



2022 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



CONTENTS

ABOUT THIS REPORT	1
MESSAGE FROM THE PRESIDENT	2
ABOUT MKANGO RESOURCES	4
MISSION STATEMENT	6
OVERVIEW OF THE BUSINESS	
MINE	7
REFINE	12
RECYCLE	13
GOVERNANCE	14
RISK MANAGEMENT	20
MESSAGE FROM ESG ADVISOR	21
MATERIAL SUSTAINABILITY TOPICS	22
THE RARE EARTH MARKET	24
CONTRIBUTION TO THE SDGs	26
MKANGO'S PROGRESS	
SOCIAL	28
ENVIRONMENT	44

HIGHLIGHTS

60%

increase in measured and indicated
resource after updated drilling

IFC COMPLIANT

ESHIA complete and approved by
Malawian Environmental Protection
Agency (MEPA)

IN DEPTH STAKEHOLDER ENGAGEMENT

complete for ESHIA safely despite
Covid-19

STREAMLINED

business structure further enabling
Mine, Refine and Recycle strategy

LIFECYCLE ASSESSMENT

for REE project development

CSR spend of

USD 406K

from inception to 31st December 2022

USD 63K

2023 spend to date

Mining Development Agreement

**WELL
ADVANCED**

ABOUT THIS REPORT

This is the first focused Environmental, Social and Governance (ESG) report for Mkango Resources Limited (Mkango). Whilst the report focuses on the financial year ending December 2022, we take the opportunity to reflect and report on past ESG initiatives to provide the reader with the full context of our activities and ESG performance to date. The report is prepared for a broad stakeholder audience, but specifically seeks to articulate our view on the creation of shared value for our stakeholders. Given the advanced development phase of the Songwe Hill Project, much of this report will be based on the activities of this project. However, our full value creation strategy includes both upstream and downstream aspects. Accordingly, this report includes information on: exploration - how we are building a pipeline of Rare Earth Element (REE) resources to meet growing global demand; mining - the responsible sourcing of REE from a stable, ethical and diversified source; REE processing - production of inputs for magnets, green technologies, batteries and catalysts; and innovative recycling technologies - to promote circularity and minimise product footprints. Together these elements represent the entire life cycle of REE and are the foundation of our holistic Mine, Refine and Recycle strategy.

Being cognisant of the developmental phase of our key assets, this report aspires to illustrate how we have made significant progress in identifying our stakeholders' material issues and to provide a discourse on our ESG strategy. It is our intention to build on this in future reports by including broad stakeholder engagement in the determination and prioritisation of material issues which have to date been determined by internal review and our environmental and social impact assessment process.

Additionally, this report illustrates how our activities are aligned with, and support the realisation of, the United Nations Sustainable Development Goals (SDGs).

Clear and concise reporting on the progress we have made with regard to our ESG strategy to all our stakeholders is paramount to our progress to promoting our goals and to achieving our **"Mine, Refine and Recycle"** strategy.

MESSAGE FROM THE PRESIDENT



Sustainable development and corporate social responsibility are integral to the vision of Mkango. This is inextricably linked to our ability to create value for all stakeholders and is brought to life at a corporate level, through our Mine, Refine and Recycle strategy and on the ground through our social licence to operate. This is both an ethical requirement and core business imperative.

It is undeniable that the global economy is shifting towards a decarbonised future. This shift has been precipitated by a growing social awareness regarding the climate crisis and more and more consumers now demand that products and services be delivered in a responsible, ethical and sustainable manner. This has led to innovative new technology and materials that reduce global reliance on inefficient, carbon intensive fossil fuels. These innovations cannot be achieved without innovative new raw materials. It would be naive to ignore the fact that these new materials are won through an extractive process and that this is, by its very nature, an impactful industry. We acknowledge this and understand that there is a trade-off between providing the building blocks required to decarbonise and the potentially negative impacts associated with mining.

This is central to our corporate strategy, as expressed through our Mine, Refine and Recycle undertaking which seeks to mine responsibly, vertically integrate by refining the product and reduce overall impact by supplementing supply of virgin materials with recycled inputs.

In an ever-changing world, with increased complexities and the increased awareness to all aspects of sustainability, climate change, communities and environment have become key to a successful mining project and investment. Recognising that playing an active role within our community it is an ethical and business imperative, Mkango is implementing a social responsibility programme focused on empowerment, education, and reducing poverty and hunger.

Mkango strives to create socially and environmentally responsible operations and is committed to achieving local and international ESG standards.

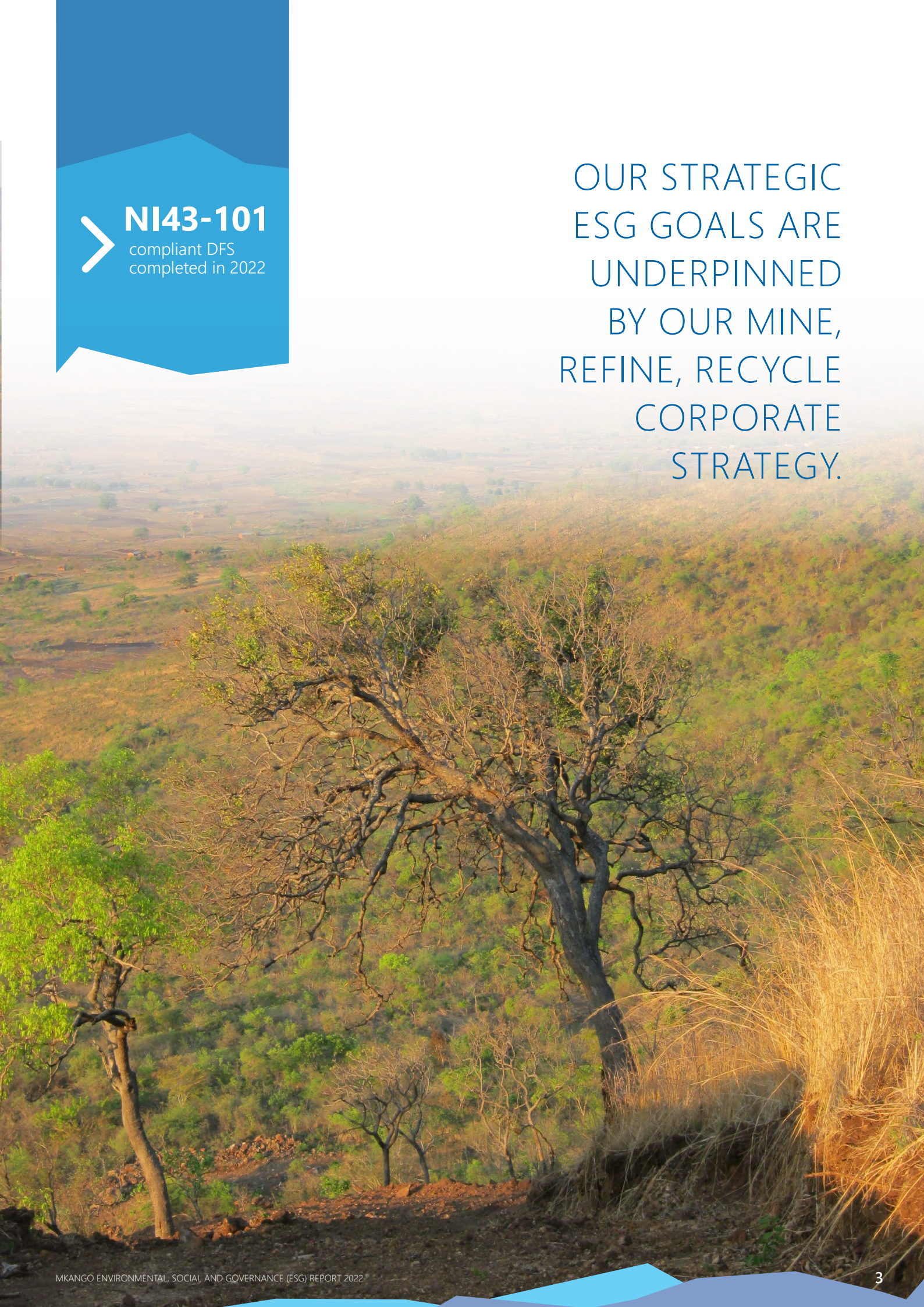
At Mkango we are committed to engaging actively with our local communities and investing in community-based initiatives to support sustainable development for future generations. We maintain a transparent dialogue with local, regional, and national authorities, as well as key stakeholders, to ensure mutual respect, understanding of needs and to identify opportunities for collaboration - key elements of of social best practice.

Within Mkango we are committed to supporting the community and countries in which we operate. The sustainable development of the Songwe Hill rare earths project in Malawi, is an example of where we can make a meaningful contribution to the economic, social and sustainable development of an emerging economy and its people.

Alexander M. Lemon
President
Mkango Resources Ltd

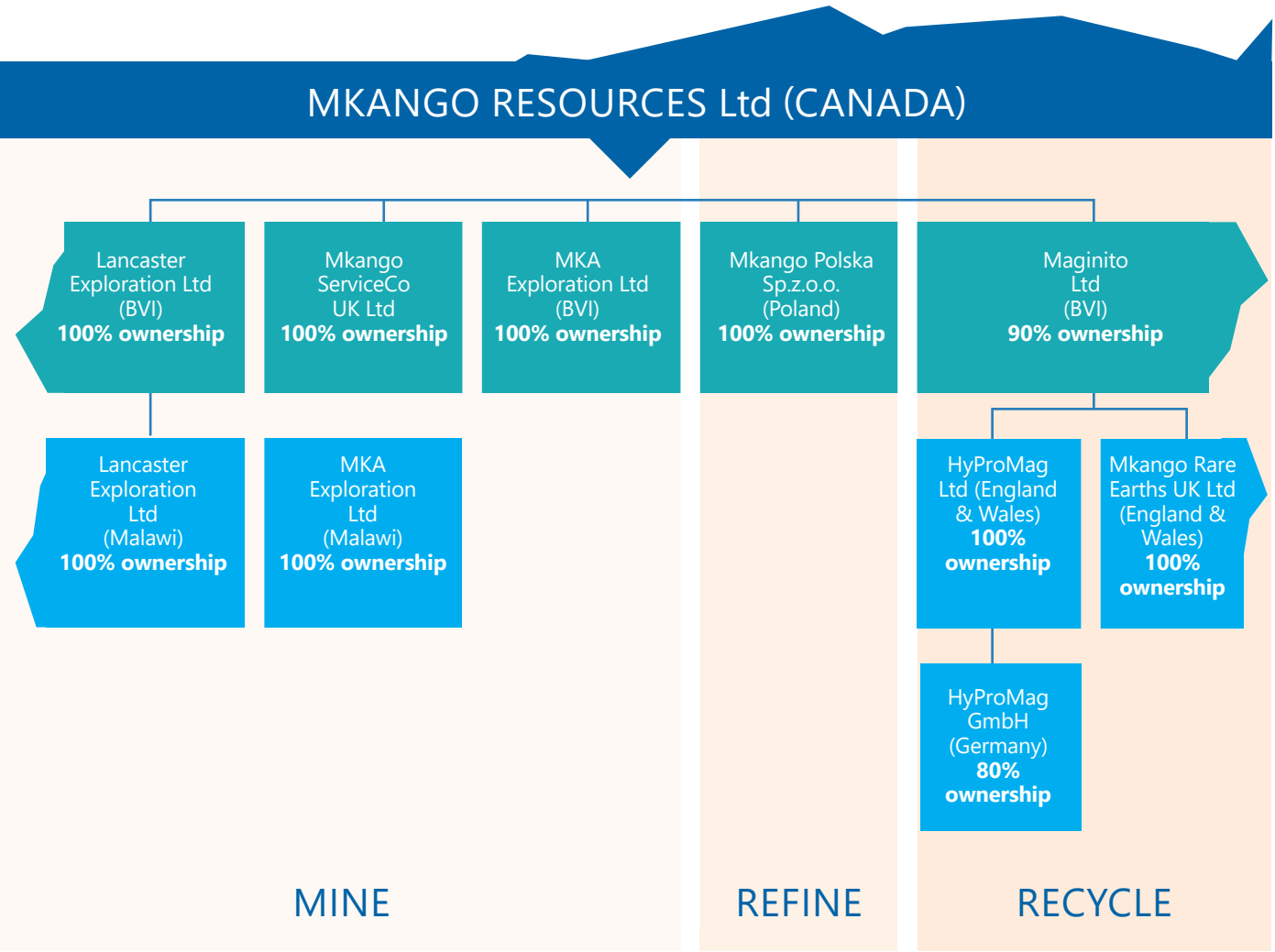
> **NI43-101**
compliant DFS
completed in 2022

OUR STRATEGIC
ESG GOALS ARE
UNDERPINNED
BY OUR MINE,
REFINE, RECYCLE
CORPORATE
STRATEGY.



ABOUT MKANGO RESOURCES

The Company is incorporated in the province of British Columbia, Canada. The Company’s registered office is Suite 2900, 550 Burrard Street, Vancouver, British Columbia, Canada, V6C 0A3. The Company’s current structure is as follows:



Mkango’s corporate strategy is to develop new sustainable primary and secondary sources of neodymium, praseodymium, dysprosium and terbium to supply accelerating demand from electric vehicles, wind turbines and other clean technologies. This integrated Mine, Refine, Recycle strategy ensures responsible acquisition of REE through the full value chain including the concept of cradle to cradle and differentiates Mkango from its peers, uniquely positioning the Company in the rare earths sector. Mkango is listed on the AIM Market of the London Stock Exchange (“AIM”) and the Toronto Venture Exchange (“TSX-V”).

Mkango is developing its Songwe Hill rare earths project (“Songwe”) in Malawi with a Feasibility Study completed in July 2022 and an Environmental, Social and Health Impact Assessment approved by the Government of Malawi in January 2023. Malawi is known as “The Warm Heart of Africa”, a stable democracy with existing road, rail and power infrastructure, and new infrastructure developments underway. The project strategically includes the production of a purified mixed rare

Mkango also has an extensive exploration portfolio in Malawi, including the Mchinji rutile exploration project, the Thambani uranium-tantalum-niobium-zircon project and Chimimbe nickel-cobalt project.

These activities combine to form our Mine, Refine Recycle strategy and are carried out in traditionally stable regions with a track record of sound human rights.



MISSION STATEMENT

Mkango’s mission is to spearhead the development of mining in Malawi, to provide maximum shareholder value and to implement sincere, meaningful and successful social responsibility programmes. This drive will contribute to the development of Malawi by providing the country with an exportable product which is reliable, sought after and profitable, all while ensuring that minimal negative impacts occur to the surrounding environment and social fabric.

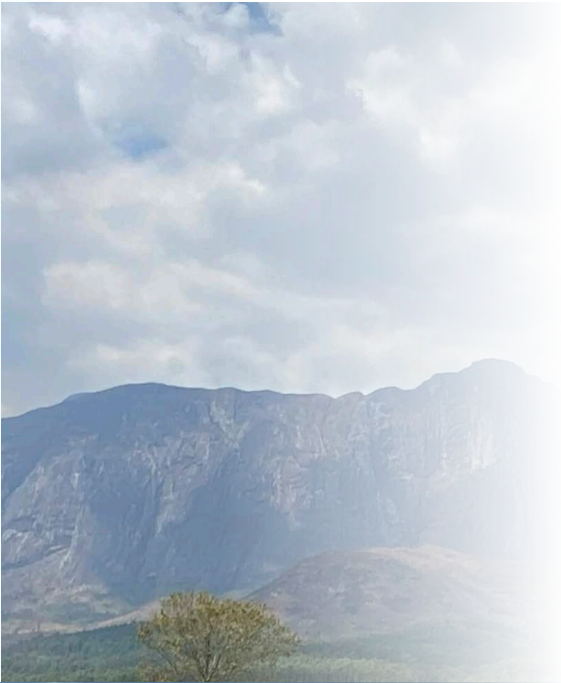


OVERVIEW OF THE BUSINESS

Mkango is focused on the mining, refining and recycling of rare earths. The Company is listed on the TSX-V in Toronto and AIM in London under the symbol MKA. The Company has developed its integrated ‘Mine, Refine, Recycle’ strategy to produce both primary and recycled rare earths, in particular new sustainable sources of neodymium, praseodymium, dysprosium and terbium to supply accelerating demand from electric vehicles, wind turbines and other clean energy technologies. This strategy differentiates Mkango from its peers, uniquely positioning the Company in the rare earths sector. To deliver on this strategy, the Company intends to advance Songwe Hill through construction, whilst in parallel progressing complementary downstream opportunities in the rare earths supply chain through Maginito which is focused on rare earth magnet recycling, and Mkango Polska, which is focused on rare earth separation.

MINE

Mkango has several properties in the Republic of Malawi, including its flagship Songwe Hill rare earths project and the Nkalonje Hill exploration target (“**Nkalonje Hill**”), both held within 11 Phalombe retention licences (the “**Phalombe Licences**”). Mkango is also pursuing mineral exploration opportunities with three additional 100% owned properties in Malawi, the Thambani retention licences (“**Thambani Licences**”), the Chimimbe Hill exploration licence (“**Chimimbe Licence**”) and the Mchinji exploration licence (“**Mchinji Licence**”).



Songwe Hill
Songwe Hill, a carbonatite-hosted rare earth deposit, is the Company’s main development target in Malawi. Historical exploration programmes were originally carried out at Songwe Hill in the late 1980s. After three phases of exploration drilling in 2011, 2012 and 2018, Mkango completed a NI43-101 compliant technical report and upgraded Mineral Resource estimate for Songwe Hill in January 2019 and announced results of the DFS on 5 July 2022.

Songwe Hill is located in south-eastern Malawi, between Lake Chilwa and the Mulanje Massif, approximately 70km from the former capital of Zomba and approximately 90km from the commercial centre of Blantyre, which has an international airport and a railhead. Paved roads run from the urban centres to within 12km of Songwe Hill. Secondary gravel and dirt roads provide vehicle access to the exploration camp, with recently upgraded bridges capable of taking 20-tonne trucks.

With the release of the DFS, the approval of the ESHIA and in anticipation of concluding the Mining Development Agreement, Mkango continues to advance ongoing discussions with potential strategic investors, development and commercial banks, and off-takers.



Mchinji
The Company has a 100% interest in the Mchinji Licence in respect of an area of 650.17sq km in the Mchinji District, Malawi. Mkango is evaluating the Mchinji deposit in the context of geophysical data produced by an airborne geophysical survey which was part of a \$25 million World Bank funded nationwide airborne geophysical programme (the “World Bank Survey”). Exploration is focused on rutile, gold, base metals, nickel-cobalt and graphite.

Mkango has completed reconnaissance shallow soil sampling and an auger programme on its Mchinji Licence. The results confirmed the presence of rutile plus anatase (both naturally occurring mineral forms of TiO2 mineralisation.). The Company is currently carrying out further desktop studies over the licence area.



Nkalonje Hill

Nkalonje Hill is located 23km by road (14km straight line) north-west of Songwe Hill within the Company's Phalombe Licences. Nkalonje Hill is approximately 95km by road from Blantyre. Paved roads run from Blantyre to within 19km of Nkalonje Hill.

Nkalonje Hill is underlain by an alkali silicate-carbonatite intrusive complex geologically similar to Songwe Hill, comprising two connected hills underlain by fenite, nepheline syenite and breccia. Regional geophysical data from the World Bank funded programme in 2016 demonstrates that Nkalonje Hill is marked by a magnetic low and thorium high. Thorium radiometrics are known as a highly effective tool for rare earths exploration and the Songwe Hill carbonatite is also characterised by a thorium radiometric anomaly, identified through previous geophysical surveys.

The fenites on Nkalonje Hill are intruded by carbonatite veins and dykes that are locally enriched in rare earth elements, suggesting potential for a larger mineralised carbonatite body below surface.

The Company has completed initial sampling and ground geophysics and identified drill targets with encouraging results announced on 7 April 2022. These results include:

- Mapping and geophysics results confirmed that the major geological features of Nkalonje Hill are those of an alkali silicate-carbonatite intrusive complex, similar to Songwe Hill.
- Assays of carbonatite dyke samples in the first of Mkango's targets ("Target 1") returned grades of up to 5.92% Total Rare Earth Oxide (TREO) with a median grade of 2.96%.
- Geophysics has also identified a primary shallow drilling target ("Target 2") beneath exposed mineralised dykes and a secondary deeper drilling target.

The similarities between Nkalonje Hill and Songwe Hill, and the high TREO grades from the assay results, demonstrate a strong case for further investigation. In the long term, the close proximity of Nkalonje Hill to Songwe provides a good potential source of additional feedstock for processing at Songwe Hill.

Planned work at Nkalonje Hill consists of continued evaluation of the geology and mineralogy of the targets identified previously.

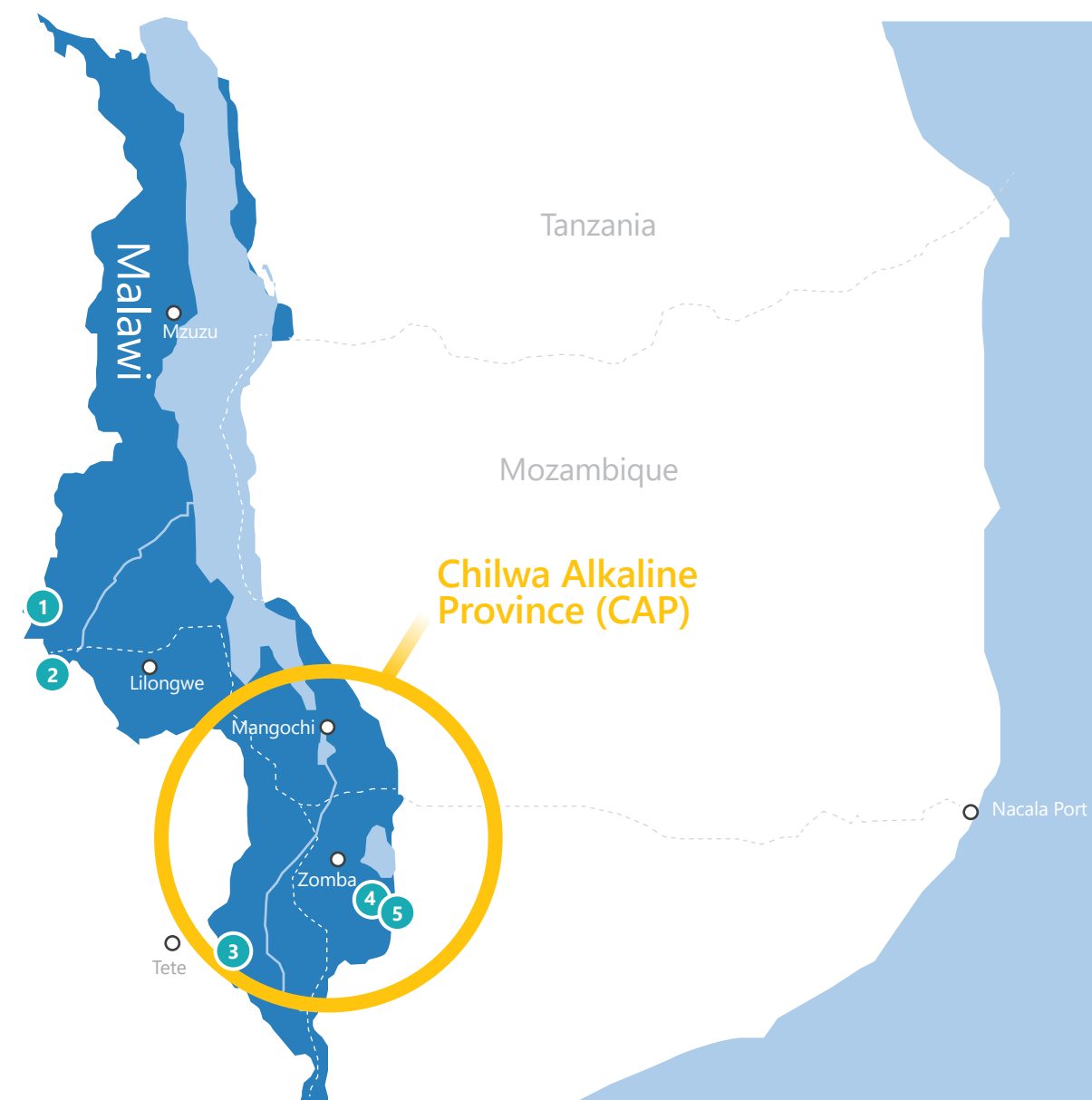
Chimimbe Hill

The Company has a 100% interest in the Chimimbe Licence in respect of an area of 25 sq km around Chimimbe Hill, Mchinji district, Malawi. Exploration has identified a number of areas with potential for laterite and saprolite hosted nickel, cobalt, chrome, rutile, gold and base metals and other mineralization.

Thambani Uranium Licences

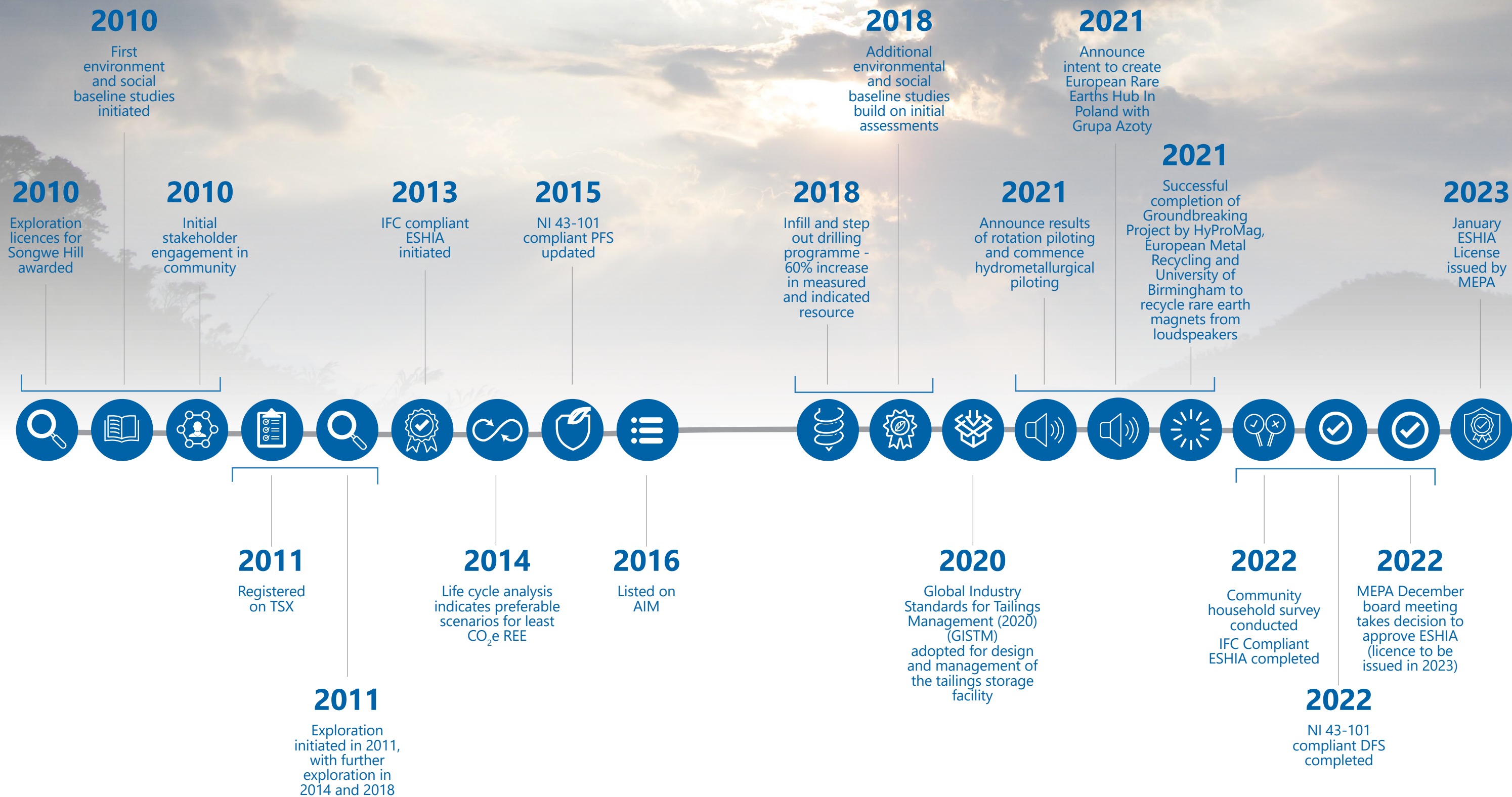
The Company has a 100% interest in the Thambani Licences in respect of an area of 98.36 sq km in Thambani, Mwanza District, Malawi. Exploration has identified a number of areas with potential for uranium ("U"), tantalum ("Ta"), niobium ("Nb"), zircon and mineral corundum. Mkango is currently evaluating strategic options for Mchinji, Chimimbe and Thambani, including opportunities for joint ventures and other potential avenues to create value.

MAP OF MKANGO RESOURCES PROJECT AREAS, MALAWI



- 1 Mchinji
- 2 Chimimbe
- 3 Thambani
- 4 Nkalonje
- 5 Songwe

PROJECT TIMELINE



REFINE

Pulawy Separation Plant

On 7 June 2021, the Company announced that Mkango and Grupa Azoty PULAWY had agreed to work together towards development of the Pulawy Separation Plant in Poland. The Pulawy Separation Plant will process the purified mixed rare earth carbonate derived from Songwe Hill into separated rare earth oxides.

Mkango Polska was established and is headed by a highly experienced Country Director for Poland, Dr Jarosław Pączek, together with rare earth separation experts, Carester, and a strong team of technical advisors and engineers.

Grupa Azoty PULAWY (Warsaw Stock Exchange: ZAP) is part of the Grupa Azoty Group, the European Union's second largest manufacturer of nitrogen and compound fertilizers, and a major chemicals producer. Its products are exported to over 20 countries around the world, including Europe, the Americas and Asia.

Mkango Polska and Grupa Azoty PULAWY have signed an exclusive lease option agreement for a site adjacent to Grupa Azoty PULAWY's large scale fertiliser and chemicals complex at Pulawy, which provides excellent infrastructure, access to reagents and utilities on site, and an attractive operating environment, resulting in a highly competitive operating cost position for the Pulawy Separation Plant, based on scoping studies to date.

Located within a Polish Special Economic Zone, the site provides excellent access to European and international markets. Production from the Pulawy Separation Plant will strengthen Europe's security of supply for rare earths used in electric vehicles, wind turbines and other green technology and strategic applications, and aligns with European initiatives to create more robust, diversified supply chains.

Development of the Pulawy Separation Plant is expected to bring significant benefits to the Mkango group, including:

- Higher value-added products with increased margins – targeting 2,000 tonnes per year of separated neodymium (Nd)/praseodymium (Pr) oxides, and 50 tonnes per year dysprosium (Dy) and terbium (Tb) oxides in a heavy rare earth enriched carbonate.
- Greater integration – plant development fully underpinned by sustainably sourced, purified mixed rare earth carbonate from Songwe Hill's operations, with other synergies being evaluated.
- Increased marketing flexibility with a broader range of potential customers – future opportunities to produce and market separated heavy rare earths.
- Catalyst for regional growth and the green transition – potential for further downstream developments and related businesses, including renewables, creating additional jobs in the region.
- Engagement with financial institutions is underway to accelerate development, and additional strategic partnerships, downstream developments and marketing opportunities are being evaluated.

Next steps for the Pulawy Separation Plant are to complete a feasibility study and discussions are underway with a number of potential partners to move the project to the development stage.



RECYCLE

The Company is pursuing downstream opportunities in the rare earths supply chain, with a particular focus on rare earth magnet recycling through its interest in Maginito. Maginito is owned 90% by Mkango with CoTec owning the remaining 10%. CoTec has the option to convert the CoTec Convertible Loan to Mkango into a further 10.6% of Maginito.

Maginito holds (i) a 100% interest in HyProMag, a company with a patented process named Hydrogen Processing of Magnet Scrap ("HPMS"), licenced from the University of Birmingham (UoB), which extracts and demagnetises NdFeB (neodymium, iron and boron) magnets embedded in scrap and redundant equipment; and (ii) a 100% interest in Mkango Rare Earths UK, which is focused on chemical processing of magnet scrap.

HyProMag is currently developing plants for short loop magnet recycling in the UK and Germany, the latter through its 80% owned German subsidiary, HyProMag Germany, and is uniquely positioned to unlock the supply chain for rare earth magnet recycling. The German Convertible Loan also gives Maginito the right to acquire up to 50% of HyProMag Germany.

Mkango Rare Earths UK intends to develop a pilot plant in the UK to chemically process recycled HPMS NdFeB powder and magnet swarf (i.e. the powder produced from grinding and finishing magnets) from a range of scrap sources including electronic waste, electric motors and wind turbines, complementing the short loop magnet recycling routes being developed by HyProMag.

Mkango Rare Earths UK and HyProMag are also collaborating with Bowers & Wilkins, European Metal Recycling, GKN Automotive Innovation Centre, Jaguar Land Rover and UoB in the "Driving the Electric Revolution Challenge" at UK Research and Innovation grant funded project, ("SCREAM").

SCREAM will establish a recycled source of rare earth magnets in the UK to provide greater security of supply to UK industry, whilst aiming to achieve a 10% reduction in cost and a significant reduction in environmental impact, with an estimated 88% less energy for short loop (i.e., magnet to magnet) recycled magnets versus primary mining to separation to metal alloy to magnet production.

The project includes pilot plants for short loop recycling, encompassing scrap pre-processing, HPMS and production of recycled sintered magnets, as well as for complementary recycling routes, namely remelting and strip casting to produce NdFeB alloys as well as chemical processing, the latter being developed by Mkango Rare Earths UK.

HyProMag will work with the UoB to develop a new semi continuous version of the HPMS process and to produce short loop recycled sintered magnets at multiple grades to match the requirements for a range of applications.

GOVERNANCE

Governance at Mkango is led by the Board of Directors who together make up the highest-level governance body and who are ultimately responsible for our corporate governance policy. In addition to our executive team, the company also has a very respected, experienced and international non-executive Board of Directors comprising Derek Linfield, Susan Muir, Stephen Motteram, Shaun Treacy and Phillipa Varris. These experienced and qualified directors add diversity to the Board and ensure that Mkango can pursue the goal of sustainable development in a manner that is fair, responsible, and transparent. The Board guides and monitors the business and affairs of the Company on behalf of the shareholders by whom they are elected and to whom they are accountable. The Board is committed to governing and managing all its operations in a manner that is transparent and honest and has written terms of reference that provides a framework for effective operation including composition, functions, responsibilities and obligations; interaction between the Board and management; and authorities delegated by the Board, to Board Committees and management.



Derek Linfield
Non-Executive Chairman
of the Board of Directors
(Remuneration Committee)

Mr Linfield is a legal consultant at Fasken and former Managing Partner of Stikeman Elliott (London) LLP, the London office of Canadian law firm Stikeman Elliott LLP between 2005 and 2015. He practised as a Canadian lawyer in London for 20 years, where he focused on cross-border financings and M&A in the mining and oil & gas sectors, including the listing of internationally managed companies on the TSX and the TSX-V as well as Canadian companies on the London Stock Exchange. A former educator, Mr Linfield holds BA(Ed) and BSc degrees from Memorial University of Newfoundland as well as LLB and MBA degrees from McGill University. He is a Director of MUN (UK) Ltd, the UK campus of Memorial 32 University of Newfoundland, previous chairman of Canada Day in London and the Foundation for Canadian Studies in the UK as well as a former Director of the Canada UK Chamber of Commerce where he is now an advisor to the Board. Has served on the Board of directors of Mkango Resources Ltd from January 31, 2014.



Alexander Lemon
Director and President
(Sustainability Committee)

Mr Lemon is a graduate of the Royal School of Mines, Imperial College, London (MSc Dic in Mineral Exploration) and Oxford Brookes University (BSc Geological Sciences). He has over 29 years' experience in mineral exploration and business development. Mr Lemon is a founding Director and President of Mkango and Mkango's major Shareholder, Leominex. From 1994 to 2001 he was the Managing Director of a gold mining company that owned and operated a producing gold mine in Central Asia, where he gained extensive operating experience in emerging markets including government negotiations and project management. From 2001 to 2005, he worked for a family office, Allied Commercial Exporters as an investment adviser. Since 2005 he has been involved in the exploration and evaluation of a variety of projects throughout Africa, Central Asia and Europe. He is a Fellow of the Geological Society, Fellow of the Geographical Society and a Member of the Southern African Institute of Mining & Metallurgy. He has been an executive director of Leominex and of Lancaster since September 2007, Lancaster Exploration Malawi since May 19, 2011, Maginito Ltd since January 17, 2018, MKA Exploration Ltd since July 25, 2018, MKA Exploration Malawi Ltd since May 6, 2019, and Mkango Rare Earths UK Ltd since June 23, 2021. He has served on the Board of directors of Mkango Resources Ltd from December 20, 2010.



William Dawes
Director and
Chief Executive Officer

Mr Dawes is a graduate of Bristol University (BSc Geology) and Royal School of Mines, Imperial College, London (MSc Mineral Exploration with distinction). Having trained as a geologist in South Africa, he worked as a mining analyst based in London and then for Rio Tinto's exploration division. Subsequently, he gained significant global mining transaction experience in the metals and mining team of Robert Fleming & Co, Chase Manhattan Bank and JPMorgan. Mr Dawes is a founding Director of Mkango and Mkango's Major Shareholder, Leominex, and since 2004 has been involved in the exploration and evaluation of a variety of projects throughout Central Asia, the Middle East and Africa. He has 15 years' experience in exploration and business development and 9 years in mining finance, mergers and acquisitions. He is a Fellow of the Geological Society, a Professional Member of the Institute of Materials, Minerals and Mining and holds the Chartered Financial Analyst designation. He has been an executive director of Leo Mining & Exploration Ltd ("Leominex") and of Lancaster Exploration Ltd ("Lancaster") since September 2007, Lancaster Exploration Malawi since May 19, 2011, Maginito Ltd since January 17, 2018, MKA Exploration Ltd since July 25, 2018, MKA Exploration Malawi Ltd since May 6, 2019, MyProMag Ltd since January 9, 2020 and Mkango Rare Earths UK Ltd since June 23, 2021. He has served on the Board of directors of Mkango Resources Ltd from December 20, 2010.



Susan Muir
(Audit Committee, Remuneration
Committee Chairman and
Corporate Secretary)

Ms Muir is a seasoned Investor Relations executive based in Toronto, and was previously Vice President, Investor Communications at Barrick following a series of increasingly senior roles since 2007. Most recently, she was Vice President, Investor Relations & Corporate Communications at Arizona Mining, which she joined in August 2016. Prior to Barrick, Susan also has 25 years of experience analysing and covering large and small cap precious metals equities for several major Canadian investment banks. Ms Muir holds a Bachelor of Arts from Concordia University. Has served on the Board of directors of Mkango Resources Ltd from August 28 2018.



Stephen Motteram
Non-Executive Director
(Audit Committee,
Remuneration Committee)

Mr Motteram has 25 years' experience in financial institutions and trading houses, specialising in project development, commodities trading, M&A, and corporate restructuring with transaction experience in Australia, China, SE Asia, Africa, South America, Russia and the Middle East. He has worked for the Noble Group Holdings group (the parent group of Talaxis) since 2011 and is currently their Head of Corporate Development. Mr Motteram holds a B. Agricultural Science (Honours) from the University of Melbourne and an MBA from the Melbourne business School and Ivey Business School. He is a Member of CPA Australia and a Graduate and Member of the Australian Institute of Company Directors.



Shaun Treacy
Non-Executive Director
(Audit Committee Chairman,
Remuneration Committee)

Mr Treacy is a senior strategic and corporate finance adviser with over 30 years of experience. He was previously a senior investment banker with JPMorgan (head of Metals and Mining advisory for Europe, Middle East and Africa and Head of Natural Resources in Australia), Lehman Brothers (Global Head of Metals and Mining), Nomura (Global Co-Head of Natural Resources and Power) and UBS (Co-Head of All Industries Group for Asia and Vice Chairman of the Global Metals and Mining Group) and worked as a corporate finance adviser at Coopers & Lybrand. Shaun has lived and worked in Australia, the United States, the United Kingdom and Hong Kong, holds a Bachelor of Commerce degree from the University of Queensland, a Graduate Diploma of Applied Finance & Investment, is an Associate of the Institute of Chartered Accountants in Australia and is a Member of the Australian Institute of Company Directors. He has served on the Board of directors of Mkango Resources Ltd from October 2, 2018.



Phillipa Varris
Non-Executive Director
(Sustainability Committee)

Ms. Varris has held leadership positions in environment, health, safety and community management in the mining sector for over 25 years, primarily in Africa, Australasia and Latin America, across a number of mineral commodities. Philipa has been awarded the Australian Centenary Medal for leadership in Australia's largest community consultation and strategic vision development initiative and was recognized in 2020 as one of the Women in Mining's 100 Global Inspirational Women in Mining.

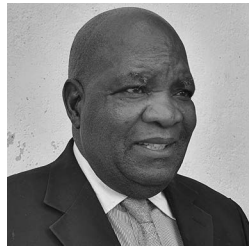
Philipa holds a Master of Science in Natural Resources from Curtin University of Technology, is an AusIMM Chartered Environmental Professional and UK Committee member, and is qualified with Corporate Directors International. She holds the position of Head of Sustainability with Horizonte Minerals and is a non-executive director of TSX-listed EnviroGold Global. As a champion for mining ESG leadership, Philipa has led teams recognised with the Prospectors and Developers Association of Canada ("PDAC") Award for Environment and Social Responsibility, the Australian Minerals and Energy Environment Foundation ("AMEEF") Award for Environmental Excellence, and the Mines and Money ESG Producer of the Year Award, amongst others. Philipa he has served on the Board of directors of Mkango Resources Ltd from May 24, 2023



Robert Sewell
Chief Financial Officer

Mr Sewell is a graduate of Rand Afrikaans University in Johannesburg and holds a CA (SA). He has 20 years' experience across different industries, most recently as CFO at AfriTin Mining an AIM listed company taking the company from exploration to a producer. He has played key roles in raising debt and equity finance, cash management, building a full financial function and negotiating commercial terms with off takers. Mr Sewell joined the Mkango management team in July 2022.

In addition to the Board and in keeping with our belief in diversity and local context, Mkango has a dedicated and skilled executive and management team in Malawi. This includes highly respected individuals with the required in-country business, accounting and geological skills needed to achieve our objectives in Malawi.



Burton Kachinjika
Director & Country Manager
Lancaster Exploration Limited
(Malawi)

Director and Country Manager for Lancaster Exploration Limited (Malawi) since 2010. Burton is a graduate of Exeter University - Camborne School Mines (B Eng. Hons. Mineral Processing 1986) and University of Malawi (BSc. Chemistry & Physics). A highly experienced country manager and director having previously held management roles at Portland Cement Company in Malawi with over 40 years experience in Natural Resources. He is currently serving as the President of Malawi Chamber of Mines and Energy and has previously been a director on the Board of the Malawi Energy Regulatory Authority, the Roads Administration fund and the Malawi Brick and Tile company Limited.



Effie Likaku
Director & Country Administrator
Lancaster Exploration Limited
(Malawi)

Director & Country Administrator for Lancaster Exploration Limited (Malawi) since 2010. Effie attended the Management Development Study Programme for Executive Assistants at the Eastern and Southern African Management Institute in Mombasa, Kenya. She has over 40 years' experience as an administrator and executive assistant. She is a specialist in Communications and Corporate Social Responsibility projects and leads the education scholarship program amongst many others and works very closely with the communities.



Gustave Glory Kaliwo
Company Secretary & Director
Lancaster Exploration Limited
(Malawi)

Company Secretary and Director of Lancaster Exploration Limited (Malawi) since 2010. Gustave studied Law at the University of Malawi Chancellor College both a Bachelor of Law Honours Degree LL.B Hons and a Master of Law Degree specialising in Commercial Law - LL. M (Commercial Law). A distinguished highly regarded Malawian commercial legal specialist with over 40 years' experience. Gustave was the Director of the Malawi Anticorruption Bureau from 2004 -2006, has worked previously as a Resident Magistrate, was the assistant Commissioner of the Malawi Police force. He has served in the Malawi Law Society Disciplinary Committee. Served as Commissioner of the Special Law Commission on the Review of the Police Act, was a Director and Company Secretary for Paladin (Africa)Limited and Senior Partner in the legal firm Nampota and Company. Prior to that was successor Attorney for the legal firm Green Munlo & Company. Currently he is a founding Partner and Managing Partner in the legal practice Gustave & Company. Other current directorships include Libertas Insurance Company, PEP (Africa) Stores, Ion Africa, Blantyre Society for the Protection and Care of Animals (BSPCA) ,Pirimiti Community Hospital, Southern Business Solutions and is Trustee of Zomba Gymkhana Club.



Stewart Chibanda
Chief Accountant
Lancaster Exploration Limited
(Malawi)

Stewart is a qualified and experienced accountant working in the mineral exploration and mining sector for more than 12 years. Previously with accounting group EY and BHP Minerals, Stewart specializes in audits, budgeting and financial modeling assignments. He is currently pursuing a certification as a Financial Modeling & Valuation Analyst with the Corporate Finance Institute (CFI).



Chikondi Mcheka
Senior Exploration Geologist
Lancaster Exploration Limited
(Malawi)

Chikondi is a graduate of the University of Malawi, Chancellor College where he studied B.Ed Science - Geography and Geology. Chikondi has over 12 years' experience working in the natural resources sector, having been involved in mapping, geological prospecting, drilling, sampling, core logging, geophysical surveying, geochemical sampling, and interpretation of surface and subsurface data. He was heavily involved in the project's ESHIA studies as well as the wider stakeholder engagements at various levels including government, communities, and interested organizations. In 2011 he worked with the Malawi Geological Survey Department. He is also a member of the Malawi Geosciences Society.



Fungai Kamzimbi
Exploration Geologist
Lancaster Exploration Limited
(Malawi)

Fungai is a graduate of the University of Malawi, Chancellor College with a BSc in Geology & Physics. Fungai has 6 years field experience working with Mkango Resources with experience specializing in mapping, geological prospecting, drilling, sampling, core logging, geophysical surveying, geochemical sampling, and interpretation of surface and subsurface data. Fungai worked on the Songwe Rare Earth project ESHIA studies as well as the wider stakeholder engagements at various levels including government, communities, and interested organizations.

GOVERNANCE

Mkango governs and manages all its operations in a manner that is transparent and honest. This is achieved by setting goals that are ethical and to ensure that these goals and their associated requirements are implemented on a regular basis. Mkango implements clearly defined corporate governance policies to help morally and ethically manage all of its operations, present and future. In doing so, Mkango ensures that it pre-emptively solves and addresses any corporate and governance issues. By consistently implementing and adhering to sound governance practices, both investors and employees can be assured of an enhanced level of trust and transparency.

Mkango complies with international standards and adheres to a strict code of conduct. This helps to develop a work environment where employees act with integrity, comply with all local laws and maintain a professional working environment. Mkango is an equal opportunities company and ensures the employees enjoy an environment that is safe, free of discrimination, harassment and violence. Mkango aims to ensure that all potential conflicts of interests are transparent, reported and addressed to ensure that all employees' actions are honest and based on sound principles of integrity, so that all the company's assets are protected and respected. Mkango and all its employees must act with integrity and ensure that all work occurs in a fair, honest and legal manner. All forms of corruption and bribery are reportable and must be addressed immediately in a correct and fair manner. This is managed through the anti-bribery and corruption policy. Mkango aims to follow up on and address all grievances according to its relevant grievance mechanisms set in place and to ensure that all incidents are recorded and addressed.

- ▼ We are committed to acting professionally, fairly and with integrity.
- ▼ We are committed to protecting our employees and encourages openness.
- ▼ We aim to implement all the required operational standards and management plans, and to provide adequate training, to all our employees.



We govern and manage all our operations in a manner that is transparent and honest. This is achieved by setting goals that are ethical and ensuring that these goals and their associated requirements are implemented on a regular basis. We aim to use clearly defined corporate governance policies to help morally and ethically manage all our operations (present and future). In doing so, we can ensure that we solve and address any corporate and governance issues pre-emptively. By consistently implementing and adhering to sound governance practices, both investors and employees can be assured of an enhanced level of trust and transparency.

ANTI-CORRUPTION AND BRIBERY POLICY

Our policy regarding Corruption and Bribery states that we are committed to an honest and ethical practice and that we ensure that all our business is conducted in a suitable manner, that is, in such a way that is compliant with all applicable local and international law, as well as with a zero tolerance to bribery and corruption. We are committed to acting professionally, fairly and with integrity.

The Anti-corruption and Bribery Policy aim is to set out responsibilities in observing and upholding our position on bribery and corruption, as well as to provide guidance to those working for the company to recognise as well as deal with bribery and corruption issues. The policy defines and gives examples of what a bribe is, and what giving and receiving a bribe would look like. Where gifting and hospitality is concerned, what is and what is not acceptable is also discussed. The employee's responsibility toward identifying and notifying the company of bribery instances are also discussed. Our standards on record in keeping with

relation to bribery and corruption, how a concern can be raised, and the process to follow if an employee is a victim of corruption or bribery, is also considered by the policy.

The policy also states that no individual shall suffer any detrimental treatment as a result of refusing to take part in bribery or corruption, or because of reporting in good faith his or her suspicion that an act of bribery or corruption has or may have taken place. We are committed to protecting our employees and encourage openness. The policy provides the reporting procedure to follow should it be required. Training regarding this policy forms part of the induction process for all new workers and all existing workers, who will receive regular refresher courses regarding the implementation of this policy. The beliefs set out by this policy are made abundantly clear to all new suppliers, contractors and business partners at the outset of the business relationship. The policy continues and identifies the accountable individuals, responsible for the implementation and following of this policy.

The board of directors, a compliance officer and management are responsible for ensuring that the effectiveness and review of the implementation of this policy is regularly and continuously monitored to ensure compliance. The implemented internal control systems and procedures are also regularly audited to provide assurance that they are effective at countering bribery and corruption. Employees are also asked to complete a certification of compliance with this policy to ensure that they are aware of the requirements set out by the policy and aware of their requirements.



RISK MANAGEMENT

At Mkango we are aware of the ESG risks that are inherent in the extractive industry and processing operations. We are also aware of the fact that the minerals we produce facilitate a transition to a decarbonised economy. This transition needs to be done in a just manner that does not disproportionately impact host communities. With this in mind, Mkango has, through an internal review process and the stakeholder engagement linked to the feasibility studies, identified material risks which are managed to minimise any social, health and safety, operational, financial or environmental risks.

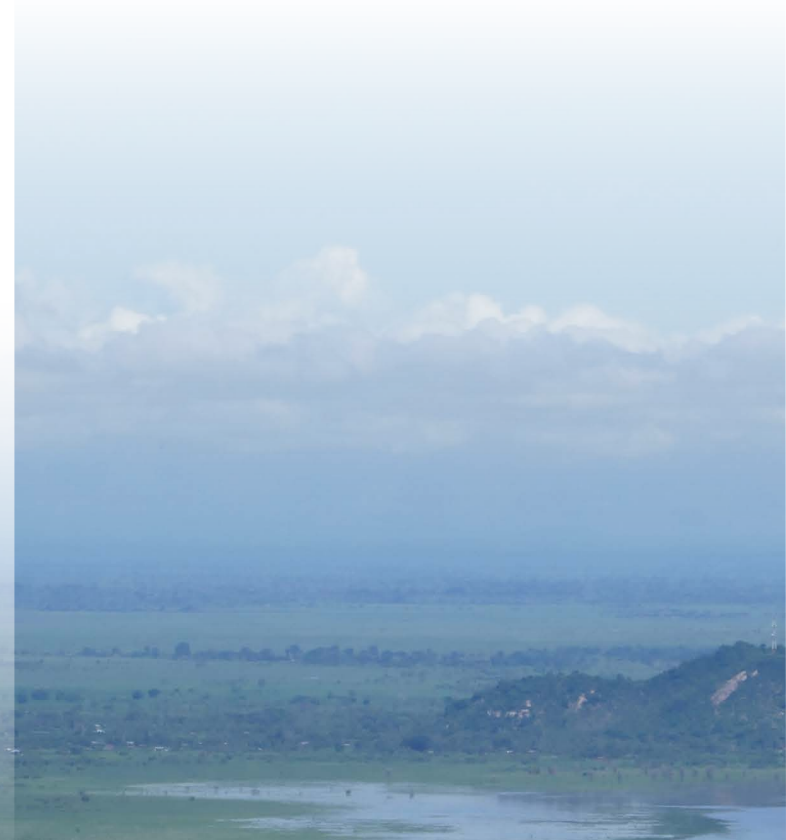
We are dedicated to assessing and controlling all identified risks by minimising and mitigating them pre-emptively. We regularly conduct risk assessments and continue to update and analyse potential risks to help minimise the effect that these might have.

Managing our ESG risk is critical to business performance and directly impacts our ability to deliver value to all our stakeholders, including shareholders. ESG risks impact performance through various levers such as operational continuity, permits and licences, social licence to operate and reputation.

The Company is subject to substantial environmental requirements. The current and anticipated future operations and exploration activities of the Company in Malawi require permits from various governmental authorities and such operations and exploration activities are and will be governed by local laws and regulations governing various elements of the mining industry including, without limitation, land use, the protection of the environment, prospecting, development, production, exports, taxes, labour standards, occupational health, waste disposal, toxic substances, and other matters. We have actively managed for these through our feasibility and ESHIA process and actively engage and empower the government of Malawi through the process of our Mining Development Agreement.

Globally, environmental legislation is evolving towards stricter standards and enforcement, more stringent environmental impact assessments of new mining projects and increasing liability exposure for companies and their directors and officers. Climate change poses transitional and physical risks to global society. There is no assurance that future environmental regulations will not adversely affect the Company's operations. The Board includes the assessment of risk in its mandate and publishes a summary of key risks in our published management discussion and analysis documentation.

The report provides an update on the important ESG matters within Mkango's operations demonstrating commitment to progress and development. This report aims to outline the progress that has been made to date with regards to our strategic ESG goals and the aim of the "Mine, Refine, Recycle" initiative we plan to implement. Additionally, this report considers our impact on the broader economy, environment and society and reflects on our efforts to tackle impacts affecting ESG strategically by determining the primary issues and demonstrating our intention to mitigate and manage these specific issues.



MESSAGE FROM THE ESG ADVISOR



➤ Mkango Resources is committed to working in a socially and environmentally responsible manner and maintains a dialogue with regional and national authorities, as well as broader stakeholders to ensure social best practice.

➤ With the release of the DFS, the approval of the ESHIA and in anticipation of concluding the Mining Development Agreement, Mkango continues to advance ongoing discussions with key stakeholders.

➤ Mkango has shown over the last 12 years in Malawi that it has a world-class management team with complementary skills, including technical, financial and business development expertise, and a dedication to the ongoing development of the mining industry and supply chain.

The sustainability proposition of Mkango Resources has always been of keen personal interest to me, since the Mine, Refine and Recycle concept, specifically with regard to key Rare Earth Elements, is aligned to the global energy transition requirements. Having advised Mkango on Environmental and Social matters for over ten years, I can confidently attest that the company has placed significant emphasis on going beyond meeting local regulatory requirements and implementing best practice in terms of international investment expectations. Seldom in my career have I seen a company invest as much as Mkango in developing its Social Licence to Operate within the project Host Communities and the broader Malawian administration in creating a project enabling environment. Environmental, Social and Governance (ESG) matters have been front and centre from the first pre-exploration activities which have advanced through years of baseline data collection and stakeholder engagement culminating in an Environmental Social Impact Assessment (ESHIA) that was approved by the Malawian Environmental Protection Agency (MEPA) in late 2022.

Many of these initiatives described in this report exceed what is typically expected at the exploration phase of a mining project, instilling long-term confidence in the ore body, proposed processing techniques and Malawi as a viable mining jurisdiction.

Bradly Thornton

MATERIAL SUSTAINABILITY TOPICS

We recognise that we are at the start of our ESG and sustainability journey and acknowledge that our processes will mature with time and intentional effort. Our process to determine our material sustainability topics followed a process that was weighted to our largest and most active project, the Songwe Hill Rare Earths project. Here, primarily through our ESHIA, we actively engaged a broad range of stakeholders including government, project

impacted communities, scientific bodies, business, NGOs and civil society at large. This determined our most pressing impacts and potential impacts relating to the project. We as the Board then, with the assistance of external ESG advisors, analysed these impacts in the broader context of the business and defined the following as our material sustainability topics.

Responsible sourcing and consumption

Mkango is focused on sourcing and recycling REE responsibly and minimising our impacts and consumption to create sustainable REE products.

Ethical business practice

Conducting ethical business that is deliberately cognisant of all forms of diversity will ensure the sustainability of our business and deliver long term shared value.

Transparency disclosure and leadership

Delivering our projects in a legally compliant manner that is aligned to international best practice ensures that our business is transparent and accountable. We aim to collaborate and lead through good governance.

Our human capital

Sourcing, developing and growing a highly skilled, innovative and committed team will ensure our ability to transition successfully from planning to production. Ensuring their health, safety and wellbeing is core to our success.

Community relationships

Open, respectful and transparent communication builds key community relationships. Our engagement is people-centric and community driven. This is key to maintaining our social licence to operate and ensures that our project benefits all stakeholders.

Our emissions

With a significant portion of our energy coming from renewable sources we strive for a low overall carbon footprint. We are focused on reducing all forms of pollution that may emanate from our operations.

Biodiversity

We acknowledge that our mining projects have the potential to impact biodiversity. This includes our direct footprint and our area of influence. We are applying international best practice and the mitigation hierarchy to ensure that our impacts are appropriately managed.

Water

Water is a critical resource and this is especially true in the context of the Songwe Hill project. Clean water is crucial to functioning communities, the execution of our project and facilitates ecological functioning. We actively protect water resources as a key aspect of our ESHIA and project design.

Supply chain and socioeconomic benefits

Our projects create new and potentially uplifting supply chains. This in conjunction with taxes and royalties has the potential to improve GDP by up to 2%. It is important that this is sustainable and as far as possible benefits our communities thus contributing to localised economic upliftment.



THE RARE EARTH MARKET

Mkango uniquely positioned to supply sustainably sourced rare earths from both mined and recycled sources.

The transition to a decarbonised economic system requires innovative ideas and new technology. Much of this is, and will continue to be, dependent on REE which are essential components in many modern technologies, including electronics, renewable energy and transportation.

The rare earth market and forecast information has been compiled by Adamas Intelligence, an independent research and advisory firm contracted by Mkango to forecast long-term supply, demand and prices for REEs as well as emerging trends in the market.

Compared to similarly abundant elements in nature, such as copper, lead, and tin, global annual production of REEs is notably low.

Nevertheless, REEs have become critical to technologies fundamental to clean energy initiatives worldwide, as well as ubiquitous gadgetry and electronics of modern society.

REEs are used in small, but often necessary, amounts in hundreds of different technologies, materials, and chemicals worldwide for commercial, industrial, social, medical, and environmental applications.

REEs are used in hundreds of unique end uses and applications that collectively fall into one of the end-use categories:

- 1 BATTERY ALLOYS
- 2 CATALYSTS
- 3 CERAMICS, PIGMENTS AND GLAZES
- 4 GLASS POLISHING POWDERS AND ADDITIVES
- 5 METALLURGY & ALLOYS
- 6 PERMANENT MAGNETS
- 7 PHOSPHORS
- 8 OTHER END USES

In just a few decades, REEs have become entrenched in modern technology and industry and have proven exceptionally challenging to duplicate or replace.

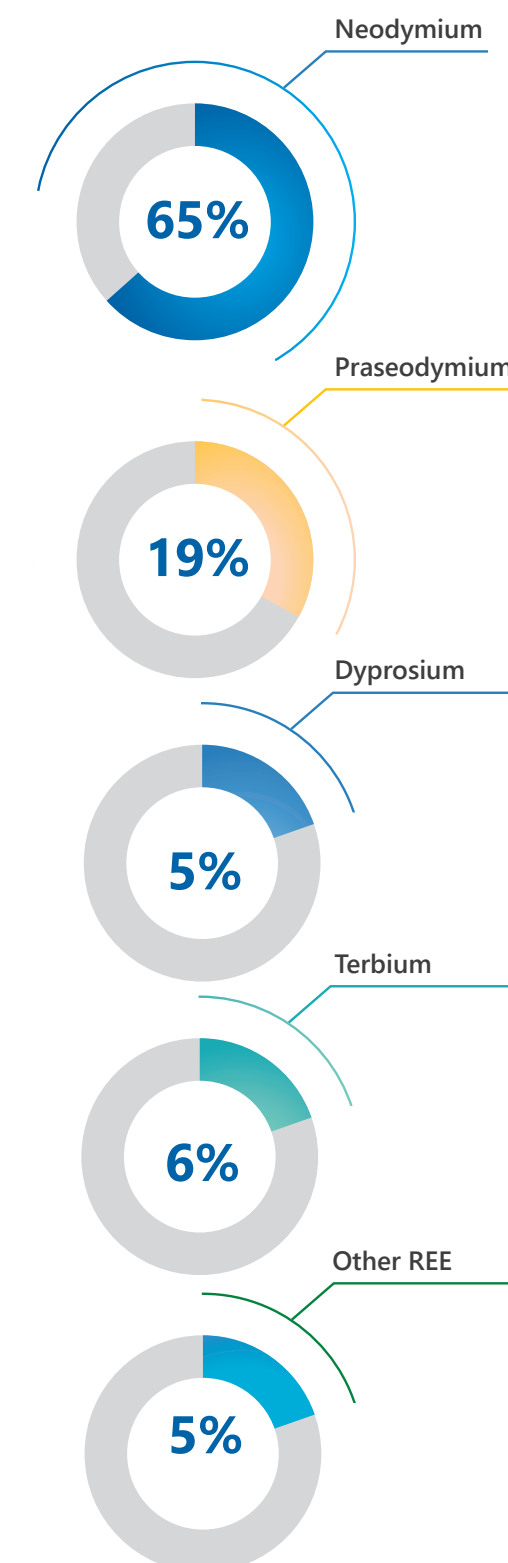
REEs are not remarkably rare in nature, but rather are rarely concentrated into economically significant amounts for extraction and processing owing to certain physical and chemical characteristics that promote their broad dissipation in most rock types.

By volume, permanent magnets and catalysts were collectively responsible for over 65 % of the global TREO consumption in 2021. However, by value, permanent magnets alone were responsible for 95 % of the total value of the global TREO consumption in 2021, and this share is poised to expand further as the demand for (and prices of) neodymium, praseodymium, dysprosium and terbium continues to rise strongly in the years ahead.

Not only does the demand for neodymium, praseodymium, dysprosium and terbium collectively make up the majority of global value currently, but in the years ahead demand for these four REEs is expected to grow faster than the demand for all the other REEs, challenging current global supply capacity.

Mkango has strategically applied international best practice to its exploration and planned mining activities to ensure that virgin REE we supply are sustainably sourced. We then have a progressed strategy to refine our product to ensure this is sustainably produced. The overall sustainability is further enhanced by adding recycled material to our overall production thus completing the Mine, Refine and Recycle strategy.

Approximately 95% of Songwe revenue & 100% of recycling revenue attributable to rare earths used in high growth permanent magnet sector. Songwe mixed rare earth carbonate split by value:



CONTRIBUTION TO THE SDGs

Fundamental to our ESG strategy is the application of globally accepted best practice standards. In this regard we comply with to the International Finance Corporation's (IFC) Performance Standards and the Equator Principles. This is practically achieved through the ESHIA which has been conducted in accordance with these standards. The resulting environmental and social management plan fulfills the IFC requirement to have an appropriate management system. This will be further developed as we progress from feasibility, through to construction and development and begin mining. We believe this to be appropriate to the nature and scale of Mkango as we promote sustainable development in a transparent and conscious manner.

Mining, and particularly mining in the context of a developing nation such as Malawi, has the potential to contribute to all 17 of the United Nations Sustainable Development Goals (SDGs).

The promotion of the IFC Performance Standards as well as the applicable UN SDGs allows us to promote sustainable development in a manner that is transparent, fair and attracts the conscious minded investor. By implementing these standards and promoting the relevant Goals, Mkango is better equipped to achieve our stakeholders' development expectations.

Mkango strategy supports the achievement of the following United Nations Sustainable Development Goals (UN SDGs):



OUR PEOPLE

We understand that our people are our most valuable asset. We believe in cultivating in-house excellence and promoting an innovative company culture.



SUSTAINABILITY

We are facilitating the global decarbonisation initiative. Sustainability is at the core of what we do and how we do it. We understand that sustainability is multifaceted and includes environmental, social, governance and commercial aspects. Our exploration is targeted, recovery innovative and recycling reduces the overall impact.



HEALTH AND SAFETY

Linking to our people and our stakeholder's health, safety and well-being of our staff, communities and stakeholders is at the forefront of our operations.



EMPOWER AND COLLABORATE

We believe in the empowerment of local and international staff through training and other initiatives coupled with support for cost-effective and synergistic research and development programmes. We collaborate with staff, communities and authorities to progress sustainable acquisition of rare earth elements.



DIVERSITY

Diverse challenges require diverse solutions. It is only through embracing all aspects of our diversity that we will deliver on our mission. We foster a diverse workplace culture and have a zero tolerance for all types of discrimination.



OUR STAKEHOLDERS

Our social licence to operate is critical to delivering value. We invest heavily in building long-term and sustainable stakeholder relationships in Malawi and globally. This is good business and good for business.



MKANGO'S PROGRESS

SOCIAL

Mkango is committed to working in a socially responsible manner which maintains a dialogue with all stakeholders. Mkango proactively communicates with all affected communities and relevant authorities to ensure that fair and transparent engagement occurs. This is critical to maintaining our social licence, is integral to our vision and is directly related to our ability to deliver shared value.

A key social consideration is the upliftment of the community through employment opportunities as well as skills development. Whilst this is a legal requirement in Malawi, we view it as an ethical business imperative.

We promote employment both at the proposed mine and through our supply chain and have created opportunities for academic progression through facilitating practical field work. We are however cognisant of the need to be realistic and deliberately communicate these opportunities in an open and transparent way so as not to overemphasise the benefits of the project.

In addition to the direct benefits related to employment Mkango has, through community engagement, identified early childhood development, access to clean drinking water, food security and general access as key social projects within our host community. Each of these is further described under the relevant sections of this report.

THE COMPANY HAS SEVERAL SOCIAL RESPONSIBILITY COMMITMENTS WHICH INCLUDE:



The environmental benefits linked to the decarbonisation of industry have potential social impacts on a global scale. On a local scale we believe that Mkango most directly supports the Malawi Government in achieving the highlighted SDGs.



STAKEHOLDER ENGAGEMENT PROGRAMME

We are committed to working in a socially and environmentally responsible manner which maintains a dialogue with regional and national authorities. All relevant players applicable to the Songwe Hill REE project have been identified by our Stakeholder Engagement Programme (SEP) and an open dialog has been implemented. In this way, we proactively engage with all the affected communities and authorities to ensure fair engagement. We are dedicated to compliance with the Equator Principles, IFC Performance Standards and specific requirements of Malawian legislation.

SUSTAINABLE DEVELOPMENT AND CORPORATE SOCIAL RESPONSIBILITY ARE INTEGRAL TO OUR VISION

We have a formalised stakeholder engagement programme which will be further implemented as the project progresses. The programme is described in Table 1.

Table 1: Mkango stakeholder engagement programme

Stakeholder group	Area of interest	Method of engagement
Employees	<ul style="list-style-type: none">• Maintaining a safe, healthy, engaged, diverse and inclusive workforce is essential to maximising the value of contributions to stakeholders.• It is envisioned that the Songwe Hill project will create approximately 800 employment opportunities during the construction phase and approximately 427 employment opportunities during the operational phase of the mining operation.• Career development• Inclusion and diversity• Wages and benefits	<ul style="list-style-type: none">• Employee engagement surveys• Employee communication channels• Training and development
Host communities	<ul style="list-style-type: none">• Developing strong and lasting relationships. Creating self-sustaining communities• Planning for local economic activity and social sustainability.• Corporate Social Responsibility programmes• Employment and procurement opportunities	<ul style="list-style-type: none">• Social performance policy• Continued engagement with host communities• Local legislation• UN SDG• IFC Performance Standards• Grievance mechanism
Suppliers and contractors	<ul style="list-style-type: none">• Ensuring that suppliers' policies are aligned with Mkango's policies, values on human rights, labour relations and practices• CSR programmes• Procurement of services	<ul style="list-style-type: none">• Procurement management plan• Supplier code of conduct
Customers	<ul style="list-style-type: none">• Addressing customer service and privacy• Pricing and contracts• Research and development	<ul style="list-style-type: none">• Contract negotiations• Client/Customer communications
Government and regulators	<ul style="list-style-type: none">• Addressing lobbying, public policy and compliance with environmental regulations• Government regulations, permits• Environmental responsibility	<ul style="list-style-type: none">• Site visits• Reports• Regular meetings
Shareholders	<ul style="list-style-type: none">• Addressing the company's business model and corporate governance, including disclosing the role of the board in risk management, in sustainability reporting and in evaluating CSR performance• Financial reports• Business performance	<ul style="list-style-type: none">• Shareholders' meetings• Regular communication
Investors	<ul style="list-style-type: none">• Environment, Social and Governance reporting	<ul style="list-style-type: none">• Investor seminars• Regular meetings
Non-government organisations	<ul style="list-style-type: none">• Safety and health performance• Business integrity• boNGO Worldwide Partnership	<ul style="list-style-type: none">• Regular meetings and communication

Social Responsibility Activities:

Our responsibility to host communities extends beyond the provision of direct employment. The Corporate Social Responsibility Initiatives (CSR) contribute to sustainable development in host communities. Mkango is implementing a successful early-stage corporate social responsibility programme despite only being at the exploration stage and now moving into the development stage. It is focussed on empowerment, education and reducing poverty.

The company is progressively working on positively improving the lives of the host community. Over the next period the company aims to strengthen its delivery on key sustainable development indicators and targets. The company’s programme in relation to developing and empowering the host communities is detailed below.

Education

Mkango invests in education and aims to make a meaningful and positive impact on the local communities. The aim of investing in the education of the local communities is to help support long-term development. This also helps Mkango understand the challenges felt within the local communities. By investing in education and understanding the challenges for the region, Mkango is supporting the long-term development of Phalombe District. The contributions made are outlined to the right.



EDUCATION/SCHOOL SUPPORT PROGRAMMES

undertaken to date

2500

children fed daily
(as of 27.02.2023)

2016 - present

Mkango funded the construction of two kitchens and four dining rooms at **Changa** and **Mphenbezu Primary Schools** in partnership with Zero Hunger with Langar. These kitchens now provide 1 meal a day to approximately 2,500 children.

The World Food Programme has stated that hunger impacts children’s ability to concentrate and as such learn. By alleviating this the kitchens are supporting education outcomes within our communities. More than this, by ensuring that 2,500 children receive a meal at school. Mkango is further supporting food security within our host community and is supporting household resilience through improved nutrition and, by removing the lunch burden, poverty reduction.

24

classrooms
refurbished

2010 - present

The school syllabus has been decorated and will be maintained on the walls of the schools in 24 classrooms, working in collaboration with a local NGO, boNGO Worldwide.

Through its print-rich approach, this initiative has improved the learning environment whilst simultaneously providing access to the syllabus. Anecdotaly, this initiative has the potential to improve exam pass rates by as much as 30% through more diverse teaching and learning opportunities, better concentration, and engagement and independent learning opportunities even without access to textbooks.

56

secondary school
scholarships award
to date

2012 - present

A Secondary School scholarship programme has been developed to support 3 girls and 3 boys annually to attend secondary school. Full secondary school fees are paid for the highest academically achieving girls and boys from the three local primary schools: **Changa**, **Mphenbezu** and **Mangadzi**. We believe this will result in positive benefits within our community given that access to secondary schools is currently a significant issue within the district.

A total of 8 of university scholarships have been awarded to date.

3

local primary schools
supported

2010 - 2016

Mkango has donated educational and sporting equipment to three local primary schools: **Changa**, **Mphenbezu** and **Mangadzi**.

Corporate Social
Responsibility is integral
to the vision of Mkango.

William Dawes,
CEO and Executive Director



CASE STUDY

REGIONAL DEVELOPMENT

Regional Development & Support Initiatives

Mkango has helped with development of infrastructure in and around the proposed project area. These include three bridges which have been newly constructed and the refurbishment of nine existing bridges. Mkango has, prior to the recent government upgrading of the roads between Migowi and Namalamba village, regraded and refurbished the local road network, improving connectivity as well as ease of access within the area.

Previously, the area did not have sufficient supply of water, meaning women had to walk up to two hours every day to collect water. Mkango saw a need to assist with the water challenges and the following activities have been undertaken to alleviate the water supply issue:

- 7 water boreholes drilled and installed with hand pumps for the local communities.
- Additional 12 boreholes and pumps have been repaired, put back into operation and maintained.

In 2015, Malawi received unprecedented amounts of rainfall. The Phalombe district and areas surrounding Songwe Hill were hit by floods which resulted in the loss of property, livestock and foodstuffs. Mkango assisted the surrounding villages (470 households), donating various items worth MWK 6.2 million. The items included maize flour, blankets, plastic sheets, buckets, plastic cups and plates. The three primary schools in the area also received 3,000 exercise books and pencils.

In December 2018, after more heavy rainfall, Mkango assisted with the donation of 60 rolls of plastic sheeting to assist with the waterproofing of damaged structures.



STAKEHOLDER ENGAGEMENT PROGRAMME

The social aspect focusses on the organisation's processes, policies, practices and impact with regard to stakeholders (internal and external). As part of the criteria to report on the company's social performance, five social indicators (as listed below) were considered:

- Indicator 1- Supply chain
- Indicator 2- Stakeholder Engagement
- Indicator 3- Health and Safety
- Indicator 4- Workforce department/Human Capital
- Indicator 5- Diversity and Equal opportunity
- Indicator 6- Human Rights

INDICATOR 1 Supply Chain

To ensure long-lasting, positive impacts in the areas in which it operates, Mkango expects its suppliers, contractors and any third-party firms it conducts business with, to uphold the same standards in areas such as health and safety, human rights, transparency and business ethics. Mkango seeks to provide a sustainable, secure and efficient supply chain by prioritising local hiring and procurement as far as possible, which plays a critical role in local community development and building long lasting relations with key stakeholders.

Mkango expects its suppliers to apply the same standards to their suppliers and contractors, to ensure that business is conducted to a high standard throughout the industry.

INDICATOR 2 Stakeholder Engagement

Mkango is committed to treating all members of the communities and countries they work in as equals, with respect and dignity. The company is progressively working with stakeholders to understand their views and concerns on various social issues (such issues often referred to as corporate social responsibility ("CSR") issues) and to incorporate and address those views and concerns in the company's strategic decision-making processes. Stakeholders are integral to the company's ability to deliver value.

INDICATOR 3 Health and Safety

Mkango's policy covers the following aspects:

- Occupational health and safety management system
- Hazard identification and incident investigation
- Promotion of employees' health and wellbeing
- Prevention of occupational incidents.

Mkango believes that all injuries at work are preventable and strives to foster a zero-harm workplace. As an employer, Mkango provides a safe and healthy working environment for its employees and business partners and expects its suppliers to do the same for their employees. To do this, Mkango conducts thorough risk assessments for all its operations, and necessary measures are taken to prevent accidents from occurring, such as the provision of appropriate and well-maintained personal protective equipment (PPE) and extensive health and safety training. Effective methods for employees to report any hazards or injuries have been implemented and no form of prejudice will be tolerated. A culture of personal responsibility, where employees avoid at-risk behaviours, as well as health and safety hazards at work, is encouraged. If breaches in the health and safety code are found, disciplinary enquiries are undertaken, and further training is conducted if necessary.

INDICATOR 4

Workforce
department/
Human Capital

Company Performance:

Current workforce and human capital prior to initiation of the development phase.

36 MALAWIAN EMPLOYEES/CONSULTANTS IN TOTAL MADE UP OF:



Mkango aims to employ locally as much as possible. Furthermore, Mkango is determined to maximise the potential of local communities by promoting and supporting skill development within the mining sector. The individuals currently employed on site include fieldwork assistants, road construction labourers, construction specialists and on-site security personnel. This will be significantly expanded as the mine develops further.

Furthermore, Malawian graduate geologists, graduate mining engineers, geological technicians and local community members have received training at the Songwe Hill project to become drill rig assistants, geological assistants, chefs and cleaners.

Mkango also regularly hosts visits by 4th year geology students from Chancellor College, University of Malawi, the Polytechnic and students from Malawi University of Science and Technology. We believe this is supporting the development of skills required for a thriving, sustainable mining industry within Malawi.

Mkango's employees all receive extensive health and safety training at the start of employment. Throughout their employment, Mkango employees receive regular performance reviews, to ensure all training is relevant. Mkango also conducts regular internal and external assessments to monitor its performance with regards to health and safety.

During construction phase it is envisaged that approximately 800 personnel will be employed and during the operational phase approximately 427 personnel.

Malawi is known as "The Warm Heart of Africa", a stable democracy with existing road, rail and power infrastructure, and new infrastructure developments underway.



CASE STUDY

EDUCATION

Our ESHIA completed in 2022, identified 11 primary schools and no secondary or tertiary schools in the immediate area to the Songwe Hill Project. As a result, only 7.6% of household members in surveyed households have accessed secondary school education. The local education infrastructure is overwhelmed due to the lack of educational institutions. According to the Ministry of Education, Science and Technology, the recommended pupil to classroom ratio is 60:1 (Local Authority Performance Assessment (LAPA) Tool, 2018). All 11 schools have a very high pupil to classroom ratio, with the highest being 207 and lowest 84. The schools also have open 'classrooms' to handle overflow. When this 'open classroom' aspect is considered, the ratio improves with the highest being 100 and lowest being 43. Only four schools out of the 11 meet the recommended minimum classroom ratio of 60:1.

In collaboration with our community and various implementation partners we have rolled out several education initiatives as detailed in this report. However, we are particularly proud of our scholarship initiative that is showing direct long-term benefits. Here a Secondary School scholarship programme has been developed to support 3 girls and 3 boys annually to attend secondary school. Full secondary school fees are paid for the highest academically achieving girls and boys from the three local primary schools: Changa, Mphenbezu, and Mangadzi. We believe this will result in positive benefits within our community given that access to secondary schools is currently a significant issue within the district. We are proud to announce that to date a total of 8 University Scholarships have been awarded to beneficiaries of this programme.

*subsequent to this case study a secondary school has been built in Namalima village.



INDICATOR 5
Equal
Opportunity

Mkango upholds a strict anti-discrimination policy to provide equal opportunities for everyone irrespective of gender, race, disability, ethnicity, religious belief or any other attribute unrelated to job performance. It strives to act in accordance with the International Labour Organisation’s Core Conventions, to provide equality of opportunity and treatment in respect of employment and occupation. It acknowledges that mining is a traditionally male-dominated field and will endeavour to ensure women are fairly represented within the business. Furthermore, Mkango will continually monitor for equal pay gap and publish these results fairly and transparently.



INDICATOR 6
Human
Rights





Company Performance:
Mkango’s approach to promoting human rights aligns with the United Nations (UN)

To support our commitment to the promotion of human rights, employees are trained in the company’s human rights policy. In addition, Mkango ensures internal stakeholders understand the internal and external grievance mechanisms and how to report or raise an issue, and that there is no risk to them in doing so. Mkango suppliers and third-party companies are expected to uphold the same standards with their employees. When working with private security firms, Mkango ensures they are aware of and follow the human rights policy, and act in line with the UN Code of Conduct for Law Enforcement Officials.

Mkango prohibits child labour and any form of forced or compulsory labour. This policy extends to its suppliers and any other business it works with. Mkango acts in compliance with UN Guiding Principles on Business and Human Rights, which includes strategies to prevent, address and remedy human rights abuses committed in business operations. The company makes every effort to address any potential or actual human rights breaches, whether direct or indirect, as a result of its business.

Mkango respects every employee’s right to be part of, or not be part of, a union and rights to collective bargaining. When communicating with unions, it does so in a transparent and respectful manner. The company supports the rights, values and needs of the local indigenous population and hold regular meetings to discuss any plans it may make. Mkango has an appropriate means of contact with the local community should anyone want to raise any concerns or report any issues with the company. When working with private security firms, it ensures they are aware of and follow the human rights policy, and act in line with the UN Code of Conduct for Law Enforcement Officials.

Future initiatives
Mkango intends to undertake the following as part as part of its ongoing stakeholder engagement:

 <p>Mkango will continue to support the new Extractive Industries Transparency Initiative (EITI) process in Malawi</p>	 <p>Continued focus on communication, transparency and engagement with all stakeholders</p>	 <p>Continuing to improve education standards in our community</p>	 <p>Supporting new social welfare initiatives in Malawi. Mkango believes in uplifting and enabling self-sustaining projects</p>	 <p>Raise the profile of the Malawi nation and its people through investment.</p>
--	--	--	---	---

CASE STUDY

COVID SUPPORT

In 2020, during the Covid-19 pandemic, Mkango provided both local communities and the nation of Malawi with aid in fighting the global pandemic. This nationwide response involved the donation of a WATO EX-20 anaesthetic machine to the Mercy James Centre at the Queen Elizabeth Central Hospital in Blantyre. This donation has assisted the hospital with setting up a separate operating theatre for patients who are infected with Covid-19 but require urgent surgery, thereby keeping existing theatres free for other daily surgical emergencies. Mkango also assisted local communities in the Phalombe district with donations of sanitation equipment and personal protective equipment. This included 70 washing buckets, 270 soaps and 130 face masks and sanitisers.

Given the lack of medical equipment during the Covid-19 outbreak Mkango donated a new state of the art Mindray WATO EX-20 anaesthetic machine to the Mercy James Centre at the Queen Elizabeth Central Hospital in Blantyre, Malawi.

The new anaesthetic machine was donated to help enable the Queen Elizabeth Central Hospital to set up a new operating theatre for emergency operations, specifically for patients who were suspected of having the Covid-19 virus.

"We are grateful for the donation of this anaesthetic machine. The arrival of the anaesthetic machine is very timely, as it will help in our provision of safe anaesthesia for our patients during the COVID period and beyond. Hopefully other companies will emulate Mkango's generosity and allow us to provide improved care to all our patients."

*Dr Singatiya Stella Chikumbanje,
Consultant Anaesthetist at
Queen Elizabeth Central Hospital*

"We are delighted to donate this anaesthetic machine to the Mercy James Centre at the Queen Elizabeth Central Hospital to help fight the growing pandemic of Covid-19 in Malawi. We hope that it will potentially help save many lives in the coming years. Mkango is committed to supporting the country in which it operates, as it moves towards the sustainable development of the Songwe Hill rare earths project in Malawi."

*Burton Kachinjika
Director & Country Manager Lancaster
Exploration Limited (Malawi)*

ENVIRONMENT



6

CLEAN WATER AND SANITATION



7

AFFORDABLE AND CLEAN ENERGY



11

SUSTAINABLE CITIES AND COMMUNITIES



12

RESPONSIBLE CONSUMPTION AND PRODUCTION



13

CLIMATE ACTION



At Mkango we are dedicated to promoting the UN SDGs through our “Mine, Refine and Recycle” initiative. Our goal is to source REE sustainably to facilitate amongst others, the rapidly developing renewable energy and transportation sectors. Our strategy intends to reduce reliance on primary REE sources with recycled inputs, in order to reduce environmental impacts from extraction and landfill volumes from end-of-life material. This will aid in minimising the generation of harmful waste to landfill whilst supplying sustainably sourced elements to market. We believe that these initiatives facilitate renewable energy and sustainable cities whilst promoting responsible consumption. These combine to support the globally critical goal of climate action.

Evidence of our commitment is borne out in our current ESHIA which demonstrates that we are committed to conducting all our activities in an environmentally responsible manner conducted within local regulation and international best practice principles. We are also committed to complying with the IFC Performance standards, the requirements of which are incorporated into the ESHIA.

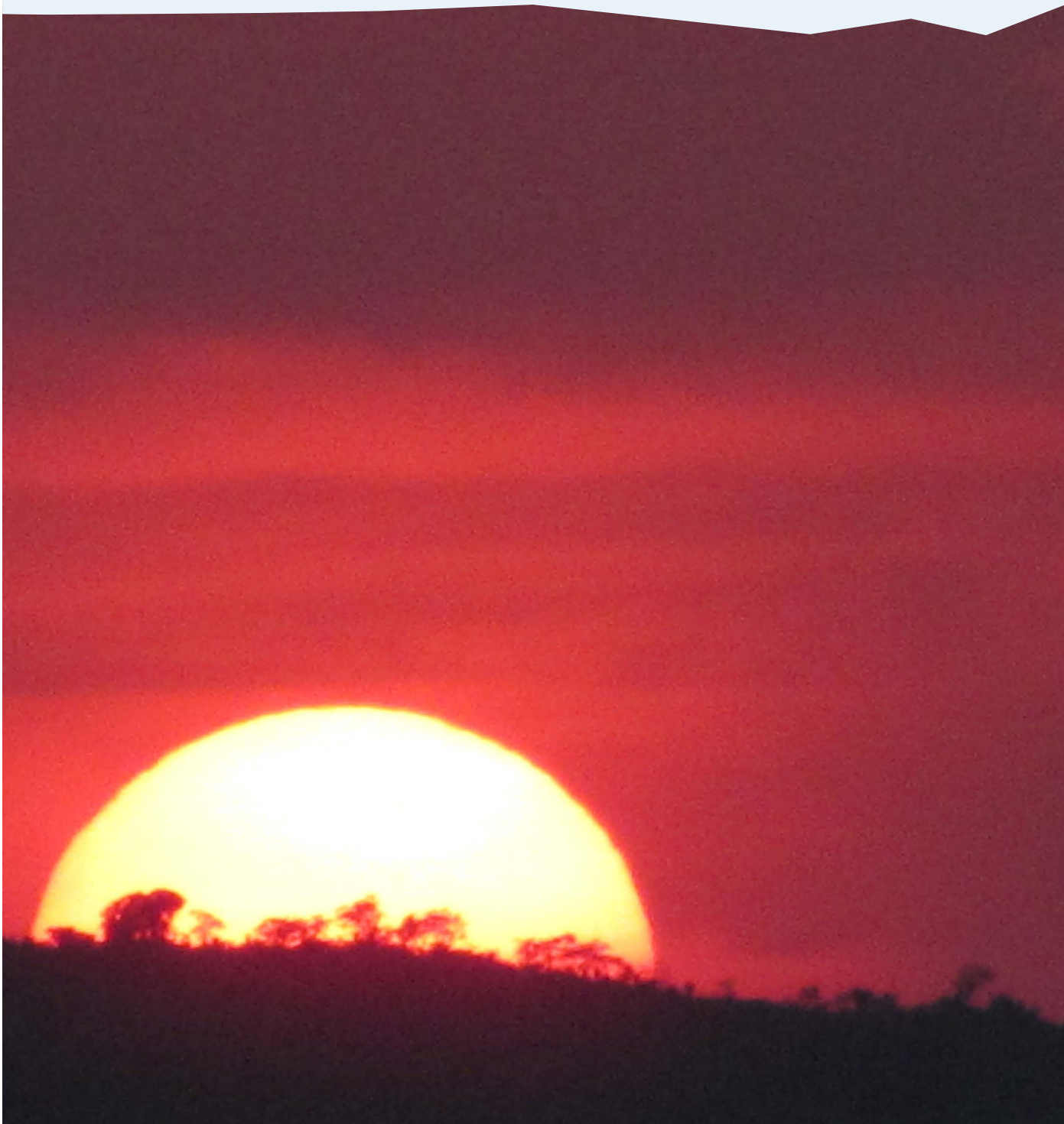
Dust Fallout Monitoring	To understand the amount of dust currently in the atmosphere surrounding the Songwe REE project area we have been actively monitoring dust fallout since 2013. This gives us a continuous clear understanding of the local conditions prior to any possible operation so that, in turn, we can determine the possible fallout during the proposed activities.
Biodiversity Monitoring	During the PFS and DFS phase of the Songwe Hill REE project, we placed an importance on the protection and evaluation of the biodiversity present in and around the project area. We have conducted terrestrial, wetland and aquatic biodiversity studies to help understand which fauna and flora are present in and around the project area. By being fully aware of the natural environment surrounding the project area, we will be able to monitor biodiversity trends as well as set up programmes and policies to protect and promote the presence of these important resources.
Surface Water	Several seasonal streams flow into Mpoto Lagoon. Studies conducted within the area found that these channels are not well defined and result in localised flooding. The Mpoto Lagoon varies in size according to the season and is used accordingly by the local communities. The ephemeral and non-perennial streams within the Songwe Hill area are utilised for domestic use and agricultural irrigation. We are monitoring the surface water quality and quantity prior to any operation and will continue to do so during all phases of the operation, to ensure that any possible impacts are understood and that the negative impacts are mitigated and minimised.
Ground Water	On-site inspections found groundwater to be the main source of potable water for the local communities. We regard all water sources as invaluable resources and deem their protection to be a priority. Several ground and surface water assessments have been conducted and several boreholes have been sunk for potable water, research and monitoring purposes. This assists the local communities with a potable and monitored source of water. Mkango regards the protection of water sources as crucial.
Radiation	Mkango has conducted detailed radiological studies to identify and determine the baseline conditions as well as determine any potential sources of radiation exposure from waste streams. This study has evaluated the public impact and safety for the local community over the duration of the operation. Mkango places a high level of importance on the safety of its employees, the communities surrounding its operations, as well as the health of the environment.
Waste	<p>Internationally, we aim to reduce harmful waste to landfills through the help of our subsidiary Maginito Limited and their magnet recycling initiative. We are currently developing green technology opportunities in the rare earth supply chain.</p> <p>Additionally in Malawi, we have conducted studies and made the relevant plans to ensure that all tailings waste containment facilities comply with the relevant local and international pollution control regulations, national discharge standards and international best practices.</p> <p>The importance of waste minimisation is heightened by our strategic plan to ensure that we “Mine, Refine and Recycle”. A specific aspect of this is to separate waste rock and ore that currently does not meet the production grade, but which we believe will as technology improves. This proactively allows for future refining activities rather than consigning potential resources to waste.</p>
Soils	Mkango understands the importance that soil plays in small and rural communities. This is highlighted by soil and land capability studies conducted in the local area surrounding the Songwe Hill REE project. These studies describe the local soil types, local land use, the soil chemistry and the physical properties of the soil before any operation takes place. This helps Mkango better understand the local composition of the soils in the area so as to minimise impact on productive ground.
Wetlands	As part of the ESHIA for the Songwe Hill project, Mkango has assessed and identified all the wetlands surrounding the proposed project. This wetland delineation study identified the distribution of riparian and wetland areas surrounding the proposed project area and helped to identify which areas are critical habitats that need to be protected. The baseline study of the wetlands furthermore assessed potential impacts the proposed project may have on the wetlands, as well as suggested mitigation and management plans to help minimise and address all potential impacts.

ESHIA Highlights

Mkango is committed to understanding the environment in which we operate. To understand the project area better, Mkango has conducted environmental assessments as part of the PFS, DFS as well as the finalised ESHIA for the Songwe Hill REE project. These assessments have helped us identify the current environmental baseline of the proposed project area as well as the possible positive and negative impacts which may arise when the project commences, and how to mitigate them. The aim of the ESHIA project is to identify and pre-emptively address key issues raised by Mkango, authorities, local communities and other relevant stakeholders.

Life Cycle Analysis

During the PFS stage for the Songwe Hill project, we conducted a simulation-based Life Cycle Analysis (LCA). The assessment found that the lowest global warming potential will be achieved by combining on-site acid regeneration with off-peak hydroelectric and photovoltaic energy. Our intent is to protect the environment by being proactive, as well as by scrutinising every aspect of our operation, to ensure that any possible impacts which may arise from our operation can be mitigated and minimised.



Energy and Electricity consumption

Mkango aims to minimise the amount fossil fuels consumed on site to reduce the carbon effusions as much as possible. At the Songwe Hill REE project, we have undertaken an LCA which evaluated several options and provided the operation with several viable solutions to help minimise its carbon footprint. Additionally, an in-depth energy and electricity consumption plan is being prepared to minimise the amount of energy required for operations, thus ensuring that any negative impacts are mitigated. This includes the proposed construction of three solar photovoltaic (PV) plants at Songwe Hill to create a 25 MW sustainable electricity supply for some of the mine's operations.

CASE STUDY

CLIMATE AND DUST FALLOUT MONITORING

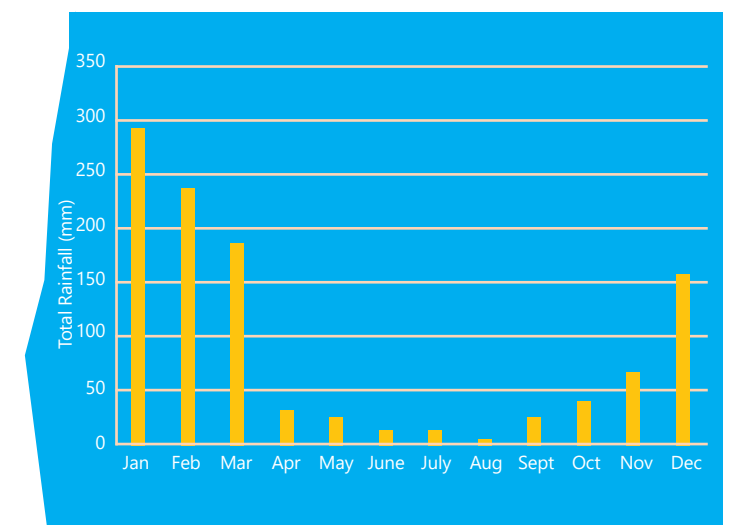
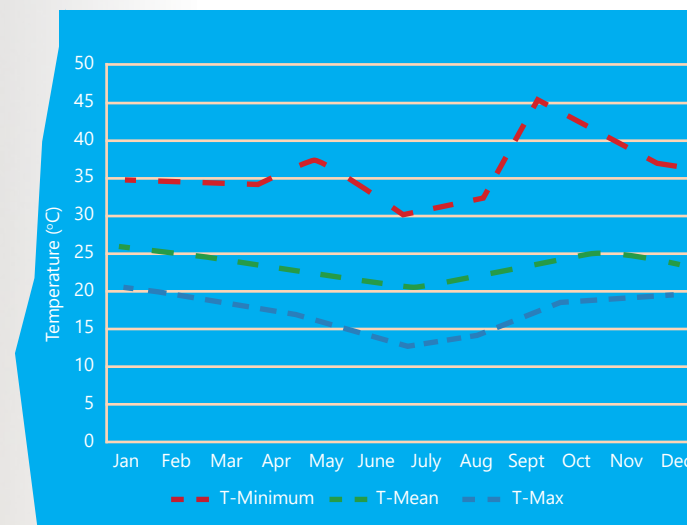
Given the remote setting of the Songwe Hill project we realised early on that accurate and contextually relevant climatic data would be a challenge to our understanding of key environmental and social risks. As such we commissioned an onsite continuous weather monitoring station in 2014 to complement the already established dust fall out monitoring programme that was initiated in 2013. As such, we have gathered long term, continuous and reliable climatic data for the site. By investing in this data, we have a clear understanding of climatic conditions for the site which feeds into our E&S management planning via specialist studies such as:

- Climate
- Hydrology
- Geohydrology
- Wetlands
- Soils
- Fauna and Flora
- Aquatic Health

A specific example of this relates to air quality and in particular dust fall out. Detailed stakeholder engagement identified that the surrounding communities were concerned about the impact of dust from proposed mining activities. Through combining the results of our on-site climatic and dust fallout data we can conduct detailed air quality modelling. This allows us to effectively understand and mitigate risks through practical management activities that will be implemented during construction and operation.

HIGHLIGHTS OF CLIMATE MONITORING

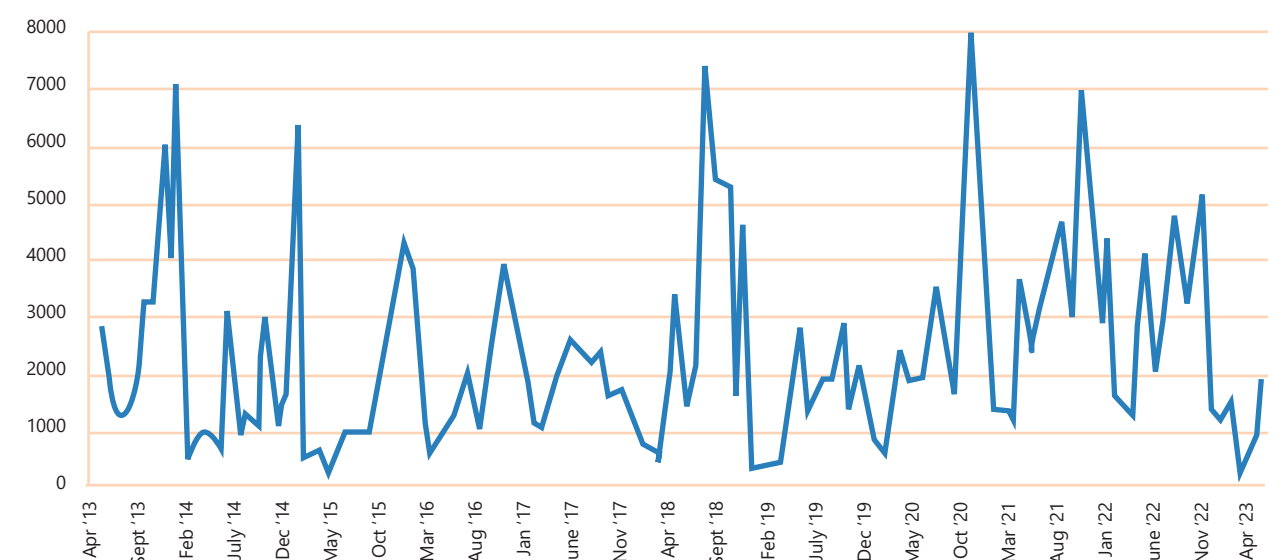
Monthly mean temperature during 2014-2022 (site data) was between 20.3°C and 29.0°C. The annual average ranged between 25.3°C and 27.7°C. The monthly maximum temperatures ranged from a low of 30.6°C in June to a high of 46.1°C in October.



Source: Songwe Hill Meteorological Station (2014-2022)

The rainy season is from November to April, with the mean monthly rainfall peak in January, with 289.7mm of rain measured. Much of the Project area receives little to no rainfall from May to October. Heavy rainfall occurred in January and February with the potential to cause flooding. The annual total rainfall measured from 2014 to 2022 varied between 946.7mm and 1 292.5mm.

Long Term Baseline Dust Monitoring Results mg/m2/day



The long-term continuous monitoring data provides a reliable baseline as well as indicates the cyclical nature of dust fall out. This allows us to optimise our mitigation activities and reduce impacts on surrounding communities.



Contact details:

Suite 2900, 550 Burrard Street, Vancouver, British Columbia, Canada, V6C 0A3.

Alexander Lemon
alex@mkango.ca

Bradly Thornton
brad@mkango.ca

www.mkango.ca