

Risk management



16 Risk management

- 17 Introduction
- 17 Risk management policy
- 17 Risk management
- 18 Group risks and mitigating actions

Introduction

Metorex is committed to ensuring that sound and effective systems of internal control and enterprise risk management are developed, embedded and cost-effectively implemented and consistently reviewed throughout the organisation. The purpose of this commitment is to:

- preserve and enhance the management of assets and earnings potential;
- proactively anticipate and respond to changes in business environments;
- create and maintain a safe and healthy working environment;
- protect and promote the health, safety and well-being of our people and the communities in which we operate; and
- develop positive relationships with all stakeholders so that environmental needs and concerns are appropriately addressed.

The Board accepts that it is responsible for risk management throughout the organisation and management accepts that it is responsible for the implementation of the Metorex Risk Management framework and associated systems and controls. The Risk Management framework was approved by the Metorex Board on 24 February 2011.

Risk management policy

Metorex Limited is a base metals mining company operating in southern Africa and recognises that risk management is a systematic way of protecting business resources and income against losses so that objectives can be achieved.

Metorex is committed to complying with the governance of risk principles included in the King III Report by:

- assigning responsibility to the Board for the governance of risk and for setting the levels of risk tolerance and risk appetite for the Group;
- assigning responsibility to management for providing and implementing a structured and consistent process to identify, analyse, and manage, report and regularly review the risks associated with business activities;
- identifying business objectives and the risks to achieving those objectives;

- controlling and managing risk exposures through appropriate risk reduction and mitigation actions;
- regularly reporting and disclosing on any current, imminent or envisaged key risks and associated mitigation actions to the relevant stakeholders;
- creating the desired risk culture throughout the Group;
- ensuring that employees and contractors have the relevant hazard identification and risk management skills to perform their work-related tasks in a safe manner; and
- making this policy available to employees, contractors and other stakeholders.

Employees and contractors working on Metorex operations play a fundamental role in controlling, minimising and eliminating risks through taking ownership of and actively participating in hazard identification and risk management programmes and initiatives.

Risk management

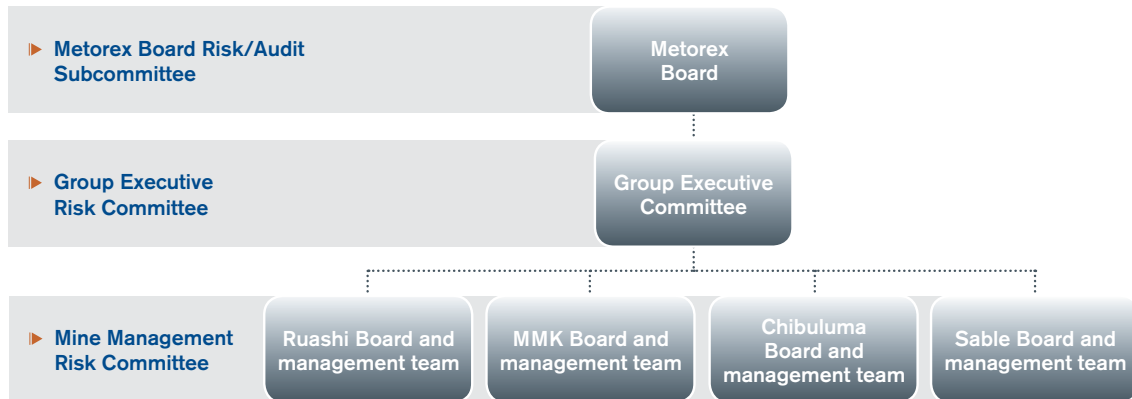
The Group and its operations are responsible for implementing the Metorex Risk Management processes. It is critical that all parties work together to achieve this goal, and the following needs to be understood by all key parties:

- An appreciation of the overall risk management process including the related systems of internal control.
- An understanding of the key (strategic, tactical and major operational) risks and opportunities that could influence the achievement of strategic and performance objectives.
- Their accountability within the Risk Management framework and processes.
- That risk management is a dynamic process and the risks that are critical one day may change dramatically the next due to changing circumstances.
- All business unit/function managers are responsible for reporting on risks and actions taken to mitigate risks.
- That specific staff will be allocated to specific risks and the associated mitigating actions and that they have a responsibility to report on progress to allow for adequate monitoring and a full understanding of the status of specific risks.

Risk management

continued

The new Metorex risk management structure is depicted in the schematic below:



Group risks and mitigating actions

Risk category	Risk	Context	Potential impact (business implications)	Existing controls	Risk mitigation strategies
Commercial	Uncertainty in changes in Zambian company tax law	Introduction of windfall tax, variable tax, increased royalties and concentrate export taxes Societal demands for the mines to become more highly taxed Changes are in conflict with development agreements	Increased taxation payments Reduced cash flow to service debt and make dividend payments for shareholders Changes to investment criteria for new projects	Continued challenge to the changes proposed by the Zambian Government Focused improvements in volumes, values, quality, costs, capex and cash flows ("VVQ3C") to mitigate the drain on cash flows	Continued lobbying with peers and Chamber of Mines Ongoing dialogue with government and offering of alternatives Consider social programmes as alternatives to increased taxes
Commercial	Delay or failure to obtain project development financing	Restricts continued exploration and project development Resource industry is cyclical in nature Equity financing is dilutive to shareholders	Growth and wealth creation delayed Project deferral Shareholder dilution when doing capital raising or doing a partial sale of assets Share price not reflecting the value of projects	Maximise cash flows from operating companies Negotiate attractive financing arrangements	Finalise advanced negotiations with financial institutions in securing term loans for the Kinsenda Mine development No action required with Lubembe and Musonoi until the projects are proven
Commercial	Uncertainties around the development of new mines in remote locations	Timing and costs of new projects Non-availability of skilled labour Poor availability of infrastructure Lack of supplies of consumables and services Permitting difficulties and the loss of licences A lack of project funding Effect on communities	Failure to replace and/or build on the current production profile Making new developments marginal Delaying new developments	Detailed evaluation of the mineral resource/reserves In-depth technical, financial, environmental and legal due diligence studies Learning from the lessons at Ruashi and Chibuluma Country risk assessments	Kinsenda feasibility study to be finalised with a high level of diligence Musonoi and Lubembe exploration programmes to be completed

Risk category	Risk	Context	Potential impact (business implications)	Existing controls	Risk mitigation strategies
Commercial	White collar criminal activities	Internet banking Sophisticated syndicates and hackers Malicious software programs and their distribution mechanisms	Loss of cash Breach of confidentiality Business interruption and reverting to manual systems	Firewalls and strict banking protocols Segregation of duties Use of transmission accounts with minimum account balances	Engage with secure banking institutions IT education of employees with regard to online spyware Investigate mine processes and controls
Environmental	Environmental incidents on or adjacent to Metorex operations	Mines and process plants disturb the environment and introduce new elements into the environment Hazardous substances are used at mining sites	Partially or fully suspended operations Company reputation can be damaged and share price reduced Fines and litigation risk Bank finance can be thwarted	Adherence to SHEC policies and procedures Incident reporting and actioning process SHEC reporting processes Regulatory restrictions and standards EMPs	Implement IsoMetrix/EMS which is aligned to ISO 14001 Ongoing training of staff on all safety and environmental policies and best practice Disciplinary action taken on breaches Compliance with Equator Principles at Ruashi
Environmental	Changes to environmental laws and regulations where Metorex operates	Estimates of cost of ultimate closure and ongoing rehabilitation costs of mines are significant Legal and regulatory requirements may change materially Applies to the DRC, Zambia and South Africa	Withdrawal of operating licences for non-compliance Incurring of fines for failure to meet new requirements Fines for non-compliance with new laws and/or licence requirements	Engagement with environmental authorities and networks to understand possible future changes in environmental legislation Employ World Bank standards which are higher than local standards	Engage specialist environmental consultants to assist with implementing new changes as and when they are legislated
Environmental	Underfunded and underestimated closure liabilities for Metorex operations and new projects	Closure is considered tomorrow's problem Closures costs are often not internalised at the project development or acquisition stage The prudence principle should be applied	Underfunded liability for the shareholder Litigation by shareholders for not presenting the true picture Directors may be at risk in their personal capacity	SHEC Board sub-committee reporting Third-party assessments of operations and defunct operations Metorex Texco peer review process	Ongoing rehabilitation programmes to reduce closure rehabilitation liabilities Full closure and post-closure planning and reviews Third-party reviews
Exploration	Greenfields and brownfields exploration activities do not deliver resources and reserves	Exploration activities are speculative and often unproductive Detailed planning is needed before embarking on exploration activities	Exploration activities absorb cash and do not guarantee replacement of current production	Metorex Texco peer review process and planning mindset AFE approval process Employment of third-party and in-house professionals	Improved skills at the operating level

Risk management

continued

Group risks and mitigating actions continued

Risk category	Risk	Context	Potential impact (business implications)	Existing controls	Risk mitigation strategies
Financial	Currency and commodity price fluctuations affecting the Group's profitability	Production costs are in USD and Kwacha Revenue in USD could be affected by commodity fluctuations Volatile global markets	Increased production costs with a weakening USD Lower revenues with commodity price fluctuations Inability to service debt	Commodity price hedging to cater for any downturn that could expose shareholders Deleveraging of Metorex through asset sales and a capital raising	Focused reduction of unit cost of production Commodity price hedging Commission Ruashi acid plant to reduce operating costs Cobalt drier commissioning at Ruashi New cobalt circuit at Ruashi
Financial	Restrictions on transfers of funds to Zambia and the DRC	SARB restrictions on foreign investments	Project development delays Dilution of interests in projects	Maintaining regular updates to SARB on project progress	Compliance with SARB regulations
Mineral resource management ("MRM")	Inaccurate Mineral Resource and Reserve estimates for current and new projects	Project failures Value, volume, quality, cost, capital and cash flow effects	Failure to achieve project returns and uneconomic mining operations Wasted shareholders' funds and potential litigation Reduced earnings and cash flows Company reputation put at risk	In-depth MRM protocols with third-party sign-off Extensive drilling programmes with QA/QC protocols Metallurgical test work	Ongoing drilling programmes for the new Metorex projects Ongoing metallurgical evaluation/testing for the new Metorex projects MRM skills and practices at mine level
Political	Operating in emerging markets	Subject to greater legal, regulatory economic and political risk The Group is dependent on socio-economic and political conditions prevailing in the DRC and Zambia	Change in regulations affecting tenure and earnings Shareholder uncertainty	Maximising VVQ3C Meeting fiscal obligations to the state, partners and the community Close relationships with government Social programmes	Increase dialogue with partners and state officials Publicise social programmes Further work with the local community on programmes and needs Notify government of progress and achievements
Political	DRC and Zambian laws susceptible to change, revision or cancellation	Political influence on tenure and the running of mining operations Changes to the mining codes, tax laws, safety, health and environmental legislation Elections and changes in government	Loss of mining title Opportunity cost of new projects Adverse impact on financial results	Liaison with local and central governments Contact with other mining companies Participation in business forums	Regular liaison with governments Maintain credibility wherever you operate Address the social needs of the community Make royalty and tax payments in timely fashion Geographical diversification

Risk category	Risk	Context	Potential impact (business implications)	Existing controls	Risk mitigation strategies
Political	Withdrawal or termination of operating and exploration licences	<p>Exploration, mining and processing requires licences</p> <p>DRC and Zambian operations are dependent upon import and export licences</p> <p>Withdrawal of concentrate export licences or permissions has a material financial effect</p>	<p>Company could lose its operating licence and exploration projects</p> <p>Reinstatement of licences takes time, effort and money</p> <p>Inability to export concentrate has major financial implications</p>	<p>Complying with the legal, safety, health and environmental regulations</p> <p>Maintaining cordial relationships with business partners</p> <p>Open dialogue with political decision-makers</p>	<p>Review regulations and statutes for compliance</p> <p>Continued interaction with local and central government</p> <p>Complete due diligence studies within prescribed time frames</p> <p>Investigate in country product beneficiation</p>
Political	Political risk in the DRC	<p>Political and social risk could impact the Katanga region where Metorex operates</p>	<p>Business interruptions</p> <p>Damage to equipment</p> <p>Damage to mineral properties</p>	<p>Securing of mine sites</p> <p>Visible security presence</p> <p>Relationships with local communities</p> <p>Stakeholder engagement programmes</p>	<p>Continuing social upliftment programmes</p> <p>Continued securing of mine sites</p> <p>Close liaison with community leaders</p> <p>Voluntary Principles on Security and Human Rights ("VPSHR") programme</p>
Health	Infectious disease occurrences in southern Africa	<p>Operating in emerging market economies in poor areas without sanitation and clean water</p> <p>Loss of personnel</p> <p>Lost man-hours due to ill health</p> <p>Low productivity</p>	<p>Low productivities</p> <p>Negative effect on earnings</p> <p>Increased unit production costs</p> <p>Increased medical costs</p>	<p>Regular medical testing of employees at Ruashi, Chibuluma and Kinsenda</p> <p>HIV/Aids education programmes</p> <p>TB programmes</p> <p>Malaria prevention programmes</p> <p>Water and sanitation programmes</p>	<p>Increased lifestyle awareness programmes</p> <p>Further malaria prevention programmes</p> <p>Continuous HIV/Aids and ICVCT programmes</p> <p>Create on-mine primary healthcare facilities</p> <p>Co-ordinate CSR with government interventions based upon assessed risks</p> <p>Linkages with Doctors without Borders and the World Health Organisation</p>
Technical	Power disruptions in DRC and Zambia	<p>Increased demand for power could lead to increased power outages</p> <p>National power grids are stressed in the SADC region</p> <p>Poor maintenance and run-down equipment – the DRC utility ("SNEL") is bankrupt</p> <p>A lack of skills employed by the national utilities</p>	<p>Reduced production</p> <p>Material effect on operating results and the Group's financial position</p>	<p>Maintaining standby power generators for critical production areas</p> <p>Start-up procedures</p> <p>Emergency evacuation procedures</p> <p>Chibuluma has purchased and commissioned a third standby generator</p>	<p>Consider investment in a dedicated power generation plant at Ruashi</p> <p>Increase the use of diesel-powered generators at Ruashi</p> <p>Additional generators being assessed for the Ruashi acid plant</p>