p>Separate hazardous and non-hazardous routes should be planned and used.</p> <p>A specific routing plan should be developed based on the layout of the HCF.</p> <p>Special covered trolleys should be used in transporting HCWs.</p>	HCWs; HCWWs	On Generation	HCF Operational Budget
<b>4</b>	<b>Occupational Health and Safety Management for Health Care Waste Workers</b>				
4.1	Management of exposure to infectious waste from vaccination centres or other forms of toxic health care waste, chemicals, and partaking in risky activities during the health care waste management cycle to workers involved in Health Care Waste Management.	<p>Adequate awareness and training should be provided.</p> <p>Only trained personnel should be allowed to operate machinery such as autoclaves and incinerators as these reduce the risk of operational injuries.</p> <p>Provide appropriate PPE to waste handlers</p>	HCWs; HCWWs	On Generation	HCF Operational Budget
4.2	Reporting accidents and incidents	<p>All health care management staff at the HCFs should be trained in emergency response and made aware of the correct procedure for prompt reporting.</p> <p>Accidents or incidents, including spillages, damaged containers, inappropriate segregation, and any incidents involving sharps, should be reported to the designated person.</p>	HCWs; HCWWs	On Generation	HCF Operational Budget

SN	Activities and potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibilities	Timeline	Budget (MZN)
		The cause of the accident or incident should be investigated by a designated person or another responsible officer, who should also take action to prevent a recurrence.			

## Infection Control and Waste Management Plan (ICWMP) Template

### Introduction

- Describe the project context and components
- Describe the targeted healthcare facility (HCF):
- Type: E.g. general hospital, clinics, inpatient/outpatient facility, medical laboratory, quarantine or isolation centers;
- *Special type of HCF in response to infectious disease: E.g. existing assets may be acquired to hold yet-to-confirm cases for medical observation or isolation;*
- Functions and requirement for the level infection control, e.g. biosafety levels;
- Location and associated facilities, including access, water supply, power supply;
- Capacity: beds
- Describe the design requirements of the HCF, which may include specifications for general design and safety, separation of wards, heating, ventilation and air conditioning (HVAC), autoclave, and waste management facilities.

### Infection Control and Waste Management

Overview of infection control and waste management in the HCF

- Type, source and volume of healthcare waste (HCW) generated in the HCF, including solid, liquid and air emissions (if significant)
- Classify and quantify the HCW (infectious waste, pathological waste, sharps, liquid and non-hazardous) following WBG [EHS Guidelines](#) for Healthcare Facilities and pertaining GIIP.
- *Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous. It's likely the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes.*
- Describe the healthcare waste management system in the HCF, including material delivery, waste generation, handling, disinfection and sterilization, collection, storage, transport, and disposal and treatment works
- Provide a flow chart of waste streams in the HCF if available
- Describe applicable performance levels and/or standards
- Describe institutional arrangement, roles and responsibilities in the HCF for infection control and waste management.

### Management Measures

Waste minimization, reuse and recycling: HCF should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations.

Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies: HCF should adopt practice and procedures to minimize risks associated with delivering, receiving and storage of hazardous medical goods.

Waste segregation, packaging, color coding and labelling: HCF should strictly conduct waste segregation at the point of generation. Internationally adopted method for packaging, color coding and labelling the wastes should be followed.



Onsite collection and transport: HCF should adopt practices and procedures to timely remove properly packaged and labelled wastes using designated trolleys/carts and routes. Disinfection of pertaining tools and spaces should be routinely conducted. Hygiene and safety of involved supporting medical workers such as cleaners should be ensured.

Waste storage: A HCF should have multiple waste storage areas designed for different types of wastes. Their functions and sizes are determined at design stage. Proper maintenance and disinfection of the storage areas should be carried out. Existing reports suggest that during the infectious disease outbreak, infectious wastes should be removed from HCF's storage area for disposal within 24 hours.

Onsite waste treatment and disposal (e.g. an incinerator): Many HCFs have their own waste incineration facilities installed onsite. Due diligence of an existing incinerator should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended. For new HCF financed by the project, waste disposal facilities should be integrated into the overall design and ESIA developed. Good design, operational practices and internationally adopted emission standards for healthcare waste incinerators can be found in pertaining EHS Guidelines and GIIP.

Transportation and disposal at offsite waste management facilities: Not all HCF has adequate or well-performed incinerator onsite. Not all healthcare wastes are suitable for incineration. An onsite incinerator produces residuals after incineration. Hence offsite waste disposal facilities provided by local government or the private sector are probably needed. These offsite waste management facilities may include incinerators, hazardous wastes landfill. In the same vein, due diligence of such external waste management facilities should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended and agreed with the government or the private sector operators.

Wastewater treatment: HCF wastewater is related to hazardous waste management practices. Proper waste segregation and handling as discussed above should be conducted to minimize entry of solid waste into the waste water stream. In case waste water is discharged into municipal sewer sewerage system, the HCF should ensure that waste water effluent comply with all applicable permits and standards, and the municipal waste water treatment plant (WWTP) is capable of handling the type of effluent discharged. In cases where municipal sewage system is not in place, HCF should build and properly operate on site primary and secondary waste water treatment works, including disinfection. Residuals of the onsite waste water treatment works, such as sludge, should be properly disposed of as well. There're also cases where HCF waste water is transported by trucks to a municipal waste water treatment plant for treatment. Requirements on safe transportation, due diligence of WWTP in terms of its capacity and performance should be conducted.

### **Emergency Preparedness and Response**

Emergency incidents occurring in a HCF may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and wastewater treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, communities, the HCF's operation and the environment.

Thus, an Emergency Response Plan (ERP) that is commensurate with the risk levels is recommended to be developed.

### **Institutional Arrangement and Capacity Building**

A clearly defined institutional arrangement, roles and responsibilities should be included. A training plan with recurring training programs should be developed. The following aspects are recommended:

- Define roles and responsibilities along each link of the chain along the cradle-to-crave infection control and waste management process;
- Ensure adequate and qualified staff are in place, including those in charge of infection control and biosafety and waste management facility operation.
- Stress the chief of a HCF takes overall responsibility for infection control and waste management;
- Involve all relevant departments in a HCF, and build an intra-departmental team to manage, coordinate and regularly review issues and performance;
- Establish an information management system to track and record the waste streams in HCF; and
- Capacity building and training should involve medical workers, waste management workers and cleaners. Third-party waste management service providers should be provided with relevant training as well.

### **Monitoring and Reporting**

Many HCFs in developing countries face the challenge of inadequate monitoring and records of healthcare waste streams. HCF should establish an information management system to track and record the waste streams from the point of generation, segregation, packaging, temporary storage, transport carts/vehicles, to treatment facilities. The HCF is encouraged to develop an IT based information management system should their technical and financial capacity allow.

As discussed above, the HCF chief takes overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices in the HCF. Internal reporting and filing systems should be in place.

### **WHO Guidance and Advice for the public**

WHO advice for the public, including on social distancing, respiratory hygiene, self-quarantine, and seeking medical advice, can be consulted on this WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

Technical guidance

[Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#), issued on March 19, 2020

[Recommendations to Member States to Improve Hygiene Practices](#), issued on April 1, 2020

[Severe Acute Respiratory Infections Treatment Center](#), issued on March 28, 2020

[Infection prevention and control at health care facilities \(with a focus on settings with limited resources\)](#), issued in 2018

[Laboratory biosafety guidance related to coronavirus disease 2019 \(COVID-19\)](#), issued on March 18, 2020

[Laboratory Biosafety Manual, 3rd edition](#), issued in 2014

[Laboratory testing for COVID-19, including specimen collection and shipment](#), issued on March 19, 2020

[Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios](#), issued on March 21, 2020

[Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#), issued on March 24, 2020

[Key considerations for repatriation and quarantine of travellers in relation to the outbreak COVID-19](#), issued on February 11, 2020

[Preparedness, prevention and control of COVID-19 for refugees and migrants in non-camp settings](#), issued on April 17, 2020

[Coronavirus disease \(COVID-19\) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health](#), issued on March 18, 2020

[Oxygen sources and distribution for COVID-19 treatment centers](#), issued on April 4, 2020

[Risk Communication and Community Engagement \(RCCE\) Action Plan Guidance COVID-19 Preparedness and Response](#), issued on March 16, 2020

[Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\)](#), issued on March 19, 2020

[Operational considerations for case management of COVID-19 in health facility and community](#), issued on March 19, 2020

[Rational use of personal protective equipment for coronavirus disease 2019 \(COVID-19\)](#), issued on February 27, 2020

[Getting your workplace ready for COVID-19](#), issued on March 19, 2020

[Water, sanitation, hygiene and waste management for COVID-19](#), issued on March 19, 2020

[Safe management of wastes from health-care activities](#), issued in 2014

[Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus \(COVID-19\) outbreak](#), issued on March 19, 2020

[Disability Considerations during the COVID-19 outbreak](#), issued on March 26, 2020

### **WORLD BANK GROUP GUIDANCE**

[Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings](#), issued on March 20, 2020

[Technical Note: Use of Military Forces to Assist in COVID-19 Operations](#), issued on March 25, 2020

[ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects](#), issued on April 7, 2020

[Technical Note on SEA/H for HNP COVID Response Operations](#), issued in March 2020

[Interim Advice for IFC Clients on Preventing and Managing Health Risks of COVID-19 in the Workplace](#), issued on April 6, 2020

[Interim Advice for IFC Clients on Supporting Workers in the Context of COVID-19](#), issued on April 6, 2020

[IFC Tip Sheet for Company Leadership on Crisis Response: Facing the COVID-19 Pandemic](#), issued on April 6, 2020

[WBG EHS Guidelines for Healthcare Facilities](#), issued on April 30, 2007

### **ILO GUIDANCE**

[ILO Standards and COVID-19 FAQ](#), issued on March 23, 2020 (provides a compilation of answers to most frequently asked questions related to international labor standards and COVID-19)

**MFI GUIDANCE**

[ADB Managing Infectious Medical Waste during the COVID-19 Pandemic](#)

[IDB Invest Guidance for Infrastructure Projects on COVID-19: A Rapid Risk Profile and Decision Framework](#)

[KFW DEG COVID-19 Guidance for employers, issued on March 31, 2020](#)

[CDC Group COVID-19 Guidance for Employers, issued on March 23, 2020](#)

## Annex 7: Traffic Safety Management Framework

### **Purpose and scope of this framework**

The Project is expected to generate traffic during the transportation of goods in particular. It is therefore important to ensure that traffic is managed in a manner that facilitates efficiency as well as ensuring the safety of personnel and the local community.

This Framework has been prepared to enable the CERP and its implementers to identify and implement all legal and good practice requirements in respect of the management of traffic risks and impacts associated with the Project activities. The purpose of this Framework is to ensure that traffic management (and management of vehicles and equipment in respect of the Project) is undertaken in a safe and efficient manner. As such, the management of traffic in terms of this framework is intended to avoid and minimize traffic risks to (and impacts on) the health and safety of the local community and any personnel on site during the Project, under both routine and non-routine circumstances. The requirements of this Framework shall apply to all project activities including any implementer appointed to provide vehicles, machinery or drivers for the project.

This is a Framework that will guide the implementer to develop detailed plans suited to specific sites. The implementer or supplier will be required to conduct a site road safety and traffic risk assessment to determine potential road safety and traffic hazards including types of roads, routes, location relative to communities, schools, sensitive issues, etc., considering prevailing traffic conditions and future projections.

A copy of the specific Traffic Safety Management Plan derived from this framework must be maintained on site by the implementer or supplier. This Traffic Safety Management Framework should be kept as an annexure to the ESMP. All employees are obliged to abide by these plans. Sub-contractors must be trained to ensure compliance with this the plans.

### **Activity-specific Traffic Safety Management Plans**

This section outlines the requirements for compiling an activity-specific Traffic Safety Management Plan, which must also take into consideration section 5 of the World Bank Good Practice Note on Road Safety under ESF ESS4 and the E&S considerations listed in this ESMP. Project activity specific measures should be added according to the specific risks and impacts identified. The implementer or supplier is required to compile the detailed plan for how they will conduct their works to ensure that the health and safety risks posed by movable machines and vehicles are either eliminated or mitigated.

**Activity description:** Include a map, indicating routes in relation to the surrounding environment, community, other public roads and facilities such as schools, hospitals or clinics. Include a google map. Who and how are likely to be impacted by the project-activity traffic?

Include a site layout including Parking areas, access roads, loading and unloading areas, refueling areas, blind spots or sharp corners, access for emergency services including emergency assembly, workspaces and workshops, offices, sanitary facilities, kitchen and rest areas.

Indicate how suitability of the construction roads was determined in relation to the other alternatives considered.

#### Activity Risk Assessment

- Identify all crossings where pedestrians, vehicles and other road users cross.
- Identify possible blind spots (where vehicles are obscured by other buildings, stockpiles, scaffold)
- Identify all activities taking place in areas that are in proximity with moving vehicles and plant (loading bays, refueling areas, pedestrian area)
- Conduct site risk assessment and provide measures to avoid accidents. The risk assessment should include roles and responsibilities for implementation.
- Hazards and risks related to moving objects (Cranes, vehicles transporting loads).
- Hazards and risks related to flying objects (transportation of quarry, soil and sand, waste materials, fly rock from blasting, roofing material).
- Hazards and risks related to falling objects (movement of unsecured loads or during loading activities).
- Hazards and risks related to collisions with moving vehicles
- Hazards and risks related to striking against fixed or stationary objects (poor stacking of materials such as timber or bricks, which may cause a person to walk into them, poor housekeeping in work areas, scaffold edges close to walk ways, vehicles reversing into fuel tanks or buildings)
- Vehicles and Plant Movement
- Indicate the type of plant and vehicles, its use and type of load and Maximum load (Can be in a table);
- Measures implemented to ensure visibility on roads (signage, including reflective signage);
- Construction vehicle routing agreement, that establishes the routes that construction vehicles take to access sites and camps, and showing the agreed safe regular routes between quarries and batching plants;
- Details of safety measures at the key risk points, such as turn outs, narrow roads, unstable roads;
- Measures to ensure that vehicles are fit for purpose and are checked prior to each use (pre start inspections);
- Measures to avoid mechanical failure of plant and vehicles (such as failure of breaks);
- Measures to avoid accidents from environmental/weather conditions (such as slippery roads during the rainy season, high wind when operating a crane);
- Measures implemented to ensure separation of people from construction vehicles (barriers, alternative foot paths, crossing points with signage);
- Measures to avoid congestion of vehicles in an area. Use one-way systems to avoid reversing. Use of audible devices, banksman while reversing;
- Gradients of 1 in 10 to be avoided, inspections to check access road surface conditions and carrying out regular and timely maintenance on access roads;
- Sufficient lighting especially for night works;
- Management of visiting vehicles such as delivery trucks;
- Loading and Unloading activities
- Develop Safe operating procedure for all loading and offloading activities
- Measures to prevent overloading
- Measures to prevent accidents from placing sheeting over loads and removing it

- Measures to prevent accidents from coupling activities such as trailer attachment and detachment processes.

### **Hazardous materials and Spill Control**

- Records of hazardous materials on site and Material Safety Data Sheet (MSDS)
- Training for workers on MSDS
- Measures to prevent, minimize and clean-up of spills, provision of spill response equipment.
- Establish safe areas for parking, delivery and storage of hazardous materials.
- Provisions for designated wash bays to avoid contaminating land or water resources
- Site rules, communication and training
- Speed limits, Parking areas, one way route systems, visitors' inductions, no resting under plant and vehicles, no reversing from site into traffic.
- Prohibition of parking near structures like scaffolding
- Indicate measures for driver competence (selection criteria, general basic training, job specific training).
- Training plan (Inductions, refresher training, training workers on Job Hazards Assessments, tool box talks)
- Traffic related site rules and driving control measures incorporated into Code of Conduct
- Training workers on incident reporting.
- Work schedules (avoid and minimize impacts of noise, dust, safety of children going to school).
- Workers' transportation
- Provide measures for safety of workers during transportation (Driver competency, Suitability and safety of vehicle including provisions for seatbelts, road conditions).
- Develop Safe Operating Procedures for the following:
  - Fleet management and vehicle road safety, vehicle markings, etc.
  - Driver assessment, check in, work schedules, etc.
  - Driving routes traffic management, including filling potholes from the driving, clearing fallen obstacles from vehicles, etc.
  - Site traffic safety management, including site layout plan marking routes for vehicles, pedestrians, etc.
  - Emergency procedures, if there is an accident/incident what to do on the scene (separate to the ESIRT).
- For Works on active roads:
  - Standards for traffic control and signage that will be used:
    - The work site itself;
    - The roads to get to/from the work site;
    - The roads/routes from resource points e.g. borrow pits, quarry, and others;
    - How machinery and construction move around on the site – esp. scaffold hazardous substances, worker rest areas, etc.;
    - How the construction vehicles move on public roads;
    - How to protect the public and other road users from construction vehicles.

### **General Considerations**

The following sections outline general environmental, health, safety, and social considerations to be included in the Traffic Safety Management Plans for specific works.

#### Licensing, Roads and Maintenance:

Licensing: The implementer shall ensure that:

- All Project vehicles comply with relevant traffic and transport licensing requirements (such as with regard to licensing requirements relating to the transportation of over-sized loads or hazardous materials, including hazardous waste).
- All drivers of vehicles used during the Project shall have the requisite licenses to operate any vehicle (or machinery) operated by them on Site or on any public roads.
- All Project vehicles shall have valid roadworthy certificates and licenses.
- Maintenance
- All vehicles and machinery used during the Project shall be regularly maintained and repaired where necessary. In this regard, all construction and passenger vehicles used during the Project shall be inspected by an appropriately qualified mechanic every six months following the commencement of the Project. The Project Managers shall ensure that regular inspections are undertaken of construction and passenger vehicles to ensure that they are in good working order and are not overloaded.
- Road and stormwater management infrastructure on Site shall be maintained by the Contractor so as to facilitate traffic safety. Road borders must also be regularly maintained to ensure vegetation remains short. This will enable roads to function as firebreaks.
- Gravel roads shall be sprayed with water or, where available, molasses to limit the generation of dust (where economically viable and environmentally acceptable). If the utilization of water or molasses to limit dust generation on gravel roads is not possible for these reasons, an appropriate dust suppressant must be used for this purpose.
- Any potential road hazard or vehicle defect which may render a vehicle or road unsafe for use shall be immediately reported to the Project Managers of the contractor who shall ensure that the vehicle/road is not used until the necessary repairs have been undertaken.

Maintenance and repairs of vehicles and equipment on sites:

- Where possible and practical, all maintenance of vehicles and equipment shall take place in a workshop area.
- During servicing of vehicles or equipment, a suitable drip tray shall be used to prevent spills onto the soil, especially where emergency repairs are conducted outside the workshop area.
- Leaking equipment shall be repaired immediately or be removed from site to facilitate repair.
- All potentially hazardous and non-degradable waste shall be collected and removed to a registered waste site.
- Workshop areas shall be monitored for oil and fuel spills and such spills shall be cleaned and re-mediated to satisfaction.
- Should emergency repairs be necessary, drip trays or tarpaulins must be utilised to ensure the collection of the oil. The area for emergency repairs should be identified by the site manager.
- Only emergency repairs shall be allowed on site and a drip tray shall be used to prevent oil spills.



- The implementer must ensure that delivery drivers and plant operators are informed of all relevant procedures and restrictions required ensuring compliance with this document.
- All vehicles and equipment must be well maintained to ensure that there are no oil or fuel leakages.
- The following shall apply:
- All contaminated soil / yard stone shall be removed and be placed in containers for further disposal;

### **Routing of Traffic, Speed Limits and Signage**

Routing and direction of traffic and site access: The movement of all vehicles to and from Site shall be along designated public roads and site access roads. The most appropriate route for large Project vehicles (such as trucks and buses) transporting equipment, materials and employees (along public roads) to and from the Site shall be determined by the Contractor in consultation with the local district council, local road traffic authorities and the local community. A copy of the approved routes must be maintained on Site together with this Plan.

Any anticipated or scheduled traffic delays occasioned by Project vehicles (such as abnormal loads, i.e. the transformers) should be coordinated with local traffic authorities in advance.

The Route: The route utilized for transporting equipment to and from the Site should, as far as possible, avoid urban and residential areas, and should avoid areas of high pedestrian traffic (such as schools and trading centers) so that the interaction of pedestrians with all Project-related traffic will be minimized as far as reasonably possible. No deviation from approved access routes must be allowed by the implementer, unless roads forming part of the approved routes are closed for any reason. Where traffic delays due to transport requirements for the Project are likely, the implementer must liaise and coordinate such events with the responsible authorities.

A designated site access to the Site must be created to ensure safe entry and exit. The Site access will be clearly sign posted and shall not be located so as to cause a traffic risk.

The location and access roads shall be informed by road-use safety requirements and shall seek to limit the impact of traffic on neighboring landowners. The movement of all vehicles within the Site must be along designated roadways. Where possible, existing roads on Site shall be used as access roads.

Adequate and appropriate traffic warning signage must be erected where applicable, along transport routes and access roads.

The implementer shall take preventative measures e.g. screening, muffling, timing, pre-notification of affected parties to minimise complaints regarding noise and vibration nuisance from sources.

Vehicle speed on site shall be restricted to 20km/h for construction vehicles and 30km/h for other motor vehicles.

Fine material which can easily be blown off by wind must be covered during transportation when travelling on public roads.

Deliveries must be scheduled for off-peak hour traffic times.

All trucks and vehicles removing spoil from the site via a public road must have load areas and must be covered by a tarpaulin (plastic/synthetic sheets covers) to prevent rocks and spoil falling onto the road surfaces. Should the covering of vehicles not be possible, vehicles are only to be loaded to a capacity of 80% of the maximum capacity of the vehicle. Pickups and trucks transporting load will have closed tail gates during transportation.

All drivers and operators are to have licences for driving and moving of plant on site.

Speed limit:

- The speed limit on the Site and access roads shall be 20km/h for construction vehicles and 30km/h for light vehicles and passenger vehicles.
- All speed limits applicable to public roads shall be strictly adhered to by all drivers operating vehicles as part of the Project.
- The failure to adhere to the prescribed speed limits is an offence and disciplinary action may be taken by PIU.

Signage:

It is the responsibility of the Project Managers of the implementer in consultation with the Safety Officer to ensure that signage is conspicuously placed at appropriate locations along all access roads, and public roads (in consultation with the relevant traffic authorities) to indicate the following:

- Road hazards such as blind or sharp corners or loose gravel, speed bumps;
- Warning of construction vehicles operating in the area;
- Appropriate speed limits;
- Turning traffic;
- The Site access;
- Indicating sensitive areas e.g. school, children crossing, church, medical facility, etc.;
- Routes to be used by construction vehicles, where appropriate;
- That caution should be taken by motorists or pedestrians;
- No-go areas for vehicles; and
- Any traffic control information which may be relevant in the circumstances such as temporary road closures, detours, or lane reductions
- All project vehicles will be given code numbers conspicuously marked on the body, for example "T04" for easy identification by the public and the officers in case of any eventualities like hit and run accidents.
- Any signage erected in terms of this Plan must be secured against being blown over or out of position by the wind or by-passing traffic. In addition, they should be located so as to provide adequate warning of hazards. Signs located on two-way roads should be visible to traffic traveling in both directions, and care should be taken to ensure that signs are not obscured by vegetation or dirt.

## **Pedestrian and Passenger Safety**

All personnel transported to and from the Site shall be safely accommodated in appropriate passenger vehicles. No employee or member of public shall be transported on the back of open trucks or in grader bins. The Safety Officer shall ensure that this requirement is adhered to at all times.

All vehicles transporting employees shall be appropriately maintained and shall not carry more passengers than the number of persons for whom seating accommodation is provided.

Assembly points for passengers embarking passenger vehicles shall be located a safe distance from areas/routes of high vehicle traffic. Roads and areas used by construction vehicles shall, as far as possible be avoided by all personnel. Designated pedestrian routes shall be demarcated where appropriate.

Vehicle and pedestrian safety shall be emphasized in the Safety Induction Training required to be provided by PIU/PCU. All employees and construction personnel shall be trained and informed as to the dangers and risks posed by construction and other traffic, such training shall also include appropriate precautionary measures required to be undertaken to facilitate safe and efficient traffic management (e.g. checking for traffic before crossing roadways and utilizing designated pedestrian routes). Drivers shall be adequately trained in the recognition and avoidance of road hazards, vehicle maintenance and safety requirements.

Arrangements shall be made to ensure that pedestrians, livestock, cyclists and motorcyclists are kept clear of site vehicles and mobile plant by providing adequate traffic routes and other controls.

In as much as it is reasonably practical, eliminate or minimise the need for reversing.

In instances where reversing cannot be eliminated, pedestrian exclusion zones will be created so far as is reasonably practical.

Where reversing cannot be eliminated and pedestrian cannot be excluded, a competent traffic marshal shall be used to guide the vehicle from a position of safety.

All vehicles being used for transport of goods shall:

- Be driven in a manner which is safe.
- Be loaded in a way that it can be driven, operated or towed safely.
- Have means to provide adequate visibility to the operator.
- Have suitable steps taken to prevent unintended movement of the vehicle; and
- Have the person in control of the vehicle able to give adequate warning to any person liable to be at risk from movement of the vehicle

Any vehicle leaving the site will have clean wheels and bodywork free of loose materials.

## **Stakeholder engagement**

The traffic safety procedures, transport routes and construction schedules intended to be applied during the construction phase shall be finalized in consultation with members of the local

community, the local authority and affected landowners, in accordance with the project Stakeholder Engagement Plan, prior to the commencement of construction activities.

The scope of such engagement should include the designation of routes for construction vehicles, procedures for complaints and emergency procedures shall be concluded in consultation with local community members, affected land owners and local emergency and traffic authorities.

In this regard, appropriate measures shall be taken to ensure that:

- The routes used by construction vehicles (as far as possible) avoid areas of high pedestrian traffic;
- Adequate signage is used to warn local community members of hazards (e.g. site access, construction vehicles turning);
- Information dissemination and awareness is conducted to inform community members of increased traffic risks and appropriate precautionary measures; and
- Community members are aware of the Contractors' construction (and delivery) schedules.

### **Transport of Equipment and Materials**

It is the responsibility of the implementer (for the duration of the construction phase) to ensure the following:

- All equipment and/or materials transported to or from Site shall be appropriately secured to, or contained in, vehicles.
- No construction vehicles shall be loaded in excess of its manufacturer-specified weight bearing capacity.
- All vehicles used during the Project shall have the appropriate load-bearing capacity for the materials and/or equipment intended to be transported.
- Drivers shall be appropriately trained and permitted in driving techniques applicable to specific loads (e.g. hazardous substances) where necessary.

### **Emergency Response and Reporting of Hazards**

Prior to the commencement of the activity, local emergency services (ambulance and medical services, police and fire and rescue) shall be consulted by the implementer in relation to the availability of emergency services to attend to road accidents associated with the Project.

In the event that any traffic hazard is identified on Site by any person or Project personnel, such hazard shall be immediately reported to the Manager who shall take the appropriate measures to avoid an incident or accident being caused. The reported hazard shall be kept in the site OHS File, including how the hazard was mitigated/addressed. Fatality, severe injury or near miss will be reported to the World Bank within 48 hours. Minor incidents will be recorded and submitted through monthly progress reports.

Drivers of project vehicles will be required to undertake first aid training and all project vehicles shall carry first aid supplies, emergency markers, and applicable valid fire extinguishers which should be adequate to cater for the number of passengers carried on the vehicle in question. Vehicles will have working and operational hazard lights.

In the event that an accident occurs on-site or off-site, the on-site emergency procedure shall be followed. In the event that an accident occurs off-site, it shall immediately be reported to the relevant emergency service providers by the driver, and in the event that the driver is incapacitated, by any other passenger on such vehicle.

Surrounding community members should be sensitized of the existence of the Grievance Redress Mechanism (GRM) through which they can register their concerns including drivers' misconduct like over speeding and careless driving. Construction vehicles will be required to have conspicuously visible identification numbers (e.g T4) for easy identification and reporting by the community members.

### **Contingency Planning for Unexpected Events, Such as Extreme Weather Conditions, Accidents, or Delays.**

It is important for the implementer to reduce the impacts of delays caused by extreme weather conditions and other unforeseen emergencies by planning ahead and scheduling well. There should be Plan B and Plan C if possible. Weather is unpredictable but proper and accurate planning can help the contractors optimize their plans and resources around the expected delays. Should Plan A fail in the event of weather disturbances, at least it's easier to shift to Plan B without losing track when you have a construction software like Pro Crew Schedule to guide you.

**Prioritize Safety:** During the rain, it can still be possible to work on the site provided that it is complete with safety features intended for this kind of weather disturbance. But there are times when it's also impossible to work like during heavy downpours, electrical storms, and hail. So don't push for operations to continue otherwise, you would see some accidents happening. Not only that, it can also require rework like when you are trying to rush cement pouring or installation of steel bar frames.

For marginal weather that allows for some outdoor work, make sure workers have the proper garb and equipment. Treaded, non-skid footwear, gloves, hoods and other outerwear permits work in some conditions.

Health and safety risks are higher during most adverse weather spells. The hazards should undergo a thorough assessment to decide if work must stop until the conditions have cleared or if it can continue.

Firstly, risk management should begin with monitoring the closest weather stations to the construction site. This will provide a head start on planning for any adverse weather predictions, allowing the contractor to consider the risks before it arrives. However, bad weather might show up with little to no warning, meaning the contractors have no time to prepare. For this reason, planning for all available scenarios should be carried out before construction starts.

Each risk should be evaluated to see if it could be avoided, eliminated, reduced, transferred or accepted. The level of impact should also be graded either low, medium or high. For example, torrential rain might have a high impact since the water can cause erosion of materials. Flooding becomes more likely, which creates a serious risk of danger to life. Health and safety dangers combined with potential losses for materials and equipment means that action must be taken. At

this point, halting work is the only solution to eliminate the life-threatening risk. The risk management team for the construction site should begin looking at possible ways to reduce the impact on the workers without drastically increasing the time and cost of the project.

Extreme temperatures are usually easier to predict and plan around. For example, water should be provided, and breaks encouraged at regular intervals in extremely high temperatures. These risks can easily be mitigated to avoid delays.

## **Monitoring and Reporting**

**Monitoring:** Monitoring the performance of the traffic management plan is essential to evaluate its effectiveness and identify any areas for improvement. We will use various indicators and methods, such as traffic counts, travel time, crash data, and feedback surveys, to measure the impact of the traffic management plan on the traffic flow and the user satisfaction. We will also conduct regular audits and inspections to check the compliance and safety of the traffic management plan. Reports and findings should be documented, and recommendations suggested for future reference and learning.

**Reporting:** The implementer shall submit reports of all incidents, fires and property damage etc to the Engineer immediately after such occurrence, but in any case, not later than 24 hours of the occurrence.

In addition, periodic reports on safety shall also be submitted by the implementer to PIU from time to time. Compiled monthly reports of all kinds of incidents, fire and property damage to be submitted to the E&S Specialist as per prescribed formats. HSE incidents of site shall be reported to the PIU.

## **Annex 7 GBV/SEA/SH Risk Assessment and Action Plan**

This document aims to establish principles and procedures to assess and establish mitigation measures for the risks that may arise from the implementation of the project related to sexual exploitation and abuse and sexual harassment (SEA/SH), and other forms of Gender-Based Violence (GBV) under CERP. It provides an assessment of potential risks and propose measures to avoid/reduce their impact on the project and the communities. It is worth noting main mitigation measures are those under the PIU and implementing agencies which already have systems and procedures in place under World Bank-Funded Projects. This GBV/SEA/SH Risk Assessment and Action Plan is meant to provide indicative interventions which shall be achieved through the following:

- Identify pre-existing GBV risks and those that may be exacerbated or arise with project activities;
- Map GBV service providers in the surrounding project areas that can be used by beneficiaries;
- Identify other measures the project should undertake to reduce the risk of GBV;
- Develop an Action Plan to mitigate the identified risks;
- Disseminate the process for submitting and managing complaints related to GBV/SEA/SH to stakeholders and affected parties;

- Implement the action plan.

### **Concept - Gender-Based Violence (Gbv)**

The concept of gender refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women (GTZ, nd). Gender relations vary and change within the same society according to other social categories, such as race, class, age, sexual orientation, ethnicity, and religion. These factors do not act independently and create a system that reflects the "intersection" of multiple forms of discrimination (MGCAS, 2016). Gender-Based Violence (GBV) is referred to as any harmful act perpetrated against a person's will and based on socially constructed gender differences and unequal power positions between men and women sustained by patriarchy (Council of Europe, 2007). It includes acts that cause physical, mental, sexual harm or suffering, threats of such acts, coercion, and other deprivations of liberty, occurring in public or private life.

The terms violence against women and gender-based violence are often used interchangeably in literature and by women's rights advocates. However, GBV emphasizes the gender dimension, specifically the interconnection between (i) the subordinate status of women and (ii) the increased vulnerability to violence derived from unequal power relations and gender roles. The term GBV provides an opportunity to examine and understand the phenomenon of violence against women, shifting the focus from viewing women as victims to focusing on the gender and power relations between men and women created and maintained by gender stereotypes (UNFEM, 2001). In this context, women can be victims of GBV perpetrated by other women attempting to exercise patriarchal power, and it also means that men and boys can be victims of GBV, with particular attention to sexual violence, as in cases where they are considered "outside the traditional pattern" of gender roles. However, it is important to note that the vast majority of GBV victims are women. Gender-Based Violence (GBV) can take different forms described below:

- **Physical Violence:** Results in injuries, distress, and health problems. Typical forms of physical violence include beating, strangulation, pushing, and using weapons to attack the victim.
- **Sexual Violence:** Includes sexual acts, attempts to obtain a sexual act, acts of trafficking, or other acts directed against a person's sexuality without their consent.
- **Psychological Violence:** Acts or omissions aimed at controlling a person's behavior, actions, beliefs, and decision-making ability through manipulation, intimidation, insult, threat, isolation, humiliation, etc.
- **Property or Economic Violence:** Includes barriers imposed by the perpetrator to prevent the victim from accessing money or resources. Pressure not to work and stay at home or control of resources are clear examples of economic violence.
- **Political Violence:** Any practice or act of discrimination or verbal, psychological, physical, sexual, or economic violence, as well as threats of such acts or intimidation, that prevent or hinder victims' access to public or political office or the free exercise of their political career.
- **Sociocultural Violence:** Any practice that can endanger people's self-esteem, health and lives. Examples of sociocultural violence include female genital mutilation, early marriage, forced labor, forced sexual exposure, being prevented from socializing with other people, friends, family or neighbors, etc.

## Some examples of GBV

- a. **Domestic violence:** includes all acts of physical, sexual, psychological and economic violence that occur in the private sphere within the family, domestic unit or between intimate partners (former or current, even when not living together);
- b. **Sexual harassment** includes unwanted verbal, physical or other conduct of a sexual nature with the purpose or effect of violating a person's dignity. It can occur in a context of unequal power relations such as a workplace and includes verbal acts, touching without the person's consent, viewing pornography, etc;
- c. **Female genital mutilation (FGM)** is the ritual cutting or removal of part or all the external female genital organs. This violates women's bodies and often harms their sexuality, mental health, well-being and participation in their community and can even lead to death.
- d. **Forced marriage/ union** through force or coercion, including child or early marriage, when children marry before reaching the minimum age for marriage. It is important to note that in Mozambique it is more common to use the term forced union, since it is understood that a marriage by law only occurs when there is consent between two adult people.
- e. **Sexual Exploitation and Abuse:** Any actual or attempted abuse of a person's position of vulnerability, differential power or trust for sexual purposes, including, but not limited to, taking monetary, social or economic advantage of a person. Sexual abuse is further defined as “the actual or threatened/attempted physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions”.

## Context of GBV in Mozambique

### Legal Framework:

*Table 20: Summary of Relevant Legal Instruments on GBV/SEA/SH*

<i>Gender/GBV</i>	The National Plan to Prevent and Combat Gender Based Violence (2018-2021).
	United Nations Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), 1979. (Resolution No. 4/93 of June 2, 1993)
	The National Plan to Prevent and Combat Gender Based Violence (2018-2021).
	Law No. 29/2009 on Domestic Violence 2009
	The Law on Early and Forced Marriage (Law No. 19/2019).
	<u>Family Law 10/2004 of 25 August 2004</u>
	<u>Adoption of the Beijing Declaration and Platform for Action</u>
	Penal Code. Law No. 35/2014, of December 31.
	<u>Gender Policy and Implementation Strategy. Approved by the Council of Ministers in 2006.</u>
	<u>National Plan for the Advancement of Women 2010-2014.</u>
	<u>National Strategy for the Prevention and Elimination of Early Marriages in Mozambique (2015-2019). Approved in December 2015.</u>
	The National Plan to Prevent and Combat Gender Based Violence (2018-2021).

### Institutional Mechanisms



***Ministry of Health Order on Integrated Care for Victims of Gender-Based Violence:*** Establishes procedures to be followed by health units in caring for victims of gender-based violence, most of whom are women and girls. Establishes the relationship between the Health Unit and other services for survivors of gender-based violence, such as the Police. Determines the role of Health Agents and the protocols to be followed to identify and address cases of violence.

***Multisectoral Mechanism for Integrated Care for Women Victims of Violence:*** Develops a holistic approach in response to violence against women and girls by Government institutions and civil society. To include different needs in the response to violence against women, this document establishes the coordination and integrated care relationship of various actors, including the roles to be played by each. The main public institutions involved in multisectoral care are the Ministry of Interior, the Ministry of Health, the Ministry of Gender, Child and Social Action, and the Ministry of Justice. The Mechanism aims to improve care for survivors of violence against women by better coordinating the work and roles of different stakeholders and defining care protocols to standardize services offered by different professionals involved.

### **Context of the GBV Situation in Mozambique**

Data from a survey conducted by the Ministry of Gender, Child and Social Action in 2004 at the national level indicated that 54% of women reported having been victims of violence at least once during their lifetime, with physical and sexual violence being the most common. In 2011, the Human Development Index further indicated that 1/3 of all women between the ages of 15 and 49 stated they had suffered physical violence since the age of 15, and 25% said they had experienced violence frequently or in the 12 months prior to the survey. In the same survey, 12% of women declared themselves survivors of sexual violence, and 46% said they were survivors of domestic, sexual, or emotional violence by their partners (DHS: 2011). Gender-based violence, and more specifically sexual exploitation and abuse, are widespread practices in Mozambique, with women being the most affected. This can also include cases of prostitution, especially in urban areas, as a means of escaping poverty, where it is used to support families, as well as situations of sexual and emotional violence involving police officers and other government officials.

As the Project involves the construction of infrastructure (civil works), training and capacity-building activities through technical assistance, and the selection of beneficiaries, these activities increase the risk of GBV/SEA/SH. Nonetheless, considering that the project does not involve significant construction work and will not demand considerable number of labor from outside of the host community, the SEA/SH risk is considered moderate at the moment. The resulting labor influx is not expected to alter the dynamics of the community nor increase significantly the risk of illegal activities like sexual abuse and exploitation, other types of SEA/SH, and communicable and sexually transmitted STDs.

However, it must be noted that while in low or moderate numbers, the workers from outside the host communities are likely to exacerbate preexisting social problems and culturally accepted harmful practices like child marriage, particularly in rural areas known for high prevalence of GBV. This could increase the risks of SEA/SH associated with the project. Capacity support provided under component 4 of the project, will secure that the borrower is capable of building mechanisms and institutional capacity for responding to such risks and provide project's response to the risks.

## Mapping of GBV Service Providers

### *Public Service Providers*

The Multisectoral Mechanism for Integrated Care for Women Victims of Violence was established in 2012 under the leadership of the Ministry of Gender, Child and Social Action (MGCAS) with the aim of improving access to and availability of integrated care services for women victims of violence at all levels of operation, in coordination with Government entities and with the participation of civil society. This mechanism includes the following institutions: Ministry of Gender, Child and Social Action (MGCAS), Ministry of Health (MISAU), Ministry of Interior (MINIT), and Ministry of Justice, Constitutional and Religious Affairs (MJCR). There are three entry points to access the mechanism, namely:

1. **Integrated Care Centers (CAIS):** These centers integrate health, psychosocial, police, and legal services. There are 25 CAIS in the country, except in the provinces of Zambézia, Manica, Cabo Delgado, and Niassa.
2. **Family and Minor Victim of Violence Care Offices (GAFMVV):** These operate under the aegis of the Police of the Republic of Mozambique, with 25 offices and 351 care sections in the country.
3. **Civil Society Organizations:** At the national level and especially in areas covered by the project, there are civil society organizations, Community-Based Organizations, Non-Governmental Organizations, and other international organizations implementing initiatives in the area of GBV. It is also important to mention the role of community leaders as agents who play an important role in preventing GBV. Some programs, such as the United Nations Spotlight Initiative in some project locations like Nampula, and organizations like Pathfinder, Medicus Mundi, Save the Children, WLSA Mozambique, Muleide, Fórum Mulher, Gender Links, UN Women, UNICEF, and UNFPA, are some of the organizations working in this area.

Despite the existence of these services, there are gaps in service provision, especially at the district level, as some of these only have care offices that struggle to provide an adequate integrated response. Awareness sessions, integrated response, and case follow-up are some of the gaps. It is also important to mention that the weak criminalization of cases contributes to the low demand for services and the increase in GBV.

### *Non-State Organizations Working in the Protection of Women's Rights and GBV*

The table below presents the preliminary mapping of GBV service providers by non-state organizations (NGOs, CSOs, CBOs, Networks) at the national level. It is important to note that this mapping is subject to updates and further detailing, which is recommended to be done locally at the beginning of the project implementation.

*Table 21: Non-State Organizations Working in the Protection of Women's Rights and*

Name	Specific Activities in the Gender Area
AMMCJ – Mozambican Association of Women in Legal Careers	Legal Assistance and Psychosocial Support to GBV victims

AMODEFA – Mozambican Association for Family Development	Sexual and Reproductive Rights
AGA KHAN	GBV, women's economic empowerment, active voice, Promotion of gender equality in organizations
Ariel Gleiser	Sexual and Reproductive Rights and HIV/AIDS
Association of Women, Law and Development (MULEIDE)	Research and training of women in the informal sector, health training and HIV/AIDS prevention, and legal awareness training
CARE International	Gender and nutrition; Training on land law, family law, and gender-based violence; Gender and Social Inclusion in the Emergency Prevention and Response Program in Mozambique; Women's empowerment to achieve gender equality.
DKT – Íntimo	Women's Sexual and Reproductive Rights
FDC – Foundation for Community Development	Poverty eradication, advocacy, social justice, peacebuilding and national reconciliation, and social cohesion, women's, children's, and girls' rights
IRES – Media Strengthening Program	Coverage of issues related to Gender-Based Violence (Network of Focal Points in partner Community Radios)
LAMBDA	Defense of sexual minority rights
Magariro	Advocacy and defense of the rights of the most disadvantaged groups
N'weti	Communication for behavior change in health and gender; multimedia, Research, and Social Mobilization
PATHFINDER	Sexual and Reproductive Rights
Rede CAME	Prevention and combat of all forms of child abuse through education, advocacy, and awareness
WLSA – Women and Law in Southern Africa	Research on the situation of women's rights, advocacy, social mobilization on combating and preventing GBV

Source: [www.Joint.org.mz//public/assets/documentos/ongs\\_nacionais\\_que\\_actuam\\_no\\_pais](http://www.Joint.org.mz//public/assets/documentos/ongs_nacionais_que_actuam_no_pais)

### **Risk Analysis and Mitigation Measures in the Project Context**

The project involves activities that represent GBV/SEA/SH risks, particularly in activities related to civil works, selection and hiring processes, awareness-raising, and work with public institutions and communities, among others. However, if appropriate measures and mechanisms are applied to address these risks, they can be minimized. Table XX below presents the GBV/SEA/SH risks by Project component, mitigation measures, and verification indicators.

The project's Stakeholder Engagement Plan (SEP) describes the project's Grievance Redress Mechanisms, as well as the specific procedures to be carried in the case of SEA/SH complaints.

## Risk Assessment and Mitigation Measures for GBV Risks in the Project

Table 22: SEA/SH Risk Mitigation Measures

Risks and Considerations	Recommendations, Mitigation, and Prevention Measures	Execution Indicators	Responsible Party
<ul style="list-style-type: none"> <li>SEA/SH during training programs, information sessions, and access to electricity services due to frequent interaction, potentially creating a bond of "false trust" or through promises (material or monetary) to women and girls in rural areas, which can result in sexual involvement, early marriages, early pregnancies, or sexual harassment.</li> <li>GBV risks may be exacerbated due to poverty levels in project implementation areas.</li> </ul>	<ul style="list-style-type: none"> <li>Disseminate and ensure the signing of codes of conduct that include clauses on GBV/SEA to regulate the conduct and behavior of trainers during training/sensitization sessions. <ul style="list-style-type: none"> <li>Disseminate and ensure the signing of codes of conduct that include clauses on GBV/SEA to beneficiaries of credit lines to regulate conduct and behavior.</li> <li>Train trainers and facilitators in financial management on GBV/SEA and SH topics to pass on to beneficiaries in their sessions.</li> <li>Prioritize awareness campaigns using physical and digital media, such as community radios, television, pamphlets, and prioritize local actors for awareness actions, leaders, local NGOs, etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>% of trainers signing codes of conduct on GBV/SEA and SH in training and capacity-building sessions</li> <li># of trainers trained on GBV/SEA and SH</li> <li># of awareness campaigns on sanitation conducted</li> <li># of lectures on GBV/SEA and SH conducted</li> <li>Criteria for locating new sanitation facilities</li> </ul>	PIU Contractors/Consultants/Service Providers
<ul style="list-style-type: none"> <li>GBV/SEA/SH related to the labor selection process (especially the hiring of female labor) where women may be enticed for inclusion in subproject activities or promises of better salaries/better positions. This risk exists in all components involving direct engagement with beneficiaries. People in positions of power can be the main perpetrators.</li> </ul>	<ul style="list-style-type: none"> <li>Establish standards to be used in the labor selection process and institute different levels of verification in the selection process.</li> <li>Conduct GBV (prevention and sexual abuse, and sexual harassment) sessions at the workplace and inform workers about the risk of being sanctioned by law in case of violation.</li> <li>Follow up on GBV cases that occur in the workplace and hold perpetrators accountable to discourage similar practices and protect women in the workplace. This includes complaints made by beneficiaries.</li> <li>Preferably identify a woman in the workplace as a gender and GBV focal point to liaise and support women in case of related acts.</li> </ul>	<ul style="list-style-type: none"> <li>Standards and selection requirements created and used in all projects involving direct engagement with beneficiaries for access to services and resources.</li> <li># of lectures on GBV/SEA and SH conducted</li> <li>% of complaints followed up on in relation to the total number of reported cases</li> </ul>	PIU Contractors/Consultants/Service Providers
<ul style="list-style-type: none"> <li>Risk of perpetuating GBV/SEA and SH related to the absence of complaints and follow-up on cases either due to lack of mechanisms for this purpose or fear/reluctance of the victim to suffer reprisals and lose project benefits, which makes perpetrators feel</li> </ul>	<ul style="list-style-type: none"> <li>Develop and create codes of conduct in all subprojects with GBV and SEA risk to be signed by all involved.</li> <li>Implement the complaint mechanism in all subprojects with potential GBV risk, some of which may be based on books or complaint boxes.</li> </ul>	<ul style="list-style-type: none"> <li>% of institutions involved in the project that have a code of conduct on SEA and SH</li> <li>Existence and implementation of complaint</li> </ul>	PIU Contractors/Consultants/Service Providers

Risks and Considerations	Recommendations, Mitigation, and Prevention Measures	Execution Indicators	Responsible Party
<p>immune and continue similar acts, normalizing GBV within the project.</p> <ul style="list-style-type: none"> <li>The consequences of GBV/SEA can have serious consequences for the project and for women, e.g., affecting their physical and psychological health, preventing them from continuing their activities, and some women and girls may even drop out of participating/benefiting from the project.</li> </ul>		<p>mechanisms that include GBV cases</p> <ul style="list-style-type: none"> <li>% of GBV complaints reported through the complaint mechanism and followed up/resolved</li> </ul>	
<ul style="list-style-type: none"> <li>Better conditions provided to community workers involved in the project can lead to a high risk of early or forced marriage, especially in communities where marriage to an employed man is seen as the best subsistence strategy for a teenager. Additionally, higher wages for workers in a community can lead to an increase in transactional sex.</li> </ul>	<ul style="list-style-type: none"> <li>Community awareness on GBV/SEA, risk of early marriages, and early pregnancy</li> <li>Implement complaint management mechanisms at all levels, including their availability to the community</li> <li>Identify a woman in the workplace or community as a gender and GBV focal point to liaise and support women and girls in case of related acts.</li> <li>Engage with civil society organizations for community awareness actions and to reinforce the application of Law 24/2019 to hold perpetrators criminally accountable.</li> </ul>	<ul style="list-style-type: none"> <li>Codes of Conduct emphasizing GBV/SEA and SH issues signed by project workers</li> <li>Operational complaint lines (complaint book/box, green line for complaints)</li> <li># of GBV cases against women and girls in project implementation areas</li> </ul>	<p>PIU Contractors/Consultants/Service Providers</p>
<ul style="list-style-type: none"> <li>When women are hired to carry out activities within the project, there is a risk of economic violence characterized by the retention of women's salaries by their partners, making the woman financially dependent and without control over her salary.</li> </ul>	<ul style="list-style-type: none"> <li>The project should establish links with national civil society organizations, community-based organizations, non-governmental organizations, and other international organizations that implement initiatives around Gender-Based Violence and should convey knowledge about types of violence and their consequences. During awareness campaigns, community leaders, religious leaders, and other influential people should be part of the knowledge transmission process.</li> </ul>	<ul style="list-style-type: none"> <li># of awareness campaigns conducted</li> <li># of meetings with community leaders, religious leaders, and other influential people conducted</li> </ul>	<p>PIU Contractors/Consultants/Service Providers</p>
<ul style="list-style-type: none"> <li>Low awareness of GBV by men and women in project areas can lead to "neutralization, normalization, and silencing," perpetuating cases, which can negatively affect women's human rights and their participation and benefits from the project. This risk can be exacerbated in host communities for displaced people (focus on women and girls) from conflict-affected areas or in the case of women and girls in accommodation centers for internally displaced persons.</li> </ul>	<ul style="list-style-type: none"> <li>Allocate and train community facilitators in different projects on GBV issues to monitor them in communities with beneficiaries, encourage/facilitate reporting and follow-up.</li> <li>Map available services in the community and provide information about them, including a complaint flowchart.</li> <li>Protect and provide security to victims (e.g., no job loss/demotion/retaliation) to encourage other women in the same situation to report and discourage similar acts by perpetrators (e.g., establish and implement protocols for</li> </ul>	<ul style="list-style-type: none"> <li># of community facilitators allocated to projects monitoring GBV cases in communities (disaggregated by sex)</li> <li>List of organizations and services available to address GBV cases at the project site and nearby (disaggregated by type of services, victim support services)</li> </ul>	<p>PIU Contractors/Consultants/Service Providers</p>

Risks and Considerations	Recommendations, Mitigation, and Prevention Measures	Execution Indicators	Responsible Party
	managing confidential information related to GBV cases, including survivor (victim) and complainant data).	<ul style="list-style-type: none"> <li>• % of GBV cases presented and followed up (against reported cases)</li> </ul>	
<ul style="list-style-type: none"> <li>• Risk of sexual harassment perpetrated by project workers taking advantage of their position of power to abuse and exploit colleagues or women and girls in the community, including other forms of violence (e.g., psychological, economic, etc.). This is a common aspect when involving people in situations of social and/or economic vulnerability, giving them little possibility to resist the pressure and report – as they fear losing the opportunities offered to them.</li> </ul>	<ul style="list-style-type: none"> <li>• Disseminate and ensure the signing of codes of conduct that include clauses on GBV/SEA/SH to regulate the conduct and behavior of project workers during their activities and interactions with colleagues and the community (available in the Project Labor Management Procedure).</li> <li>• Train project workers on GBV/SEA and SH topics.</li> <li>• Raise community awareness on GBV/SEA and SH and complaint mechanisms.</li> <li>• Implement the complaint management mechanism, including awareness for effective use and map prevention and response actors to GBV in communities adjacent to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• % of workers signing codes of conduct on GBV/SEA and SH in training and capacity-building sessions</li> <li>• # of awareness meetings on GBV conducted</li> <li>• # of workers from companies contracted by the project trained on GBV/SEA</li> <li>• Existence and functioning of a complaint mechanism that includes GBV/SEA cases</li> </ul>	PIU Contractors/Consultants/Service Providers
<ul style="list-style-type: none"> <li>• Risks of sexual violations and sexual abuse during work potentiated by the implementation of fragile infrastructure (sanitation) that does not meet safety requirements, especially for women (sanitation infrastructure distant from residences, lack of lighting, and without mechanisms to lock from the inside, including infrastructure for men and women close to each other).</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of safe infrastructure (well-lit locations, easy access) with separation for use by women and men of different ages.</li> </ul>	<ul style="list-style-type: none"> <li>• # of recommendations resulting from community consultations</li> <li>• Level of satisfaction of female workers with the use of infrastructure provided by the project</li> </ul>	PIU Contractors/Consultants/Service Providers
<ul style="list-style-type: none"> <li>• The exclusion of women in components associated with construction is greater, as it involves activities generally identified as male stereotypes.</li> </ul>			PIU Contractors/Consultants/Service Providers

## Annex 8: Incident Report Form

The following report form is to be completed by the PIU/PCU within 24 hours in the case of an incident/accident:

Table 23 Incident report form

B1: Incident Details			
Date of Incident:	Time:	Date Reported to PIU:	Date Reported to WB:
Reported to PIU by:	Reported to WB by:	Notification Type: Email/" phone call/media notice/other	
Full Name of Main Contractor:		Full Name of Subcontractor:	
B2: Type of incident (please check all that apply) <sup>1</sup>			
Fatality <input type="checkbox"/> Lost Time Injury <input type="checkbox"/> Displacement Without Due Process <input type="checkbox"/> Child Labor <input type="checkbox"/> Acts of Violence/Protest <input type="checkbox"/> Disease Outbreaks <input type="checkbox"/> Forced Labor <input type="checkbox"/> Unexpected impacts on heritage resources <input type="checkbox"/> Unexpected impacts on biodiversity resources <input type="checkbox"/> Environmental pollution incident <input type="checkbox"/> Dam failure <input type="checkbox"/> Other <input type="checkbox"/>			
See Annex for definitions			
B3: Description/Narrative of Incident			
<i>For example:</i> I. What is the incident? II. What were the conditions or circumstances under which the incident occurred (if known)? III. Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions? IV. Is the incident still ongoing or is it contained? V. Have any relevant authorities been informed?			
B4: Actions taken to contain the incident			
Short Description of Action	Responsible Party	Expected Date	Status
<b>For incidents involving a contractor:</b> Have the works been suspended under Contract GCC8.9? Yes <input type="checkbox"/> ; No <input type="checkbox"/> ; Name of Contractor:			
B5: What support has been provided to affected people			

The following report form will be completed by the PCU following investigations into an incident:

Table 24 Incident form to be completed after investigation

C3a: Fatality/Lost time Injury information						
Cause of fatality/injury for worker or member of the public (please check all that apply):						
1. Caught in or between objects <input type="checkbox"/> 2. Struck by falling objects <input type="checkbox"/> 3. Stepping on, striking against, or struck by objects <input type="checkbox"/>						
4. Drowning <input type="checkbox"/> 5. Chemical, biochemical, material exposure <input type="checkbox"/> 6. Falls, trips, slips <input type="checkbox"/> 7. Fire & explosion <input type="checkbox"/>						
8. Electrocution <input type="checkbox"/> 9. Homicide <input type="checkbox"/> 10. Medical Issue <input type="checkbox"/> 11. Suicide <input type="checkbox"/> 12. Others <input type="checkbox"/>						
Vehicle Traffic: 13. Project Vehicle Work Travel <input type="checkbox"/> 14. Non-project Vehicle Work Travel <input type="checkbox"/> 15. Project Vehicle Commuting <input type="checkbox"/>						
16. Non-project Vehicle Commuting <input type="checkbox"/> 17. Vehicle Traffic Accident (Members of Public Only) <input type="checkbox"/>						
Name	Age/DOB	Date of Death/Injury	Gender	Nationality	Cause of Fatality/Injury	Worker (Employer)/Public
C3b: Financial Support/Compensation Types (To be fully described in Corrective Action Plan template)						
1. Contractor Direct <input type="checkbox"/> 2. Contractor Insurance <input type="checkbox"/> 3. Workman's Compensation/National Insurance <input type="checkbox"/>						
4. Court Determined Judicial Process <input type="checkbox"/> 5. Other <input type="checkbox"/> 6. No Compensation Required <input type="checkbox"/>						
Name	Compensation Type		Amount (US\$)	Responsible Party		
C4: Supplementary Narrative						



**C1: Investigation Findings**

For example:

- I. where and when the incident took place
- II. who was involved, and how many people/households were affected
- III. what happened and what conditions and actions influenced the incident
- IV. what were the expected working procedures and were they followed
- V. did the organization or arrangement of the work influence the incident
- VI. were there adequate training/competent persons for the job, and was necessary and suitable equipment available
- VII. what were the underlying causes; where there any absent risk control measures or any system failures

**C2: Corrective Actions from the investigation to be implemented (To be fully described in Corrective Action Plan)**

Action	Responsible Party	Expected Date

The following incident form will be completed by the PIU in the case of SEA/SH cases, within 24 hours:

Table 25 Incident Report Form for SEA/SH cases

B1: Incident Details		
<b>Date of incident intake by the project/GM:</b> <b>Reported to project/GM by:</b> <input type="checkbox"/> Survivor <input type="checkbox"/> Third party <input type="checkbox"/> Other: _____ <b>Is a record of this incident in GM?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>	<b>Date Reported to PIU:</b> <b>Reported to PIU by:</b> <input type="checkbox"/> GM operator <input type="checkbox"/> Directly, by Survivor <input type="checkbox"/> Directly, by third party <input type="checkbox"/> Other: _____	<b>Date Reported to WBG:</b> <b>Reported to WBG by:</b> <input type="checkbox"/> PIU <input type="checkbox"/> Directly, by Survivor <input type="checkbox"/> Directly, by third party <input type="checkbox"/> Other: _____
B2: Incident type (please check all that apply) See Appendix 1 for definitions		
Sexual exploitation <input type="checkbox"/> Sexual abuse <input type="checkbox"/> Sexual harassment <input type="checkbox"/>		
B3: Provide the following details from the GM record		
Age of survivor (if recorded in GM): Sex of survivor (if recorded in GM): Male <input type="checkbox"/> Female <input type="checkbox"/> Other <input type="checkbox"/> Is the survivor employed by the project (as indicated by the survivor or complainant and reported in the GM)? Yes <input type="checkbox"/> No <input type="checkbox"/>	Have the national legislation or mandatory reporting requirements been followed? Yes <input type="checkbox"/> No <input type="checkbox"/> Was the survivor referred to service provision? <sup>29</sup> Yes <input type="checkbox"/> No <input type="checkbox"/> Is the alleged perpetrator employed by the project (as indicated by the survivor or complainant and reported in the GM)? Yes <input type="checkbox"/> No <input type="checkbox"/>	
B4: Basis for further action		
a. Has the complainant provided informed consent to lodge a formal complaint? Yes <input type="checkbox"/> No <input type="checkbox"/> b. Does the employer have a suitable administrative process and capacity in place to investigate misconduct relating to SEA/SH in a survivor-centered way? Yes <input type="checkbox"/> No <input type="checkbox"/>	c. Has the survivor provided informed consent to be part of an investigation into misconduct? Yes <input type="checkbox"/> No <input type="checkbox"/> d. Has the complaint been filed anonymously or through a third party? Yes <input type="checkbox"/> No <input type="checkbox"/>	
If the answer to any of these questions is no, has the GM assessed the risks and benefits of carrying out an investigation into the alleged misconduct, taking into account the survivor's safety and wellbeing? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Will an investigation into misconduct be undertaken in addition to an investigation into adequacy of project systems, processes or procedures? Yes <input type="checkbox"/> No <input type="checkbox"/>		

The following form will be completed by the PIU in case of SEA/SH cases – following investigations:

Table 26 SEA/SH incident report form after investigations

<b>C1: Findings of the investigation</b>		
Have sanctions against a perpetrator been recommended as part of an investigation into misconduct? Yes <input type="checkbox"/> No <input type="checkbox"/>	Has an investigation into adequacy of project systems, processes or procedures been undertaken? Yes <input type="checkbox"/> No <input type="checkbox"/>	
<b>C2: Corrective actions to be implemented (To be fully described in Corrective Action Plan)</b>		
<b>Short Description of Action (SEA/SH examples)</b>	<b>Responsible Party</b>	<b>Timeline for completion/Status</b>
<i>Referral of Survivor to holistic care services</i>		
<i>Undertake disciplinary investigation in accordance with GM timelines and confirmed process</i>		
<i>Disciplinary actions, including sanctions, to be applied following misconduct investigation by Employer</i>		
<i>Increased training on Codes of Conduct (CoC)</i>		
<i>Audit of implementation of SEA/SH safety mitigation</i>		
<i>Strengthened awareness training on project-related risks, CoC and how to report incidents for project-affected community</i>		
<i>Training for project supervisors on the need to follow guidelines of behaviour in CoC and their supervisory responsibilities</i>		
<i>Plan to improve coverage/quality of service provision</i>		
<i>Any other system strengthening measures or corrections for system failures that are necessary</i>		
<b>C3: For incidents involving a Contractor:</b>		
Has the incident been referred to the DAAB? Yes <input type="checkbox"/> No <input type="checkbox"/>		

## Annex 9: Chance Finds Procedure

### A. Introduction

The World Bank's NAS8 on Cultural Heritage recognizes that cultural heritage promotes continuity in tangible and intangible forms between the past, present, and future, and aims to: (i) Protect cultural heritage from the negative impacts of project activities and support its preservation; (ii) Address cultural heritage as a fundamental aspect of sustainable development; (iii) Promote relevant consultation with stakeholders regarding cultural heritage; (iv) Promote the equitable distribution of benefits from the use of cultural heritage.

The cultural dimension in Mozambique is a sensitive element to be considered, regarding the intrinsic relationship between the population and elements of nature, constituting the living expression of the socio-organizational and territorial dynamics structuring traditional communities. Some trees (such as Ntondo and Baobab), forests, and sacred sites are important spiritual and social focal points in the lives of traditional communities and can sometimes be considered protected areas (zones) of historical and cultural value (Forest and Wildlife Law - No. 10/99). Interference in cemeteries and trees considered sacred affects the beliefs and values of the resident population in these areas and the solidarity vision of these communities, which is the basis of social protection against situations such as natural disasters (drought and floods), food insecurity, diseases, orphanhood, and/or widowhood. The preservation of the landscape (natural) heritage and the relationship with natural elements as a sustainable preservation strategy in the region are still sources of pride, education, preservation of ancestral family heritage, or community solidarity and identity ties.

Through increasing motivation and awareness, this procedure aims to raise awareness among the target audience about the importance of preservation actions and the rescue of the local historical-cultural past. The Cultural Goods Prospecting and Rescue Procedure seeks to value the historical-cultural heritage of the region affected by the enterprise, considering the specificity of local cultural practices and customs, focused on socio-environmental responsibility. It also considers the dialogue and transparency of actions related to the project, conducted according to the country's current legislation and the need to understand the socio-territorial dynamics of coexistence and culture of traditional communities concentrated around the enterprise.

### B. Objectives

- Disseminate information about the importance of conserving local cultural heritage as an educational and socio-environmental and cultural communication strategy, among social agents directly and indirectly involved in the enterprise;
- Implement technical control and monitoring to safeguard any historical-cultural or archaeological remains that may be found during excavations or removals (Cf. Archaeological Heritage Protection Regulation - Decree No. 27/94 of July 20. Fortuitous Discovery, Article 10);
- Contribute to the development of a cultural heritage management strategy in areas of historical-cultural value to be impacted, including the use of rural cemeteries, places of worship, and trees considered 'sacred' by local communities;
- Value the historical-cultural heritage of the affected region, respecting current legislation and the specificity of local cultural practices and customs by the entrepreneur;
- Ensure the safeguarding and monitoring measures of tangible and intangible assets;
- Increase motivation and interest in valuing the archaeological, historical-cultural heritage of the region.

### C. Control and Treatment of Possible Remains and Sacred Elements

This process includes the following activities:

1. **Survey and Analysis of Information for Possible Remains Found**
  - The survey will be conducted during environmental impact studies or project screening by a competent team. During construction works, before opening or continuing a work front, a prior assessment of the existence of archaeological and cultural remains that may be affected by the activities will be carried out.
  - If work teams encounter remains, the competent authorities must be immediately notified. A Cultural Resources Management Plan must be produced and implemented (according to national legislation) if project activities impact the site.
2. **Systematic Periodic Monitoring and/or Verification**
  - If remains are found, the following activities will be carried out:
    - Analysis and study of the physical material culture collected during excavations for prospecting, safeguarding possible remains;
    - Preparation of a conclusive technical text on the material found in coordination with local and governmental authorities (Provincial Directorate of Culture and Tourism).

#### **D. Valuing the Cultural Heritage of the Region**

This program line aims to:

- Increase the awareness of various segments that make up the target audience about the importance of preservation actions of historical-cultural heritage;
- Disseminate basic notions about the regional historical and cultural context and the importance of preserving them;
- Provide information to workers involved in the work about the importance of preserving the existing natural heritage, as well as the means that will be applied for archaeological prospecting and rescue, if applicable.

It encompasses two aspects:

- **Awareness and Sensitization Actions**
  - Detailing strategies and work plans in conjunction with the communication team, articulating with the Social Communication Plan.
  - Preparation of informative-explanatory didactic material.
  - Conducting lectures to disseminate basic notions about the historical and cultural context of the region and its importance as cultural heritage, organized with different languages and approaches depending on the specific audiences.
  - These activities can be integrated into the Environmental Education Program and the Social Communication Program.
- **Incentive Actions**
  - Holding meetings with government representatives, formal leaders, community leaders, and opinion leaders who work in the cultural area.
  - Encouraging the integration of existing cultural valorization actions and projects.
  - Encouraging cultural education measures and promoting the development and establishment of a Community Cultural Center in the impacted areas.

#### **E. Procedure**

If someone believes they have found any archaeological material or cultural heritage, they should immediately stop work and follow the procedure below:

1. All construction activity near the area must cease immediately and the area must be isolated.
2. The location of the discovery will be recorded (coordinates) and all remains will be left intact on site.
3. The project archaeologist will be contacted, or local authorities will be notified.
4. The potential significance of the remains will be assessed, and mitigation options will be identified.
5. If the significance of the remains is considered sufficient to justify additional actions and there are no possibilities to avoid them, the project archaeologist, in consultation with the Government Directorate representative overseeing Archaeology issues, will determine the appropriate course of action.
6. In the case of human remains, if the remains are assessed as archaeological, then the Provincial Government Directorate overseeing Archaeology issues will be consulted to determine how to handle the matter.
7. Options may include avoidance or respectful removal and reburial.
8. If human remains are found and are not archaeological, the remains will be exhumed according to applicable legislation.
9. Activities will be halted in that work front until the removal work is completed.

**F. Monitoring, Follow-up, and Performance Indicators**

Performance indicators will be used to measure and monitor performance against the effectiveness of the mitigation and control measures described in this Plan. Performance indicators must be measurable against a specific goal. Table below describes the performance indicators applicable to the Cultural Heritage Management Procedure and describes how they will be measured, the goals, and the monitoring frequency. Only indicators that are specific and clearly measurable have been included.

<b>Performance Indicator</b>	<b>Measurement</b>	<b>Goal/Reference</b>	<b>Monitoring Frequency</b>
Communications of casual discoveries to authorities	Record of discoveries and evidence of communications made to competent authorities	All discoveries without exception must be communicated to competent authorities	Continuous
Awareness and training on cultural heritage	Record of training and awareness actions on the requirements of this plan and the types of cultural heritage assets likely to occur in the Project areas	All workers involved in earthworks, excavations, deforestation must be trained and made aware	Monthly