



ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG) AND SUSTAINABILITY STRATEGY

CHILWA HEAVY MINERAL SANDS PROJECT

Rev 1 | 27/09/2024

Supported by Environment and Social Sustainability (ESS)



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ACRONYMS AND ABBREVIATIONS

BFS	Bankable Feasibility Study
CHW	Chilwa Minerals Limited
DFS	Detailed Feasibility Study
EHS	Environmental Health and Safety
ESIA	Environmental and Social Impact Assessment
EP	Equator Principles
EPL	Exploration Prospecting Licence
ESMP	Environmental and Social Management Plan
ESG	Environment, Social and Governance
ESS	Environmental and Social Sustainability
GHG	Greenhouse Gas
GIIP	Good International Industry Practice
GVH	Group Village Head
HMS	Heavy Mineral Sands
HSE	Health, Safety and Environment
HSEC	Health, Safety, Environment and Communities
HSECMS	Health, Safety, Environment and Communities Management System
IFC	International Finance Corporation
ISO	International Organization for Standardization
ILO	International Labour Organisation
MEPA	Malawi Environment Protection Agency
NGO	Non-Governmental Organisation
OHS	Occupational Health and Safety
PAP	Project Affected Party
PFS	Pre-feasibility Study
PS	Performance Standard(s)
SDG	Sustainable Development Goals
SEP	Stakeholder Engagement Plan
SIP	Supplementary Information Package
UN	United Nations
UNESCO	Nations Education Scientific and Cultural Organisation
WMA	Water Management Area

KEY TERMINOLOGIES

This Strategy uses several key terminologies which are defined below.

Environment, Social and Governance (ESG)	ESG typically refers to measurement and reporting of risk management and compliance with key international ESG standards, frameworks and guidelines used by investors, as well as national ESG requirements. The term is often used in the context of ensuring that project ESG risks are proactively measured, managed and reported on.
Health, Safety, Environment and Communities (HSEC)	HSEC is similar to ESG except that it focuses on implementation at the project level of key ESG requirements. The CHW HSEC Manager is responsible for developing an HSECMS that ensures these issues are appropriately managed from exploration to mine closure, in line with national requirements and international standards.
Sustainability	Sustainability is concerned with how key sustainability targets and objectives are integrated into the company's business model. Important sustainability concepts include the Sustainable Development Goals (SDGs), circularity, climate adaptation and resilience, resource use minimisation and numerous others.

EXECUTIVE SUMMARY

Chilwa Minerals Limited (hereafter referred to as per the ASX ticker “CHW”, or as the “Company”, “we”, or “our”) is currently undertaking mineral exploration activities in southern Malawi through our subsidiary Chilwa Minerals Africa. Our subsidiary holds an Exploration Prospecting Licence (EPL) granted by the Malawian Government in 2022 to undertake exploration activities at Chilwa Heavy Mineral Sands Project (the “Project”).

Our Project falls within the jurisdiction of the administrative region of Zomba, Machinga and Phalombe Districts, in Southern Malawi. The EPL covers an area of 849 km² bordering the northern, western, and southern shores of Lake Chilwa.

The exploration activities for the Project will be implemented in a staged manner, with the Mposa deposit as the initial area of focus and, Namasalima, Bimbi and Mpyupyu deposits identified for further exploration. The Project will host mining operations that will focus on specific identified areas of mineral deposits, as well as infrastructure related to the operations. The Project is still in its early stages of exploration, hence the exact distribution of minerals to be mined and the location of infrastructure is not fully determined.

This Strategy is our first step in setting out our commitments regarding Environment, Social and Governance (ESG) issues. To reflect Good International Industry Practice (GIIP), we are setting our ESG goals and objectives prior to any mining activities taking place.

We strongly believe that Malawi’s heavy mineral sands resources will be a key component of the green energy transition, and that through sustainable consumption and production patterns this should boost the local and regional economy through job creation and the provision of goods and services.

Due to the importance of Lake Chilwa, the Company commits to put in place stringent ESG safeguards. Furthermore, and where feasible, the Company will contribute to the restoration of Lake Chilwa by partnering with and providing aid to Malawian organisations that manage the lake and its environs. We also acknowledge that the communities who live within and in proximity to the area covered by our current EPL should not just benefit from the economic boost that the Project will bring but also hold us accountable as co-stewards of the land and environment within which the Project is situated.

To safeguard our host communities and the environment in which we operate in, we commit to applying the most stringent national and international requirements concerning ESG. While the Project is not affiliated with the International Finance Corporation (IFC), it has adopted the IFC Performance Standards on Environmental and Social Sustainability (PSs) as an appropriate ESG framework.

Given the above, our Company endeavours to:

- Conform to the requirements of Malawian laws, regulations and permits that pertain to environmental and social issues in the first place.
- Meet the requirements of the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (PSs).
- Align with the relevant United Nations (UN) Sustainable Development Goals (SDGs).
- Maximise environmental benefits by contributing to improving the lake’s condition and biodiversity.
- Consult with communities, government, representatives managing Lake Chilwa, and other stakeholders to ensure participative, win-win outcomes.
- Ensure that the economic benefits of our mine are felt by our host communities, including vulnerable groups.
- Implement programmes to maximise the employment and skills development training of Malawians, with priority given to our host communities.

- Improve our management systems, our team and our actions to ensure a profitable Project for our shareholders while delivering on all of the commitments made above.

To hold us to these commitments, CHW has engaged the services of Environmental and Social Sustainability (“ESS”), an Africa-based company that specialises in managing ESG and sustainability aspects for mining projects, who will support us to implement these engagements on the ground.

In summary, this Strategy constitutes a commitment to all the Project stakeholders that CHW will address ESG aspects throughout and beyond the exploration stages of the Project. The Strategy will be updated annually or prior to the transition from exploration to construction, based on progress of the Project feasibility studies. We will put in place the team, budget, and resources necessary to generate long-term benefits for Malawi and its population for the life of the Project.

1 INTRODUCTION

1.1 Our Vision

CHW aspires to be a leader in the mining industry, creating a positive and sustainable future for all stakeholders. We will achieve this by:

- Developing safe, responsible, and profitable operations.
- Ensuring the sustainable development of natural resources.
- Protecting and conserving the environment for future generations.
- Creating long-term benefits for our employees, shareholders, and host communities.
- Collaboratively working with stakeholders to achieve shared goals.

This document provides the CHW ESG Strategy, hereafter referred to as the (“Strategy”), which sets out the ESG commitments that CHW will adopt during the exploration phase of the Chilwa Heavy Mineral Sands Project, southern Malawi.

CHW has partnered with a leading African ESG and sustainability management firm ESS (Environmental and Social Sustainability – www.essustainability.com) to develop a best-practice approach as well as to support the implementation of this Strategy on the ground.

Our team, from the Management Board to each employee, is committed to translating this Strategy into a series of specific measures for the Project with an initial focus on exploration. Our approach will be operationalised in our Health, Safety, Environment and Communities (HSEC) Management System (HSECMS), which will be updated over time to account for any changes in HSEC conditions.

This Strategy will be updated on an annual basis, or more frequently, should this be required.

1.2 Message from our Managing Director

The mining industry has entered a new era, as sustainability becomes a core strategic imperative to investors and the global population alike. Further, the green transition requires the heavy mineral sands and other key minerals that we aim to produce in order to facilitate a low-impact, decarbonised future.

The journey towards realising truly sustainable value requires long-term commitment and vision throughout our company, which we are fortunate to have. It also requires planning from day one so that ESG, and sustainability, become an integral part of our business model. This Strategy is the first of many steps to demonstrate and put into action this commitment.

We also recognise the importance of working in partnership with host communities, government and key stakeholders, who we recognise as stewards of the land, culture and environment within which we will operate.

As the Managing Director of CHW, I am proud that our approach goes beyond compliance with regulatory requirements. It comprises mutually reinforcing actions that will transform how all of our valued stakeholders experience our business, both locally and globally.

We look forward to collaborating with the Government of Malawi, host communities, environmental organisations and other stakeholders to deliver this vision.

Signed,



Cadell Buss
Managing Director



2 PROJECT OVERVIEW

2.1 Project Description

CHW is prospecting the development of a Heavy Mineral Sands Mine Project (the “Project”), which has been granted authorisation to explore by the Government of Malawi in 2022. The Project is located in the Zomba, Machinga and Phalombe Districts, located in southern Malawi. The Exploration License (EL): No 0670/22, covers an area of approximately 849 km² in extent and borders the northern, western, and southern shores of Lake Chilwa (see Figure 1).

The areas covered by the EPL are located along the plain adjacent to Lake Chilwa and are also encroached by the aforementioned human activities (see Figure 1).

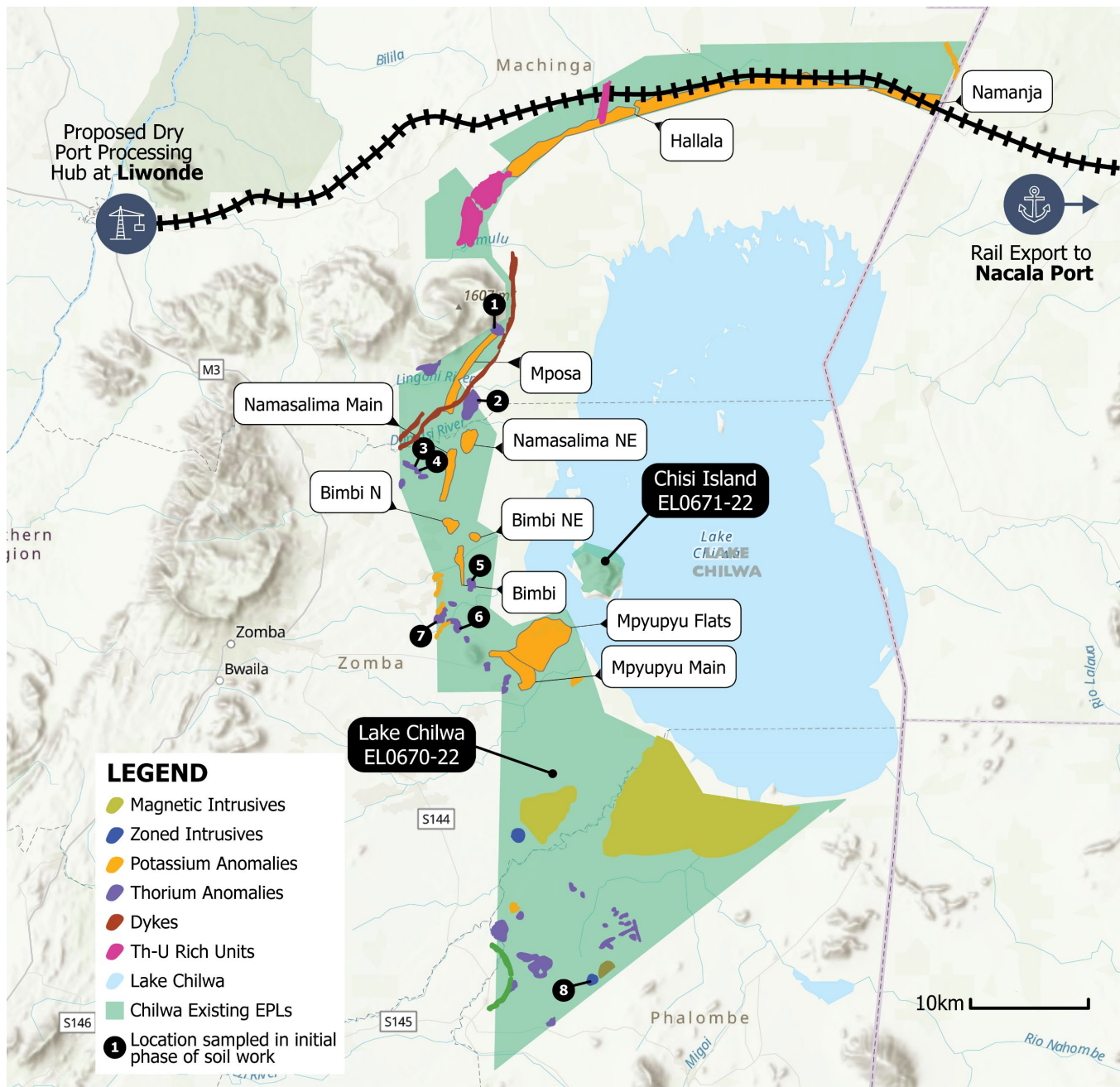


Figure 1: Map of EPL in relation to Lake Chilwa.

Source: Developed by CHW

Box 1: Key Mining Concepts and Terminology

Exploration: Mineral exploration is the search for materials in the Earth's crust that appear in high enough concentrations and amounts to be extracted and processed profitably. Activities include desktop studies (geology, geochemistry, geophysics), area selection, land acquisition, community engagement, drilling / trenching, deposit delineation, preliminary metallurgy, collection of environmental and social baseline data, and community engagement.

Feasibility study: This is an evaluation of a proposed mining project to determine whether the mineral resource can be mined economically. There are three levels of feasibility study used in mining: Scoping Study, Preliminary Feasibility Study (PFS) and Detailed or Bankable Feasibility Study (DFS or BFS). A DFS requires a significant amount of formal engineering work and determines whether the project proceeds, the basis for capital allocation, and project budget.

Heavy Mineral Sands (HMS): HMS are a class of ore deposit which is an important source of zirconium, titanium, thorium, tungsten, rare-earth elements, the industrial minerals diamond, sapphire, garnet, and occasionally precious metals or gemstones. HMS are placer deposits formed most usually in beach environments by concentration due to the specific gravity of the mineral grains.

2.2 Exploration Approach

The Company's exploration program utilizes a network of temporary, single-drill-point exploration sites. As drilling progresses, each site is established at a designated drill point, allowing for data collection. Once drilling is complete, the site is dismantled and the area rehabilitated. The operation, including establishment, drilling, dismantling, and rehabilitation, is overseen by a dedicated team comprising drillers, a health and safety officer, and an environmental and social officer. This team ensures the safe and responsible execution of drilling activities, while also mitigating potential environmental and social impacts throughout the exploration cycle.

The Project area has a shallow water table. Consequently, a sonic rig was used for drilling, as the equipment is known to improve recoveries and allow for faster drilling (see Figure 2). The sonic rig uses vibration along the drill string to liquefy or fracture the rock/ground it is drilling through. Drilling is being conducted within a 50 m x 50 m grid at present. However, where the grade is higher, the drill grid is reduced to 25 m x 25 m grid.

Drill results have shown that the bedrock is located deeper than expected, therefore, a diamond drilling programme is being considered to augment drilling activities on site as it is more efficient in extracting potential minerals located in deeper zones. The diamond rig will be used to test the full sequence of clays and sands on a wide-spaced drill pattern, while the sonic rig will continue with the originally planned drill spacing (see Figure 3).



Figure 2: Sonic Drill Rig



Figure 3: Diamond Drill Rig

2.3 Other Project Facilities

CHW has established a new on-site sample processing facility to enhance assay efficiency and to reduce costs.

This infrastructure development involves two key elements:

- **Acquisition of a Separation Lab:** CHW has purchased a Separation Lab from ALS, a leading analytical services provider. This lab will be housed within a dedicated shed at the Mota Engil Zalewa Camp in Malawi.
- **Upgraded Infrastructure:** Mota Engil, our service partner, has upgraded the shed to meet the stringent ALS Standard Operating Environment requirements¹, ensuring optimal functionality of the Separation Lab.

2.4 Exploration Schedule

Chilwa is conducting exploration activities to determine the optimal areas of mineral reserves. Exploration is being conducted in a staged approach, starting with the Mposa deposit and then will progress to the south of the EPL (see Figure 1).

Given the early stages of the Project, the exact distribution of sand minerals to be mined and the location of ancillary infrastructure has not yet been determined. Similarly, the exact type of mining will only be determined after the completion of the feasibility studies.

¹ <https://www.alsglobal.com/-/media/ALSGlobal/Resources-Grid/ALS-Limited---HSE-foundation-standard.pdf>

3 PROJECT ENVIRONMENTAL AND SOCIAL CONDITIONS

3.1 Environmental Setting

3.1.1 Lake Chilwa

In close proximity to the Project lies Lake Chilwa, a Wetland of International Importance. Designated as a Ramsar Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1997, Lake Chilwa is recognized for its global significance as a major waterfowl habitat. While our project activities won't take place within any officially designated protected areas, we acknowledge the Ramsar status of Lake Chilwa and its surrounding wetlands. We understand and appreciate the critical importance of this ecosystem, both nationally and internationally and its current threatened status

The Lake Chilwa study area was investigated during the ecological survey for the presence of ecological protected sensitive features. Lake Chilwa was cited as the only habitat of conservation concern located within the Project area. The lake is designated as a Ramsar Site due to its global significance as a major waterfowl habitat and shares its eastern shore with Mozambique.

Lake Chilwa is a transboundary lake basin with a total watershed area of 8,349 km²; of which 5,669 km² (68%) is in Malawi and 2,680 km² (32%) in Mozambique. The lake and the immediate surrounding wetland² buffers are collectively considered as Lake Chilwa. Lake Chilwa is a shallow, enclosed endorheic³ saline lake. It is surrounded by an area of dense Typha swamps and marshes. The seasonally inundated grassland floodplain forms a belt around the marshes of the lake.

Lake Chilwa Basin is heavily inhabited by human settlements and some of its islands, namely Chisi and Tongwe are permanently inhabited. Consequently, the area covered by the lake and its wetlands buffer have fluctuated over the years, based on reports by Prof. Sosten Chiotha a leading hydrology expert. By consequence, when delineating the lake, CHW has applied a maximum potential surface area based on 2015 water level results, which is considered to be a baseline year for a high-water level and wetland cover due to the heavy rainy seasons that had occurred.

According to the Malawi National Water Resources Master Plan, Lake Chilwa is designated as one of the 17 Water Management Areas (WMA).



Figure 4: Overview of Lake Chilwa with fishing boats

Source: Felefuhs. License: CC BY-SA 4.0.

² <https://rsis Ramsar.org/RISapp/files/RISrep/MW869RIS.pdf>

³ Having no outflow to an external body of water (e.g. river, ocean), and only losing water through evaporation or seepage into ground.

3.1.2 Ecological Status

The project area includes fourteen (14) rivers and streams namely; Domasi, Likangala, Thondwe, Phalombe, Matandani, Songani Nyambwe, Mazimayera, Mbidi, Chitambala, Matambo, Namatumbo, Nafisi and Nakhombe rivers.

Lake Chilwa is an ecosystem which is under considerable stress and whose capacity to recover from extreme events is declining over time⁴. The population density around the lake is high, with up to 164 people/km² and an estimated 77,000 people living within the lake's wetland buffer. The buffer area has reduced from over 2,400 to 1,750km² because of human activities⁵ particularly subsistence agriculture. In addition, the lake has experienced extreme fluctuations in water levels, including complete desiccation in its wetland buffers⁴.

The receding water has exposed land for crop farming and livestock grazing^{1, 6} which has negatively impacted the wetland function and integrity. Other impacts include high sedimentation, alien plant invasion and loss of indigenous plants, erosion, reduced water quality due to eutrophication and fishing activities⁷.

Low water levels recently observed have also had negative implications on people's livelihoods through loss of income and employment, reduced fish supply, increased conflicts from competition for resources and increased exploitation of birds⁴. While several management initiatives have had some results in stemming impacts (such as the Lake Chilwa Adaptation Programme⁸), the overall picture is one of decline and increasing pressure on the present ecological status of the Ramsar site.

3.1.3 Socio-Economic Setting

Malawi is a developing nation grappling with significant economic and social challenges. The country's population is growing at a rate of 2.6% annually, outpacing economic growth projected at 2.0% for 2024. This demographic pressure exacerbates existing poverty and inequality.

The economy is heavily reliant on agriculture, which is vulnerable to climate shocks such as prolonged dry spells. Coupled with limited access to agricultural inputs, these factors contribute to reduced agricultural output, impacting food security and overall economic growth.

Malawi faces persistent economic challenges, including high inflation (projected at 27.4% in 2024), a widening fiscal deficit, and a large current account deficit. These macroeconomic imbalances hinder development efforts and contribute to poverty.

The country's healthcare system is strained, with a maternal mortality ratio of 381 deaths per 100,000 live births, although this represents an improvement from previous years. Life expectancy at birth is 67.6 years, with women having a higher life expectancy than men.

There are seven host communities in the Project area, namely, Namanja, Halala and Nkotamo communities in the northern area of the EPL, Mposa and Namasalima communities in the western area of the EPL, and Bimbi and Mpyupyu communities in the southern area of the EPL.

The majority (90%) of these communities are living and working outside the formal income orientated monetary economy. People receiving a regular monetary income only make up 6% of the total population, together with the group of self-employed they represent only about 11% of the population. The remainder, nine out of ten people, have no regular income and rely on natural resources for their livelihoods, specifically

⁴ Missi C. and Atekwana E.A. 2020. Physical, chemical and isotopic characteristics of groundwater and surface water in the Lake Chilwa Basin, Malawi. J. Afr. Earth Sci. Vol 162: 103737. <https://doi.org/10.1016/j.jafrearsci.2019.103737>; Kafumbata D, Jamu D, Chiotha S. 2014 Riparian ecosystem resilience and livelihood strategies under test: lessons from Lake Chilwa in Malawi and other lakes in Africa. Phil. Trans. R. Soc. B 369: 20130052. <http://dx.doi.org/10.1098/rstb.2013.0052>

⁵ The population density around the lake is high, with up to 164 people/km² and an estimated 77,000 people living within the lake's wetland buffer

⁶ 'Everything is changing': the struggle for food as Malawi's Lake Chilwa shrinks, The Guardian, Aug 2021

⁷ Njaya F, Chiotha S, Kabwazi H. 1996 Lake Chilwa Management Plan. In Proc. of a workshop on the development of Lake Chilwa management plan. Lilongwe, Malawi: Government of Malawi.

⁸ <https://www.weadapt.org/knowledge-base/ecosystem-based-adaptation/lake-chilwa-adaptation-programme>

fishing, farming and petty trade of fish and farm products⁹. A small fraction (4%) practise bricklaying, carpentry or sewing¹⁰. Subsistence farming is predominant in the Project area, with crops such as rice, maize, sweet potatoes, cassava, and bananas being commonly cultivated. Communities rely on traditional farming practices but have recently been facing challenges due to floods and droughts necessitating resilience and adaptation.

The literacy levels among adults is low, of which 70% have completed primary schooling, 17% have some secondary education, 12% have completed secondary schooling, and 1% have some form of higher education. Most of the people have no schooling and partake in subsistence farming, unskilled labour and are heavily reliant on natural resources including lake Chilwa for a livelihood. Consequently, this has contributed the heightened poverty levels in the region.



Figure 5: Fishermen preparing their boats on Lake Chilwa

Credit: Author: WorldFish. License: CC BY-NC-ND 2.0 (cropped photo).

⁹ Pullanikkatil, D., Kaneka, B., Phalira, B., Mkanthama, C. and Chiotha, S., 2013. Linkages between population, reproductive health, gender and climate change adaptation in Malawi case study from Lake Chilwa Basin.

¹⁰ Chiotha, S., Jamu, D., Nagoli, J., Likongwe, P. and Chanyenga, T. eds., 2018. Socio-ecological resilience to climate change in a fragile ecosystem: The case of the Lake Chilwa Basin, Malawi. Routledge.

4 APPLICABLE STANDARDS

4.1 Overview

To ensure the Project meets the highest ESG standards, we will apply a rigorous set of industry best practices, national legal requirements and international standards.

This suite of best practice, frameworks and standards is known as the “Applicable Standards”.

4.2 Applicable Standards

The Applicable Standards are described in Table 1 below.

Table 1: Key National and International Standards, Frameworks and Guidelines

Applicable Standard	Overview	How CHW will apply the standard
Legislation of the Republic of Malawi 	Malawi’s Environmental Policy and Legal framework includes the Environmental Management Act (2017) and National Parks and Wildlife Amendment Act (2017), while mining law is regulated by the Mines and Minerals Act (2018) (MMA) and regulations made thereunder. The MMA regulates the development of the mineral resources of Malawi through adherence to sustainable development principles, in order to benefit the economy and promote the economic growth of Malawi, protect and improve the welfare of citizens of Malawi, protect the environment, and provide an attractive and conducive environment for investment in the mining sector.	• CHW will develop and implement an HSECMS that fully complies with national legislation. • Where international standards are more stringent in addressing specific issues, the HSECMS will align with the more stringent requirement. • CHW will manage the development, implementation and monitoring of the HSECMS and on-going statutory reporting.
Equator Principles 	Equator Principles (EP) 4 (2020) are intended to serve as a common baseline and risk management framework for financial institutions to identify, assess and manage environmental and social risks when financing projects.	• CHW will take into consideration the Equator Principles in order to ensure that the Project is developed in a way that responds to investor ESG requirements. • CHW will develop and implement the HSECMS in accordance with the 10 principles of the EP.
IFC Performance Standards 	The 2012 International Finance Corporation (IFC) Performance Standards (PS) comprise 8 detailed standards which define project proponents' responsibilities for managing their environmental and social risks.	• CHW will develop and implement the HSECMS in accordance with the applicable PS and put in place various mechanisms and plans to address each applicable PS requirement.
IFC / World Bank EHS Guidelines 	The World Bank Group has published a set of Environmental, Health and Safety (WBG EHS) Guidelines, containing both general and sector-specific provisions of Good International Industry Practice. Applicable guidelines include the General Guidelines and the Mining Guidelines, which cover EHS issues that may occur during the exploration, development, construction, operation, closure and decommissioning, and post-closure phases, and recommendations for their management.	• We will ensure that the provisions of the WBG EHS Guidelines are met or exceeded during the Project activities and operations.

Applicable Standard	Overview	How CHW will apply the standard
ILO Standards 	Malawi has been a member of the International Labour Organization (ILO) since 1965. The Standards aim at promoting opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and dignity.	CHW will ensure that the requirements of the ILO Conventions are followed throughout the Project lifecycle, integrated into management systems, and appropriately monitored and reported on to stakeholders.

4.3 United Nations Sustainable Development Goals

Based on the UN Sustainable Development Goals (SDGs) that have been identified as directly applicable to the Project, we have mapped opportunities to maximize the benefits of our activities.

Below we outline our key objectives for each relevant SDG, and how these will contribute to each SDG.

SDG1: No Poverty

1 NO POVERTY


How We Contribute to the SDG

Mining can help reduce poverty through direct employment, sourcing goods and services locally and the payment of taxes and royalties which enable the development of essential social and economic infrastructure. Operating in an area with significant levels of poverty, our Project can contribute through job creation and skills development. We similarly need to be mindful not to exacerbate poverty where traditional livelihoods and ways of life may be adversely affected.

Key Engagements and Objectives

Pay taxes and royalties: Publicly disclose details of payments to governments	Leverage local procurement: - Develop local supplier capacity - Strengthen local value chains	Preserve land access: - Begin land access planning early - Fully restore resettled communities
Champion inclusive employment: - Facilitate equitable access to employment opportunities - Offer training and apprenticeship programmes		

SDG5: Gender Equality

5 GENDER EQUALITY


How We Contribute to the SDG

In general, the benefits of mining activities (in terms of employment and economic opportunities) tend to accrue to men whereas women bear a disproportionate burden of impacts – which in extreme cases can include violence. Mining companies have a responsibility to ensure gender equality, as it relates to both the workforce and to communities.

Key Engagements and Objectives

Offer equal opportunities for women: - Recruit more women - Pay women and men equally - Promote more women to visible leadership positions - Adopt, where possible, flexible schedules for accommodating childcare	Offer equal opportunities for women: - Recruit more women - Pay women and men equally - Promote more women to visible leadership positions - Adopt, where possible, flexible schedules for accommodating childcare
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SDG7: Energy Access and Sustainability

7 AFFORDABLE AND CLEAN ENERGY



How We Contribute to the SDG

Mining operations are energy-intensive which could facilitate increased competition for grid-based power, use of fossil fuel, large energy losses and slow down the move to renewable energy sources.

Key Engagements and Objectives

Improve energy efficiency:

- Undertake energy audits
- Improve energy infrastructure maintenance
- Reduce energy demand onsite

Incorporate renewable energy:

- Deploy off-grid wind, solar or geothermal power
- Diversify power sources for reducing outages
- Replace diesel generators
- decisions

SDG8: Decent Work and Economic Growth

8 DECENT WORK AND ECONOMIC GROWTH



How We Contribute to the SDG

Mining activities can present employment opportunities at the local level, while also having the potential to create significant economic multipliers, for example through local procurement and supply chains, catalyse growth and promote economic diversification.

Key Engagements and Objectives

Communicate opportunities of mining:

- Provide decent work
- Catalyse indirect and induced employment

Drive economic growth with local procurement:

- Diversify local economies
- Make bidding accessible to local contractors
- Train local suppliers how to meet corporate supply requirements

Ensure just transition for workers in digitalisation and automation processes

SDG9: Infrastructure, Innovation and Industrialisation

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



How We Contribute to the SDG

Mining is likely to involve significant investments in infrastructure and thus provide an opportunity for facilitating shared use infrastructure and expand access to critical services.

Key Engagements and Objectives

Support local procurement:

- Upgrade expertise of local suppliers
- Improve quality of locally produced goods
- Provide support to local suppliers to service the mine

Share infrastructure:

- Explore co-funding arrangements with governments
- Share rail, road, power, water infrastructure
- Harness economies of scale and economies of scope

SDG10: Reduced Inequalities

10 REDUCED INEQUALITIES



How We Contribute to the SDG

Large mining projects present both risks and opportunities for addressing inequalities; local inflation, unequal revenue spending and distribution, wage gap between expat and local workers, these are all potential impacts that the project wants to avoid. On the other hand, mining activities can present an opportunity to promote inclusion through local employment and procurement and through supporting livelihood diversification. They can also embrace an inclusive approach to community consultation and participation in decision-making.

Key Engagements and Objectives

Anticipate inequality-related risks:

- Be sensitive to local wage disparities
- Establish baseline welfare statistics before mining

Champion inclusivity:

- Train, recruit and employ marginalised populations
- Include excluded groups in local procurement and supply chains

SDG12: Responsible Consumption and Production

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



How We Contribute to the SDG

Mining operations are resource-intensive and use various natural resources and chemical inputs and give rise to significant amount of waste, tailings and pollution. Excessive waste material and pollution generation can both be address through favouring a recycling approach and resorting to good management practices.

Key Engagements and Objectives

Minimise resources use and waste:

- Minimise use of water, energy, land, chemicals
- Minimise production of waste, effluent, emissions
- Re-purpose waste rock

Incorporate lifecycle thinking:

- Analyse mineral and chemical products across sourcing, transport, storage, use, production

Extend responsible sourcing to suppliers

SDG13: Climate Action

13 CLIMATE ACTION



How We Contribute to the SDG

Mining exploration and operations can contribute to anthropogenic climate change, both through the increase of GHG sources and through the reduction of GHG sinks. Sources of GHGs include combustion from transport and heavy machinery, fuel burnt for other energy needs, or the production and transport of building materials. Impacted GHG sinks are primarily soils and biomass such as trees and other ligneous species, which get disturbed or destroyed during exploration and exploitation.

Key Engagements and Objectives

Reduce GHG emissions:

- Improve energy efficiency
- Use some renewable energy
- Use some low-emission fuels
- Measure and report direct, indirect, and product-related emissions

Build climate change resilience:

- Plan for climate change impacts on mine and communities
- Strengthen emergency response plans

Recognise climate change in planning and investment:

- Use climate projections in design and placement of operations and infrastructure
- Adopt corporate climate change, carbon management and disclosure policies
- Include climate change on the board agenda

SDG14: Life Below Water



How We Contribute to the SDG

Given the project's proximity to Lake Chilwa, any potential impacts on water quality and the lake's ecosystem need careful consideration. The project should strive to minimize its disturbance to the lake's biodiversity and ecological functions.

Key Engagements and Objectives

Incorporate life under water into impact assessments:

- Refrain from riverine disposal of waste
- Assess social and environmental impacts on fishing- and fresh water-based livelihoods
- Map breeding grounds and migration routes of underwater species

SDG15: Life on Land



How We Contribute to the SDG

Mining operation footprints and pollution degrade ecosystems and harm biodiversity, environmental strain is increased due to in-migration and increased economic activity, while illegal activities such as deforestation and poaching may be facilitated.

Key Engagements and Objectives

Achieve net positive or no net loss impact:

- Apply mitigation hierarchy to minimise impact
- Avoid impacts to critical habitat
- Offset biodiversity impact

Preserve ecosystem services:

- Recognise dynamic nature of habitats
- Conduct comprehensive baseline and follow-up environmental assessments

SDG16: Peace, Justice and Strong Institutions



How We Contribute to the SDG

Mining activities may pose an increased risk to peace, justice and institutional integrity in particular if it fails to address illicit financial flows and poor governance, child labour from operations and supply chain, bribery and corruption, access to public interest information, and conflicts risks fuelled by certain minerals.

Key Engagements and Objectives

Prevent and pre-empt conflict:

- Listen and respond early to stakeholder concerns
- Establish formal and accessible complaint and grievance mechanisms

Respect indigenous peoples' rights:

- Implement human rights impact assessments
- Extend high standards to security contractors
- Incorporate both regulatory requirements and local community objectives and sentiments into decisions

5 ESG RISK ASSESSMENT

5.1 Identified Risks

In 2022 the Malawi Environment Protection Agency (MEPA)-approved an ESMP developed by the company, which identified key environmental and social risks and mitigation actions associated with the project.

In addition, in 2023 and 2024, an assessment of potential ESG risks associated with exploration activities were conducted for the Mposa, Namsalima, Bimbi and Mpyupyu deposits as part of baseline studies aligned with international standards, and which supplemented the ESMP.

This process identified a number of key risks which are detailed in Table 2.

Table 2: Potential ESG risks

Risk	Description	Activity Associated with Risk
Environmental		
Land Degradation	- Loss of Soil Productivity - Physical Disturbance - Chemical Contamination	- Clearing vegetation - Soil compaction - Spills and oil and fuel spills
Waste Generation	Generation of solid waste	Improper disposal of waste materials generated from Project related activities
Vegetation Loss and Habitat Disturbance	- Habitat Fragmentation - Introduction of Invasive Species - Noise and Air Pollution	- Clearing vegetation for access roads and exploration activities can fragment existing habitats - Disturbed areas may be susceptible to colonization by invasive plant species brought in by vehicles or human activity - Noise from machinery and workers, along with dust generated during exploration activities, can disrupt animal behaviour and make it harder for them to communicate, find food, and avoid predators. Birds are particularly susceptible to these disturbances, as they rely on visual and auditory cues for navigation and survival
Negative Impacts on Water Quality	- Contamination Risks - Sediment Transport	- Accidental spills of hydrocarbons, chemicals, and waste can contaminate surface and groundwater resources. - Clearing vegetation exposes soil, increasing the risk of erosion and sediment runoff into nearby water bodies
Negative Impacts on Aquatic Ecology	- Introduction of Invasive Species which can disrupt the natural balance and threaten native aquatic life - Pollution of aquatic habitats	- Oil leaks from project vehicles and machinery can pollute aquatic habitats. The risk of contamination increases during the rainy season due to increased surface water flow - Transport activities and human movement during exploration
Social		

Risk	Description	Activity Associated with Risk
Increased In-Migration / Influx	Project's employment opportunities, even if limited in number, may attract people from outside the area seeking work	
Impact on Agriculture	Exploration activities might bring less fertile sub-layers of soil (B and C horizons) to the surface, potentially reducing the fertility of the topsoil used for agriculture	Soil Mixing
Social Tensions	Migrate job seekers and local communities' member conflict due to cultural differences or behavioural variations	The influx of people from outside the Project area for potential job opportunities
Increased Demand on Local Resources	Water and Facility requirements for the Project	- Water abstraction for exploration activities - Sanitation facilities for workers
Worker Health and Safety	Potential health and safety risks, including exposure to hazardous chemicals, noise, and vibration	Exploration Activities
Cultural Heritage	- Archaeological Sites Degradation - Negative Impact to Sites of Cultural or Traditional Importance - Loss of Natural Attributes	- Ground disturbance activities like drilling - Exploration activities, particularly those conducted near Lake Chilwa, could damage natural features that hold cultural significance for local communities
Governance		
Corruption	Project decisions influenced by improper means	Accusations of corruption, including bribery and extortion, are a concern in Malawi
Accountability	Concerns about responsible project execution and resource management could arise.	Lack of transparency, weak oversight mechanisms, conflicts of interest, and failure to address ethical
Legislative non-compliance	Failure to adhere to laws and regulations related to environmental, social, and governance matters	Violations of environmental regulations, labour laws, tax laws, and other relevant legislation.

6 ESG STRATEGY

6.1 Purpose

CHW is committed to managing all ESG risks arising as identified above and to integrating ESG principles into all aspects of our operations.

Our goal is to create a sustainable and responsible business that delivers long-term value to our stakeholders while minimizing our environmental impact and contributing to the social and economic development of the communities in which we operate.

6.2 Objectives

To fulfil this purpose, CHW is committed to the following objectives:

Environmental Stewardship:

- Implement best-practice national and international ESG requirements.
- Develop a collaborative, strategic approach for biodiversity conservation, particularly for Lake Chilwa.
- Avoid disturbing high-value biodiversity areas as identified by specialists.
- Undertake baseline studies, public consultations, and Environmental and Social Impact Assessments (ESIAs) according to national and international standards at least 1 year before the commencement of construction.
- Develop and implement a Health, Safety, Environment, and Communities Management System (HSECMS) throughout all project phases.
- Identify and report on ESG targets throughout the project lifecycle.
- Establish a dedicated HSEC team to manage ESG issues.

Social and Community Development:

- Maximize employment of Malawians and implement training programs.
- Engage transparently with host communities, government, and other stakeholders.
- Engage with local communities to identify and support community development initiatives through targeted programs.

Governance and Compliance:

- Set our own corporate governance policies, codes and procedures.
- Comply with all legislative requirements, permits, and licenses.
- Set clear and measurable SDG targets.
- Demonstrate strong Corporate Social Responsibility (CSR) and promote local economic empowerment.

CHW will meet these objectives through adherence to a series of 10 ESG goals as described below.

6.3 Strategic ESG Goals

We have identified 10 strategic ESG goals represent our strategic roadmap for preventing ESG risks and achieving a positive and lasting impact across the different ESG spheres, see Figure 6.

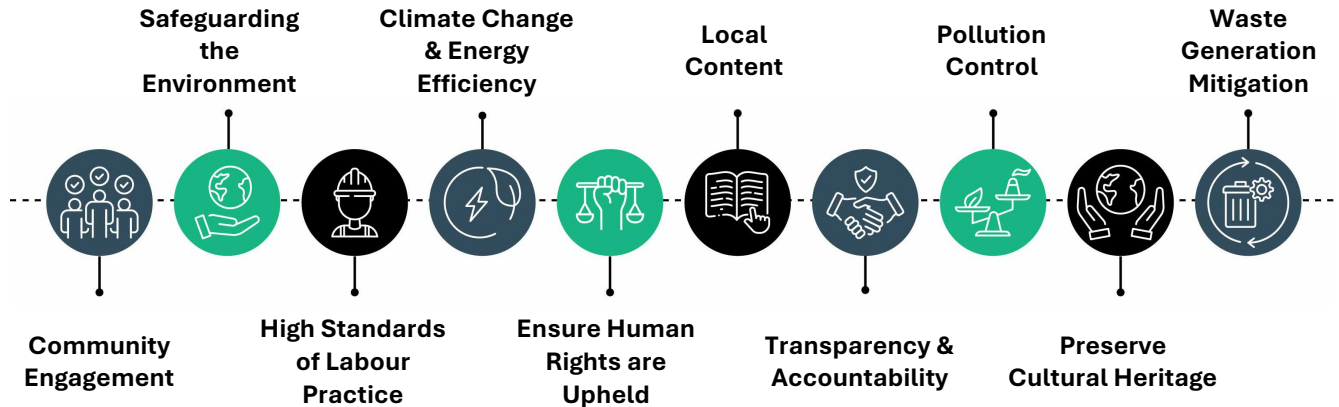


Figure 6: Chilwa Minerals Strategic ESG Goals

To ensure our ESG goals align with our overall business strategy, we followed a structured process to determine appropriate mitigation measures as outlined in Figure 7.

We began by identifying potential risks associated with our activities and then evaluated various mitigation measures to address these risks. Once the most suitable mitigation measures were identified, we established well-defined objectives that were aligned with applicable international standards and ensured they aligned with the SDGs wherever possible for long-lasting positive impact. We designed these objectives to be quantifiable and assigned Key Performance Indicators (KPIs) to track our progress of these goals and measure our impact.

This approach aims to provide for a robust ESG strategy that contributes to sustainable growth and addresses stakeholder expectations.

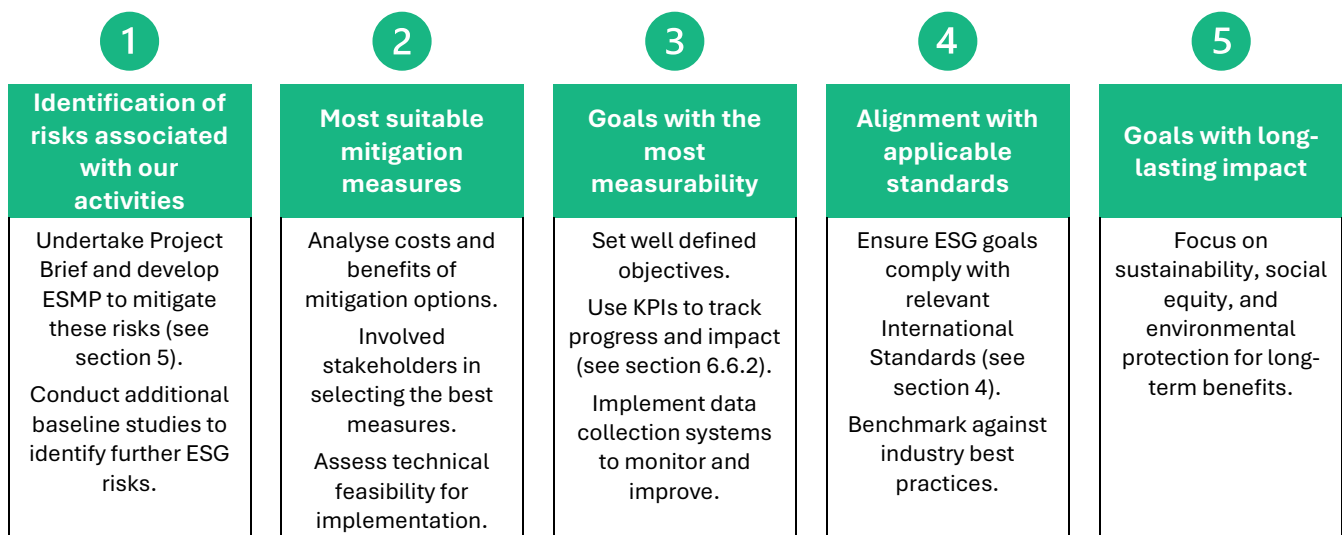


Figure 7: Approach to ESG Goal Selection

6.4 ESG Action Plan

For each Strategic ESG Goal, we have identified mitigation and management measures which will reduce the risks arising to withing acceptable levels and/or eliminate the risk. Table 3 below summarises the proposed ESG mitigation and management measures.

Table 3: ESG Action Plan

Goals	Applicable Standards	ESG Risks	Direct Mitigation	Management Measure
Safeguard the Environment	- Malawian Laws: Environmental Management Act, Forestry Act, Wildlife Conservation Act, Water Resources Act - SDGs:6, 12, 15 - IFC PS: 3, 6	- Land degradation, - Water pollution - Habitat loss	Implement erosion control measures, waste management plan, biodiversity conservation through risk assessment and avoidance of sensitive areas. Robust Rehabilitation Program for drill sites	Health, Safety, Environment and Communities Management System
Climate Change and Energy Efficiency	- Malawian Laws: Energy Policy, Climate Change Management Act - SDGs:7, 13 - IFC PS: 2	- Greenhouse gas emissions - Energy consumption	Energy efficiency measures, renewable energy integration	Adoption of renewable energy sources
Waste Generation	- Malawian Laws: Environmental Management Waste Act - SDGs: 12 - IFC PS: 6	- Improper waste disposal - Pollution	- Waste minimization, segregation, and recycling - Training on waste management	Waste Management Plan
Pollution Control	- Malawian Laws: Environmental Management Act, Water Resources Act - SDGs: 6, 12, 15 - IFC PS:3, 6	Air, water, and soil pollution	Pollution prevention and control measures, emergency response plans	Pollution monitoring and reporting system
Community Engagement	- Malawian Laws: Local Government Act - SDGs: 11, 17 - IFC PS: 2, 4	- Social conflict, - Lack of trust - Loss of Social License to Operate	Communication Channel Identification, Community consultation, capacity building	Stakeholder Engagement Plan and Community Development Plan
Local Content	- Malawian Laws: Public Procurement Act - SDGs: 8, 10 - IFC PS 4	- Lack of local capacity - Economic inequality	Local supplier development, job creation	Local Content Plan
Labour Practices	Malawian Laws: Labour Relations Act, Occupational Safety and Health Act	- Unsafe working conditions, - Unfair labor practices	Worker training, fair wages, occupational health and safety	Occupational Health and Safety Management Plan.

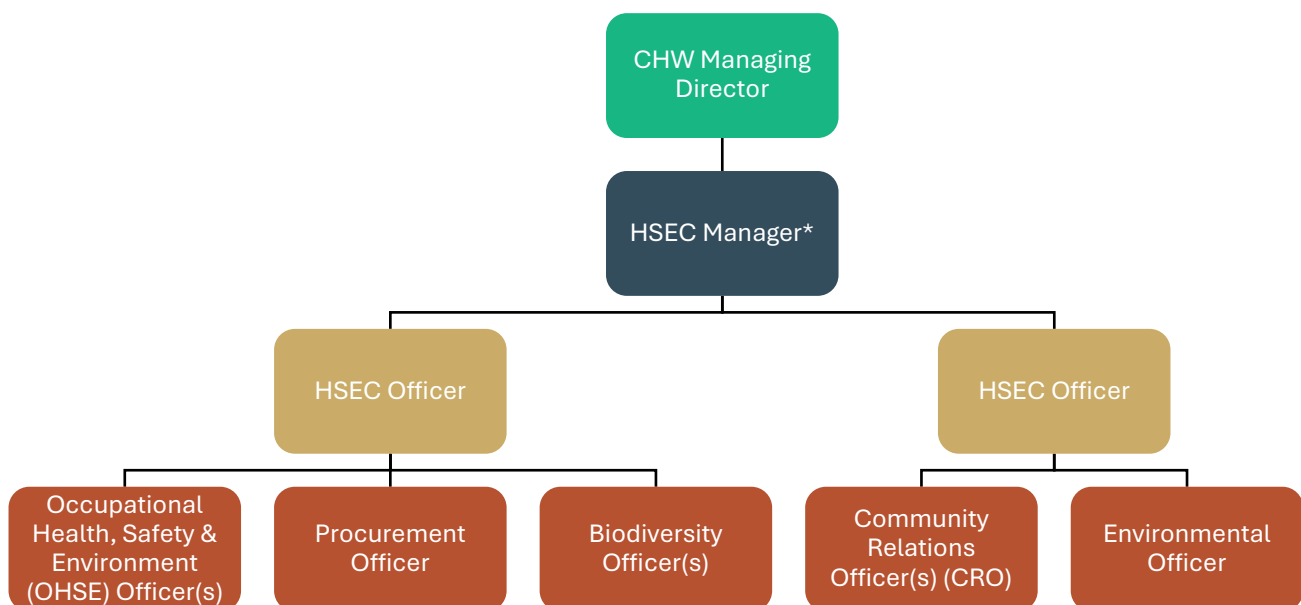
Goals	Applicable Standards	ESG Risks	Direct Mitigation	Management Measure
	- SDGs: 8, 12 - IFC PS: 2, 4			- Emergency Preparedness Management Plan - Site safety Induction Program
Human Rights	- Malawian Laws: Constitution of Malawi, Human Rights Commission Act - SDGs:10, 16 - IFC PS:2, 4	- Human rights abuses, - Discrimination	Human rights impact assessment, grievance mechanisms	- HSEC Policy Manual - Code of Conduct
Transparency and Accountability	Not applicable	- Corruption, - Lack of information	Financial reporting, stakeholder engagement	Compliance and ethics program
Preserve Cultural Heritage	- Malawian Laws: Monuments and Relics Act of 1991 - IFC PS: 8	- Loss of valuable information - Community Conflicts	- Exploration Team training on Chance Find Procedure - Identification and avoidance of culturally significant and sacred sites - Community Engagement	- Chance Finds Procedure - Cultural Heritage Management Plan

6.5 Implementation Team

To proactively address the identified ESG risks and ensure compliance with the Applicable Standards, CHW has enlisted the support of ESS, who has dedicated teams of experienced specialists in the mining sector across Africa.

ESS has put in place a Health, Safety, Environment and Communities (HSEC) team for CHW with responsibility of managing ESG and sustainability considerations and ensure implementation of these issues at each stage of the Project lifecycle. The team will have the capacity (including management support, resources and budget) to effectively manage risks and impacts associated with the Project. The HSEC team will vary over time, with the HSEC Manager role being the main responsible person throughout the Project lifetime. Key responsibilities of the HSEC team include (Figure 8):

- Develop and implement an HSECMS that will assure our ESG and sustainability commitments are clearly defined and the path to achieving them is transparently set out.
- Liaising with government, financiers and other key stakeholders on ESG and sustainability issues to safeguard the Company's interests as well as those of society and the environment.
- Undertake regular auditing and monitoring to ensure that we are achieving the HSECMS requirements, as well as regular and transparent reporting.



*HSEC Manager: In line with key international standards (i.e. ISO 14001, ISO 45001 etc.), the HSEC Manager will report directly to the most senior CHW Director, and work with all other departments to ensure the Project's compliance with the HSECMS requirements.

Figure 8: HSEC Team Structure

6.6 Reporting

6.6.1 Routine Reporting

The HSEC team will ensure that regular reporting is undertaken both within CHW and to key stakeholders, in line with national and international requirements. Specifically, CHW will:

- Maintain transparent communication with key stakeholders and interested parties on its ESG and sustainability performance.

- Annual ESG performance reports will be generated, providing clear and concise information on the project's progress toward its sustainability goals.
- Prepare and disclose an annual monitoring report that outlines our annual ESG performance against the Reference Framework.
- Prepare and disclose any annual or biannual government mandated progress reports.
- Report to the Project key stakeholders and interested parties on its general experience and progress towards implementing the ESMS and ESG commitments on quarterly and annual basis.

6.6.2 Key Performance Indicators

As part of routine reporting, CHW will report on a number of Key Performance Indicators (KPIs) as incorporated in Table 4 below. KPIs will be tracked and will provide a comparison of performance year on year. KPIs are provided for each Strategic ESG Goal.

Table 4: Chilwa Minerals ESG KPIs

ESG Goal (Focus Area)		KPIs
	Community Engagement	• Community satisfaction as per survey data collected regularly. • Number / type of community development projects implemented. • Number of complaints / feedback received.
	Safeguard the Environment	• Zero-tolerance for environmental non-compliances • Number of employees trained on HSECMS
	Labour Practices	• Zero-tolerance for serious health and safety incidents. • Number of grievances filed by workers and their resolution rate. • Worker satisfaction surveys.
	Climate Change and Energy Efficiency	• Track and report on energy saving initiatives and their effectiveness. • Percentage of renewable vs fossil fuel energy sources.
	Human Rights	• Frequency and effectiveness of community engagement activities. • Number of training sessions on human rights conducted for employees and contractors. • Zero-tolerance for human rights violations.
	Local Content	• Number of local people vs national / international employed. • Value of contracts awarded to local businesses.
	Transparency and Accountability	• Zero-tolerance for bribery and corruption. • Gender balance percentage.
	Pollution Control	• Monitoring data of key pollutant emissions vs standards / best practice. • Number of non-compliance incidents related to pollution control.
	Preserve Cultural Heritage	• Number of chance finds recorded per year • Number of community engagement meetings held on Cultural Heritage • Number of employees trained on Chance Find Procedure
	Waste Generation	• Track and report on waste reduction initiatives and their effectiveness. • Report on the percentage of waste materials recycled

6.7 Monitoring, Auditing and Evaluation

The Project HSECMS will ensure that HSEC aspects and impacts are monitored in a documented and controlled manner. Data will be collected regularly for a variety of HSEC risks inherent in the project activities and reported daily, weekly and on a monthly basis by the HSEC manager.

Through a robust evaluation process, this data will be analysed to identify trends, assess the effectiveness of mitigation measures, and inform any necessary adjustments to ensure we consistently meet our KPIs and Targets. This continuous cycle of monitoring, evaluation, and improvement is fundamental to achieving our sustainability goals for the HMS Project.

Table 5 demonstrates the monitoring activities to be undertaken by the HSEC team.

Table 5: Monitoring Activities Associated with HSEC Team

Occupational Health & Safety Environment	Community Health & Safety	Environment & Biodiversity	Communities and Stakeholders
• Training, awareness and competence • Audits • Injuries • Incidents • Near-misses • Cholera cases	• Communicable disease occurrence • Traffic related risks and impacts • Other Project related safety, security incidents	• GHG emissions • Air emission (in particular dust) • Noise emissions • Wastewater emissions • Water quality and flows • Waste production • Hazardous materials management • Soil management • Water / energy resources management • Biodiversity management	• Stakeholder engagement • Community development • Community consultations • Grievances