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PAN AFRICAN RESOURCES

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Gold

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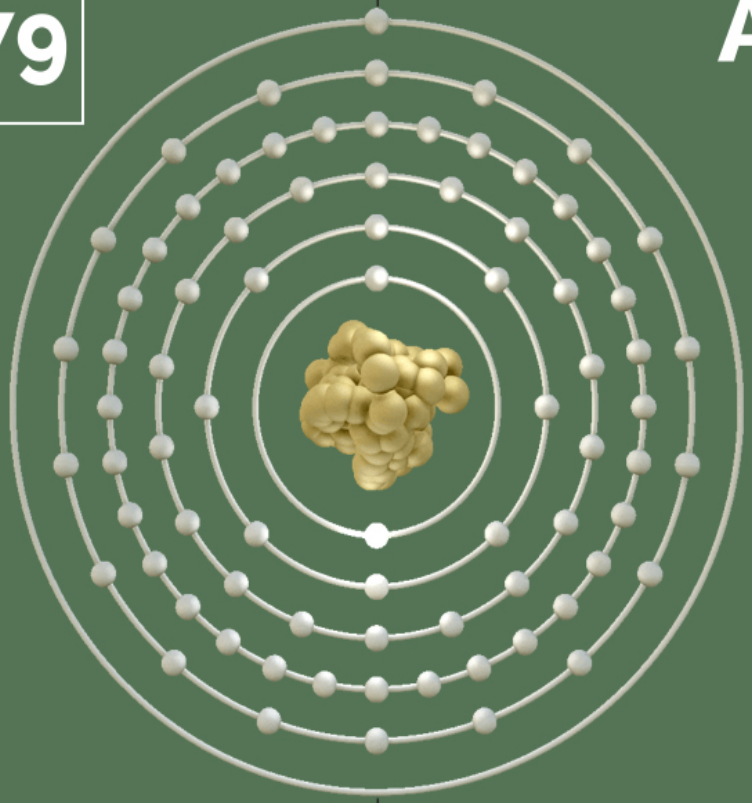

MINING FOR A FUTURE

2023 TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT

for the year ended 30 June

PAN AFRICAN RESOURCES

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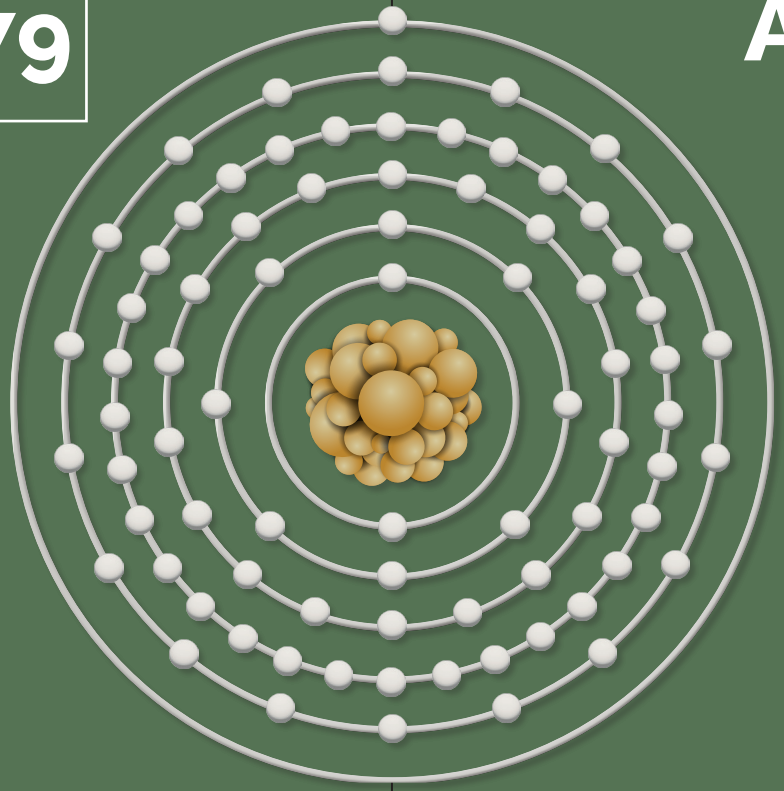

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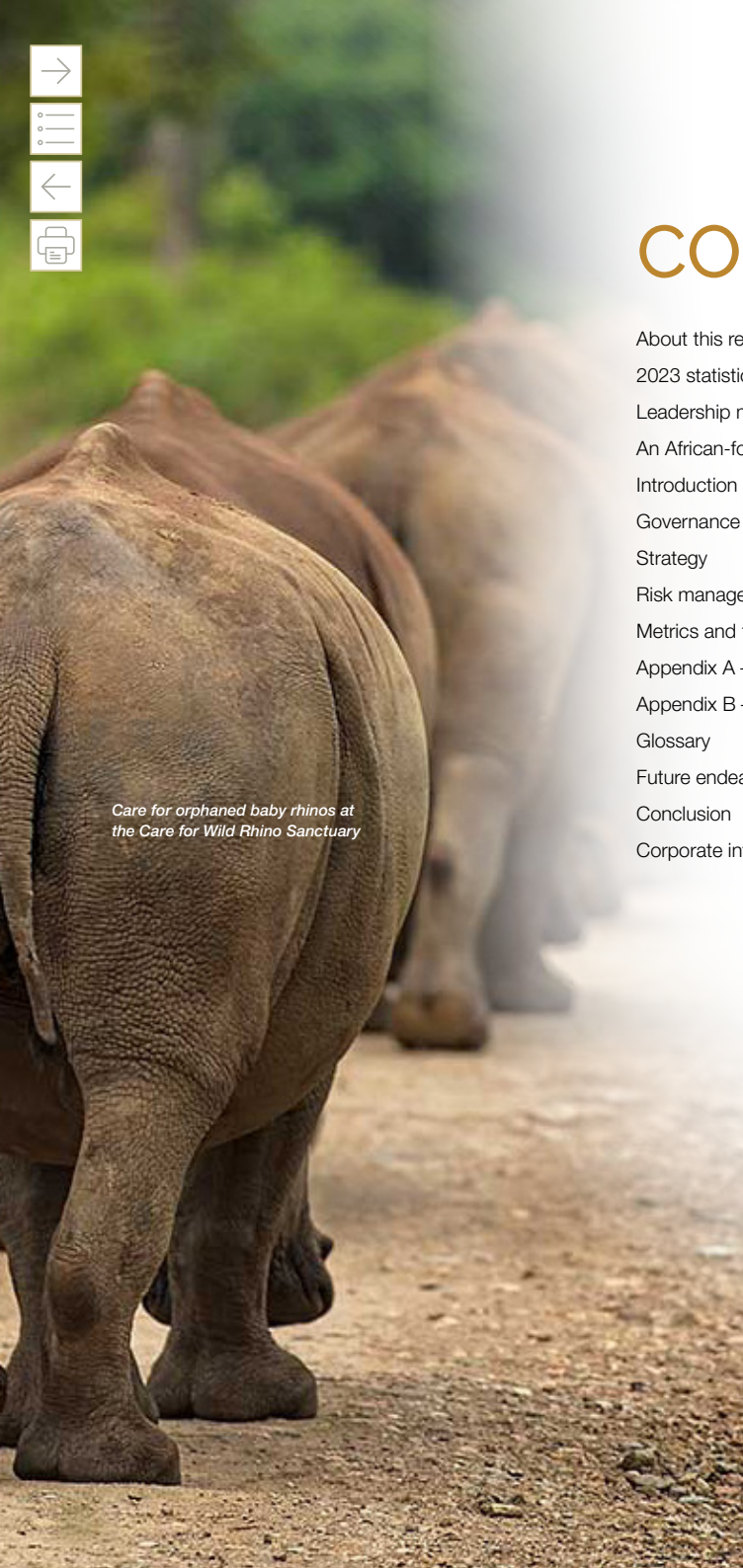

Care for orphaned baby rhinos at the Care for Wild Rhino Sanctuary

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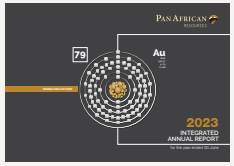
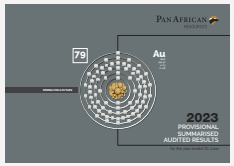
OUR REPORTING SUITE



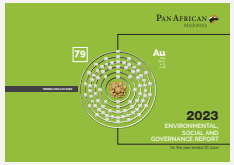
Our **integrated annual report** includes our annual financial statements and is available on our website at:

https://www.panafricanresources.com/investors/financial-reports/



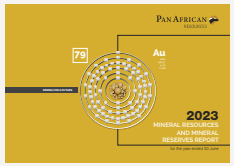
Our **provisional summarised audited results** are available on our website at:

https://www.panafricanresources.com/investors/financial-reports/



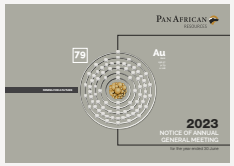
Our **environmental, social and governance report** contains additional non-financial disclosures and is available on our website at:

https://www.panafricanresources.com/investors/gri-and-sustainability/



Our **Mineral Resources and Mineral Reserves report** provides technical information in compliance with the SAMREC Code and is available on our website at:

https://www.panafricanresources.com/operations-at-a-glance-2/mineral-resource-mineral-reserve-2/



Our **notice of annual general meeting** will be available on our website on 31 October at:

https://www.panafricanresources.com/investors/shareholder-announcements/

ABOUT THIS REPORT

This is Pan African Resources PLC's (Pan African or the Company or the Group) first Task Force on Climate-related Financial Disclosures (TCFD) report for the financial year 2023.

In publishing this report, we aim to provide our stakeholders with an account of Pan African's concerted efforts to address climate-related risks and opportunities. The information has been developed to align with the framework and recommendations put forward by the TCFD. This complementary report should be considered with our 2023 environmental, social and governance (ESG) report and integrated annual report.

BOUNDARY AND SCOPE

To ensure completeness, the operational boundary of our greenhouse gas (GHG) inventory extends to the Evander Mines and Barberton Mines operations and accounts for both direct (Scope 1) and indirect (Scope 2) GHG emissions. The corporate office and Barberton Blue Proprietary Limited have been excluded owing to immaterial contribution towards consolidated GHG emissions. Mogale Tailings Retreatment Proprietary Limited only started operating in the 2024 financial year and will be included within the boundary of our GHG inventory.

REPORT FRAMEWORKS

This report has been compiled with primary reference to the recommendations of the TCFD and supporting guidance documents. Additional reference is made to the JSE Limited (JSE) Climate Disclosure Guidance.

REPORT APPROVAL

The Pan African chief executive officer and the social and ethics committee chairman have reviewed and approved this report. This report is prepared under the supervision of senior management and is subject to an internal and external review process.

LIMITED ASSURANCE

Reported values containing the gold seal© of approval indicate limited assurance granted by PricewaterhouseCoopers Inc. (PwC). The limited assurance report from PwC can be found on **pages 79** to **80** in the 2023 ESG report.

Thabo Mosololi
Chairman of the social and ethics committee

Cobus Loots
Chief executive officer

2023 STATISTICS ON MATERIAL TOPICS

FOSSIL FUELS CONSUMPTION

Diesel used by the mines was down 8% from 1.3ML to
1.2ML

Petrol used by the mines was
28kl
down 29% from 39kl

Explosives decreased by 13% to
428t
from 555t

Non-renewable electricity consumption was
366GWh
decreasing 2.5% from 377GWh

FOSSIL FUELS ENERGY CONSUMPTION

Direct energy (diesel and petrol) was down 9% from 48TJ to
44TJ

Indirect energy (non-renewable electricity) decreased by 2.5% to
1,317TJ
from 1,351TJ

RENEWABLE ELECTRICITY CONSUMPTION

Renewable energy consumption was
24GWh
making up 6.1%© of the electricity mix

RENEWABLE ENERGY CONSUMPTION

Indirect energy (renewable electricity) was
86TJ

WATER CONSUMPTION

Water consumption was up by 11% at
9,178ML
from 8,232ML

Successfully commissioned a water retreatment plant with an annual capacity of **1,095ML**

PRODUCTION

Tonnes milled and processed were down by 0.6% from 15.4Mt
15.3Mt

Gold sold was
175Koz
down 15% from 206Koz

GHG EMISSIONS

Scope 1 GHG emissions decreased by 8% to
3.7ktCO$_2$e©
from 4.1ktCO$_2$e

Scope 2 GHG emissions decreased by 2.5% to
332ktCO$_2$e©
from 341ktCO$_2$e

22ktCO$_2$e of Scope 2 GHG emissions were avoided

Total GHG emissions were down 2.6% from 345ktCO$_2$e to
336ktCO$_2$e

INTENSITIES

The **energy intensity of gold sold** was
8.3GJ/oz©
up 21% from 6.8GJ/oz and the **carbon intensity** was
1.9tCO$_2$e/oz©
up 15% from 1.7tCO$_2$e/oz

LEADERSHIP MESSAGE

As a mid-tier gold mining company with our primary operations in South Africa, climate change has been an essential consideration in the formulation of Pan African's strategy for several years. Given our significant energy requirements, we recognise that we have an essential role to play in mitigating our carbon footprint. We understand that the developing economies in which we operate are considered climate change hotspots, making them more vulnerable and most likely to be adversely affected. South Africa has a unique history, and large geographical areas of the country depend on a fossil energy-based economy.

For this reason, we understand that our approach to climate change must carefully balance the following three aspects: mitigation of our carbon footprint, building climate adaptation and resilience and supporting the Just Energy Transition (JET) Framework.

We have made significant progress in addressing our carbon footprint by developing and commissioning renewable energy facilities at our operations. We have already implemented a 9.9MW solar plant at Evander Mines to assist in reducing our reliance on carbon-intensive grid electricity by 30% by 2030. Furthermore, an engineering, procurement and construction service provider was appointed, and construction has commenced on an 8.75MW solar plant at Barberton Mines. We also plan to develop a 10MW plant at the Mogale Tailings Retreatment project (MTR project), our newest flagship project set to produce 50,000oz of gold annually for 20 years. In addition, we have completed a 12MW expansion study for Evander Mines' solar plant.

Moreover, Pan African has entered into a power purchase agreement (PPA) with Sturdee Energy for wheeled energy supply from a 40MW solar plant near Bela-Bela. Implementing renewable energy projects benefits us by reducing our reliance on the constrained supply from the national grid, decreasing the cost per kilowatt-hour and significantly lowering our carbon footprint.

Regarding an adaptation and resilience strategy, we completed a climate change risk assessment study this year and have commenced integrating climate change risks into our business risk management processes. Through this process, the strengths of a number of proactive steps that we have already taken have become evident. For example, Evander Mines' water retreatment plant was commissioned in March this year, reducing our potable water consumption and positively impacting the water available for other uses.

Finally, we have significantly supported the JET this year. Traditionally, the South African province of Mpumalanga's economy has been dependent on fossil fuel energy – predominantly coal mining and coal-generated power. By commissioning renewable energy projects in Mpumalanga, we are supporting the creation of new green jobs while capacitating small and medium-sized enterprises in the province. Other achievements include the development of the Barberton Blueberries project, a blueberry farm situated on a portion of our Fairview mining right. We have also partnered with Barberton Nature Reserve for biodiversity conservation. Additionally, we are implementing a future skills training programme to ensure our employees have the necessary skills for a more sustainable future.

On a strategic level, Pan African took significant actions over the past two years to improve managerial capacity related to climate change management. Last year, we performed a gap assessment and roadmap development project, resulting in a three-year plan to significantly strengthen our climate change strategy. We have already actioned a significant part of that roadmap, specifically through an overall climate change risk assessment and scenario analysis project conducted during this financial year. While our climate change strategy is still being finalised, we have already taken steps to improve climate change governance and risk management within Pan African.

On the topic of our climate-related metrics, we continue to report on our Scope 1 and 2 GHG emissions reductions this year, as well as GHG emissions that have been avoided through our renewable energy projects. Further, we ensure that our Scope 3 GHG emissions can be reported on upon consultation with our material suppliers.

The actions we are taking now will ensure the long-term resilience of Pan African to the physical and transitional impacts of climate change, as well as in the drive to reduce global GHG emissions.

Freshly picked blueberries at the Barberton Blueberries farm

AN AFRICAN-FOCUSED GOLD PRODUCER

Pan African is a mid-tier African-focused gold producer, dual primary listed on the Alternative Investment Market of the London Stock Exchange (ticker: PAF) in the United Kingdom and the main board of the JSE (ticker: PAN) as well as the A2X Market in South Africa. Our shares trade on the OTCQX Best Market in the United States of America through a Level 1 American Depository Receipt programme (ticker: PAFRY) sponsored by the Bank of New York Mellon and ordinary shares (ticker: PAFRF).

Our operations include both underground and surface operations. We are leaders in gold tailings reclamation projects, turning tailings waste into attractive investments by applying modern technology and our expertise in this field. Our value-accretive investment transforms hazardous waste material into a more stable form with a smaller environmental footprint, making large land areas available for other productive uses.

Our activities associated with the exploration, extraction and processing of Mineral Resources require using energy (primarily electricity), water and other resource streams that have direct and indirect climate-related impacts. As an organisation with extensive capital assets, a large physical footprint and an extensive labour force, we are also impacted by climate change.

OUR PURPOSE

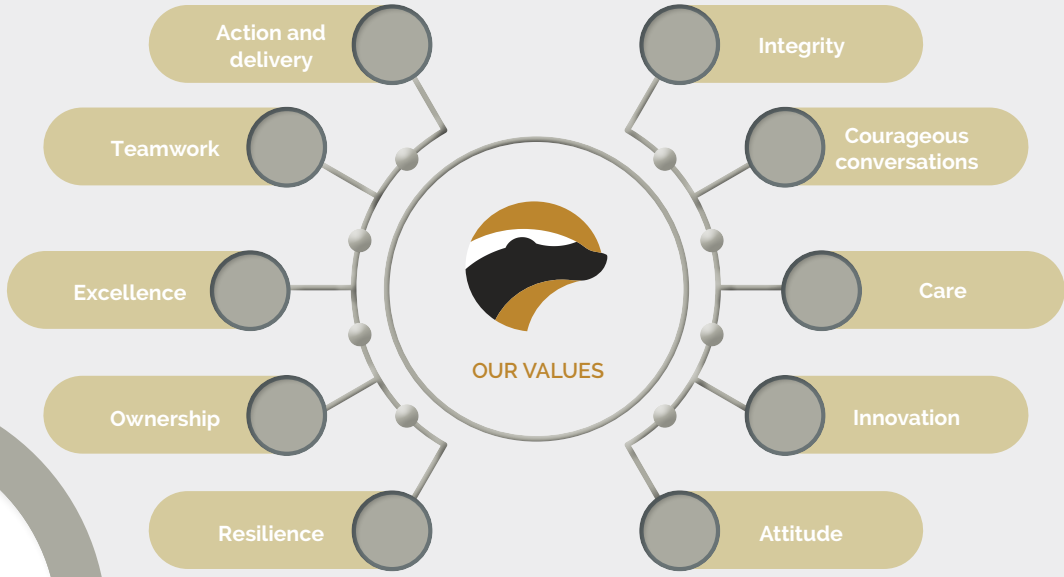
We are committed to optimally and consistently extracting gold from mineral deposits while creating sustainable value for all our stakeholders through responsible mining

OUR VISION

We aspire to further develop Pan African as a leading mid-tier gold producer that upholds its purpose

OUR SUSTAINABILITY COMMITMENT

Our commitment to sustainability extends beyond compliance. We collaborate with experts in community engagement, conservation and sustainability initiatives to benefit all stakeholders. Our approach prioritises ESG considerations, including the use of renewable energy



Refer to our 2023 ESG report at
https://www.panafricanresources.com/investors/gri-and-sustainability/

INTRODUCTION

Owing to the risks and opportunities climate change poses to businesses across the globe, there has been an increased demand by creditors, investors and insurers for coherent, consistent, comparable, reliable and transparent information on climate change. Heeding the call, in 2015, the Financial Stability Board created the TCFD.

We have embarked on a journey to integrate the TCFD recommendations into our business model and community stakeholder engagement process to contribute towards a sustainable mining future. We are pleased to present our first stand-alone TCFD-aligned report for the 2023 financial year. This report has been set out in alignment with the four core TCFD recommendations on governance, strategy, risk management and metrics and targets, respectively, as illustrated below.

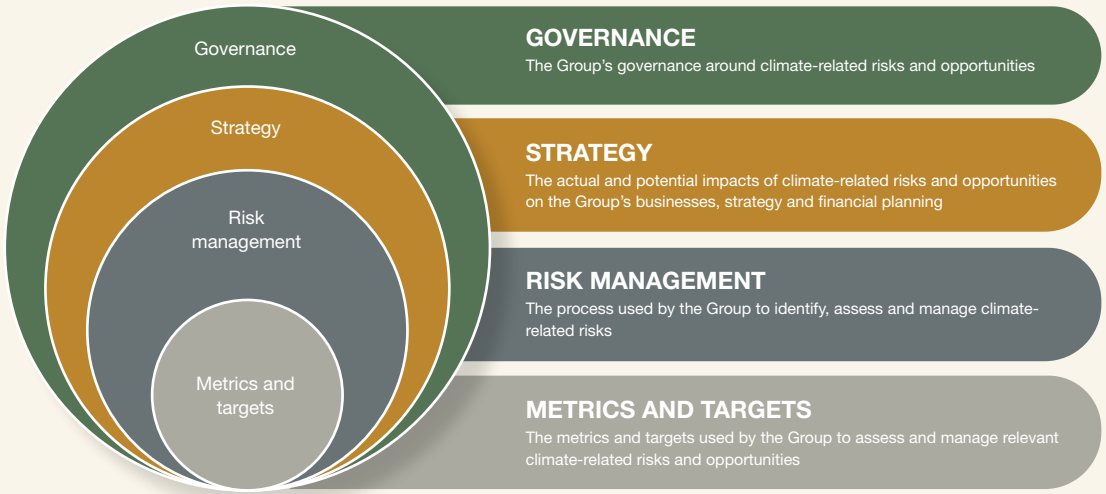
Each section summarises the core recommended disclosures, feedback on additional items and our next steps in strengthening our compliance with each recommendation.

This report also links with the JET Framework, a concept that emphasises the need to address the challenges of climate change while ensuring fairness and equity for all stakeholders, including workers and communities affected by the transition to a low-carbon economy. In the mining context within South Africa, the JET becomes particularly relevant. The JET in the mining context involves shifting away from fossil fuel-based mining practices and transitioning towards more sustainable and environmentally friendly alternatives.

This transition aims to reduce carbon emissions, improve resource efficiency and promote renewable energy sources. However, it also recognises the need to address the social and economic implications of such a transition on mining communities and workers.

In 2023, we made considerable progress in addressing climate change and integrating the recommendations of the TCFD. Early in the year, we performed a TCFD gap assessment to understand our current level of maturity with regard to addressing climate change issues. While the gap assessment showed we were on the right path, our approach needed to be fully integrated, and the journey is ongoing. We, therefore, developed a TCFD integration roadmap, which we commenced implementing during the second half of 2023. Below are some critical points of our TCFD journey.

CORE ELEMENTS OF RECOMMENDED CLIMATE-RELATED FINANCIAL DISCLOSURES



TCFD INTEGRATION ROADMAP FOR 2023 AND 2024

2023

- TCFD gap assessment
- TCFD integration roadmap
- Climate change risk assessment (high level)
- Climate change scenario analysis (started)
- Climate change training workshops
- Update of board committee charters
- Publication of the first stand-alone TCFD report

2024

- Climate change scenario analysis (to be finalised)
- Climate change risk and impact assessment (to be finalised)
- Integration of climate change into core risk management framework
- Finalisation of Scope 3 methodology and publication of upstream Scope 3 GHG emissions

GOVERNANCE

Pan African is committed to the highest standards of corporate governance and recognises that an effective corporate governance culture is critical to long-term performance. The board is responsible for overseeing the management of Pan African and providing strategic direction. The board has established committees to assist it in the execution of its functions.

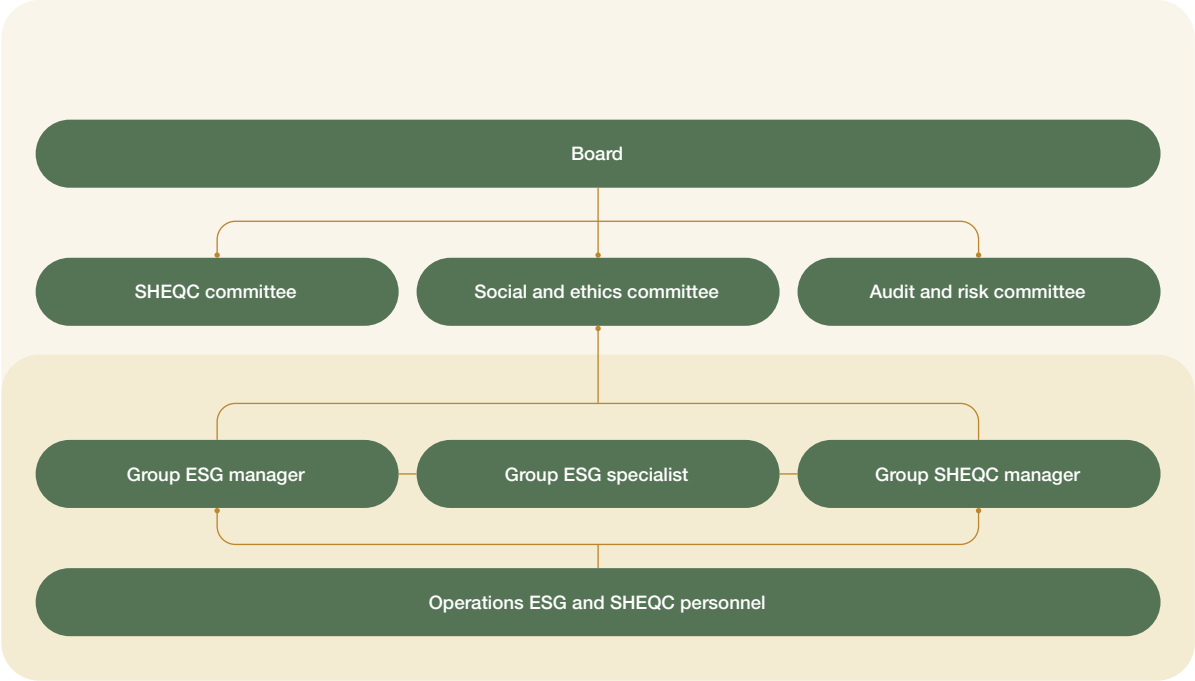
More information on Pan African's corporate governance can be found in our 2023 ESG report at https://www.panafricanresources.com/investors/gri-and-sustainability/

RECOMMENDED DISCLOSURES

- Describe the board's oversight of climate-related risks and opportunities
- Describe management's role in assessing and managing climate-related risks and opportunities.

CLIMATE CHANGE GOVERNANCE STRUCTURE

Climate change-related matters are discussed at the safety, health, environment, quality and community (SHEQC), social and ethics and audit and risk committees. The board is informed regarding climate change matters on a quarterly basis. While ultimate responsibility remains with the board, climate change-related matters have primarily been delegated to the board's social and ethics committee. Furthermore, the board's audit and risk committee considers climate change-related risks. Pan African's main structures responsible for climate change governance and management are illustrated below. Day-to-day climate change-related responsibilities, including assessing and managing climate risks, are executed by Group managers.



We are presently formalising our climate change governance structures by updating our board committee charters to include climate change as a material topic.

Specific examples of where the board's climate change mitigation strategy has provided oversight on climate change-related matters include delegating to the social and ethics committee and executive committee (Exco) the powers to evaluate, monitor and report on the following:

- Progress on the commissioning and operations of Evander Mines' solar plant and approving the 12MW expansion study
- Progress on the construction of the 8.75MW solar plant at Barberton Mines
- Approval of the Sturdee Energy PPA
- Assurance and reporting of the Group's carbon footprint and GHG emissions
- Reviewing initiatives to reduce baseline GHG emissions and biodiversity/ conservation collaboration partnerships between Barberton Nature Reserve and Barberton Mines
- Issuing a sustainability-linked bond with a target of 15% renewable energy as a percentage of energy consumption by 2027.

MANAGEMENT'S ROLE

Control of climate change-related matters, including monitoring, reporting and compliance, is performed by the Group ESG manager and Group ESG specialist through a collaborative approach with general managers and senior managers in all Group divisions. We have adopted this approach because of the systemic nature of climate change risks. Climate-related risks and opportunities must be addressed inclusively and collaboratively. That is our stance.

Exco, Group senior managers, general managers and management committee members were trained on the TCFD recommendations and climate change risks and opportunities before embarking on a series of expert-led workshops as part of an integrated climate change adaptation and mitigation journey, including a climate change risk assessment, scenario analysis and capacity building for skills of the future.

According to our TCFD roadmap, on the conclusion of the climate change risk assessment and scenario analysis, a cross-functional committee comprising climate change champions at the operations will be responsible for elevating climate-related risks and opportunities to

*Evander Mines' **9.9**MW solar plant*

GOVERNANCE continued

Exco, board committees and the board of directors. Meeting once a month, the climate change cross-functional committee will utilise the outputs from the climate change risk assessment and scenario analysis workshops to manage climate-related risks and opportunities, using a well-defined methodology supported by scientific data.

To systematically enhance governance on climate-related risks and opportunities, we have published a Group ESG policy for consultation. The policy supports implementing processes and procedures at our operations, dealing with the daily complexities of managing the Group's material topics.

The ESG policy recognises and effectively manages four material environmental topics, namely (i) climate change and energy management, (ii) tailings management, (iii) waste and water management and (iv) land and resource use.

Our vision for climate change and energy management is to:

- strive for pragmatic ways and means to produce and supply our electricity to ensure energy security
- continuously search for opportunities to use less energy and improve energy efficiency for sustainable gold production
- reduce GHG emissions by achieving an energy portfolio (renewable energy mix) aligned to sustainable mining and climate change response
- decarbonise gold production for export competitiveness through GHG emissions intensity management.

Pan African is in the process of drafting a climate change policy. However, the process has been delayed as we await certainty in policy direction from the Climate Change Bill. In the interim, we have been vocal in provincial and municipality forums on climate change in the province of Mpumalanga, where we operate. If implemented, the Climate Change Bill of South Africa tasks the provincial and municipal forums on climate change to provide provincial climate change response actions to the South African President's Coordinating Council. The Bill seeks to encourage integrated climate change management by establishing provincial and municipal forums on climate change.

Additionally, within one year of promulgation, the Bill will impose sectoral emissions targets on specific sectors identified by the Minister of Forestry, Fisheries and the Environment. This will significantly impact reducing GHG emissions in carbon-intensive and energy-intensive sectors. Therefore, a Group climate change policy will be invaluable in navigating its adaptation and mitigation strategies aligned with the National Climate Change Adaptation Strategy.

CAPACITATION AND TRAINING

Various capacity-building and training needs have been identified as part of ongoing Group projects related to climate change. These are outlined below:

- Pan African leadership/Exco, middle management, operational leads/ supervisors, ESG/sustainability managers – Climate change and mitigation training/ awareness programme
- Financial director, financial managers – Climate finance and investment
- ESG/sustainability managers, financial managers (TCFD), the relevant operations managers, ESG/sustainability analysts/ reporting specialists – Climate change/ TCFD reporting and GHG inventory
- ESG/sustainability managers, financial managers (TCFD) – Climate risk assessment, climate resilience planning and management
- Electrical/electronic/mechanical/process engineers and technicians, sustainability/ environmental managers and officers – Renewable energy and energy efficiency.

A capacity-building plan will be developed to address these needs over the next year.

Our roadmap under the TCFD governance element includes the following changes:

- Establishing a double-loop learning governance framework that enables the board and board committees to communicate material climate-related matters through strategy to operations while enabling operations managers to simultaneously elevate climate-related matters to the board and board committees through management business plans, annual budgets, key performance indicators (KPIs) and risk management protocols
- Finalising a climate change policy through which a suite of policies, processes and procedures that govern climate-related risks and opportunities will be dispensed throughout the operations. The climate policy will include, among other things, essential guidance on:
  - the formation of forums/committees (including stakeholder engagement) to govern and manage climate change issues
  - the setting of goals and targets for addressing climate change resilience, adaptation and mitigation
  - the monitoring, evaluation and reporting of goals and targets on climate-related risks and opportunities.

STRATEGY

Our strategy is designed to actively respond to the current and projected impacts of climate change on the Group and to meet increasing demand from investors for disclosure on our approach.

RECOMMENDED DISCLOSURES

- Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term
- Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning
- Describe the resilience of the organisation's strategy, considering different climate-related scenarios, including a 2°C or lower scenario.

We evaluate climate change-related risks and opportunities through the framework provided by the TCFD. We subdivide climate change risks into transitional risks and physical risks. These are explained in more detail below.

SCENARIO ANALYSIS

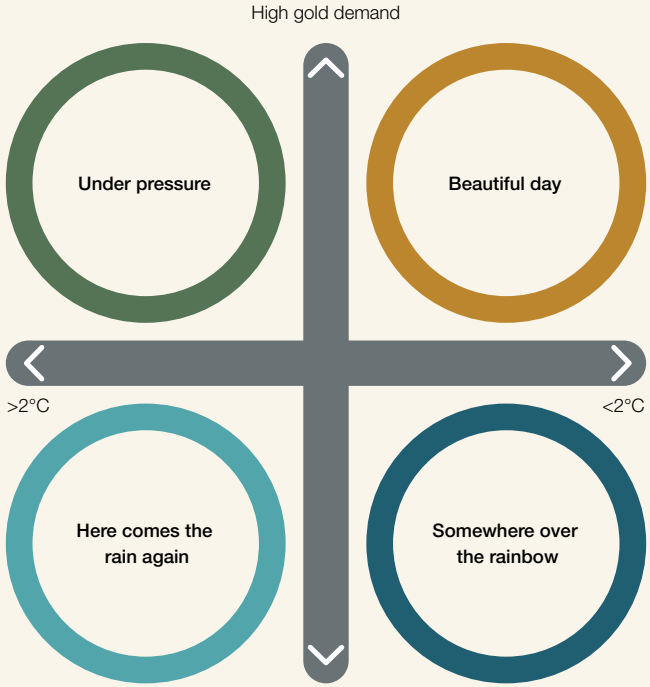
Performing climate change scenario analysis is a crucial TCFD recommendation and a tool for exploring potential future outcomes.

To strengthen our understanding of climate change risks and opportunities, we initiated a scenario analysis process during 2023.

Our scenario analysis process included four scenarios, as illustrated in the diagram and explained below.

Under this scenario, global efforts to combat climate change have been insufficient, and temperatures are expected to increase over 2°C by the end of the century. Extreme weather events become more frequent, and more investment capital is diverted to adaptation and resilience measures. Gold reserves are increased as a risk mitigation measure, increasing demand, but global economic growth is impacted. In South Africa, economic growth remains stagnant, and political stability has declined. Pan African benefits from high gold demand and a favourable exchange rate, but social disruption and extreme weather events negatively impact operations. Overall, investor confidence is neutral.

This scenario represents a pessimistic outlook both globally and for the gold mining sector. Due to insufficient climate change mitigation efforts, global temperature increases are significant and extreme weather events become more frequent and severe. Resilience measures are eroded over time. Due to a lack of progress in reducing GHG emissions in South Africa, there is a lack of international funding, and both renewable energy uptake and adaptation measures cannot be funded. While domestic policy and planning do not develop significantly, South African exports (including gold) are increasingly subject to carbon border taxes (carbon border adjusted mechanisms) and boycotts. Investor confidence is low, and extreme weather events, social unrest and a shortage of critical skills regularly disrupt operations.



This scenario represents a positive future for the world and the gold mining sector. Through sufficient global action and GHG emissions control, the outlook points to global warming of less than 2°C by the end of this century. South Africa's climate change legislation has increased in scope and stringency but is effectively implemented, resulting in well-planned national GHG mitigation efforts. Energy security and availability have improved due to the implementation of renewable energy and storage technologies, and green hydrogen is also growing. Gold demand grows globally, and investors' sentiments are optimistic.

In this scenario, global efforts to reduce GHG emissions stabilise temperatures below 2°C. South Africa also makes strides in reducing domestic GHG emissions, but economic growth and energy availability remain challenging. A lack of investment in adaptation infrastructure makes water shortages a concern. South African exports remain carbon-intensive in the medium term, with attractive carbon border taxes. Globally, gold demand is low, indicating poor global economic growth. Nevertheless, there is still some foreign capital influx, and investor confidence is increasingly optimistic.

STRATEGY continued

These scenarios were used to assess climate-related risks over the next 10 years, as executives and Group managers believe that a decade-long interval improves statistical confidence and planning capacity. Various impacts were identified, and the team supporting the scenario analysis process categorised these impacts by financial impact type.

Under pressure	Beautiful day	Here comes the rain again	Somewhere over the rainbow
• High temperatures leading to increased automation • A decline in water quality and quantity • High interest rates • High exchange rates • Extreme weather events increasing • Increase in illegal mining • Difficulty in retention of personnel/ remuneration	• Increase in self-generation • Increase in adaptation measures and resilience • Fourth Industrial Revolution and automation • Energy efficiency uptake • Illegal mining and fossil fuel-related emissions • Exchange rate impact on the JET • Deeper mining conditions increase energy use	• Preventative health measures • Labour productivity • Droughts increase in intensity and duration • Markets boycott carbon-intensive gold • Pumped storage using mine head	• Lack of automation • Lack of energy diversification skills • Civil unrest and activism • Adapting business model towards renewable energy • GHG emissions reduction

Some issues that were raised as common across all the scenarios considered include:

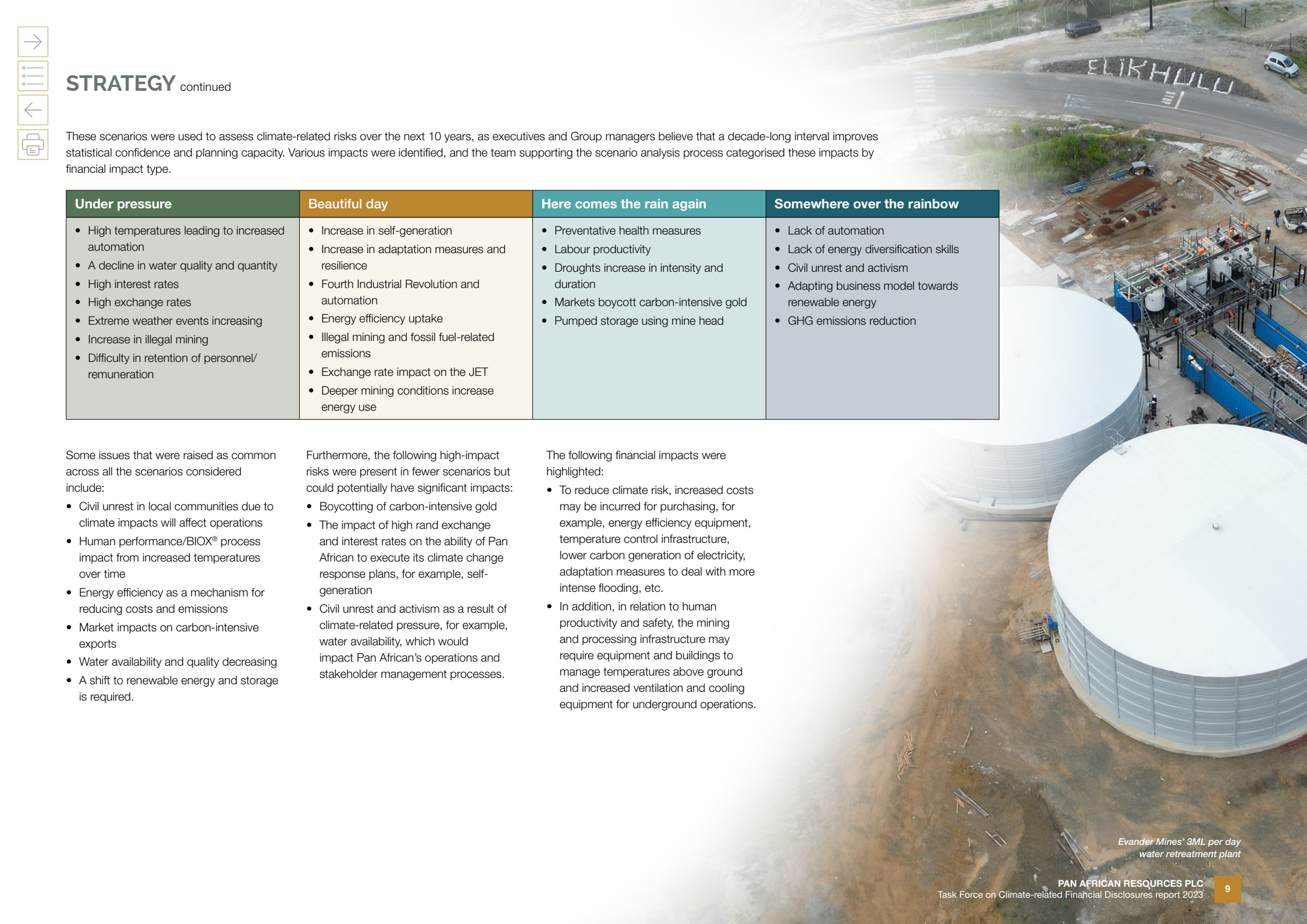
- Civil unrest in local communities due to climate impacts will affect operations
- Human performance/BIOX® process impact from increased temperatures over time
- Energy efficiency as a mechanism for reducing costs and emissions
- Market impacts on carbon-intensive exports
- Water availability and quality decreasing
- A shift to renewable energy and storage is required.

Furthermore, the following high-impact risks were present in fewer scenarios but could potentially have significant impacts:

- Boycotting of carbon-intensive gold
- The impact of high rand exchange and interest rates on the ability of Pan African to execute its climate change response plans, for example, self-generation
- Civil unrest and activism as a result of climate-related pressure, for example, water availability, which would impact Pan African's operations and stakeholder management processes.

The following financial impacts were highlighted:

- To reduce climate risk, increased costs may be incurred for purchasing, for example, energy efficiency equipment, temperature control infrastructure, lower carbon generation of electricity, adaptation measures to deal with more intense flooding, etc.
- In addition, in relation to human productivity and safety, the mining and processing infrastructure may require equipment and buildings to manage temperatures above ground and increased ventilation and cooling equipment for underground operations.



Evander Mines' 3ML per day water retreatment plant

CLIMATE-RELATED RISKS AND OPPORTUNITIES

Climate change transition risks

These risks are associated with the impacts of global efforts to become more sustainable. Transition risks are typically categorised as follows:

- **Social and reputational risks:** Risks associated with an organisation being perceived as not acting quickly enough to become more sustainable. For example, the JET is an important topic related to climate-related social risks in South Africa. In this regard, we remain cognisant of South Africa's JET Framework, which emphasises the importance of considering the social and economic impacts of the transition on affected communities and workers. This includes ensuring job security and providing retraining and reskilling opportunities
- **Technological risks:** Risks associated with advancing clean technologies making existing capital assets, business models or processes unattractive. For example, fossil fuel energy is compared to renewable energy
- **Market and economic risks:** Risks associated with changes in market access and changing market demands. For example, changes in demand for liquid fossil fuels as transportation decarbonises. Implementing carbon border adjustment mechanisms by trade partner countries is relevant to South Africa, which may reduce access to some markets
- **Policy and legal risks:** Risks associated with government interventions to address climate change, including mandatory mitigation and adaptation interventions aligned with nationally determined contributions to impose emissions targets or carbon pricing. Moreover, these risks also incorporate litigation risks, which are on the rise globally, such as communities pursuing civil litigation related to environmental damage and organisations being accused of greenwashing. For example, South Africa plans to introduce a mandatory carbon budget system for significant Scope 1 GHG emitters by 2026. Furthermore, globally, the cumulative number of climate litigation cases doubled from 2015 to 2022[1].

Climate change physical risks

These risks are associated with the physical impacts of climate change and are typically categorised as follows:

- **Acute physical risks (severe and short term):** Risks typically associated with extreme weather and weather-related events, such as tropical storms, wildfires, droughts, frost and flooding
- **Chronic physical risks (long-term, gradual change):** Risks associated with enduring changes and shifts in, for example, average air or land temperatures, sea levels, water acidification, soil quality and other persistent trends.

Opportunities

While there are various risks associated with both physical climate change and the transition to a low-carbon economy, there are also multiple opportunities related to climate change. These are described by the TCFD as follows:

- **Resource efficiency:** Improving the use of natural resources to be more productive and reduce waste
- **Energy sources:** Converting to sustainable energy sources
- **Products and services:** Developing new products and services needed in a more sustainable world
- **Markets:** Entering new markets or new markets that develop due to the impacts of climate change
- **Resilience:** Improving resilience and implementing adaptation measures to the impacts of climate change.

During 2023, the Group's climate change risks were identified as part of an integrated assessment. These risks are being refined as part of a broader climate change adaptation and mitigation journey, including board and management-level climate change training and scenario analysis.

[1] *Global trends in climate change litigation: 2022 snapshot.*

STRATEGY continued

- Short-term focus (one year)
- Medium-term focus (two to three years)
- Long-term focus (three years or more)

Climate change risks, responses and financial implications

Climate risk or opportunity	When	Response	Financial impact
Physical climate			
Droughts increase in intensity and duration	Medium-term	• Development of a comprehensive adaptation plan across the Group, including adaptation measures for both physical and softer issues such as information gathering, stakeholder engagement, etc. • Introducing water efficiency measures and targets • Research and development (R&D) into water reuse measures	• Increased capital expenditure to fund the adaptation plan • Increased R&D spend • Potentially increased resilience infrastructure due to water efficiency or reuse technology adoption • Decreased costs of water purchases
Extreme weather events increase, including wildfires, frost, storms and floods	Medium-term	• Collaborative research into long-range weather forecasting and early warning systems • Flood and mudslide prevention measures at tailings facilities (part of the adaptation plan) • Management and mitigation of frost impacts • Contingency plans/timing for transportation to the refinery • Availability of input materials may be impacted • Staff transport and, thus, availability may be impacted	• Increased capital expenditure to fund the adaptation plan • Increased R&D spend • Delays in operations up and downstream
Temperature increase	Short-term Medium-term	• Increased ventilation and cooling systems required • Enclosure of processes currently open to the atmosphere • Increase in disease, for example, malaria	• Increase in resilience infrastructure • Increase in costs • Increase/maintain productivity (if money is spent) • Decrease in productivity
Environment			
Water quality declines	Medium-term	• Increase in water retreatment facilities for incoming and outgoing water	• Increase in resilience infrastructure • Increase in costs • Increase in maintenance costs due to corrosion, etc.
Social			
Civil unrest increases	Medium-term	• Increase in stakeholder engagement and identification of opportunities, for example, supply of water to local communities	• Increase in costs and gold production • Disruption of operations
Increased automation leads to job losses	Medium-term	• Increase in social inclusion projects • Re- and upskilling of staff into new areas, for example, energy provision	• Increase in costs (short term)
Reputation			
Pan African is not perceived as responsive to climate change	Medium-term	• Shareholder briefings • Procurement policies specify climate change criteria	• Decrease in Group valuation
Policy and legislation			
Climate legislation in South Africa introduces caps or sector budgets and carbon taxes increase	Short-term	• Refer to carbon dioxide emissions reduction as follows • Partner with independent power producers and buy offset credits • Set an internal carbon price to use in investment and procurement decisions and take a life cycle approach	• Increased cost • New internal processes for investment and procurement
Border tax adjustment mechanisms increase and include gold exports	Medium-term	• Refer to carbon dioxide emissions reduction as follows • New markets may need to be sought	• Loss of sales and revenue potential • Increased costs to certify carbon intensity

STRATEGY continued

- Short-term focus (one year)
- Medium-term focus (two to three years)
- Long-term focus (three years or more)

Climate risk or opportunity	When	Response	Financial impact
Carbon dioxide emissions reduction			
Additional renewable energy implementation		• Build new renewable energy and storage capability in-house • Buy in certified renewable energy • Assess the business case on high heat pump storage/weights using the available head in the mine shaft • Investigate opportunities to participate in PPAs for wind and hydro energy, while exploring battery storage solutions	• Increased cost initially, but this should be offset over time as the price of grid electricity increases • May be an opportunity to sell additional electricity
Energy efficiency implementation		• Energy efficiency targets introduced • Energy efficiency is a criterion in procurement	• Increased green assets • Increased capital • Decreased costs of purchased electricity
Value chain			
Input costs increase due to climate-related events		• Product prices may increase due to availability/lack of supply, for example, wooden poles • Forum with supply chain to share ideas and lessons learnt and look for areas of synergy • Study to determine the carbon intensity of gold sold along the entire supply chain in preparation for any carbon border tax adjustment and to identify opportunities for reduction in emissions	• Increased cost • Supply chain efficiencies
Human resources (HR)			
Pan African has insufficient or incorrect skills to execute climate change strategies		• Build an understanding of climate change impact on Pan African's HR needs • HR work-skills plan includes positions/skills to mitigate and adapt to climate change and for TCFD reporting • Determine and plan climate change training/upskilling for board/executives, managers, mining staff-relevant	• Potential increased operational costs

Farm workers at the Barberton Blueberries farm gently pick blueberries during harvest

STRATEGY

Our strategy is affected by climate change in the following ways:

1

Companies face mounting pressure from investors and climate change activists to decarbonise and transition towards green energy. They are also expected to acknowledge, disclose and actively reduce their carbon emissions

2

Failure to comply with climate change policies and legislation can have significant consequences, including potential litigation, penalties and adverse financial or reputational impacts. Moreover, non-compliant companies may face exclusion from financial markets through an investment ban by prominent asset managers

3

Climate change brings unpredictable changes to weather patterns, increasing the risk of frequent severe weather events. These events, such as flooding and storms, can disrupt operations causing operational challenges that are increasingly hard to mitigate without integrated structured planning

As the frequency and severity of extreme weather patterns emerge, regulatory bodies continue to develop climate change policies. We anticipate that climate-related risks and opportunities will become increasingly important in the short, medium and long term.

The strategic endeavours we have actively engaged in include the following:

Initiatives	Direct impact	Financial impact
Evander Mines' 9.9MW solar project	tCO_2e savings ranging between 164,913 – 205,952 for the first 10 years[1]	ZAR34.4 million savings in the 2023 financial year
Barberton Mines' 8.75MW solar facility (planned)	tCO_2e savings ranging between 108,132 – 135,041 for the first 10 years[1]	Cost savings of ZAR26 million in year one before averaging ZAR40 million a year in cost savings over the life of the plant
10MW MTR project solar facility	Contribution to the renewable energy mix of 15% by 2027	Cost savings
Evander Mines' 12MW phase 2 solar expansion feasibility study		
Bela-Bela 40MW renewable energy PPA	112,399MWh of renewable energy per annum to Pan African	ZAR646 million cost savings over 10 years and ZAR884 million over 15 years
Evander Mines' water retreatment plant	91.25ML of potable water supplied per month	Cost savings
Barberton Mines and MTR project water retreatment plant feasibility studies	Water security	
Barberton Nature Reserve	Biodiversity conversation and carbon sinks	Carbon offset and savings

[1] *Assuming a 2% year-on-year improvement in the grid emissions factor, as more renewable energy is introduced to Eskom's grid.*

Overall, we have targeted having 18.5MW solar PV capacity in place by 2024, reducing our demand for grid electricity by 340,994MWh and reducing our Scope 2 GHG emissions on average per year by a magnitude between 30,494 – 34,099tCO_2e. We are also actively investigating energy storage solutions and off-site renewable energy such as wind and wheeling arrangements.

Beyond mitigation, resilience and adaptation, we also support the JET. This is demonstrated by entering into a 40MW renewable energy PPA for a project based in Bela-Bela and a skills training programme we have developed.

The JET encourages companies to reassess their strategies, integrating renewable energy, emissions reduction, sustainable resource management, social engagement and stakeholder expectations. Embracing the transition proactively positions us to thrive within a low-carbon economy while simultaneously tackling environmental and social challenges.

Furthermore, through our suite of climate-related metrics, we are able to analyse historical trends and make future projections of energy consumption and related emissions across all operations. A case in point is our sustainability-linked bond model, which supports our climate change scenario and strategic planning process.

Our roadmap under the TCFD strategy element includes the following changes:

- Incorporating climate-related performance metrics into the Company's remuneration policy as we do with ESG performance
- Establishing an internal carbon price
- Investigating revenue optimisation by exploring climate-related opportunities in products and services that are suitable for a low-carbon economy, including opportunities for further decarbonising our gold.

The opportunities we have recognised align with our strategic goals, which encompass our dedication to decarbonisation, the adoption of green energy and the pursuit of long-term environmental sustainability. Additionally, we strive to reduce our dependence on external providers for potable water.

RISK MANAGEMENT

Pan African has a robust and comprehensive risk management framework in place. As with our broader ESG priorities, climate risks will increasingly be integrated into our risk management programme. The risk management process includes a clear disclosure strategy. Our approach to defining and managing climate risks has evolved.

RECOMMENDED DISCLOSURES

- Describe the organisation's processes for identifying and assessing climate-related risks
- Describe the organisation's processes for managing climate-related risks
- Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.

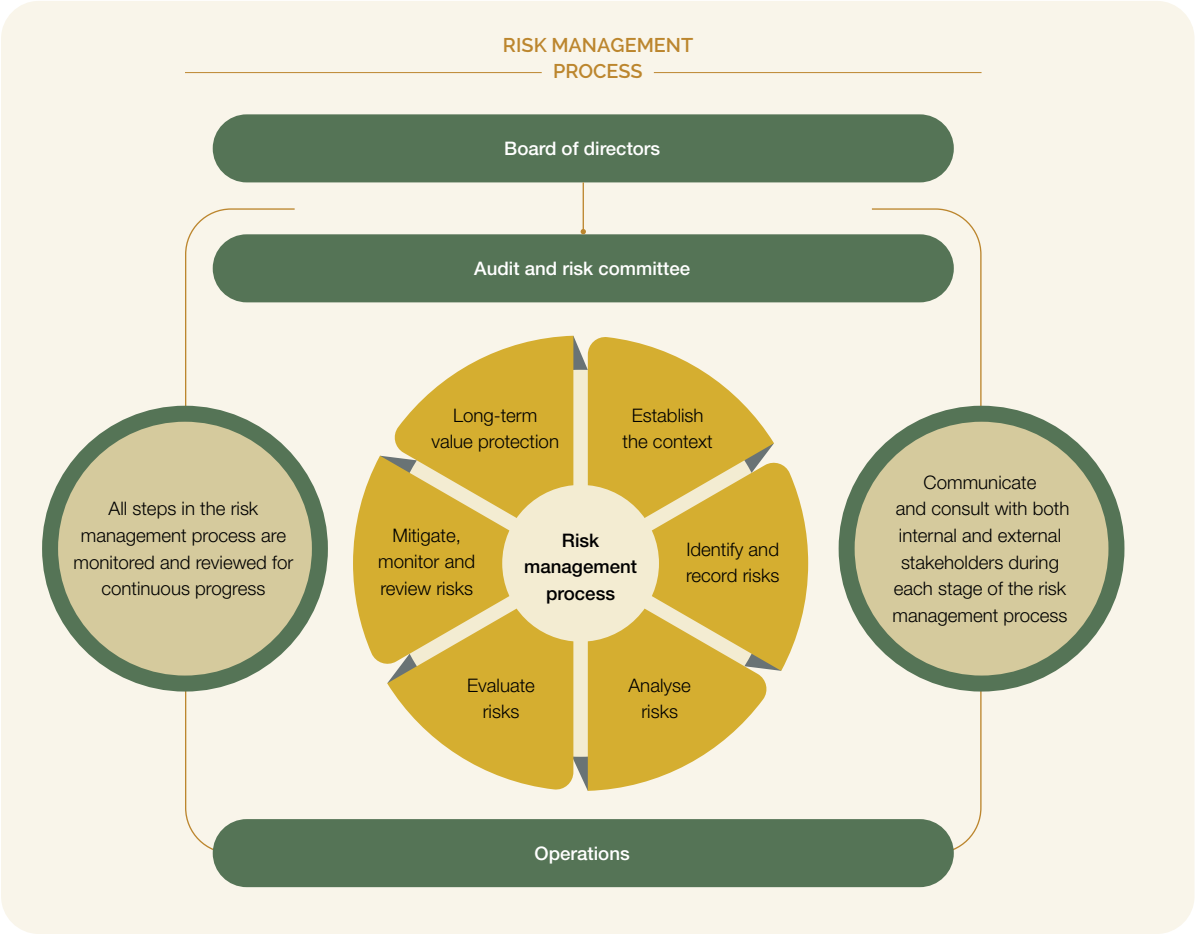
We rely on a robust and comprehensive risk management framework in which we incorporate climate change risks. Our risk management approach follows a well-structured and systematic process encompassing internal operational risks and external factors beyond our control. Risk management remains the responsibility of the board.

Through our risk management process, we have identified top risks that potentially threaten the execution of our business strategy. Aligned with our broader ESG priorities, we are progressively integrating climate risks into our risk management programme. This involves developing a clear disclosure strategy as part of our risk management process.

Our approach to identifying and managing climate risks is undergoing significant enhancements as we grapple with and address the nuances associated with climate change.

OUR RISK MANAGEMENT PROCESS

We utilise a structured and systematic but adaptive risk management process to identify, assess and address uncertainties and protect stakeholder value, promoting long-term sustainability. This process considers risks from strategic, preventable operational and external sources. Our risks and opportunities are managed on four tiers, which are the board, the board committees, executive management and employees.



Frozen tailings dam cyclone at Winkelhaak on Monday, 10 July 2023, when it snowed for the first time in a decade

RISK MANAGEMENT continued

Physical climate change-related risks are primarily assessed as part of safety, health and environmental (SHE) risk assessments and consolidated into the business risk register. Transition risks, especially with regard to emerging regulations and policy, are evaluated specifically with regard to potential financial, environmental and social impacts. Compared to other risks, the relative significance of climate change risks is evaluated on a risk-based approach using our SHE risk methodology. Presently, climate change-related risks are managed at an operational level. However, we are in the process of integrating climate change into our business strategy, as discussed in the previous section.

In our effort to ensure the successful execution of our business strategy, we have conducted a comprehensive analysis of the key risks that could potentially hinder its implementation. During this assessment, we evaluated these risks based on their likelihood of occurring, the speed at which they might manifest and the potential impact they could have on our operations. By doing so, we were able to determine the residual risk remaining after implementing our mitigating measures.

The table below further describes the overall responsibilities and oversight of the risk management duties across the board.

Risk management oversight

Board	Board committees	Executive management	Employees
The board of Pan African oversees the risk management process, drawing upon its committees, expertise, internal risk assessments and risk reports	The audit and risk committee supports the board and is complemented by the SHEQC committee, the social and ethics committee and the remuneration committee which oversee activities and provide feedback to the board	Management at operational level implements and monitors day-to-day compliance with the Group's management process. Risk consciousness and a culture of safety are embedded in day-to-day operations	We continuously reinforce the message that managing risk is the responsibility of everyone at Pan African

We have developed a climate change risk response plan based on our recent climate change scenario analysis and risk assessment. The steps that will be taken to address individual climate-related risks are described in the strategy section of this report. Further, the following key themes are relevant to our approach regarding climate-related risks and opportunities as we advance.

There are various strategies and plans that we will investigate and develop going forward. These include a mitigation strategy and energy efficiency plan, an adaptation strategy and plan and a finance plan. Contingency and business continuity planning can also be updated to include climate change considerations.

Further, we have identified the need to strengthen the organisation's skills associated with building resilience against climate change, knowledge and capacity. To this end, we plan to continue climate change-related training within the Group.

Where relevant, climate-related risks and opportunities will be incorporated into our Group risk management frameworks as appropriate for monitoring and management.

METRICS AND TARGETS

Pan African has disclosed its ESG performance consistently in its previous integrated annual reports, using the report as its primary platform to reach its stakeholders. The extent of our disclosure has broadened over time.

RECOMMENDED DISCLOSURES

- Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process
- Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks
- Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

Disclosure: Metrics used to assess climate-related risks and opportunities in line with our strategy and risk management process

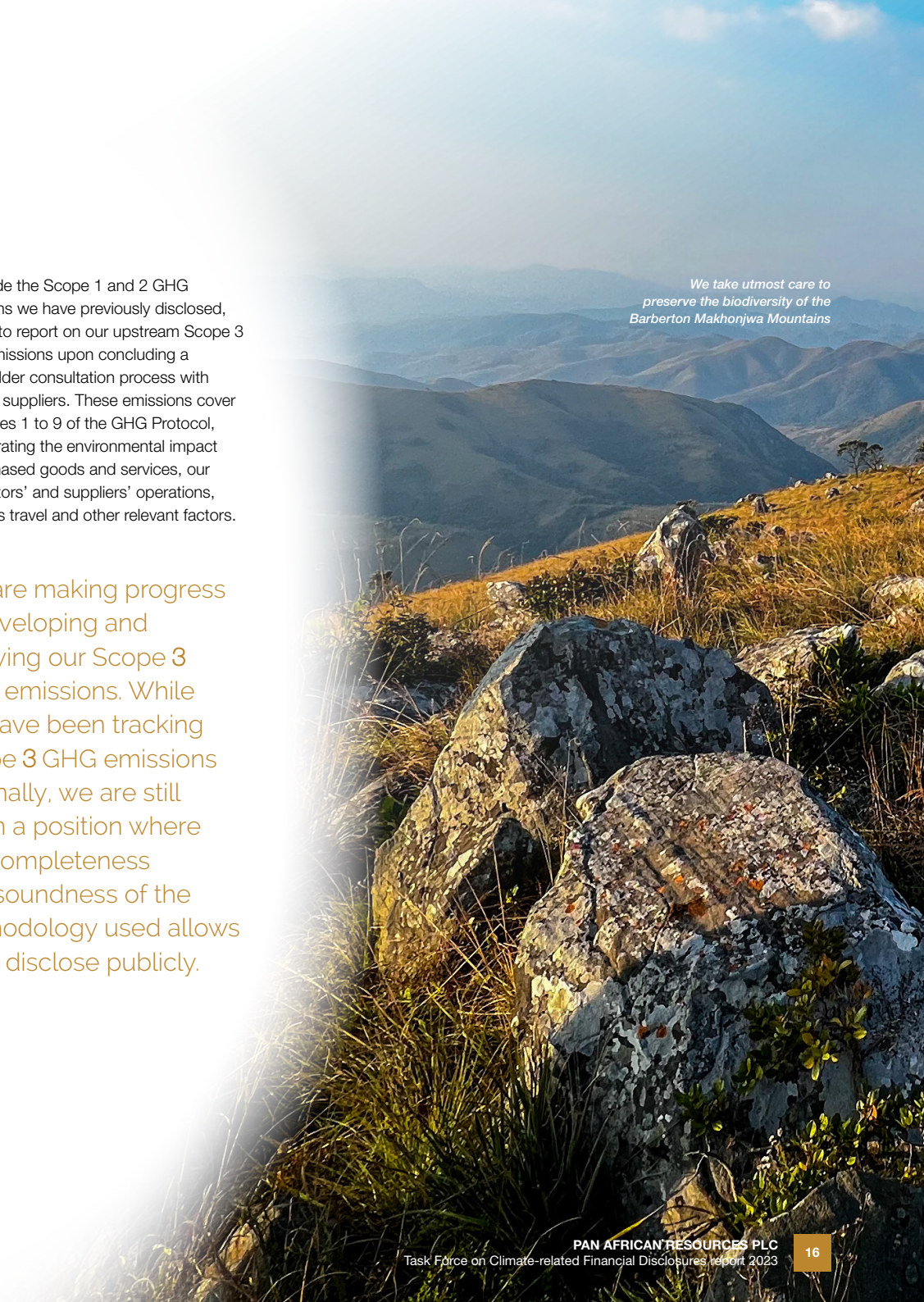
We use metrics aligned to the TCFD framework to measure and manage our climate-related risks and opportunities. These metrics incorporate climate-related risks associated with the consumption of energy and water resources and other GHG-emitting activities. We continue to meet our mandatory GHG emissions reporting regulations and comply with the Carbon Tax Act in South Africa. Moreover, we recognise the importance of aligning our climate-related metrics with the JET principles of distributive, restorative and procedural justice. This entails balancing the imperative of reducing carbon emissions with the potential impact on employment, particularly in communities heavily dependent on fossil fuels. We are committed to developing long-term green jobs and supporting affected communities throughout this transition process.

Disclosure: GHG emissions

- **Scope 1 emissions:** Direct GHG emissions – mobile and stationary combustion emissions, process and fugitive emissions
- **Scope 2 emissions:** Indirect GHG emissions – Eskom purchased electricity
- **Scope 3 emissions:** Indirect GHG emissions – progress on Scope 3 emissions.

Alongside the Scope 1 and 2 GHG emissions we have previously disclosed, we aim to report on our upstream Scope 3 GHG emissions upon concluding a stakeholder consultation process with material suppliers. These emissions cover categories 1 to 9 of the GHG Protocol, incorporating the environmental impact of purchased goods and services, our contractors' and suppliers' operations, business travel and other relevant factors.

We are making progress in developing and verifying our Scope 3 GHG emissions. While we have been tracking Scope 3 GHG emissions internally, we are still not in a position where the completeness and soundness of the methodology used allows us to disclose publicly.



We take utmost care to preserve the biodiversity of the Barberton Makhonjwa Mountains

METRICS AND TARGETS continued

Disclosure: Description of targets used to manage climate-related risks and opportunities and performance on targets

In line with the TCFD requirement on disclosure of targets, we currently target an energy mix comprising 75% fossil fuels and 25% renewable energy sources by 2030. We have aspirational targets linked to renewable energy. We aim to reach a target of 15% energy generated from renewable means by 2027. This target is linked to our strategic alignment regarding energy security, energy use and efficiency, reduction of our emissions and the intensity of GHG emissions.

ENERGY CONSUMPTION

Our operations rely heavily on consistent electricity supply provided by the South African power utility Eskom. Disruptions in the electricity supply can have severe consequences, including the interruption of production and potential hazards to the safety of our employees and contractors, particularly in underground operations.

Furthermore, extended power outages can cause damage to electrical equipment. Failing to achieve our production targets due to these interruptions poses risks such as increased production costs, reduced gold production and a decline in profit margins.

We estimate a production loss of approximately 10,000oz for the current financial year as a result of issues related to Eskom-generated electricity supply impacting all of our operations. In addition, load curtailment, power outages and surges, transformers and other Eskom infrastructure-related difficulties contributed to production disruptions. We are aggressively rolling out our renewable energy plans to mitigate the impact of this challenge.

Energy efficiency is one of the four KPIs used to monitor, evaluate and report on climate change and energy management. Our energy efficiency strategy aims to continuously search for opportunities to use less energy for sustainable gold production.

The average cost of electricity can fluctuate with considerable volatility conditional on the time of day, whether it is off-peak or peak-time and based on seasons of the year, with high-demand winter seasons, including June, July and August, fetching the highest average tariffs. Therefore, energy efficiency is crucial for cost savings on electricity. We have identified several energy efficiency projects, some underway to be completed in the 2024 financial year and some that have already been implemented.

The projects include clipping and excitation of the main vent fans, automation of pumps, load shifting, improving the power factor with capacitor banks, transitioning underground operations from internal combustion engine locomotives to battery electric locomotives and increasing backup generation using emergency generators. Collectively these projects will save operations tens of millions in electricity costs.

Additionally, we have collaborated with the National Cleaner Production Centre (NCPC) of South Africa, hosted by the Council for Scientific and Industrial Research (CSIR), on behalf of the Department of Trade, Industry and Competition. The NCPC-SA is a member of the United Nations Industrial Development Organisation and the United Nations Environmental Programme's Global Network for Resource Efficient and Cleaner Production and is leading the African Roundtable on Sustainable Consumption and Production. The partnership aims to assist Pan African in lowering costs through energy, water, materials consumption and waste management efficiencies, including facilitating our participation in the circular economy through the industrial symbiosis programme.

Our energy mix

We have become one of the first gold mining companies in South Africa to commission a solar plant independently.

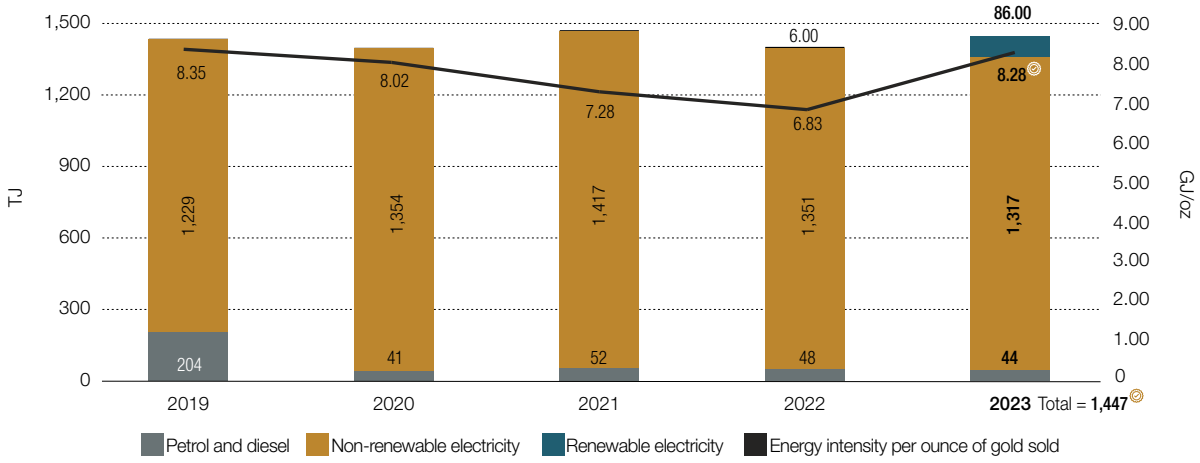
This initiative showcases our dedication to sustainable development by transitioning away from coal-fired power in a measured and responsible manner, ensuring the preservation and generation of value for both shareholders and stakeholders.

For the 2023 financial year, our electricity consumption was 390GWh, comprising 6.1%◎ renewable energy as seen below:

- Renewable energy was 24GWh
- Non-renewable energy was 366GWh.

We are proud to note that the 5% sustainability performance target related to our sustainability-linked bond has been achieved.

Group energy consumption



	Unit	2019	2020	2021	2022	2023
Petrol and diesel	TJ	204	41	52	48	**44**
Non-renewable electricity	TJ	1,229	1,354	1,417	1,351	**1,317**
Renewable electricity	TJ	–	–	–	6.00	**86.00**
Total		1,433	1,395	1,469	1,405	**1,447**◎
Energy intensity per ounce of gold sold	GJ/oz	8.35	8.02	7.28	6.83	**8.28**◎

METRICS AND TARGETS continued

OUR GHG EMISSIONS

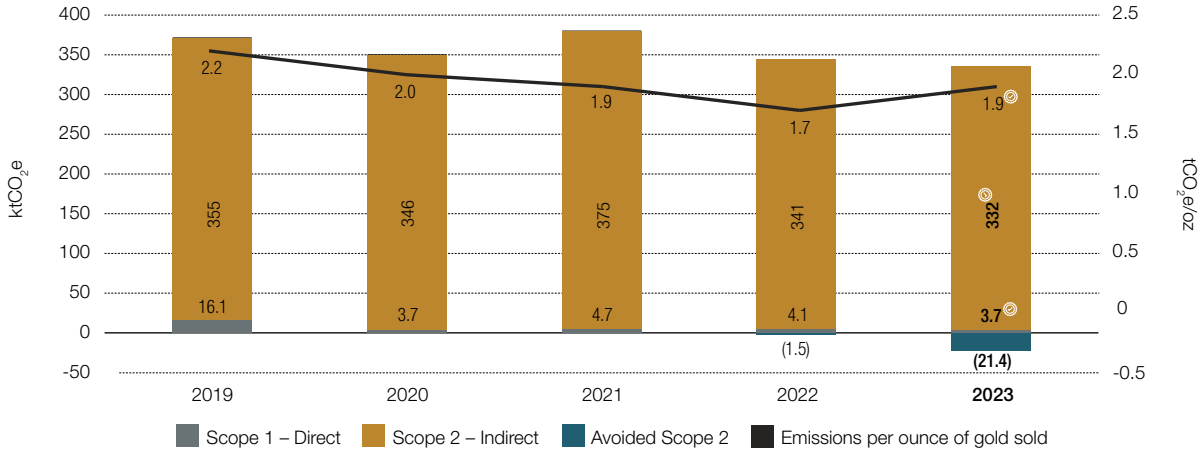
In accordance with the TCFD requirements, we report and base our emission calculations using the GHG Protocol: A Corporate Accounting and Reporting Standard based on the following principles, relevance, completeness, consistency, transparency and accuracy. Additionally, we rely on the Global Reporting Initiative's (GRI's) GRI 305: Emissions (2016) standard for guidance on computing direct (Scope 1) GHG emissions (GRI 305 – 1), indirect (Scope 2) GHG emissions (GRI 305 – 2) and associated GHG emissions intensity (GRI 305 – 5). Currently, we do not disclose other indirect (Scope 3) GHG emissions. However, as stated earlier in the report, we are working on gradually disclosing these emissions in the 2024 financial year.

Furthermore, we provide our emissions for the past five financial years to show a trend analysis. As stated earlier in the report, our business operations rely heavily on a consistent and uninterrupted supply of electricity. However, because we rely on fossil fuel-generated electricity from Eskom, our Scope 2 emissions are significant. According to the CSIR's 2022 statistics on utility-scale power generation in South Africa, 86.3% of the country's electricity mix comprised fossil fuels, with coal contributing 80.1% (176.6TWh), nuclear 4.6% (10.1TWh) and diesel and gas contributed 1.6% (3.6TWh).

Renewable energy was only 13.7% (30.2TWh), resulting in a grid factor estimate exceeding 0.9. Therefore, Scope 2 (indirect) emissions contribute the most to our footprint. For our Evander Mines operation, we have fully implemented a solar plant with 9.9MW and are investigating a capacity expansion of 12MW. Similarly, at Barberton Mines, construction has commenced on our 8.75MW solar plant.

The consumption of non-renewable fuels, predominantly diesel, significantly contributes to our direct (Scope 1) GHG emissions. However, it should be noted that from a materiality point of view, our combustion of mobile and stationary fuels contributes less than 5% towards our combined Scope 1 and Scope 2 energy consumption and associated emissions. Still, implementing energy efficiency initiatives offers dual benefits. Firstly, it improves energy consumption, thereby enhancing our financial performance. Secondly, it helps reduce our carbon footprint, contributing to our commitment to sustainability. Our Scope 1 emissions include explosives and mobile and stationary petrol and diesel combustion by owned or leased stationary equipment and off-road and on-road mobile sources.

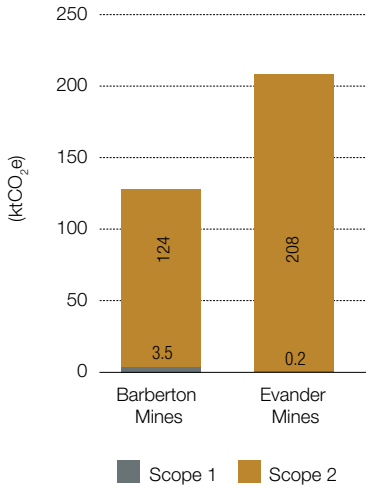
Group GHG emissions



Emissions performance

	Unit	2019	2020	2021	2022	2023
Scope 1 – direct	$ktCO_2e$	16.1	3.7	4.7	4.1	**3.7**
Scope 2 – indirect	$ktCO_2e$	355	346	375	341	**332**
Avoided Scope 2	$ktCO_2e$				(1.5)	**(21.4)**
Total		371	349	380	345	**336**
Emissions per ounce of gold sold	tCO_2e/oz	2.2	2.0	1.9	1.7	**1.9**

Group GHG emissions totals for the 2023 financial year



METRICS AND TARGETS continued

WATER USE AND MANAGEMENT

The mining industry can adversely affect the availability and quality of water in the surrounding ecosystems. We acknowledge the importance of responsible water usage, preserving water resources and fostering collaboration with stakeholders in our water catchment areas.

Effective management of this vital resource is a critical area of focus for us to ensure the sustainability of our operations and maintain our social licence to operate. In this regard, we remain committed to responsible and sustainable water use, embedded in our water management policy and water-use licences, which focus on efficient water use through reuse and recycling.

Following board approval and the successful findings of the bankable feasibility study on a water retreatment plant for Evander Mines, construction commenced in November 2021. The water retreatment plant and 7 Shaft distribution system were successfully commissioned in March 2023, with water to 7 Shaft supplied consistently throughout that month to date.

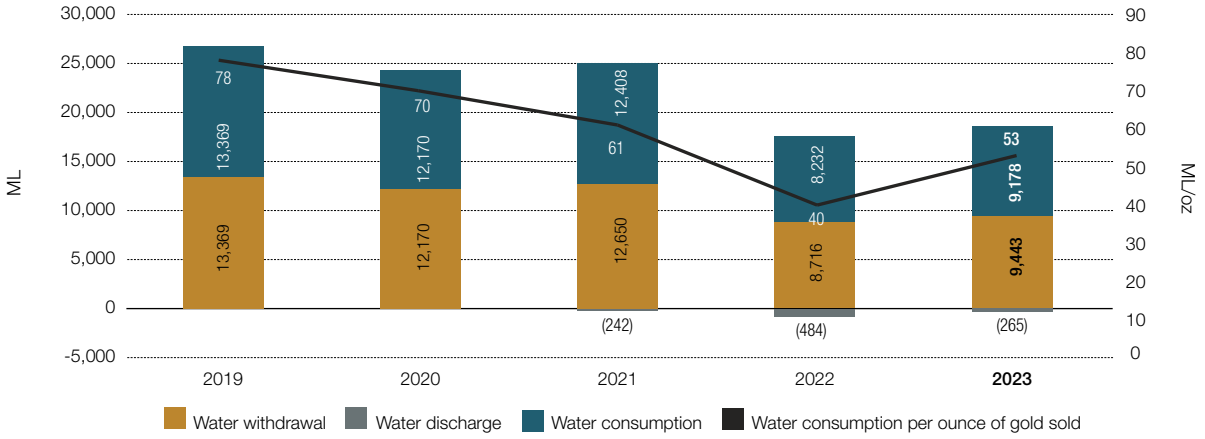
Our operations depend on steady water supplies for several activities, including mineral processing. We withdraw water from two sources, surface and underground. Water is also withdrawn from surface sources to fulfil the organisation's secondary water consumption. At our operations, we diligently collect and manage water data, which we incorporate into comprehensive site-wide water balances.

Within our Barberton operating area, the Inkomati-Usuthu Catchment Management Agency (IUCMA) is the custodian of water on behalf of the Department of Water and Sanitation. They issue water-use licences as per the regulations of the National Water Act, 36 of 1998. Water-related impacts are identified through continuous testing of both surface and groundwater; these results are submitted to the IUCMA to monitor the water quality within the organisation and its vicinity. Another regulatory entity is the Suid-Kaap water board. It monitors the flow of the Suid-Kaap River on behalf of users to ensure water availability for human needs and ecological demands. The board is also responsible for issuing directives on water withdrawal restrictions when necessary.

We ensure compliance with regulations by holding approved water-use licences issued by the Department of Water and Sanitation. We conduct annual internal and external audits to enhance compliance to these licences.

We also perform assessments twice a year at all our operations to evaluate the impact of mining activities on the surrounding water bodies. Regular monitoring of chemicals in surface and groundwater occurs at predetermined locations both within and outside the mining sites and takes place at least quarterly. Our water performance for the 2023 financial year is shown below.

Group water consumption totals



	Unit	2019	2020	2021	2022	2023
Total water withdrawal	ML	13,369	12,170	12,650	8,716	**9,443**
Total water discharge	ML			(242)	(484)	**(265)**
Total water consumption	ML	13,369	12,170	12,408	8,232	**9,178**
Water consumption per ounce of gold sold	ML/oz	78	70	61	40	**53**

Our initiatives to conserve water continue to produce positive results. The overall water withdrawal has increased by 8%, discharge[1] was reduced by 45%, but consumption increased by 11% owing to increased withdrawal from our Evander Mines operations – the water recycling plant is anticipated to mitigate Evander Mines' water impact. Our water recycling plant was 1% of Evander Mines' water consumption since inception, producing 45ML. A dam management plan is in place at both operations to manage various return-water dam levels and prevent overflow.

[1] *Our Barberton Mines operations (Evander Mines does not discharge water as per our water-use licence) discharge surface water through controlled releases governed by regulatory requirements and our water-use licences.*

TSF cyclone deposition method

METRICS AND TARGETS continued

TAILINGS STORAGE FACILITY (TSF) REVIEW AND FUTURE TSF CONSTRUCTION PLANS

In light of the global industry moving towards compliance with the Global Industry Standard on Tailings Management (GISTM), Pan African has, over the past two years, performed various internal audits and studies to gauge the status of its TSF facilities against these standards as far as practically possible before a formal audit process by an independent tailings review board. Post-study opinions have revealed the classification of specific Pan African TSFs as high-impact TSFs due to their proximity to local communities and water courses. All TSFs are managed accordingly to minimise impacts.

An independent tailings review board has also been appointed by the Group in compliance with the GISTM. Since the appointment of this board, engagement with the operational teams of Pan African's TSFs took place during 2023. Site visits to the Barberton Mines and Evander Mines operations have been completed, accompanied by the operational teams. Initial reports from the assessments were received in June 2023. Final recommendations on the way forward towards compliance will be available during the first quarter of the new financial year.

Progress on Pan African's TSF management strategy includes the following:

- Evander Mines' Elikhulu TSF phase 2 construction, with a production profile as per the Elikhulu life-of-mine, continued with construction. Completion is anticipated at the end of December 2023 and commissioning in January 2024
- Planning and design has commenced for the phase 3 TSF extension as per the life-of-mine plan
- It has come to Pan African's attention that the GISTM standards are being adopted into the South African National Standards. Although this amendment is still in process, we have assessed the implication to the Group and found that we are substantially in compliance. Any material gaps will be addressed accordingly.

We understand the importance of constantly assessing the integrity of our TSFs.

The Group remains committed to working with stakeholders to implement and maintain statutory TSF management standards. The action plans and remedial activities noted during internal and other reviews are implemented diligently to mitigate high-risk safety and environmental issues. Strict adherence to these action plans will ensure adequate safety compliance for our mining operations, employees and the community.

We have provided additional disclosure related to our TSFs on our website at
https://www.panafricanresources.com/investors/gri-and-sustainability/

APPENDIX A

KEY PERFORMANCE INDICATORS

Sustainability KPIs	Units	Definitions of KPIs
Energy consumption	TJ	**Energy consumption or use** refers to renewable and non-renewable fuels combusted by the organisation's leased or owned equipment plus electricity purchased from Eskom and self-generated electricity, less electricity sold to third parties. The energy consumption reported includes the consumption of fuels (diesel and petrol) and electricity (renewable and non-renewable).
Energy intensity per ounce of gold sold	GJ/oz	**Energy intensity** expresses the amount of energy used/consumed per unit of product, activity or any specific metric an organisation chooses. The energy intensity reported is energy consumption/ounces of gold sold.
Greenhouse gases (GHGs)	$ktCO_2e$	GHGs are climate change-forcing emissions released into the atmosphere through natural and anthropogenic activities, mostly the combustion of fossil fuels. Common GHGs include water vapour (non-forcing GHG), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFCs), perfluorocarbons (PFC) and sulphur hexafluoride (SF_6). The GHG emissions reported are CO_2e or the amount of CO_2 emission that would cause the same integrated radiative forcing over a given time horizon as an emitted amount of a mixture of GHGs, including CO_2, CH_4 and N_2O.

Sustainability KPIs	Units	Definitions of KPIs
Scope 1 GHG emissions	$ktCO_2e$	**Scope 1 GHG emissions** refer to the Company-owned or leased **stationary equipment** that combusts fossil fuels (liquid, gaseous or solid) for electricity, steam or heat generation or waste stream materials, including combustion from Company-owned or leased **off-road and on-road mobile (transportation)** sources, as well as process and fugitive emissions. The reported Scope 1 GHG emissions include emissions from the combustion of diesel, petrol and explosives.
Scope 2 GHG emissions	$ktCO_2e$	**Scope 2 GHG emissions** refer to indirect emissions attributable to purchased electricity, heat or steam. The reported Scope 2 GHG emissions comprise of electricity purchased from Eskom, the South African energy utility.
GHG emissions intensity	tCO_2/oz	**GHG emissions intensity** expresses the amount of GHG emitted per unit of product sold, activity or any other specific metric chosen by an organisation. The reported GHG emissions intensity is tonnes of CO_2 emissions per ounce of gold sold.
Renewable energy as a % of total electricity consumed	%	**Total electricity consumption** includes non-renewable electricity purchased from Eskom plus renewable electricity generated (solar PV). The reported renewable energy as a % of total electricity consumed is renewable energy (%) = Renewable electricity generated (MWh)/(Total electricity consumption (MWh).

APPENDIX B
METHODOLOGIES

METHODOLOGY FOR CALCULATING TOTAL ENERGY CONSUMPTION WITHIN THE ORGANISATION

Energy consumption from diesel and petrol

The following formula is applied to convert stationary and mobile combusted diesel or petrol to **Terajoules** using country-specific net calorific values (NCVs) or the energy content of fuel when combusted.

$$\textit{Fuel Combustion Energy (TJ)} = \textit{fuel } (\ell) \times \frac{NCV \times Density_{fuel}}{1{,}000} \left(\frac{TJ}{\ell}\right)$$

- Country-specific NCVs for diesel and petrol are **0.0430**TJ and **0.0443**TJ per metric tonne, respectively.
- Country-specific densities for diesel and petrol are **0.8255**kg and **0.7405**kg per litre, respectively.

Energy consumption from electricity

The following formula is applied to convert stationary and mobile combusted diesel or petrol to **Terajoules** using the power formula (kWh = 3,600kJ).

$$\textit{Electricity Energy (TJ)} = \textit{electricity consumed (kWh)} \times 3{,}600\ \textit{(kJ)} \times \left(\frac{T}{T}\right)$$

The sum of energy from **diesel, petrol** and **electricity** is the **total energy consumption within the organisation** as defined by the GRI[1] 302: Energy (2016) standard.

METHODOLOGY FOR CALCULATING TOTAL GHG EMISSIONS PRODUCED WITHIN THE ORGANISATION

Direct (Scope 1) GHG emissions from consumption of diesel, petrol and explosives

The following formula is applied to convert energy from stationary and mobile combusted diesel or petrol to GHG emissions using **country-specific emissions factors**[2] for carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).

$$\textit{Stationary or Mobile GHG Emissions} \left(\frac{tCO_2}{TJ}, \frac{tCH_4}{TJ}, \frac{tN_2O}{TJ}\right) =$$

$$\textit{Stationary or Mobile Fuel Combustion Energy (TJ)} \times \textit{emission factor} \left(\frac{tCO_2}{TJ}, \frac{tCH_4}{TJ}, \frac{tN_2O}{TJ}\right)$$

- Country-specific emission factors of CO_2, CH_4 and N_2O for **stationary diesel** are **74.1**tCO_2, **0.003**tCH_4 and **0.0006**tN_2O
- Country-specific emission factors of CO_2, CH_4 and N_2O for **mobile diesel** are **74.1**tCO_2, **0.00415**tCH_4 and **0.0286**tN_2O
- Country-specific emission factors of CO_2, CH_4 and N_2O for **mobile** and **stationary petrol** are **69.3**tCO_2, **0.0035**tCH_4 and **0.0057**tN_2O

To convert to metric tonnes of carbon dioxide equivalent (CO_2e), the emissions for CH_4 and N_2O are multiplied by their respective one-hundred-year global warming potential (GWP) of 23 for CH_4 and 296 for N_2O. This will result in CO_2e values for CH_4 and N_2O.

The GHG emissions from explosives are calculated using a GHG emission factor of 0.17tCO_2e/tonne product sourced from the Australian Government's Department of Climate Change's National Greenhouse Accounts (NGA) Factors (2008). The South African guidelines do not have emission factors for explosives.

Indirect (Scope 2) GHG emissions from consumption of fossil fuel electricity

The following formula is applied to convert energy from fossil fuel electricity consumption to **Terajoules** using the following grid emissions factor.

$$\textit{Electricity Emissions } (tCO_2e) = \textit{Electricity Energy (TJ)} \times \textit{Grid Factor} \left(\frac{tCO_2e}{MWh}\right)$$

$$= \textit{Electricity Energy (TJ)} \times GF \left(\frac{tCO_2e}{3.600MJ}\right)$$

$$= \textit{Electricity Energy } (10^3) \left(\frac{tCO_2e}{3.6}\right)$$

$$= \textit{Electricity Energy} \left(\frac{ktCO_2e}{3.6}\right)$$

Eskom's grid factor or the emissions factor at generation (EFG) is estimated using the following formula in accordance with **Appendix A** of the GHG Protocol: A Corporate Accounting and Reporting Standard:

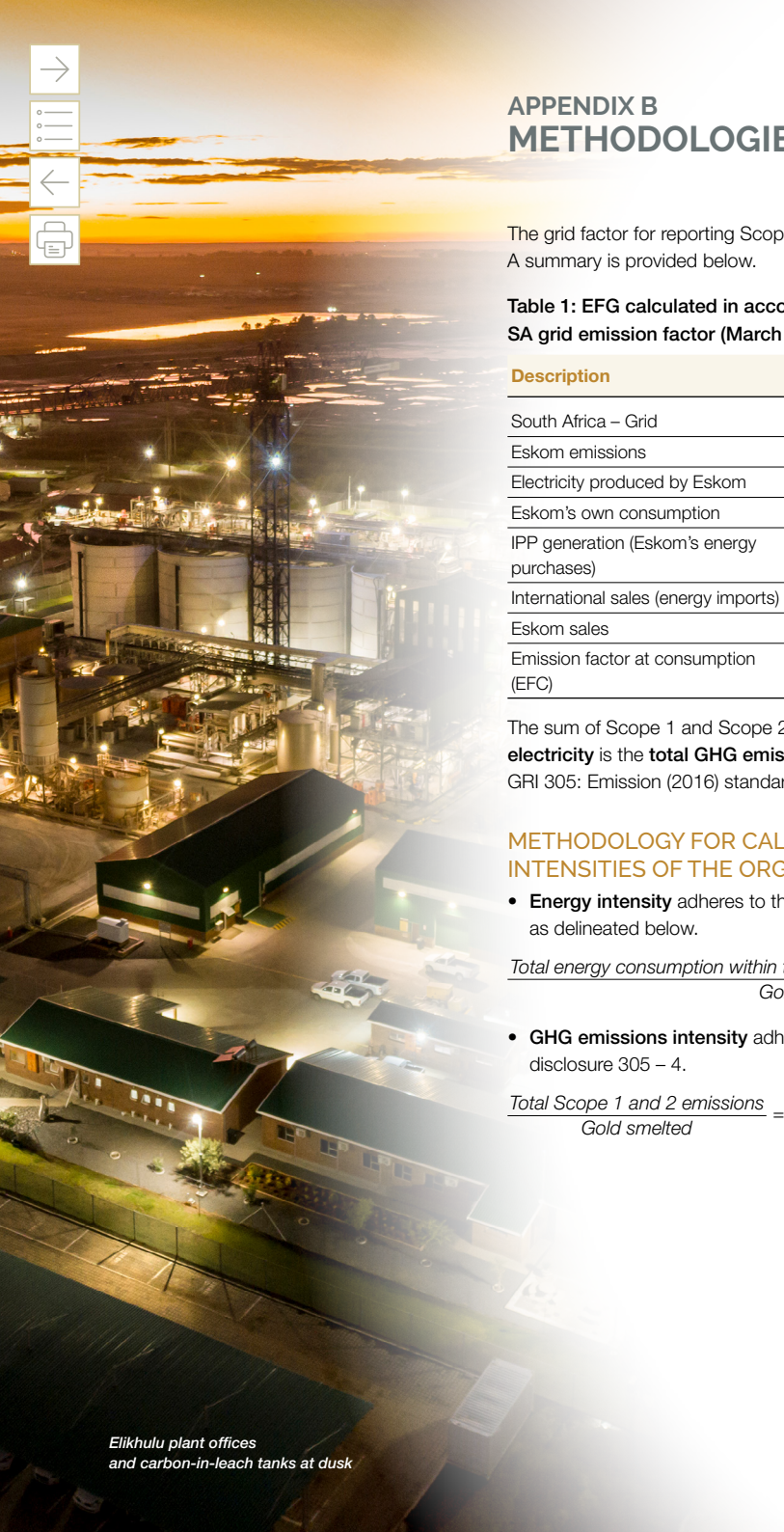
$$EFG = \frac{EM}{(PE - OC + IPPs + IP)} = \left(\frac{tCO_2e}{MWh}\right)$$

Where:

EM = Eskom's emissions
PE = Eskom's produced electricity
OC = Eskom's own consumption
IPPs = Independent power producers (IPPs) generation
IP = International purchases

[1] *Global Reporting Initiative.*

[2] *Department of Forestry, Fisheries and the Environment's methodological guidelines for quantification of greenhouse gas emissions (2022) and the technical guidelines for monitoring, reporting and verification of greenhouse gas emissions by industry (2017).*



Elikhulu plant offices and carbon-in-leach tanks at dusk

APPENDIX B
METHODOLOGIES continued

The grid factor for reporting Scope 2 GHG emissions is **0.908550384**tCO_2e/MWh. A summary is provided below.

Table 1: EFG calculated in accordance with Appendix A of GHG Protocol SA grid emission factor (March 2022)

Description	Values	Units	Sources
South Africa – Grid	0.908550	tCO_2e/MWh	GHG Protocol: Appendix A
Eskom emissions	207,626	$ktCO_2e$	Eskom IAR pg 120
Electricity produced by Eskom	205,688	GWh	Eskom IAR pg 142
Eskom's own consumption	6,434	GWh	Eskom IAR pg 153
IPP generation (Eskom's energy purchases)	15,972	GWh	Eskom IAR pg 99
International sales (energy imports)	13,298	GWh	Eskom IAR pg 142
Eskom sales	198,281	GWh	Eskom IAR pg 152
Emission factor at consumption (EFC)	1.047	tCO_2e/MWh	GHG Protocol: Appendix A

The sum of Scope 1 and Scope 2 GHG emissions from **diesel, petrol, explosives** and **electricity** is the **total GHG emissions within the organisation** in accordance with the GRI 305: Emission (2016) standard.

METHODOLOGY FOR CALCULATING ENERGY AND CARBON INTENSITIES OF THE ORGANISATION

- **Energy intensity** adheres to the guidance provided by the GRI 302 disclosure 302 – 3 as delineated below.

$$\frac{\textit{Total energy consumption within the organisation (electricity and fuels)}}{\textit{Gold sold}} = \left(\frac{GJ}{oz}\right)$$

- **GHG emissions intensity** adheres to the guidance provided by the GRI 305 disclosure 305 – 4.

$$\frac{\textit{Total Scope 1 and 2 emissions}}{\textit{Gold smelted}} = \left(\frac{tCO_2e}{oz}\right)$$

Metric (SI) prefixes

Table 2: Source: International Recommendation of Energy Statistics

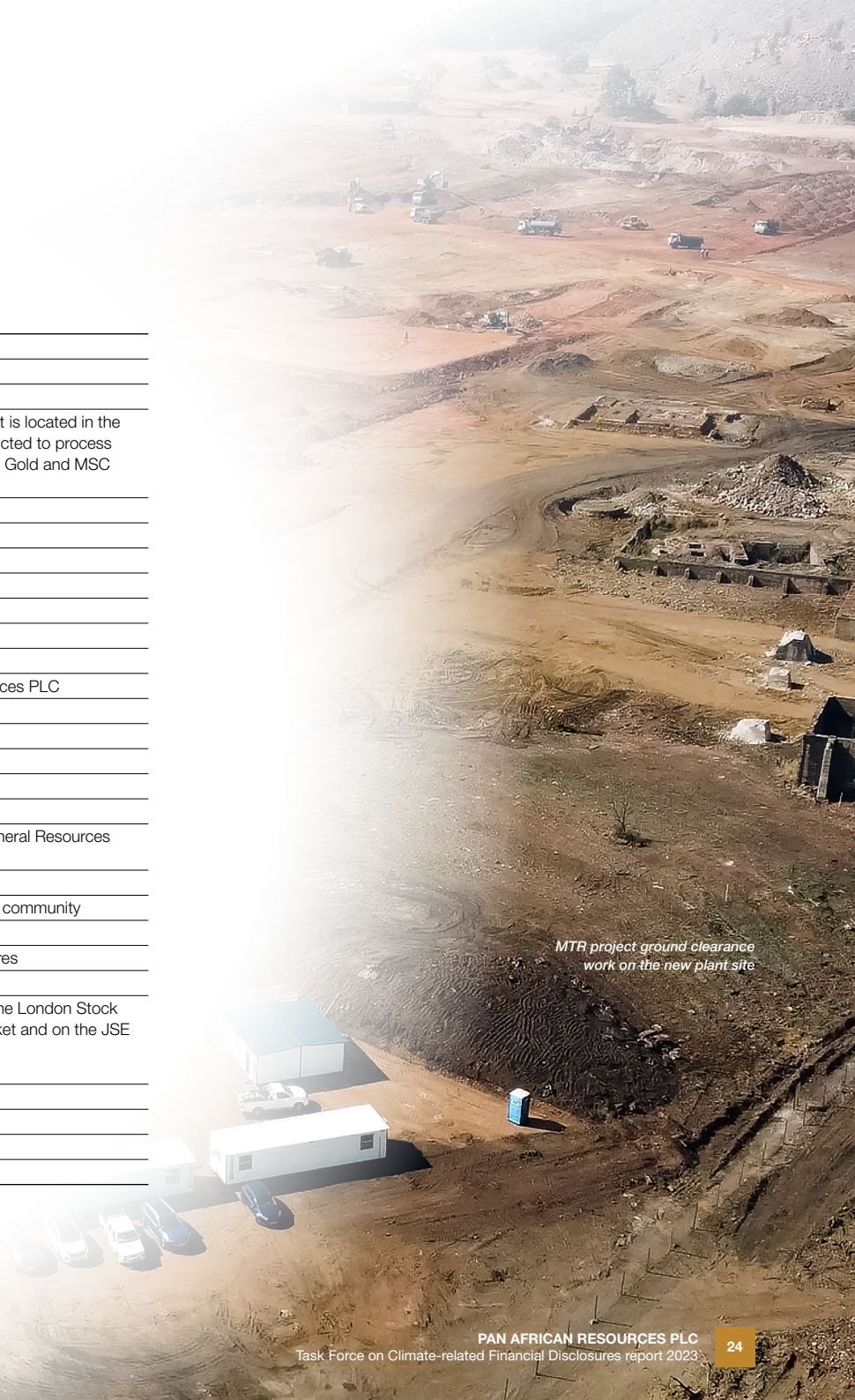
Factor	Name	Symbol
10^{1}	deca	da
10^{2}	hecto	h
10^{3}	kilo	k
10^{6}	mega	M
10^{9}	giga	G
10^{12}	tera	T
10^{15}	peta	P
10^{18}	exa	E
10^{21}	zetta	Z
10^{24}	yotta	Y

Factor	Name	Symbol
10^{-1}	deci	d
10^{-2}	centi	c
10^{-3}	milli	m
10^{-6}	micro	μ
10^{-9}	nano	n
10^{-12}	pico	p
10^{-15}	femto	f
10^{-18}	atto	a
10^{-21}	zepto	z
10^{-24}	yocto	y

GLOSSARY

TERMS AND ABBREVIATIONS USED IN THIS REPORT

%	Parts per hundred/percentage
ºC	Degrees Celsius
79	The atomic number of gold
IAR	Integrated annual report
Au	Gold
Barberton Mines	Barberton Mines Proprietary Limited
BIOX®	Biological Oxidation (BIOX®) gold extraction process developed at Barberton Mines. It is an environmentally friendly process of releasing gold from the sulphide that surrounds it by using bacteria
CSIR	Council of Scientific and Industrial Research
Elikhulu	Elikhulu Tailings Retreatment Plant
EFC	Emission factor at consumption
EFG	Emissions factor at generation
ESG	Environmental, social and governance
Eskom	Electricity Supply Commission, South African electricity supplier
Evander Mines	Evander Gold Mines Limited and Evander Gold Mining Proprietary Limited
Exco	Executive committee of Pan African Resources
GHG	Greenhouse gas
GISTM	Global Industry Standard on Tailings Management
GJ	Gigajoule
GRI	Global Reporting Initiative
GWh	Gigawatt hour
HR	Human resources
IPP	Independent power producer
IUCMA	Inkomati-Usuthu Catchment Management Agency
JET	Just Energy Transition
JSE	JSE Limited incorporating the Johannesburg Securities Exchange, the main bourse in South Africa
kg	Kilogramme
kJ	Kilojoule
kl	Kilolitre
Koz	Kilo ounces
KPI	Key performance indicator
$ktCO_2e$	Kilotonne carbon dioxide equivalent
kWh	Kilowatt hour
ML	Megalitre
Mt	Megatonne
MTR project	The Mogale Tailings Retreatment project is located in the Mogale district. A plant is being constructed to process gold tailings deposited onto the Mogale Gold and MSC TSFs
MW	Megawatt
MWh	Megawatt hour
n	Neutron
NCPC	National Cleaner Production Centre
NCV	Net calorific values
oz	Ounce
p	Proton
Pan African	Holding company – Pan African Resources PLC
PPA	Power purchase agreement
PV	Photovoltaic
PwC	PricewaterhouseCoopers Inc.
R&D	Research and development
SA	South Africa
SAMREC Code	South African Code for Reporting of Mineral Resources and Mineral Reserves (2016 edition)
SHE	Safety, health and environmental
SHEQC	Safety, health, environment, quality and community
t	Tonne
TCFD	Task Force on Climate-related Disclosures
tCO_2e	Tonne carbon dioxide equivalent
the Group or the Company or Pan African Resources	Pan African Resources PLC, listed on the London Stock Exchange's Alternative Investment Market and on the JSE in the 'Gold Mining' sector
TJ	Terajoule
TSF	Tailings storage facility
TWh	Terawatt hour
ZAR	South African rand



MTR project ground clearance work on the new plant site

FUTURE ENDEAVOURS AND ONGOING PROGRESS

The roll-out of planned solar projects forms part of our responsibility towards our energy usage and climate change impacts. This includes the following:

- Progress of the 8.75MW solar facility at Barberton Mines is on track, with the completion of the design and site-related studies. Physical construction activities at the site commenced in June 2023. The project has received Eskom approval, and depending on their continued collaboration, the facility is expected to generate its first power by June 2024. Several initiatives are underway to expedite the project's implementation. Similar to Evander Mines' solar facility, this project is registered as a Verified Carbon Standard project
- The board has approved a 40MW PPA with Sturdee Energy
- Investigations on the potential expansion of 12MW for the Evander Mines solar facility are ongoing
- The feasibility of an estimated 10MW solar plant at the MTR project continues
- The Group's renewable energy strategy is being determined. The strategy has been widened to include investigating initiatives to equip the mining and surface operations with backup power during Eskom power curtailment, including wind energy, hydro and battery storage PPAs
- Carbon credits from our renewable energy plants.

CONCLUSION

This report provides a thorough overview of our ongoing initiatives to align with the recommendations of the TCFD. Our report for the 2023 financial year reflects our commitment to transparency, resilience and sustainable financial practices. Through rigorous assessment and disclosure of climate-related risks and opportunities, we have provided stakeholders with valuable insights into our strategic approach towards addressing climate change. By incorporating the recommendations of the TCFD, we have enhanced our understanding of the potential impacts on our business and set a foundation for informed decision-making. As we continue to navigate the challenges and opportunities posed by climate change, we remain dedicated to proactive measures that promote long-term value creation, environmental stewardship and a sustainable future for all.

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