



ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT 2022

IMPACT WITH

PURPOSE



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Responsibly creating value together for a shared future

WHO WE ARE

A future-oriented leading thermal coal business.

AMBITION

To create real and demonstrable value for all our stakeholders.

OUR CULTURE

A high-performance culture that values excellence, agility and accountability. We understand that our people are the heartbeat of our organisation.

OUR VALUES



Safety

We are unconditional about protecting the lives of all our people – at work and at home – in health and wellbeing.



Care & respect

We show humanity to all through our commitment to making a positive impact.



Accountability

We take responsibility for our decisions, actions and performance, to grow in success and learn in failure.



Excellence

We are passionate about being the best at what we do and always seek to raise the bar.



Agility

We keep things simple and empower our people by enabling them to make quick, responsive decisions.



Entrepreneurship

We have an owner's mindset because we know that every small change adds to greater impact.

PURPOSE AND SCOPE OF THIS REPORT

This report provides our stakeholders with a transparent account of our environmental, social and governance (ESG) approach and performance across our most material sustainability issues during the period 1 January 2022 to 31 December 2022.

The scope of this report incorporates our wholly-owned operations and joint ventures where we have management control. We also include information about operations where we do not have management control but hold a significant interest. This includes Mafube Coal Mining Proprietary Limited (Mafube Colliery), a 50% joint venture with Exxaro Mpumalanga Coal Proprietary Limited. We have accounted for 50% of Mafube's greenhouse gas (GHG) emissions and energy consumption in line with the GHG Protocol, and 100% for all other indicators. We exclude ESG data from other activities in which we have a shareholding but do not have operational control, such as the Richards Bay Coal Terminal, Phola Coal Processing Plant and Rietvei Mining Company Proprietary Limited.

Disclaimer

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Assurance and basis of preparation

Our sustainability reporting criteria have been compiled in accordance with the Global Reporting Initiative's (GRI) Sustainability Reporting Standards (core compliance) and GRI 12: Coal Sector Standard, 2022. This report also aligned with the AccountAbility AA 1000 Assurance Standard and AccountAbility Principles engagement standard, and the sustainable development principles and reporting framework of the International Council on Mining and Metals. The reporting process for all our reports has been guided by the principles and requirements contained in the International Financial Reporting Standards, the International Integrated Reporting Council's framework, the GRI standards, the King Code on Corporate Governance 2016 (King IV), the listing requirements of the London Stock Exchange and UK Disclosure and Transparency Rules, the JSE Listings Requirements and the South African Companies Act, 71 of 2008.



IBIS ESG Consulting Africa (Pty) Ltd (IBIS) has provided independent assurance over selected sustainability key performance indicators. IBIS' assurance statement can be found on **page 117**.

Board responsibility statement

The board of directors delegated the social and ethics committee to oversee the compilation of this report. The board has since collectively reviewed the contents and is satisfied that this document addresses Thungela's most material issues and provides a balanced and appropriate representation of sustainability performance. The board approved this report on 21 April 2023.

Thero Setiloane

Social and ethics committee chairman

Forward-looking statements



This document includes forward-looking statements. For information regarding these, please refer to the back of this report.

Thungela's 2022 reporting suite

This report forms part of our overall suite of reporting documents for the year ended 31 December 2022, and should be read in conjunction with the *Thungela Integrated Annual Report* and its consolidated annual financial statements, and the *Thungela Climate Change Report*.

This, the *Thungela Environmental, Social and Governance Report*, provides a detailed disclosure of key ESG elements that could have a material impact on our performance, and business, if not effectively managed. It has been prepared in alignment with both the core requirements of the GRI and the GRI 12: Coal Sector Standard and internal safety and sustainable development indicators. The *Thungela Climate Change Report* covers our approach to climate change and incorporates the risks we face and their related management. This was compiled following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

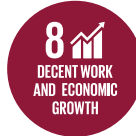





For more information, visit <https://www.thungela.com/investors/integrated-reports>



Our contribution to the United Nations' Sustainable Development Goals and the Decade of Action

Our ESG framework and programmes are closely linked with the United Nations' (UN) Sustainable Development Goals (SDGs) and the Decade of Action. Our 'Approach to ESG' section on page 17 shows how our strategic priorities align with the SDGs and the table below shows our prioritised SDGs.

Priority SDG	 CLEAN WATER AND SANITATION	 DECENT WORK AND ECONOMIC GROWTH	 INDUSTRY, INNOVATION AND INFRASTRUCTURE	 CLIMATE ACTION	 PARTNERSHIPS FOR THE GOALS
Link to material themes	Operating responsibly Spiking on social	Safety Spiking on social	Spiking on social	Operating responsibly Spiking on social	Spiking on social Creating value Operating responsibly
Description	We continually reduce our consumption of all available water resources; increase our reuse and recycling rates; and manage the impacts we may have on the quality of local water sources.	We commit to providing a safe and healthy working environment for our people and to mitigating any negative impacts we may have on local communities. We provide equal opportunities to foster an inclusive, diverse, and empowered workforce. We are creating an enduring positive legacy for employees through the Sisonke Employee Empowerment Scheme, giving them a direct stake in our future success.	We promote inclusive and sustainable industrialisation, particularly for small, medium and micro-sized enterprises through our enterprise and supplier development programme and build infrastructure through our Social and Labour Plan projects.	We have assessed our climate risks and opportunities and developed a detailed scenario-based path to net zero. We support a technology agnostic approach to emissions abatement that includes carbon capture, utilisation and storage, and higher-efficiency power stations. We take a holistic approach to climate change by developing social programmes that consider climate change risks.	We partner with communities to understand and help deliver on their priorities. We proactively engage all stakeholders and uphold human rights in our operations and activities. We partner with industry, government and academia to develop environmentally-sound technologies.





INTRODUCTION

OUR OPERATIONS

OUR SEVEN MINING OPERATIONS ARE AMONG THE HIGHEST QUALITY THERMAL COAL MINES IN SOUTH AFRICA BY CALORIFIC VALUE.

GREENSIDE COLLIERY

Market: export and domestic

Coal Resources

- Measured: 8.8Mt
- Indicated: 4.5Mt

Coal Reserves

- Proved: 15.9Mt
- Probable: 0.9Mt

Mining method: underground –bord and pillar

LOM: 5 years

KHWEZELA COLLIERY

Market: export and domestic

Coal Resources

- Measured: 39.8Mt
- Indicated: 9.5Mt

Coal Reserves

- Proved: 29.2Mt
- Probable: 2.1Mt

Mining method: opencast

LOM: 7 years

RIETVLEI COLLIERY

Market: domestic

Coal Resources

- Measured: 19.7Mt
- Indicated: 3.0Mt

Coal Reserves

- Proved: 10.0Mt
- Probable: –Mt

Mining method: opencast

LOM: 4 years

MAFUBE COLLIERY¹

Market: export

Coal Resources

- Measured: 15.9Mt
- Indicated: –

Coal Reserves

- Proved: 80.6Mt
- Probable: 40.8Mt

Mining method: opencast

LOM: 21 years

ZIBULO COLLIERY

Market: export and domestic

Coal Resources

- Measured: 221.6Mt
- Indicated: 107.4Mt

Coal Reserves

- Proved: 41.0Mt
- Probable: 21.2Mt

Mining method: underground –bord and pillar, and opencast

LOM: 10 years

GOEDEHOOP COLLIERY

Market: export and domestic

Coal Resources

- Measured: 225.5Mt
- Indicated: 6.0Mt

Coal Reserves

- Proved: 11.7Mt
- Probable: 0.4Mt

Mining method: underground –bord and pillar

LOM: 3 years

ISIBONELO COLLIERY

Market: domestic

Coal Resources

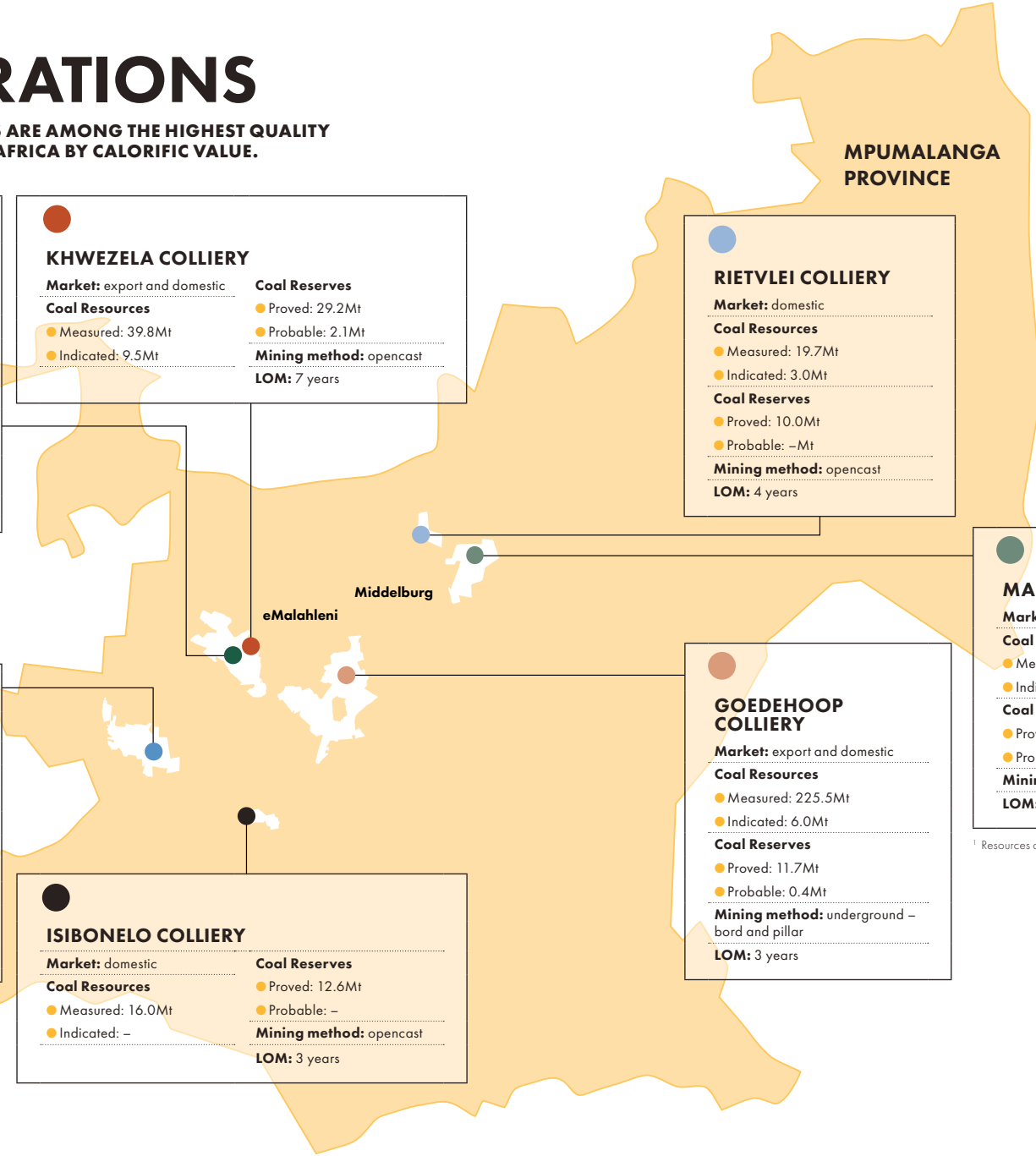
- Measured: 16.0Mt
- Indicated: –

Coal Reserves

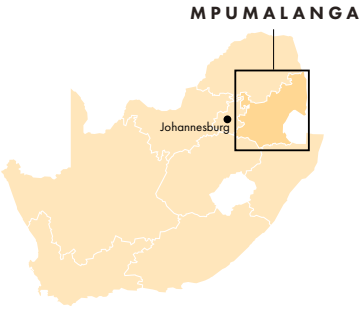
- Proved: 12.6Mt
- Probable: –

Mining method: opencast

LOM: 3 years

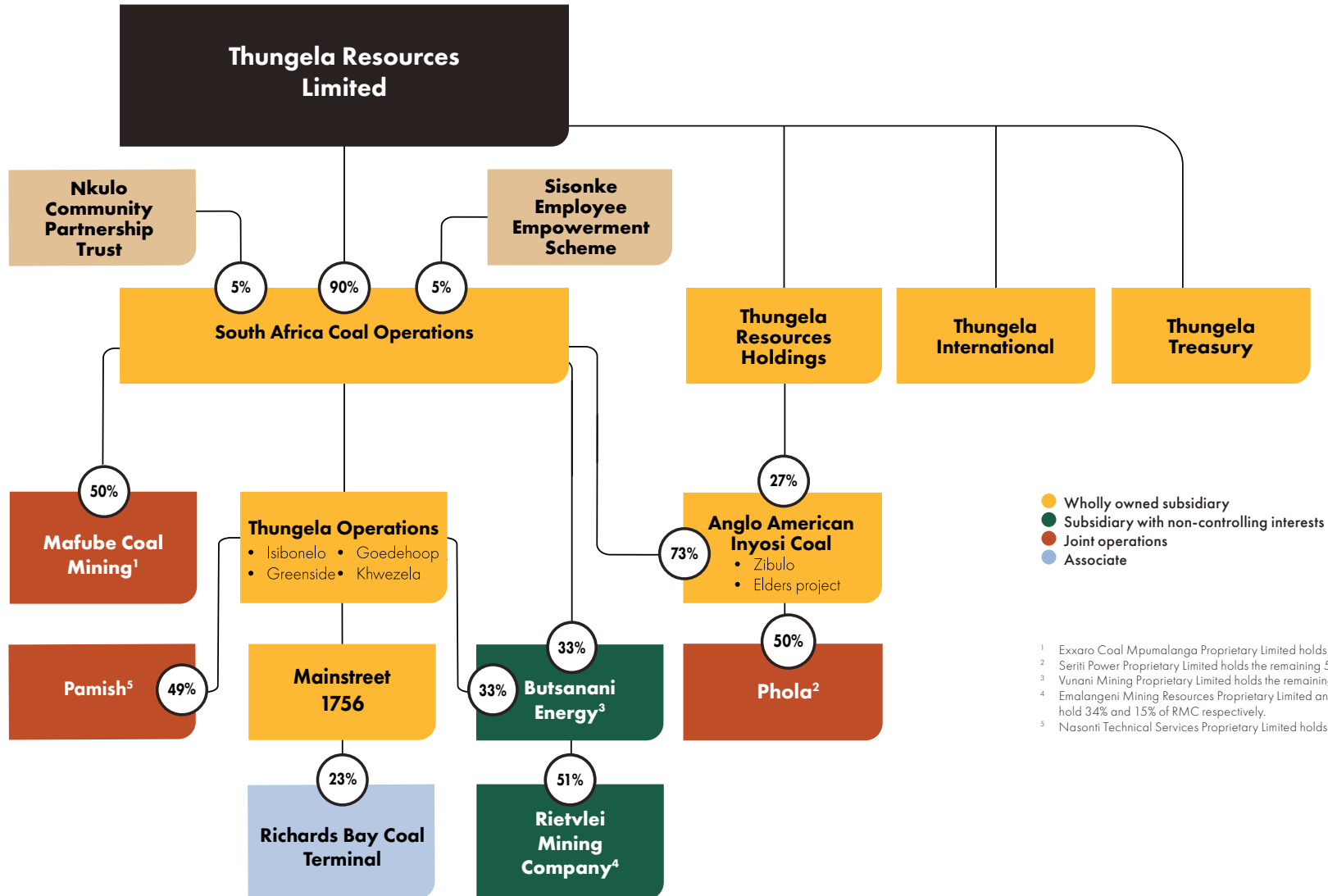


¹ Resources and Reserves are shown at 100%.



OWNERSHIP STRUCTURE

Organisational structure of the Group



¹ Exxaro Coal Mpumalanga Proprietary Limited holds the remaining 50% interest in Mafube Coal Mining.
² Seriti Power Proprietary Limited holds the remaining 50% interest in Phola.
³ Yunani Mining Proprietary Limited holds the remaining 33% of Butsanani Energy.
⁴ Emalangenani Mining Resources Proprietary Limited and Mwelase Group of Companies Proprietary Limited hold 34% and 15% of RMC respectively.
⁵ Nasonti Technical Services Proprietary Limited holds the remaining 51% of Pamish.



OUR PURPOSE

To responsibly create value together for a shared future.

We are uncompromising about safety and it is our first consideration in everything we do.

We hold ourselves to the highest governance principles by managing our impacts and mining sustainably.

Being a responsible miner means being a responsible neighbour. We mine responsibly to ensure that host communities thrive and benefit from the positive impacts we aim to create.

We want others to share in the value we create. From shareholders and employees to host communities, we want all our stakeholders to be better off because of our business.

We cannot do it on our own. That is why we collaborate, engage and build meaningful relationships with all our stakeholders.

The value we create contributes to a brighter future for all of us. By achieving our goals together, we all face a future worth sharing.

OUR 2022 PERFORMANCE



SAFETY AND HEALTH

Fatalities

0

TARGET:
Zero

2021: 1

Total recordable case frequency rate (TRCFR)

1.41

TARGET:
15% improvement against a baseline of the prior three years' average performance

2021: 1.35

New cases of noise-induced hearing loss

2

TARGET:
Year-on-year reduction

2021: 1



WELLNESS

Total percentage of employees who know their HIV status

95%

TARGET:
More than 90% of employees

2021: 94%

Total percentage of HIV-positive employees on antiretroviral treatment

93%

TARGET:
More than 90% of HIV-positive employees

2021: 93%

ENVIRONMENT



Total energy consumed (million GJ)

3.01

TARGET:
2025 target of 15% reduction against business as usual projections

2021: 3.42

Total GHG emissions (kt CO₂ – equivalent)

748

TARGET:
30% reduction in scope 1 and 2 emissions by 2030 from 2021 baseline

2021: 819

Freshwater abstraction (megalitres)

767

TARGET:
2023 target of 20% reduction from 2015 baseline

2021: 865

ENVIRONMENT (continues on the next page)

(continues from previous page)



ENVIRONMENT

Water reused/recycled

96%

TARGET:
75%

2021: 95%

Water treatment

57%

TARGET:
40%

2021: 57%

Number of level 3, 4 or 5 environmental incidents

2

TARGET:
Zero

2021: 1



SOCIAL

Number of incidents with social consequences level 3,4 or 5

20

TARGET:
Zero

2021: 8

Host community procurement

28%

TARGET:
15% of total procurement

2021: 24%

PEOPLE



Historically disadvantaged persons (HDPs) in management

76%

TARGET:
65%

2021: 74%

Women in management

29%

TARGET:
30%

2021: 28%

Voluntary labour turnover

5%

TARGET:
Less than 5% turnover

2021: 3.2%

OUR CONTRIBUTION TO SOCIETY

WE ARE PROUD OF THE VITAL ROLE WE PLAY IN SOUTH AFRICA'S GROWTH AND DEVELOPMENT. WORKING TOGETHER, WE AIM TO RESPONSIBLY CREATE VALUE TOGETHER FOR A SHARED FUTURE.

SISONKE EMPLOYEE EMPOWERMENT SCHEME

R448 MILLION

In 2022 the trust received a total contribution of **R448 million**, of which R250 million was paid to eligible employees in December 2022. The additional contribution announced in March 2023 of R198 million will be paid to eligible employee beneficiaries within three months from the payment date of the dividends in line with the trust deed.

The trust is managed by a board of trustees which comprises both employer representative trustees and beneficiary representative trustees, in line with the requirements of the trust deed.

NKULO COMMUNITY PARTNERSHIP TRUST

R448 MILLION

In keeping with our commitment to create shared value, the trust received a contribution of **R448 million in 2022**. The trust was founded to deliver socio-economic development programmes for the upliftment local communities. It will be administered by a board of trustees and work has commenced updating the trust deed to ensure the value that is created by Thungela flows to the intended beneficiaries.

HOST COMMUNITY PROCUREMENT

R2.3 BILLION

Procurement of goods and services from suppliers in the immediate areas of our operations.

CONTRIBUTION TO LOCAL COMMUNITIES

R108 MILLION

Our expenditure on social and labour plans, socio-economic development initiatives and corporate social investment.

TOTAL PROCUREMENT

R8.2 BILLION
Discretionary expenditure includes all supply chain-related expenditure from third-party suppliers. This includes operational and capital expenditure.

WAGES AND RELATED PAYMENTS

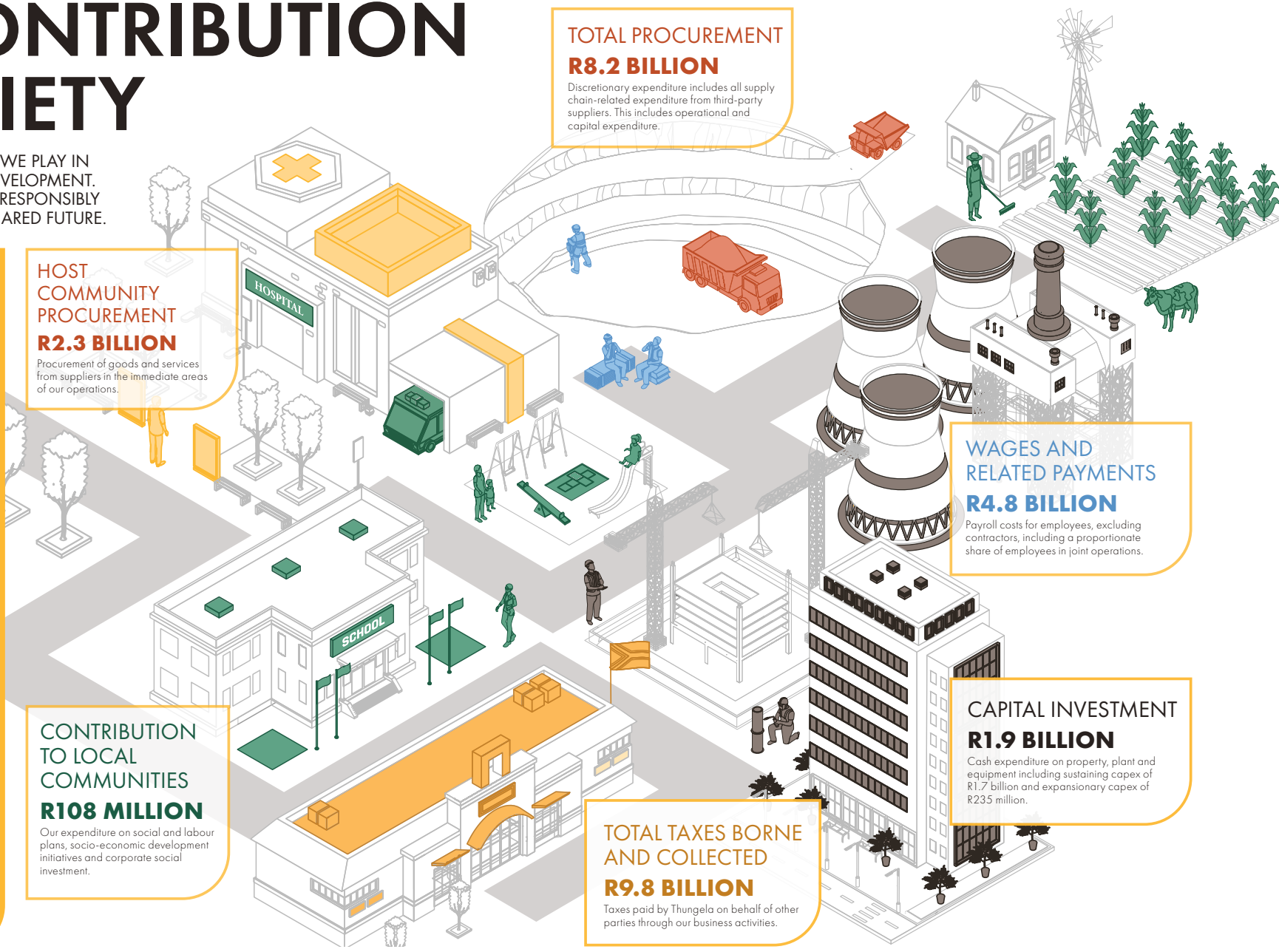
R4.8 BILLION
Payroll costs for employees, excluding contractors, including a proportionate share of employees in joint operations.

CAPITAL INVESTMENT

R1.9 BILLION
Cash expenditure on property, plant and equipment including sustaining capex of R1.7 billion and expansionary capex of R235 million.

TOTAL TAXES BORNE AND COLLECTED

R9.8 BILLION
Taxes paid by Thungela on behalf of other parties through our business activities.



SOCIAL AND ETHICS COMMITTEE CHAIRMAN'S INTRODUCTION

THERO SETILOANE



It is up to us to produce the coal that the world requires responsibly and with due care for the environment. It must also deliver real and lasting benefits for surrounding communities and be undertaken with the highest ethical standards.

Responsibly creating value together for a shared future

Coal could be seen as being incompatible with ESG. We see it as anything but.

As an industry that produces a product that many have denounced, we face more pressure than most to prove our worth in a world that, for the time being, still needs coal.

As a mining company, it is up to us to demonstrate that if coal must be produced, then it is essential that it be produced responsibly and with due care for the environment. It must also deliver real and lasting benefits for surrounding communities and be undertaken with the highest ethical standards.

To earn our reputation as a responsible producer of a high-quality export product, we must incorporate ESG into everything we do and every decision we make. It is only then that we can live up to our purpose: *to responsibly create value together for a shared future.*

Driving our ESG aspirations

Striving for a fatality-free business

Safety is critical for the board, management and every employee across the business. In 2022, we operated fatality-free, and indeed many operations went scratch-free for periods exceeding 100 days.

Then, in February 2023, we tragically lost Breeze Mahlangu who succumbed to complications after an injury he had sustained in December 2022. We once again extend our heartfelt sympathies to his family and friends. This valued colleague's passing has been felt keenly at every level and only strengthens our resolve to ensure that every single person who works for us is able to do so without harm.

Creating shared value

As a good corporate citizen, we want to live up to societal expectations that extend well beyond our own workforce. Our commitment to 'spike' on the social element of ESG by no means absolves us from excelling on the environmental and governance fronts; it merely reflects our particular devotion to ensuring that coal mining communities enjoy tangible benefits from our presence in their back yards.

Vehicles like the Nkulo Community Partnership Trust and the Sisonke Employee Empowerment Scheme clearly demonstrate our commitment to creating genuine shared value in the present. We have contributed almost R1.2 billion to these trusts since listing, a significant step towards the positive legacy we wish to create. They must, however, be accompanied by exemplary governance to ensure that the impacts are experienced by the intended beneficiaries. These trusts should also give serious consideration to what the future will hold for our host communities beyond coal.

Ambitious targets

We proudly announced our ambitious scope 1 and 2 emission reduction targets for 2030 and 2050, presented our scenario-based approach to delivering on our net zero by 2050 ambition, and delivered on our commitment to produce a TCFD-aligned climate report. We will continue to build on these as our business evolves.

Lessons learnt

The unfortunate environmental incident which occurred at Khwezela's Kromdraai site in February 2022 is not the legacy we want to leave. This event placed significant internal pressure on us to establish a dedicated mine closure unit to accelerate closure and deter illegal mining which contributed to the event. We have collaborated with a broad range of stakeholders to develop and implement a data-based approach to remediating the affected areas, the details of which can be found in this report.

Recognition of our ESG commitment

Thungela scored exceptionally well in a variety of assessments undertaken by global rating agencies who evaluated our ESG performance in 2022. FTSE Russell gave us a rating of 3.5 out of a possible 5, well above the industry average of 2.2, while the S&P Global Corporate Sustainability Assessment placed us in the 94th percentile of 49 companies evaluated in the coal and consumable fuels sector. These scores were awarded despite the Kromdraai incident.

Focussing on the future

With several of our operations nearing the end of their lives, we believe that a responsible approach to planning for closure is imperative. Whether we are talking about mines that are approaching closure or operations that are just commencing, now is the time to adopt an integrated approach to closure. While the industry has an abundance of technical expertise, strong social competency and collaboration with government, communities and other coal majors are needed to ensure that communities can thrive without the commodity they have relied upon for their livelihoods for more than a century.

Closing reflections

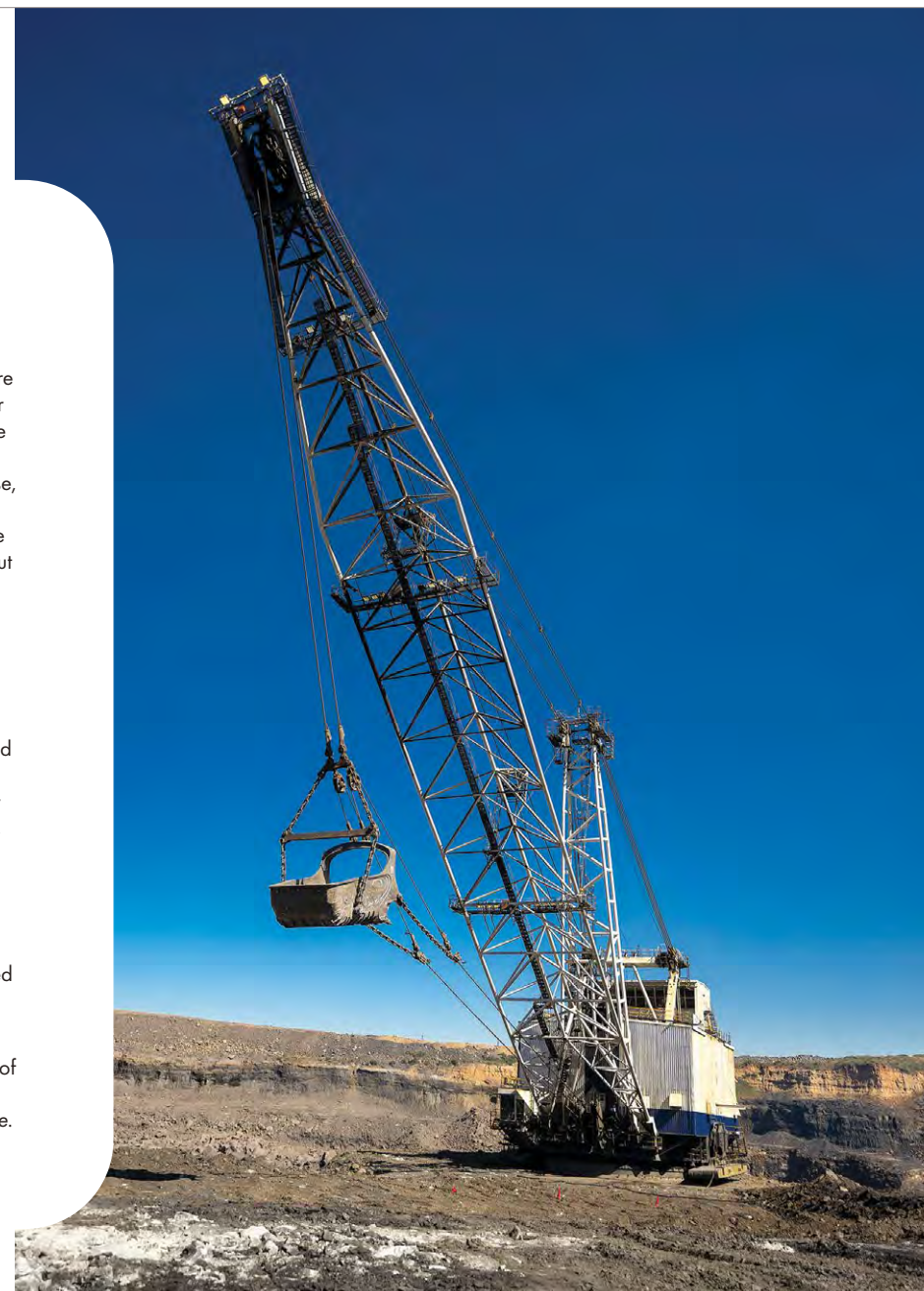
Driving our ESG aspirations is about more than just meeting targets, it is about building trust among stakeholders. This starts with providing an honest and open account of our performance, including our victories and our failures. I would like to express my appreciation to our stakeholders for their consistent, constructive engagement throughout the year.

Thanks are also due to the board, led by Sango Ntsaluba, the Thungela executive committee for its leadership and commitment to excellence and accountability, and every employee who has played a role in advancing our ESG aspirations.

Despite several obstacles in 2022, we rose to the occasion and proved our agility, never losing sight of our long-term ambition and our purpose: *to responsibly create value together for a shared future.*

Thero Setiloane

Chairman of the social and ethics committee
26 April 2023



CHIEF EXECUTIVE OFFICER'S REVIEW

JULY NDLOVU



To address energy resilience, affordability and emissions there is really only one viable alternative: abated coal.

In a relatively short space of time, we have built a credible new brand. We have voiced our purpose, re-emphasised our commitments and, I am pleased to say, taken some purposeful strides towards meeting these.

By focusing on the factors that we could control, we achieved outstanding results and delivered on our strategic priorities.

- We produced 13.1Mt of export saleable coal.
- We have also contributed R896 million to the Sisonke Employee Empowerment Scheme and the Nkulo Community Partnership Trust relating to 2022 performance, ensuring that our employees and host communities share in the value we create.
- We committed to reducing our scope 1 and 2 emissions by 30% by 2030 (from a 2021 baseline) and net zero by 2050.
- We published our inaugural Climate Change Report. This is aligned with the recommendations of the TCFD.

Putting safety and health at the forefront

We are unwavering in our commitment to run a fatality-free business and operated without a loss of life in 2022. However our colleague, Breeze Mahlangu, an operator at Zibulo, tragically passed away in February 2023 following complications after an accident in December 2022. This devastating blow serves as a stark reminder that we must be uncompromising about safety to ensure that everyone goes home unharmed every day.

Our TRCFR deteriorated from 1.35 in 2021 to 1.41 in 2022. This clearly demonstrates the persistent need for every leader at every level to keep driving our safety strategy.

In the same way that employees have the right to a safe working environment, so too must they be able to return to their families in good health when they retire.

A future for coal

We will remember 2022 as the year coal's future took a dramatic turn as we were confronted with power outages across the globe. The tragic Russia-Ukraine war and ensuing gas supply shortages – coupled with supply chain constraints, energy price surges, drought in Europe and the failure of renewables to deliver anticipated generation – were some of the factors that led to coal demand reaching record highs.

Developed countries in Europe, who have long called for the developing world to denounce coal, restarted their coal-fired power plants when faced with an energy crisis of their own. Despite the extensive rollout of renewables, there was just not enough renewable energy to power their economies. The need for all three aspects of the energy trilemma: affordability, reliability, and sustainability, has been highlighted by the events of the last year.

At the same time, the developing world continues to employ fossil fuel-based electricity generation plants at enormous scale. While in some countries these are declining, in others, coal and gas-fired power plants remain a central part of electricity systems. More than half of the two terawatts of global coal capacity has been built in the last 20 years, primarily in China, India and increasingly in Southeast Asia. The reality is that coal will still be relied upon, at least for the next 10 to 15 years, to deliver sustainable and lower-cost energy security, particularly in parts of the world where fuel choices are limited.



A cleaner climate for coal

We are acutely aware that climate change action has never been as critical as it is today. However, lessons learned in the current energy crisis have shown us that a disorderly energy transition is not sustainable, and that a concerted drive towards a systematic and responsible transition is needed.

To address energy resilience, affordability and emissions – as well as the catastrophic implications of coal's demise to the communities and industries that rely on it for survival – there is really only one viable alternative: abated coal.

There is an urgent need to address power sector emissions in much of Asia where the early retirement of young coal plants is unlikely.

Up to 99% of emissions can be eliminated through current and available abatement technologies. These include high-efficiency, low-emissions coal-fired power plants and carbon capture, utilisation and storage (CCUS). According to the Global Carbon Capture and Storage Institute, there are now 196 commercial CCUS facilities in the project pipeline (30 are fully operational) from a diverse range of sectors, including cement, steel, hydrogen, direct air capture and, promisingly, an increase in the number of projects in the power generation sector. The capture capacity of projects in the pipeline rose by 44% from 2021 to 244 million tonnes a year. While the technology is gaining momentum, it is still short of the 100-fold increase required by 2050. This will require supportive policy, private sector involvement, and financing if we are to achieve the scale required.

Charting a path to net zero

Tackling climate change is a global imperative. In 2021, we committed to net zero by 2050, subject to the requirements of the countries we operate in and the markets we serve.

We have undertaken a full review of emission reduction opportunities and announced our target to reduce our scope 1 and 2 emissions by 30% by 2030 (from a 2021 baseline), and net zero by 2050.

We continued to play our part by reducing our carbon and energy intensity by 2% and 6% respectively. Our absolute carbon emissions decreased by 9% from 2021 levels.

Lessons learned

The lowest point in 2022 was unquestionably the level 4 environmental incident that occurred at our Khwezela Colliery's closing Kromdraai site.

As a worldwide pioneer in mine water treatment technology – and a company that has invested more than R1 billion in responsible water treatment technologies – this is not the legacy we wish to leave.

In this report, we present the lessons learned, the measures we have taken, and those we will continue to take to redress the harm done.

If there is one thing, we the industry and government learned from this deeply troubling event, it is the very real threat of rampant criminality, not just to mining companies and their employees, but on broader society and the environment. Widespread vandalism, cable and infrastructure theft continues to take their toll.

We were unable to take advantage of record benchmark prices due to our inability to transport greater volumes from the Mpumalanga coal belt to the port at Richards Bay. This was due to a variety of factors, one of them being criminality on the Transnet Freight Rail (TFR) line.

This was a missed opportunity, not just for us, but for South Africa, which stood to benefit from a much-needed boost to its gross domestic product and a considerable injection of foreign currency into the economy.

The incident at Kromdraai also disproved the misconception that illegal mining takes place on a small scale using rudimentary equipment. In South Africa, illegal mining is highly mechanised, organised and militant. Following months of collaboration with law enforcement, a sting operation led by the Hawks cleared the area of illegal miners. Since then, we have established a dedicated unit to manage closing collieries, mineral residue deposits and operations that have been placed under care and maintenance. Apart from accelerating rehabilitation and closure, the unit will make us better able to anticipate and react to potential risks.

Environmental management

We are pleased to report that in 2022, freshwater abstraction decreased by 11% while recycling and reuse rates improved to 96%. We also adopted phytoremediation as a key part of our water management strategy and committed to planting a million trees.

Air quality monitoring and management will be enhanced through the implementation of Eco Elementum technology, while we take further strides to reduce the waste we send to landfill.

Each of our operations has a comprehensive and fully-costed mine closure and rehabilitation plan to return previously mined land to sustainable use. We are committed to no net loss of biodiversity and are implementing biodiversity management plans at each site to achieve this goal.

Creating shared value

When we started on our journey as a newly listed company, we expressed our intention to 'spike' in the social element of ESG. For us, this means that while all aspects of ESG are equally important, it is in the social element that we really intend to differentiate ourselves.

Our employees and local communities should be left better and not worse off by our presence in their lives. At a most basic level, this starts with carefully managing mining's undesirable impacts.

Furthermore, it is crucial that people see and feel the benefits of the value we create. We contributed R448 million into the Sisonke Employment Empowerment Scheme relating to 2022 performance. An equal amount was injected into our Nkulo Community Partnership Trust which will share value through its investment in legacy-changing social development projects.

One thing we feel particularly strongly about is the role of our supply chain, and those of our major business partners, in stimulating the development of local economies. Last year, we increased our direct spend with host community enterprises to 28%. In addition, local employment, procurement, and social investment, are requirements in the contracts we award to original equipment manufacturers and major suppliers and service providers. We thank them for their contribution in 2022 and look forward to working with them in creating more shared value in the future.

Thuthukani, our new enterprise and supplier development initiative, was launched in 2022, and aims to help local entrepreneurs build strong, sustainable businesses that create desperately-needed employment.

We delivered on various Social and Labour Plan projects we believe will benefit community members for many years to come. During the year, our total investment in community projects amounted to R108 million.

Purpose-driven people

Having the right skills in the right places is what will ultimately enable us to create shared value. We were certified by the global Top Employers Institute, an exercise that enables us to keep abreast of the world's most progressive people policies and practices.

Another highlight was the launch of our 'Live our Values' campaign that served to both reinforce our values and create a greater awareness and understanding of their corresponding behaviours. This initiative culminated in our first Excellence Awards which provided some shining examples of individuals and teams who bring our values to life. Another development was the launch of the Thungela Leadership Academy, which equips a new generation of leaders to guide us into the future.

Success depends on a high-performance, purpose-driven culture, something we will be driving with our newly implemented performance management system which brings together company and individual metrics to measure performance, incentivise excellence, and track the development of each employee. Equally important is the continuation of sound relationships with our labour unions with whom we finalised a new wage agreement.

Ethical leadership

We want to do right by all our stakeholders. This stands and falls on ethical and accountable leadership. It is up to our leaders, starting with the board and myself, to demonstrate our commitment to the highest standards of corporate governance while ensuring that the policies, standards, practices, and procedures we have set for the business, are upheld.

While ultimate responsibility rests with leadership, employees, contractors and suppliers who act on our behalf can either build or break the trust of our stakeholders through their behaviour.

It is with this in mind that we introduced mandatory training on our code of conduct and business integrity policy. This policy was approved by the board in 2022. Another focus was on human rights and the voluntary principles, where we undertook due diligence and trained our leaders and protection services.

Investing in the future

We have always expressed our confidence in the future of coal and our intention to create a business that will deliver value for the long term. Several purposeful strides have been made in this direction, including the commencement of construction on our Elders project. Board approval to proceed with the development of our Zibulo-North shaft is expected in the coming months, and shortly before this report was published, we announced our acquisition of a controlling share in Ensham mine in Australia.

Geographic diversification is the next logical step for us, and this deal provides us with an entry point into a leading mining jurisdiction with well-established port and rail infrastructure. This diversification builds our resilience to risk while giving us access to Japanese and other Asian markets where demand for thermal coal remains strong.

The transaction included some important ESG considerations. For instance, as Ensham is already a working mine, we are able to extend the life of our business without creating new global carbon units. Once the transaction is completed, Ensham will be included in our carbon intensity reduction plan and intermediate emission reduction targets.

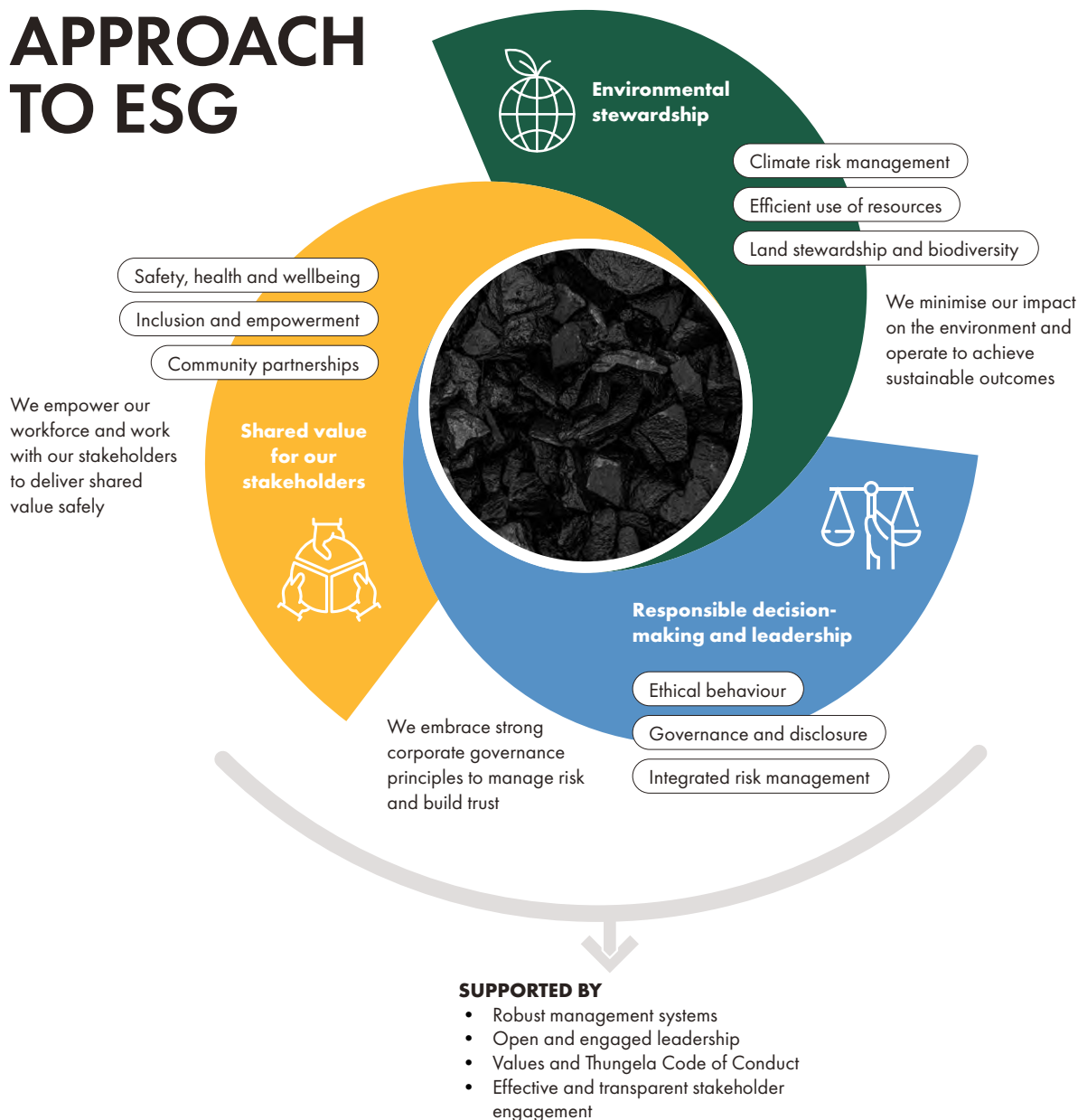
In conclusion

ESG is core to our long-term future and must rank as highly as safety, productivity and cost management in the operation of our sites. We will continue to be purposeful in driving our ESG aspirations. This means sending our employees home safely, playing our part by reducing our scope 1 and 2 emissions, proactively avoiding environmental incidents, putting our people at the heart of the business, and creating long-term, shared value for communities.

I invite you to read about our progress and, as always, welcome your feedback.

July Ndlovu
Chief executive officer
26 April 2023

APPROACH TO ESG



The role of coal

Developments during 2022, particularly the Russian invasion of Ukraine and the post-COVID-19 rise in the price of oil and gas, have resulted in coal demand reaching all-time highs. In advanced economies, where the use of coal had for several years been on the decline, demand rose by 10% while developing regions saw a 5% increase in consumption. This is considerable given that these economies already accounted for 80% of the world's coal use¹.

The International Energy Agency's (IEA) Stated Energy Policy Scenario sees coal demand declining gradually by 12% by 2030, while the Announced Pledges Scenario anticipates a reduction of 22% in the same time frame. The Net Zero Scenario sees coal demand falling by 50% by 2030 and 90% by 2050, due to

countries like India, which are heavily dependent on the resource, only having a net zero by 2070 pledge¹.

Responsible coal producers like Thungela will play an ongoing role in meeting future demand in regions such as these. This, however, must be done in a way that balances crucial environmental expectations and the vital role that coal plays – not just in developing economies – but in coal mining communities. We must also play our part by taking significant measures to decarbonise our business, while advocating for technologies that abate emissions from coal combustion.

In this Decade of Action, it is critical that we contribute to the achievement of the UN's SDGs. Our ESG focus areas are linked to our prioritised SDGs.

Commitment to ESG standards

We are on a purpose-driven maturity journey that started with the adoption of our ESG approach in 2021 and went on to drive and embed our aspirations in this area during the course of the year.

Our ESG priorities were selected based on their material relevance to our sector, shareholders, employees, communities, and other key stakeholders. They are:

- Environmental stewardship
- Shared value for our stakeholders
- Responsible decision-making and leadership

These priorities are supported by robust management systems, open and engaged leadership, and a commitment to effective and transparent stakeholder engagement. They are also reflected in our values and code of conduct.

While we aim to maintain the highest standards in all aspects of ESG, our goal is to spike in the social element, where we already make a significant positive impact – on the country and in coal mining communities. We do this through our creation of substantial employment, tax and royalty revenue, earnings of foreign currency and the provision of many essential community services. We also contribute significantly through the Sisonke Employee Empowerment Scheme and the Nkulo Community Partnership Trust.

¹ IEA (2022) World Energy Outlook.



ENVIRONMENTAL STEWARDSHIP

For us, zero harm is a principle that applies not just in safety and employee health, but also in the way we interact with our natural environment.

Climate risk management

We proactively measure, understand and manage our climate risks and opportunities.

The most serious, long-term global impact of coal is climate change and we recognise the importance of addressing this. We are committed to playing our part in achieving the goals of the Paris Agreement. The first goal on our own path to net zero is to achieve a 30% reduction in scope 1 and 2 GHG emissions by 2030, off our 2021 emissions baseline.

We strongly believe that the coal debate needs to shift from the phasing out of fossil fuels to the phasing in of all emission abatement technologies, including those relating to coal. As such, we are leveraging our strategic relationships to support the improved use of coal and facilitate research into emission abatement technologies through the IEA's Clean Coal Centre and the Coal Industry Advisory Board.

We commit to transparent, regular disclosure related to climate risks and are proud to have published our inaugural TCFD-aligned Climate Change Report. This report can be accessed at www.thungela.com/investors/integrated-reports.



Land stewardship and biodiversity

We commit to no net loss of biodiversity and to close our mines responsibly. This means enabling sustainable future land use and managing residual environmental impacts, especially those related to water.

Our approach to land and water stewardship delivers significant social, environmental and economic benefits to host communities. We have successfully carried out wetland restoration projects, continued to treat mine water for use by local communities and

agriculture, and have implemented a regional biodiversity management plan to achieve our target of no net loss.

Our closure liabilities are fully funded in terms of the legal requirements and we have best-practice closure and rehabilitation plans in place for all our sites. These are aligned with the International Council on Mining and Metals' (ICMM) good practice around integrated closure.



Efficient use of resources

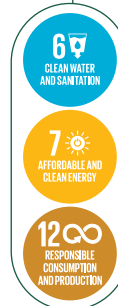
We strive to use all natural resources, including water and energy, efficiently; to minimise waste; and the impact we have on air quality.

Operating in water-scarce areas, we understand the critical importance of water stewardship. Our targets are to achieve an efficiency (reuse and recycling) rate of 75%, to reduce our abstraction of fresh water by 20% by 2023, and to treat 40% of our water. We are investigating and piloting a variety of sustainable alternative water treatment technologies that will diminish the potential for environmental harm and reduce our long-term water liabilities.

We aim to reduce the waste we send to landfill by 50% by 2030 by maximising opportunities to reduce, reuse, and recycle through circular economy projects that benefit the environment and host communities.

Looking at energy and carbon management, our goal is to improve our energy intensity annually relative to the previous year, by maximising efficiencies at all our sites.

We also commit to reducing our impact on ambient air quality using industry-leading standards and the best available technologies.





SHARED VALUE FOR OUR STAKEHOLDERS

Inclusion and empowerment

We provide equal opportunities to foster an inclusive, diverse, and empowered workforce.

Continuous opportunities are available for employee development and the promotion of diversity and transformation. We promote an environment in which every colleague is valued and respected for who they are, regardless of race, age, religion or disability, sexual orientation or gender identity. We support the right to equal pay for equal work and are committed to maintaining a fair workplace free from any form of discrimination.

Furthermore, we are creating an enduring positive legacy for employees through the Sisonke Employee Empowerment Scheme, giving them a direct stake in its future success.



Safety, health and wellbeing

We commit to providing a safe and healthy working environment for our people and to mitigating any negative impacts we may have on local communities.

Our target of zero work-related fatalities, together with a consistent decrease in the frequency of total recordable cases, is non-negotiable, as is our prevention of occupational disease.

Risk identification and management, learning from incidents, and deploying appropriate controls to ensure the safety and health of our employees and contractors is crucial.



Community partnerships

Our aim is to promote strong relationships with the communities that surround our operations through regular engagements on issues that affect them. Our operations participate in the Local Economic Development and Integrated Development Plan forums of the municipalities where we operate. Through such engagements, we identify priority community needs so that we can deliver meaningful SLP projects.

Our goal is to improve the quality of life of people living in our host communities. We do this through meaningful engagement, the delivery of projects with purpose and by working in such a way that we uphold human rights in everything we do.

Our social policy outlines how social requirements should be managed, while the social toolkit provides guidance to practically implement and fulfil these. The toolkit details processes to follow towards meaningful engagement with stakeholders, the identification of partnerships and the co-creation of fit-for-purpose socio-economic development programmes. Some priority needs identified through engagements include employment, skills development, procurement from host community suppliers, enterprise and



We have a leading HIV prevention and treatment programme that aligns to the UN's Programme on HIV/AIDS (UNAID) recently adjusted 95-95-95 goals for testing, treatment, and viral suppression and run a comprehensive internal wellness programme that focuses on the whole self rather than just the physical elements of employee wellbeing. While physical health remains a priority, it must be accompanied by adequate levels of mental, psychosocial, and financial wellbeing for employees to fully engage themselves in safe, productive work.

supplier development and improved education. These needs have influenced our approach to socio-economic development which creates value for stakeholders while enabling us to meet our business objectives.

The holistic education programme we implemented in partnership with the Department of Basic Education, has improved educational facilities, school management systems and learner outcomes at 24 primary and high schools, and 26 early childhood development centres in communities.

We also provide youth training opportunities in a variety of skills and are proud to have launched our new enterprise and supplier development programme, Thuthukani, in 2022.

In our effort to improve community partnerships and to share the value we create in line with our purpose, we founded the Nkulo Community Partnership Trust. While the Trust's entitlement is a minimum of R6 million a year from 2021 to 2024, contributions of almost R448 million related to 2022 performance alone.



RESPONSIBLE
DECISION-
MAKING AND
LEADERSHIP



Ethical behaviour

We conduct our business ethically and in line with the highest standards of corporate governance and have a zero-tolerance approach to corruption.

We embrace the strong corporate governance principles set out in King IV to manage risk and build trust through an institutional focus on ethical behaviour, good governance and disclosure, and integrated risk management.

We have policies and initiatives in place to, among other things, protect whistle-blowers, encourage tax transparency, and prevent anti-competitive behaviour. A dedicated, diverse, and focused management team, supported by an experienced, independent, and high-calibre board, ensure the highest levels of transparency in executive pay structures which include clear links to ESG performance.



Integrated risk management

We proactively and regularly identify, assess and develop strategies to address risks and opportunities for the business. We also have a compliance assurance management system in place and undertake regular internal and external assurance to ensure the effectiveness of controls.

Our risk management system is guided by international risk management standards and frameworks, including the International Standards Organization's (ISO) for ISO 31000, ISO 14001, and ISO 45001 systems.



Governance and disclosure

Sound corporate governance and transparent reporting ensure accountability and build trust with our stakeholders.

Our ESG report captures our approach, performance and targets across our most material sustainability issues. We are pleased to have published our inaugural Climate Change Report and will continue to work on aligning our reporting to the appropriate frameworks and standards, including the King IV principles and recommendations, the International Finance Corporation's performance standards, the UN Global Compact sustainability principles, and the ICMM principles of good practice.



STAKEHOLDER ENGAGEMENT




Engagement, consultation, and communication with a large number of stakeholders takes place through both formal and informal channels, and across a variety of platforms. These are tailored according to the purpose of the engagement and each stakeholder group's particular interests in our business.





Our key stakeholders – together with the issues that are important to them – were determined and defined during a stakeholder mapping exercise.





This is reviewed and updated annually and incorporates material issues and opportunities, the frequency and types of engagement used, and the status of our relationship with each stakeholder group. The table that follows details our key stakeholders, their interests, and our mode of engagement with each category.

Our success depends on sound relationships founded on mutual trust and respect.



Stakeholder	Objectives	Engagement channel	Key interests, concerns or expectations in 2022
 <p>Our people</p>	To ensure transparent, two-way engagement with employees and contractors and to effectively manage change.	<ul style="list-style-type: none"> • Central National Union of Mineworkers (NUM), National Union of Metalworkers of South Africa (NUMSA) and management forums • Various site forum meetings (for example: employment equity, skills development, and women in mining forums) • Town hall and virtual engagements • ICAS employee assistance programme • Bokamoso financial wellness programme • 'BeWell' committees • Supervisory toolbox talks (supervisor and employee engagements) • Employee engagement briefs 	<ul style="list-style-type: none"> • Skills development • Opportunities for women • Strategy for people with disabilities • Inclusion and diversity • Retrenchment and downscaling matters • Employee health and safety • Labour relations • Physical and mental health programmes • Wage negotiations • Transformation deliverables • Financial education • Code of conduct
 <p>Labour unions</p>	To ensure consistent application of and adherence to company and site policies as well as relevant legislation.	<ul style="list-style-type: none"> • NUM, NUMSA and management forums • Various site forums • Thungela website 	<ul style="list-style-type: none"> • Employee health and safety • Labour relations • Relationship-building • Wage negotiations • Transformation deliverables • Conditions of employment • Sisonke Employee Empowerment Scheme
 <p>Communities</p>	To ensure proactive, transparent, and inclusive engagement with communities and to ensure they are informed on employment, procurement, and socio-economic development opportunities. We also engage to keep communities updated about organisational changes, our grievance mechanisms and procedures, and our legal compliance status.	<ul style="list-style-type: none"> • Community engagement forums • Radio and social media platforms • Thungela website • Public participation and consultation 	<ul style="list-style-type: none"> • Procurement and employment opportunities • Socio-economic development • Social and Labour Plans (SLPs) • Management of grievances • Changes in the organisation • Nkulo Community Partnership Trust • Direct or indirect impacts affecting communities (environmental, mine planning, projects) • Key projects, for example, mine life extension (lifex) projects that may impact communities • Land and labour tenant issues • Mine closure • Access to business opportunities

Stakeholder	Objectives	Engagement channel	Key interests, concerns or expectations in 2022
 <p>Shareholders, investment community</p>	To ensure that investors are fully informed of developments which may materially affect their investment decisions, such as price-sensitive information, through equal and timeous disclosure.	<ul style="list-style-type: none"> • Johannesburg Stock Exchange News Service announcements • London Stock Exchange Regulatory News Service announcements • Results presentations • Annual reports • Investor meetings (buy-side) • Analyst engagements (sell-side) • Annual general meeting 	<ul style="list-style-type: none"> • Dividends • Share buyback approval • Capital allocation policy • Elders production replacement project • Progress on mergers and acquisitions • Transnet Freight Rail (TFR) performance • Price risk management • Thermal coal prices • Climate change and related disclosures • Pathway to net zero by 2050
 <p>Media</p>	To inform stakeholders of new developments, activities and performance; and to educate the public on topics and issues related to our business. We also aim to build brand awareness and promote factual and accurate news stories that enhance Thungela's reputation.	<ul style="list-style-type: none"> • Results presentations • Media releases • Holding statements • Interviews • Website – newsroom • Advertorials • Annual reports • Media events and site visits • Regular media engagement • Social media 	<ul style="list-style-type: none"> • Thungela performance • Thungela strategy • TFR performance • ESG • Mining rights and regulatory issues • Markets and products • Industry trends • Corporate citizenship and community involvement • Transformation • Labour relations • Kromdraai incident • Illegal mining
 <p>Government and regulators</p>	To ensure regulatory compliance, seek guidance where necessary and contribute to the countries success.	<ul style="list-style-type: none"> • Various engagement forums • Site visits 	<ul style="list-style-type: none"> • Compliance with safety and health regulations • Compliance with environmental regulations • Compliance with labour-related regulations • Compliance with the Mineral and Petroleum Resources Development Act and Broad-Based Black Economic Empowerment (B-BBEE) Regulations
 <p>Local government</p>	To advance partnerships on socio-economic development programmes, contribute to the capacitation of host municipalities for improved service delivery, communicate organisational changes and to report on relevant environmental regulations.	<ul style="list-style-type: none"> • Municipal local economic development and integrated development planning forums (Steve Tshwete, eMalahleni and Govan Mbeki local municipalities) • Future Forums 	<ul style="list-style-type: none"> • Partnership on SED programmes (for example, SLP projects and municipal capacity-building) • Community issues associated with our mines • Grievances raised through municipal channels • The Nkulo Community Partnership Trust • Compliance with annual air quality management reports (National Atmospheric Emissions Inventory System) • Compliance with regulations on fire prevention and flammable liquids and substances • Compliance with municipal by-laws related to waste, noise, blasting and wastewater management • Public participation on key projects related to our mines

Stakeholder	Objectives	Engagement channel	Key interests, concerns or expectations in 2022
 <p>Non-governmental organisations (NGOs) and civil society</p>	To partner with developmental and social NGOs in addressing social ills and to proactively engage and collaborate with NGOs in addressing environmental impacts.	<ul style="list-style-type: none"> • Meetings • Other forums 	<ul style="list-style-type: none"> • Resolving grievances related to mining impacts • Responsible energy transition • Adequacy of closure provisions • Climate change and the role of coal
 <p>Industry associations, academia and other bodies</p>	To engage and contribute to government policy development, to enable technical advancement and collaboration and to collaborate with other mining companies on common issues.	<ul style="list-style-type: none"> • Various subject-specific forums 	<ul style="list-style-type: none"> • Technical advancement and collaboration • South African National Environmental Management Act (NEMA) Financial Provisioning Regulations • Climate Change Bill • Kromdraai incident • Skills and market development • Water management and collaboration by mining houses to deal with catchment water impacts • Development of carbon capture and storage projects and skills in South Africa • Global energy security • Technology agnostic approach to the transition to a low-carbon economy
 <p>Business partners and customers</p>	To ensure sustained and predictable, logistical services, business continuity, and effective export channels for the ultimate delivery of a desired saleable product.	<ul style="list-style-type: none"> • Various engagements • Board meetings • Operational committee meetings • Technical forums 	<ul style="list-style-type: none"> • Market development and Thungela response • Security of supply • Business continuity • Supplier relationship management • Logistics
 <p>Suppliers</p>	To enhance supplier relationships through optimising procurement opportunities for SMMEs, increasing spend in host communities and implementing sustainable and responsible sourcing.	<ul style="list-style-type: none"> • Supplier roadshows • Individual supplier engagements • Digital platforms for supplier engagements • Advertise opportunities through existing market channels • Enterprise and supplier development programmes • Collaboration and engagement with original equipment manufacturers on the provision of technical support for SMMEs • Social performance meetings with business forums and Future Forums 	<ul style="list-style-type: none"> • Building an agile, lean and effective supply chain function through optimisation, automation and digitalisation, for example, digitalising supplier vendor applications and opportunities • Reviewing the payment process to enhance the supplier experience • Creating a circular supply chain and ensuring responsible sourcing • Creating sustainable host community businesses through enterprise and supplier development (ESD) and job creation targets • Communicating our approach to inclusive procurement, initiatives, progress and successes to host communities

MATERIAL MATTERS

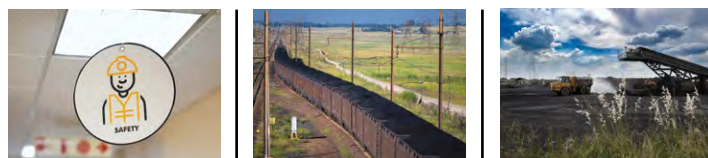
Thungela’s material matters are those which have the potential to substantively affect our performance and our ability to create value over the short, medium and long term. Identifying these matters assists us in managing our risks and opportunities and ensuring that they are addressed by our strategy.

During the year we conducted and adjusted our annual determination process and grouped our material matters into key themes. In doing so we considered our external environment and identified relevant megatrends, assessed our risks, and evaluated and considered stakeholder feedback.

An in-depth materiality workshop was held by senior management to identify relevant matters, assess their importance and prioritise them. The views and comments expressed by various stakeholders through our engagement with them in 2022 were taken into account in the workshop, including shareholder activists, communities and investors.

The Group executive committee reviewed and assessed the outcomes of the workshop which were then discussed and approved by the Thungela board.

Our material matters have been identified and grouped into the following key material themes:



SAFETY

RAIL INFRASTRUCTURE

OPERATING RESPONSIBLY






CREATING VALUE




SPIKING ON SOCIAL




These material themes, related material matters, their impact on value creation and our responses are discussed in more detail below.

SAFETY			
Material matter	Impact on value creation	Our response	Link to strategy
Eliminating fatalities	<ul style="list-style-type: none"> Everyone going home safely every day is the cornerstone to sustainable value creation 	<ul style="list-style-type: none"> Safety strategy built around three pillars: <ul style="list-style-type: none"> Work management Back to basics Culture change 	 <p>Drive our ESG aspirations</p>
RAIL INFRASTRUCTURE			
Material matter	Impact on value creation	Our response	Link to strategy
Reliability of rail infrastructure	<ul style="list-style-type: none"> The performance of the rail and port networks, operated by TFR, materially affect our ability to export thermal coal to customers. 	<ul style="list-style-type: none"> Optimised export sales mix by railing higher quality products. Creation of additional stockpile capacity. Utilisation of additional sidings. Trialling alternative transport options. Prioritisation of equity volumes over third-party volumes. Continued engagement with Transnet at all levels. Provision of support to TFR where required (e.g. implementation of security initiative). 	 <p>Maximise the full potential of our existing assets</p>  <p>Create future diversification options</p>

OPERATING RESPONSIBLY

Material matter	Impact on value creation	Our response	Link to strategy
Climate change	<ul style="list-style-type: none"> Long-term demand destruction. Inability to access funding or insurance. 	<ul style="list-style-type: none"> Development of a detailed climate strategy and pathway to net zero by 2050. Reducing carbon intensity of existing operations annually. Increased ESG and climate-related disclosures, including TCFD requirements. Improving ESG performance. 	 <p>Drive our ESG aspirations</p>
Responsible mine closure and environmental provisions	<ul style="list-style-type: none"> Environmental restoration and rehabilitation costs. Negative impact on environment or communities living close to operations. Higher than anticipated closure liabilities. 	<ul style="list-style-type: none"> Integrated approach to mine closure planning. Execution of concurrent rehabilitation and closure plans. Understanding the impact of NEMA Financial Provisioning Regulations. Cash collateralisation of environmental liability over time. 	
Environmental incidents	<ul style="list-style-type: none"> Impact on company reputation and trust. 	<ul style="list-style-type: none"> Adequately providing for environmental liabilities. Accelerated closure of high-risk sites and illegal mining hotspots. Learning from incidents. 	
Regulatory approvals	<ul style="list-style-type: none"> Impact of delayed approvals. 	<ul style="list-style-type: none"> Proactive engagement with key stakeholders. Adherence to relevant legislation and standards. 	
Crime	<ul style="list-style-type: none"> Increase in environmental liability. Loss suffered due to operational disruptions from illegal mining. 	<ul style="list-style-type: none"> Collaboration with law enforcement. 	

CREATING VALUE

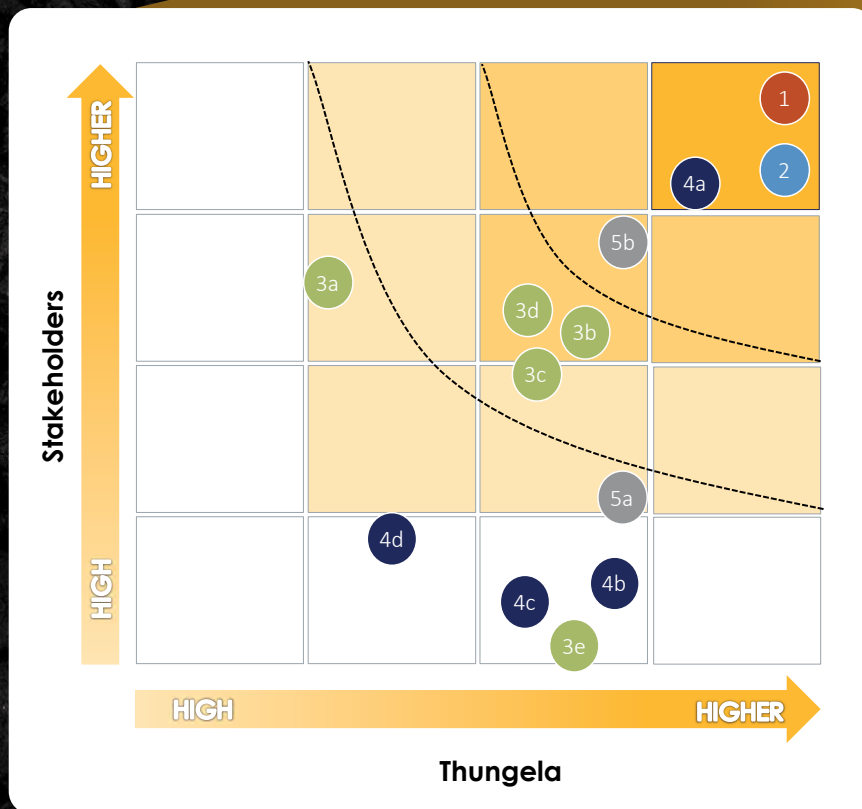
Material matter	Impact on value creation	Our response	Link to strategy
Capital allocation	<ul style="list-style-type: none"> Long-term growth and profitability. 	<ul style="list-style-type: none"> Capital allocation policy and liquidity buffer. Seeking shareholder approval for a potential share buyback programme. 	 <p>Maximise the full potential of our existing assets</p>  <p>Create future diversification options</p>  <p>Optimise capital allocation</p>
Resource conversion	<ul style="list-style-type: none"> Extending the life of the business. 	<ul style="list-style-type: none"> Development and delivery of production replacement and life extension projects. 	
Geographic diversification	<ul style="list-style-type: none"> Mitigation of infrastructure risk in South Africa. 	<ul style="list-style-type: none"> Execution of acquisition delivering geographic diversification. 	
Market factors	<ul style="list-style-type: none"> Impact on earnings and cash flow. 	<ul style="list-style-type: none"> Price risk management programme. 	

SPIKING ON SOCIAL

Material matter	Impact on value creation	Our response	Link to strategy
Creating value for employees	<ul style="list-style-type: none"> Responsibly creating value for employees improves attraction and retention. 	<ul style="list-style-type: none"> Sisonke Employee Empowerment Scheme. 	 <p>Drive our ESG aspirations</p>
Creating value for communities	<ul style="list-style-type: none"> Positively impacting the lives of communities closest to operations (through job creation, local procurement and supplier development) mitigates potential community unrest. 	<ul style="list-style-type: none"> Nkulo Community Partnership Trust. Preferential local procurement. Thuthukani supplier development programme. Education programme. Municipal capacity development programme. Regular community engagements. 	

MATERIALITY MATRIX

Ranked by relevance for Thungela and its stakeholders



Key theme	Material matter
1 Safety	Eliminating fatalities
2 Rail infrastructure	Reliability of rail infrastructure (TFR)
3 Operating responsibly	3a Climate change
	3b Responsible mine closure and environmental provisions
	3c Environmental incidents
	3d Regulatory approvals
	3e Crime
4 Creating value	4a Capital allocation
	4b Resource conversion
	4c Geographic diversification
	4d Market factors
5 Spiking on social	5a Creating value for employees
	5b Creating value for communities



ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental stewardship, the first pillar in our ESG framework, focuses on climate risk management, the efficient use of resources, and the ongoing promotion of biodiversity and land stewardship.

It is only by being a responsible custodian of the environment that we can maintain our legal and social licence to operate, and leave a positive legacy. Focus on these areas and their accompanying targets is therefore crucial to our success.

In this section, we give an honest and transparent account of our impacts on the natural environment and our efforts to minimise these through the implementation of best practice standards, innovation and technological solutions to achieve, and surpass, legal compliance.

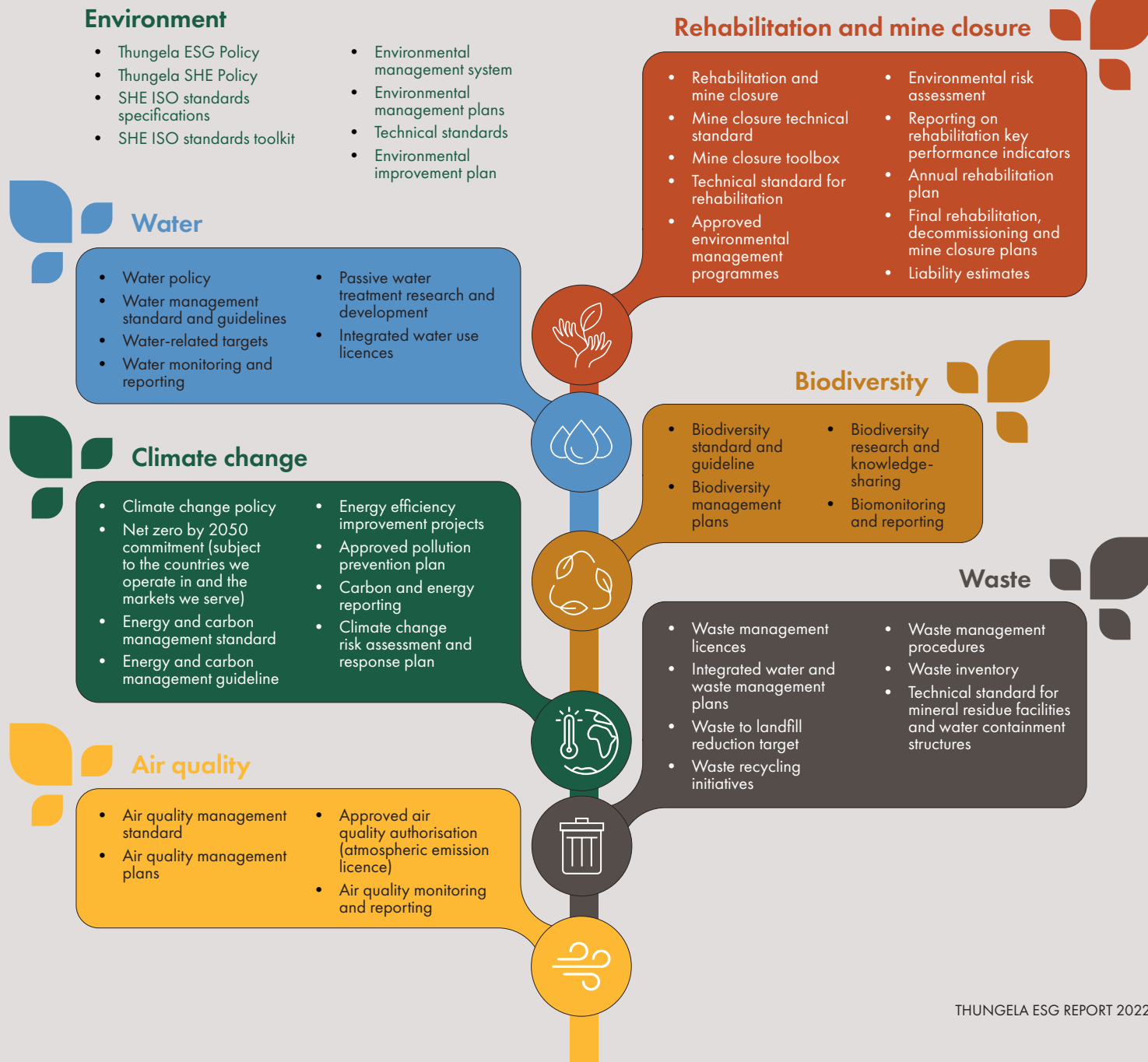


Management approach

Successful environmental management hinges on compliance with statutory legislation and the internal standards we set for ourselves to effectively manage water, energy, air quality, rehabilitation and mine closure, and waste.

Our approach is underpinned by our safety, health and environmental (SHE) management system. This system is made up of a suite of documents, including our SHE policy, which is aligned with the International Organization for Standardization's ISO 14001:2015 and ISO 45001:2018 management systems. It includes the SHE ISO standards toolkit, SHE and technical standards and specifications, and the external standards and certifications that have been adopted by our business. The precautionary principle embedded in the National Environmental Management Act guides us in the evaluation of any environmental impacts associated with current and future activities. Furthermore, SHE is embedded in our company values and code of conduct.

Here is an outline of the statutory environmental requirements, voluntary codes and standards, and SHE management measures that are used by every operation to ensure consistency and excellence in our approach.



2

Level 3 to 5 incidents

2021: 1

455

Total number of environmental incidents

2021: 438

Compliance and risk management

Failure to comply with our legal commitments during each stage of a site's lifecycle has the potential to hinder our ability to effectively mitigate current operational and closure risks. This in turn may impact our licence to operate and hamper access to financial capital.

Each operation undertakes a series of internal, regulatory and third-party audits to assess their compliance, detect gaps and detail the necessary steps to address each issue identified. They also undergo external environmental legal audits on approved authorisations. These findings are made publicly available at <https://www.thungela.com/sustainability/environmental-compliance> every year.

Audit findings are discussed by site management teams and must be reported to our executive and SHE steering committees. Legal compliance with licence conditions and progress on remedial actions are tracked on our integrated risk

management platform and are accompanied by transparent and collaborative engagement with the relevant authorities. In addition, we have instituted an internal environmental directive system whereby sites are required to stop work and institute remedial actions on any non-conformance.

Delays in licensing and permitting

One of our most significant compliance-related business risks is the delay commonly experienced in the approval of environmental authorisations by the Department of Mineral Resources and Energy (DMRE) and the Department of Water and Sanitation (DWS). Approval is currently outstanding on seven permits and licences with the DMRE. Our environmental department engages continually with these authorities to discuss pending applications. It also participates in the Minerals Council South Africa's environmental committee which discusses and addresses generic permitting and licensing challenges.

Performance

The cumulative number of environmental incidents recorded in 2022 was 455 compared with 438 in 2021. Of these, one was the level 4 incident at Khwezela Colliery's Kromdraai section.



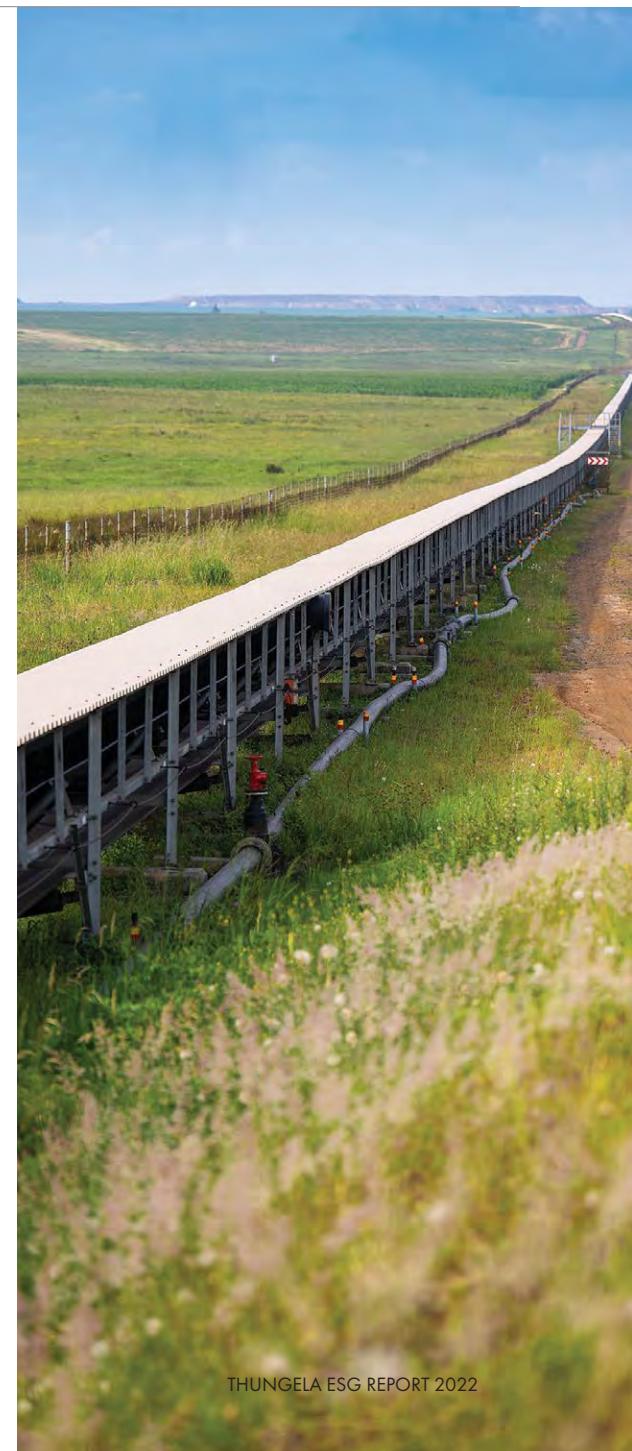
See **pages 31 to 33** for a detailed report on the Kromdraai incident.

Another was a level 3 incident at the same mine's Schoongezicht pollution control dam where an overflow of the dam occurred following more than 160 mm of rain in the preceding week and almost 100 mm falling in the previous 24 hours. Inadequate, pre-emptive dewatering in underground compartments was another contributing factor and resulted from constrained uptake by the eMalahleni Water Reclamation Plant (EWRP). The plant was undergoing an annual maintenance shutdown at the time. Corrective actions were implemented. One of these is prioritising pumping to the plant's reservoirs to create additional storage capacity in the control dam.

The majority of the level one and two incidents we recorded can be attributed to hydrocarbon spills in storage yards and workshops, silt and silt trap-related incidents, and general housekeeping such as the timeous emptying of waste bins. There was a slight increase in water-related incidents arising from the overflow of pollution control dams. These occurred because of higher than usual rainfall brought about by the La Niña weather phenomenon. During the year, we released our new water management standard that includes several mechanical and monitoring improvements to water containment facilities. Going forward, phytoremediation will contribute to enhanced water management at containment sites.



Read more about phytoremediation on **page 49**.



Our response to the level 4 incident at Kromdraai

It is with deep regret and concern that we recorded a level 4 environmental incident on 14 February 2022. This incident occurred when the concrete seal on a shaft that ceased operating in the 1960s, failed at our closing Kromdraai section at Khwezela Colliery.

This resulted in the uncontrolled release of a large volume of mine-impacted water. The affected area extends from the point of discharge at the Kromdraaispruit into the Wilge and Olifants rivers, and ends at the Olifants confluence at Loskop dam.

The event triggered an immediate, committed, and coordinated response by a large number of internal and external stakeholders to contain the event's most significant impacts, investigate its root causes, and commence urgent rehabilitation work in the affected areas.

We are encouraged by the notable progress that has been made in re-establishing pre-existing water qualities in all but one part of the affected catchment. This has been achieved thanks to intense collaboration from subject matter experts in government, the private sector, and our own business.

Here we provide the details of our response directly after the event and ensuing months. These efforts continue, and focus on rehabilitation and addressing the incident's root causes.

Emergency response

Transparent stakeholder engagement

Immediately after becoming aware of the incident, contact was made with all relevant regulatory authorities, impacted farmers and farm dwellers. These included: the DWS; DMRE; the Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs; the Mpumalanga Parks and Tourism Agency (MPTA) and the eMalahleni Local Municipality.

We also engaged with members of the farming community, residents, businesses and landowners in the affected catchments.

In the interests of transparency, a statement was issued to the media. Thungela CEO July Ndlovu said: *"We are encouraged by the level of collaboration from the authorities, farming community and members of society who share in our devastation on the impact to ecosystems. We are a responsible mining company and hold ourselves to the highest standards. We are fully committed to doing what is right and within our power as citizens of the Mpumalanga community. We will lead the remediation efforts now and in the future, and fully assess the causes and contributing factors that led to this incident."*

Immediate steps taken

- Water was diverted from the shaft adit to a temporary sump on site
- Water was pumped to the Kromdraai liming plant for treatment
- Discussions with regulators to facilitate the opening of sluice gates at the Bronkhorstspruit and Witbank dams to flush the system and restore pH levels
- The deployment of independent biodiversity, environmental and water experts to monitor and assess the impacted water courses
- River clean-up activities
- Replacing damaged fences, bridges and other infrastructure



Continuing rehabilitation efforts

Rehabilitation work commenced shortly after the event and has been characterised by ongoing engagement and collaboration with various government departments. Below is a snapshot of work being undertaken in this area.

- The appointment of 'The Biodiversity Company' as an independent technical expert to develop and implement a collaborative river rehabilitation plan. This plan comprises short, medium and long-term solutions and is regularly updated and reviewed by all relevant stakeholders.
- The establishment of a steering committee made up of representatives from Thungela, the MPTA, and a leading authority on aquatic ecology. This committee meets monthly to track and discuss actions set out in the rehabilitation action plan.
- The creation of a review panel comprising recognised experts in the fields of water management, aquatic ecology and biodiversity. A specialist from the DWS guides and provides assurance on the sampling and monitoring components of our rehabilitation plan.
- The implementation of a scientific, data-based approach in which biomonitoring is used to determine how the river is responding to interventions. This will be used to guide and plan future activities. We are pleased to report that fish populations that retreated after the incident are once again spawning as a result of improved water quality.
- A review of historical data to establish the river system's ecological status prior to the event and the completion of a comprehensive sampling exercise to determine its current status. Data was collected and analysed by a multidisciplinary team in low and high flow conditions and will be used to ensure that interventions restore all parts of the system to its pre-incident state.
- Monitoring, which took place daily until June 2022, now takes place weekly.
- The planned construction of a fish breeding facility at the Mabula Ground Hornbill Project at the Loskop Dam Nature Reserve in March 2023. This facility will be operated by members of the MPTA and will be built at a cost of R2 million.
- Continued engagement with the DWS on progress made against the action plan and biomonitoring results.
- The implementation of the innovative Dongalock wetland intervention system to improve the functionality of current wetland systems at Kromdraai.
- Reinstatement of water management infrastructure that had been vandalised or stolen due to illegal mining and criminality. We are also investigating longer-term, modular reverse osmosis capacity to further treat water to discharge qualities. To date, capital to the value of R400 million has been assigned for the construction of a system that will dewater and treat effluent from underground workings. Water will be fed from an existing holding dam and liming plant into a 5 ML/day reverse osmosis facility. Construction on this facility and an extensive upgrade on the liming plant are under way and are set for completion by the end of 2023. Eskom has been engaged and commissioned to reinstate the bulk power supply to the area.



Lessons learned

A large number of interventions have been put in place to give ourselves, and our stakeholders, the assurance that everything possible has been done to prevent a reoccurrence of such an event.

Illegal mining

Criminal activity, including the theft of crucial infrastructure and large-scale illegal mining, not only has the potential to disrupt the safe and efficient running of mines, but presents a significant risk to the environment and local communities. Illegal mining activities in Mpumalanga continue to pose a challenge to our business.

These sophisticated operations are linked to organised criminal networks and put the lives of our employees and homesteads in the Kromdraai area at risk. Efforts by our own security teams, in conjunction with local law enforcement, to remove perpetrators from Kromdraai proved unsuccessful. They were finally ejected during a carefully executed sting operation led by the Hawks. The operation also involved the National Intervention Unit and the Tactical Response Team, elite units of the South African Police Service.

The operation resulted in the arrest of 15 suspects, including one who attempted to bribe an official. In addition, a fleet made up of 10 excavators, two dump trucks, a wheel loader, seven coal transporters and two light delivery vehicles, was seized. Ongoing measures are taken to deter perpetrators from re-entering this and other properties.

Even with our own protection services and continued specialised interventions, we remain dependent on law enforcement, regulators such as the DMRE, and the judicial system to halt illegal mining. Addressing the issue requires a collaborative and well-resourced effort from industry and government.

Expediting closure

The incident at Kromdraai resulted in the establishment of a well-resourced and dedicated closing collieries, care and maintenance unit that has brought about a significant shift in the way we manage sites once they reach the end of their operational lives. In the past, rehabilitation work was undertaken by our mines themselves. This unit focuses exclusively on closing sites and is made up of a multidisciplinary team of production, safety, and environmental personnel, including a hydrology specialist.

Expediting rehabilitation makes closing sites less vulnerable to criminality and places us in a better position to anticipate and react to potential risks. These risks include the health and safety of our employees and contractors, local communities, the surrounding natural environment, and our reputation as a responsible miner. Accelerated rehabilitation also reduces the ingress of water into mining areas by increasing run-off.

This new, more focused way of managing non-operational assets also gives us an opportunity to lead the way in this final but vital stage of the mining cycle.

Technical reviews and activities

A number of technical reviews and activities have been undertaken to safeguard infrastructure at operational, closing and closed assets. These include:

- A full technical review to provide assurance on the structural stability of all seals. These seals are installed at closed shafts to – in conjunction with dewatering activities – prevent rising underground water from decanting into the surrounding environment
- A prioritised risk register similar to our register of mineral residue facilities and water containment structures, that now includes closed shafts and has more stringent controls and assurance activities that will be undertaken annually
- The rechecking and updating of water models across all sites
- Inundation work that is being undertaken by a global consulting firm
- The development of a new protocol for the review of underground water structures. This includes inspection procedures and frequency.



A ZERO MINDSET

Eliminating, avoiding, minimising, mitigating, remediating or rehabilitating, and offsetting SHE impacts that arise from our activities, products and services.

NO REPEATS

Learning from every incident, audit finding and non-conformance to prevent repeats.

SIMPLE, NON-NEGOTIABLE STANDARDS

Using simple, non-negotiable environmental procedures and standards to achieve legal compliance, as a minimum.



Looking ahead

Sound environmental management is core to our long-term future, and must rank as highly as safety, productivity and improved cost management in the running of our sites. It is also everyone's responsibility – from the board and CEO to site leadership teams, employees and contractors – to proactively prevent harm to the natural environment. This can only be done through the active avoidance, timeous reporting and decisive management of all potential impacts. This calls for greater accountability and collaboration across all levels and an increased awareness of environmental risks and impacts, not just to the environment, but to our business's long-term future. In 2023, this awareness will be created through employee communications and the staging of educational industrial theatre on environmental management. We will continue with a review of the effectiveness of action plans implemented to address non-compliances identified in internal and external audits and our recently introduced environmental directive procedure. This procedure sees working areas with significant environmental impacts or non-compliances be shut down until corrective actions are taken.

Environmental stewardship encompasses each aspect of an operation's lifecycle, from exploration, construction, and operation to eventual closure.

Non-compliances or stoppages

The DWS issued a compliance notice following the level 4 environmental incident we incurred at Kromdraai. In addition, the South African Police Service, working with the Environmental Management Inspector from the Department of Forestry, Fisheries and the Environment, is currently investigating a criminal complaint laid against the Company in relation to this incident. A detailed action plan on remedial measures was approved by the DWS.



Please refer to **page 32** for an update on the progress made in implementing these.

We also received a notice of intent to issue a directive at Vryheid Coronation Colliery (VCC) for a non-conformance noted during a compliance inspection at the site. An action plan for measures to be instituted at VCC is pending approval by the DWS.



AIR QUALITY

The region in which we operate is a hotspot for air pollution from industries such as steel production, power generation, ferrochrome production and dust generating activities such as coal mining. We take a range of measures to limit our contribution to the region's air quality challenges.

Our approach

Each of our sites has an air quality management plan in place to ensure that the correct monitoring and management measures are taken to effectively control dust and gaseous emissions. Our most prevalent dust sources are blasting, haul roads, stockpiles, conveyors, and crushing and loading activities.

We monitor both dust fallout and inhalable particulate matter (PM). PM_{10} and $PM_{2.5}$ are monitored using fallout bucket systems and real-time PM monitors positioned in locations identified through dispersion modelling and at sensitive receptors such as nearby communities and neighbouring farms.

By monitoring PM_{10} and $PM_{2.5}$ using real-time Topaz monitors, environmental and operational personnel are alerted when dust thresholds are reached. This means that remedial action can be taken immediately, rather than retrospectively, as was the case in the past.

Ongoing dust mitigation measures include:

- the application of chemical dust suppressants and routine daily water dust suppression on unpaved roads
- water sprayers along conveyors and at crushing, tipping and loading facilities
- the management of spontaneous combustion using water sprays and by cladding burning areas
- the vegetation or re-vegetation of topsoil stockpiles, overburden and rehabilitated mineral residue deposits
- the optimisation of blast designs and a no-blasting rule in high wind conditions.



Performance

Site-wide air quality deep dives were undertaken to assess existing dust control measures, and when and how these measures were applied. While much work is still to be done, this has contributed to the improved management of dust impacts.

PM₁₀ exceedances continued their decline from 407 in 2020 to 187 in 2021 and 163 in the year under review. Exceedances in PM_{2.5} rose from 8 in 2021 to 11 in 2022. Most occurred at Isibonelo and Khwezela collieries where PM monitors were positioned in operational areas. At Isibonelo, this was necessitated after a monitor was vandalised, but a security solution is being investigated. At Khwezela, exceedances can be attributed to the extraction of high-ash content coal in a previously mined area.

SO₂ and NO₂ emissions

Sulphur and nitrogen dioxide (SO₂ and NO₂) emissions declined in 2022, owing to a reduction in spontaneous combustion and diesel consumption. Measures undertaken to curb these emissions include the switch from 50 ppm diesel to 10 ppm diesel across all operations and projects, haul road optimisation and maintenance to reduce diesel consumption; and the implementation of measures to optimise truck and shovel cycle times.

Site general managers now take overall accountability for dust, while interdepartmental social performance management committee meetings ensure that community complaints are adequately addressed at the right level. During the reporting year, we received two dust-related complaints.

All sites have a grievance mechanism in place to capture, investigate and address community concerns, including those relating to dust. Exceedances are fully investigated through our learning from incidents process and action plans developed to address their root causes.

Each operation conducts annual self-assessments to determine their compliance with our air quality performance standards and will update their three-year air quality management plans in 2023.

Applicable legislation

Ambient air quality compliance is determined by the South African National Air Quality Standard as a 24-hour average of 75 µg/m³ for PM₁₀ and 40 µg/m³ for PM_{2.5}, and an annual standard limit of 40 µg/m³ for PM₁₀ and 20 µg/m³ for PM_{2.5}. Each monitoring unit is permitted four exceedances a year.

Dust fallout compliance is based on the National Dust Control Regulations' non-residential (1,200 mg/m²/day) and residential (600 mg/m²/day) limits.

815

SO₂ tonnes generated

2021: 1,357

1,744

NO₂ tonnes generated

2021: 2,096

11

PM_{2.5} exceedances

2021: 8

163

PM₁₀ exceedances

2021: 187

CASE STUDY

Data-driven dust control

Isibonelo Colliery and environmental and engineering consultancy Eco Elementum designed, developed and trialled an intelligent air quality monitoring solution that will bring about a significant improvement in how we manage dust.

While conventional monitors alert environmentalists when dust thresholds are reached, they do not provide any real insights into the cause. This means that by the time environmental personnel reach the operational area to pinpoint the source, remedial measures are often too late.

Another difficulty is that our sites are situated in areas rich in coal mining, industrial activity, power production and agriculture, which means that monitors regularly flag exceedances that are not necessarily caused by our activities.

The new wireless, solar-powered technology provides sites with a live data feed, not just of coal mining's priority pollutants, but compounds associated with other industries. It also measures and records wind direction, wind speed, temperature, humidity, barometric pressure,

and rainfall, all of which help identify a pollutant's source and expedite the corrective actions to be taken.

The system is set to go live at all our sites in 2023. A further benefit it offers is an improved understanding of rainfall patterns across a mining right, enabling teams to proactively identify areas that require proactive dewatering.



Coal beneficiation

We pride ourselves on producing high-quality, low-sulphur export coal. To do this, we beneficiate the coal we mine.

The beneficiation of coal is not merely the output of a processing activity. As with any ore, it involves understanding the steps from resource definition and its optionality in terms of product type, reserve definition, mining practice, processing and placing a product portfolio into the marketplace to optimise value in the complete techno-economic supply chain.

Coal processing entails the selective washing of run-of-mine coal to produce the desired product by removing deleterious material such as rock, contaminants, poor grade coals with high ash, sulphur and other polluting elements which are not desirable in the combustion process. Conversely, the washing process concentrates desirable qualities, including carbon, in a form that makes it the most efficient for combustion.

Looking ahead

In 2023, we will continue to focus on improving our performance against the air quality management standard. One of the ways we will do this is by ensuring that our sites respond swiftly to dust alerts provided by real-time monitoring. Furthermore, by reviewing the positioning of dust buckets and PM monitors, together with the appointment of a new service provider with more advanced technology, we will be more agile when reacting to exceedances.



WASTE MANAGEMENT

Non-mineral waste

In 2022, we made further progress in reducing the amount of waste we send to landfill by applying circular economy solutions across a wide variety of waste streams.

We do this by avoiding or reducing our consumption of certain waste streams and implementing innovative opportunities for waste recovery, reuse and recycling. In many instances, these initiatives are linked to corporate social investment projects such as the recycling of gumboots to produce school shoes for a local school.

Our approach

The National Environmental Management Waste Act 59 of 2008 and its regulations govern our approach to waste. This approach is founded on the waste management hierarchy – avoid, reduce, reuse and recycle.

For several years, our sites have recycled paper, tin, plastic, glass, scrap metal and wooden pallets. These materials are separated at source and disposed of in different coloured bins or designated skips and cages. Hazardous waste streams such as fluorescent bulbs, oil and oil filters are stored in designated compounds or yards before being sent for disposal or recycling. We also use bioremediation to remedy hydrocarbon spills instead of disposing of affected soil in hazardous landfill.

Our goal is to reduce the waste we send to landfill by 50% by 2030, using 2021 volumes as a baseline. Achieving this goal will require innovative thinking, collaboration with recycling companies and local communities, and continued employee and contractor awareness and education.

Our performance

We achieved a 22% reduction in the disposal of non-hazardous waste to legal landfill from 1,416 tonnes in 2021 to 1,103 tonnes in the reporting period. The disposal of hazardous waste to legal landfill declined by 15%, from 916 tonnes to 776 tonnes over the same period.

776

Hazardous waste to legal landfill (tonnes)

2021: 916

1,103

Non-hazardous waste to legal landfill (tonnes)

2021: 1,416



Looking ahead

The goal in 2023 will be to improve the reporting and tracking of waste and to set new parameters for different waste streams. A significant opportunity also lies in the collection, separation and recovery of waste from underground sections.

CASE STUDY

Oil management goes full circle at Zibulo

Zibulo Colliery has introduced a purpose-built trailer and filtration system to enhance the way it reduces, reuses and recycles underground equipment oil. Mining fleets require many thousands of litres of oil each year to run efficiently. A coordinated and well documented system has been implemented where used oil is collected in robust plastic tanks that have been placed in each underground section. These are loaded onto a purpose-built roving trailer once they are full and are then taken to the surface where the oil is purified in a kidney loop system that filters it for reuse. The oil can be filtered and reused six times before being collected and recycled by a licensed service provider.

Mineral waste

Our single biggest solid waste stream by volume is mineral waste in the form of low-quality discard coal and fines. The by-product or waste from coal processing is disposed of in engineered, licensed facilities that we refer to as mineral residue facilities (MRFs). Technological advancements in coal processing have resulted in lower volumes of as-arising fines being sent for disposal at our Greenside and Phola processing facilities which have flotation plants. We are also in the process of re-mining three MRFs: Klipfontein which last operated in the 1990s, Goedeheop South which closed in 2019, and our operating facility at Goedeheop North.

The biggest risks associated with MRFs and water management structures (WMSs) or dams are inundation, dam breaches, groundwater contamination, dust and spontaneous combustion. To mitigate the risks associated with the former, the outer walls of these facilities are constructed with compacted coarse coal discard, and are substantially wider than one would see in conventional tailings facilities used in other commodities. They are also extremely competent. Conventional tailings facilities are formed by placing ultra-fine tailings in an impoundment of a mixture of uncompacted coarse tailings and waste rock. The discard in MRFs is compacted to such an extent that it prevents the ingress of oxygen and resultant spontaneous combustion.

We currently have 23 inactive, dormant or rehabilitated MRFs, four active or operational facilities and 33 WMSs under our charge. Subsequent to the Kromdraai incident, we assessed and added 35 underground water containment facilities to our risk register. Situated both at operational sites and mines that are under care and maintenance, each of these is assigned a consequence classification rating.

These ratings range from insignificant, minor and moderate to high and major and determine the design, monitoring and surveillance requirements associated with each. All ratings are reviewed annually.

Assurance and governance

A competent person and engineer of record provide assurance on each facility's structural integrity and work with operational personnel to ensure that disposal takes place in line with design specifications. They are also responsible for ensuring that the relevant studies, risk assessments, permits, incident registers, and emergency response and preparedness plans are in place. Moreover, an independent technical panel made up of senior external multidisciplinary specialists is mandated to conduct systematic and ongoing reviews, particularly at facilities rated as 'high' and 'major' consequence. This panel independently decides what they would like to assess, based on their opinion of the business requirement.

Our management of these structures is conducted in line with Thungela's technical standard for MRFs and water containment structures.

Governance processes and oversight of active facilities includes:

- daily and weekly oversight and inspections by site personnel
- monthly performance monitoring parameters and assessment for MRF discard deposition
- monthly meetings with sites and contractors
- quarterly and annual engineer of record inspections and reporting.

All engineer of record inspections are logged onto our SHE management system (Enablon), to track the status of actions. Dam breach analysis and inundation studies have been carried out on all facilities rated as 'high' and 'major'.



Looking ahead

The next evaluation process will be undertaken by the technical review panel. We will also be developing a protocol for the assessment of underground water containment structures with a third-party. This will include inspection protocol and frequency, in line with the MRFs and WMSs.



CLIMATE CHANGE

Climate change action has never been as critical as it is today and each of us has a role to play in the transition to a low-carbon world.

We are proud to publish our inaugural Climate Change Report, alongside this document. The report is aligned with the recommendations of the TCFD.

We are committed to achieving a 30% reduction in our scope 1 and 2 emissions by 2030 from the 2021 baseline and net zero emissions by 2050.

 Read more about our approach to climate change in our Climate Change Report.

Our approach

The first step towards achieving our commitments was to undertake an extensive review of the energy and greenhouse gas (GHG) profiles of our existing operations and future projects. We also completed a comprehensive climate change scenario analysis and risk assessment process in 2022, the details of which can be found in our climate change report.

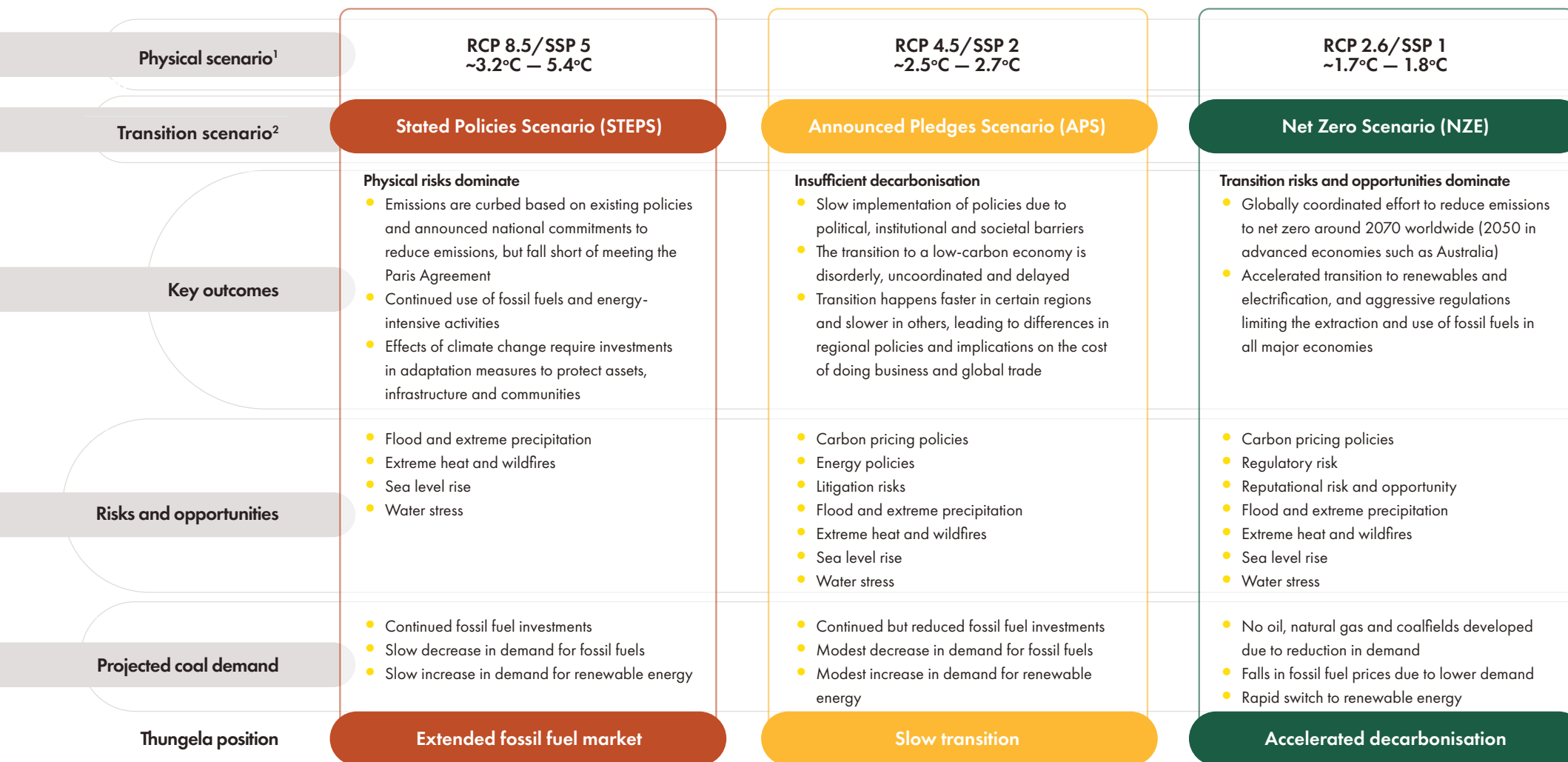
With several significant projects under development, we aim to bring about a year-on-year reduction in our carbon and energy intensity by focusing on efficiencies at our sites. We have earmarked business improvement opportunities to improve our energy efficiency and thus our energy intensity at each of our operations.



A scenario-based approach

We have adopted a scenario-based approach to chart our path to net zero, using the IEA's World Energy Outlook 2022 scenarios. It is important to remember that scenarios are not forecasts or predictions and that accurately predicting the future is challenging, even in the short term.

Scenario analysis, however, assists us in identifying key drivers of change and enables us to inform decision-making and evaluate business resilience against a set of divergent but plausible futures. It also highlights the potential risks and opportunities associated with these.



¹ The physical scenarios are based on the Intergovernmental Panel on Climate Change's (IPCC) AR5 Representative Concentration Pathways (RCP) and AR6 Shared Socio-economic Pathways (SSP).

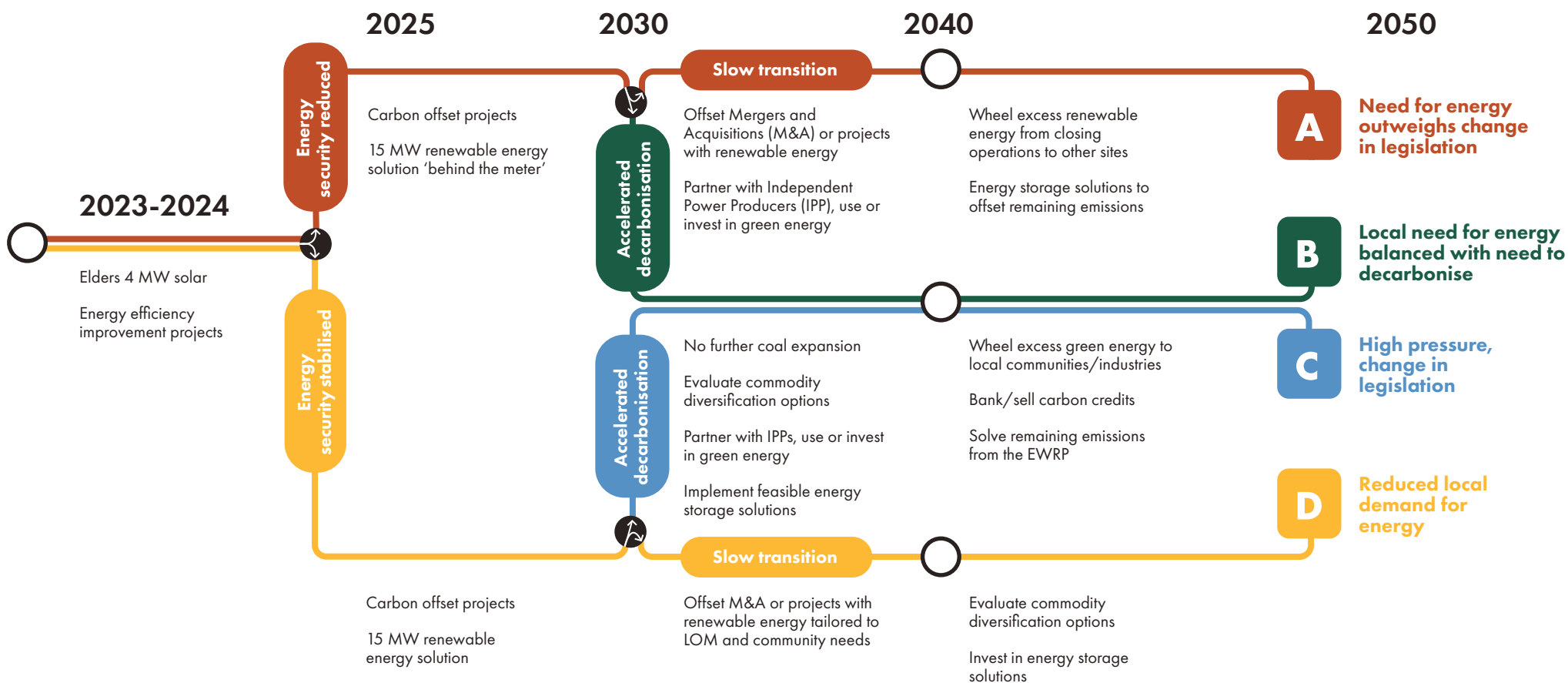
² These transition scenarios are based on those set out in the IEA's World Energy Outlook, 2022.

Pathways to net zero

To meet our 2050 net zero target, four distinct pathways are available, and are informed by the climate scenarios. Given uncertainty over the future, these pathways provide us with a framework for decision-making based on triggers that may occur.

The route we take hinges on two critical inflection points: the security of the energy system in South Africa and the pace of decarbonisation globally.

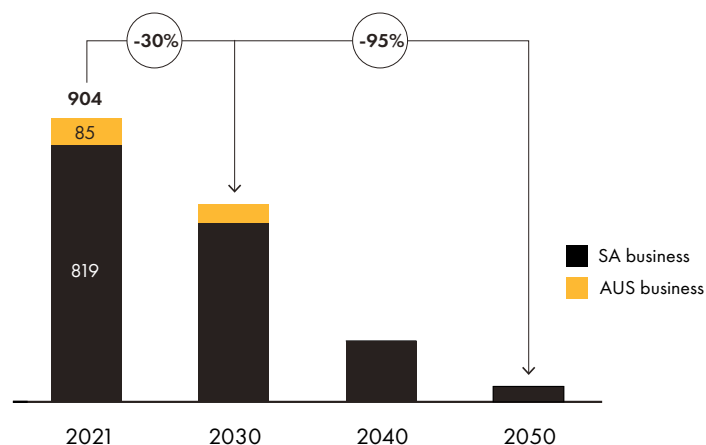
The STEPS and APS both see coal demand declining more moderately than the net zero pathway and have been combined in our pathways as 'slow transition'. The 'accelerated decarbonisation' pathways are aligned with the NZE.



The pathways give us the flexibility to adjust our approach to achieving our net zero target as the world evolves.

We will achieve our 2030 target through the implementation of a renewable energy strategy, the closure of operations as they come to the end of their lives, and the adoption of a variety of energy efficiency projects.

Thungela total scope 1 and 2 emissions (kt CO₂e)



Renewable energy strategy

Central to our net zero pathway will be the incorporation of a minimum of 19 MW of renewable electricity by 2030.

Of the total, 4 MW will be installed at the Elders project, and is currently in the feasibility stages. The strategy for the remaining renewable requirement will be evaluated to determine the most efficient and effective model for sourcing the renewable energy, with a view to this being available before 2030.

Mine closures

Several of our operations are currently projected to close before 2030, namely Isibonelo, Goedehoop, Greenside and Khwezela collieries. This will result in a decrease in the GHG emissions that currently emanate from these operations. While rehabilitation activities will continue to take place for some time after closure, energy consumption will ultimately be limited to general care and maintenance, and water treatment.

Energy efficiency opportunities

Thungela's standard and related guideline on energy and carbon emissions' management sets out the requirements to drive energy and carbon savings across the business.

We have undertaken an extensive review of each operation's energy and GHG profiles and identified business improvement opportunities to enhance energy efficiency and therefore energy intensity at each site. A focus is to reduce and optimise diesel and electricity consumption by large energy users. Some of the opportunities that will be prioritised in the short term include:

Underground mines

- Ventilation system optimisation
- Ventilation on-demand
- Shuttle car payload optimisation

Opencast mines

- Shortening haul routes
- Improving road conditions
- Reducing idle time

Our footprint

Thungela's GHG emissions have been calculated according to the GHG Protocol Corporate Accounting and Reporting Standard (www.ghgprotocol.org) and the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines. We use the operating control approach in reporting emissions and include the following in our footprint: Greenside, Goedehoop, Zibulo, Khwezela, Isibonelo, centralised services (Highveld Hospital, central workshops and the EWRP) and 50% of Mafube's emissions.

Scope 1:

Direct GHG emissions from fossil fuel (diesel and petrol) combustion in mobile mining equipment, fugitive emissions from underground mines and other process emissions (wastewater treatment and water neutralisation).

Scope 2:

Emissions from electricity purchased from Eskom.

Scope 3:

Emissions were calculated using the GHG Corporate Value Chain (Scope 3 Standard) and the IPCC 2006 guidelines. The scope 3 emissions were evaluated for purchased goods and services, fuel and energy-related activities, upstream transportation and distribution, waste generated in operations, downstream transportation and distribution, use of sold products, and investments. Use of sold products accounts for 98% of our total scope 3 emissions. These emissions will be evaluated to improve our understanding of the emissions across the value chain and our reporting of these.

308

Scope 1 GHG emissions (kt CO₂e)
2021: 362

440

Scope 2 GHG emissions (kt CO₂e)
2021: 457

35,947

Scope 3 GHG emissions (kt CO₂e)
2021: 54,744

Performance

Total scope 1 and 2 CO₂e emissions in 2022 were 748 kt compared with 819 kt in 2021. This 8.7% reduction was driven by energy efficiency improvement projects and a reduction in production volumes due to TFR underperformance. Our carbon intensity improved 8.3% from 4.56 kg CO₂/TTM to 4.18 kg CO₂/TTM over the same period.

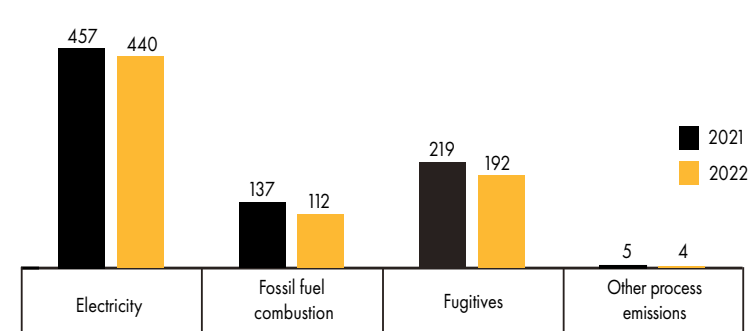
Scope 1 emissions in 2022 decreased by 15% to 308 kt CO₂e (2021: 362 kt CO₂e), with a 19% decrease in GHG emissions from fossil fuel combustion and a 13% decrease in fugitive methane emissions. Our scope 2 emissions decreased by 4.2% to 440 kt CO₂e (2021: 457 kt CO₂e).

Carbon emissions from electricity consumption are the biggest contributor to our footprint (58.8%) followed by fugitive methane emissions (26%) and carbon emissions from fossil fuel combustion (15%). Thungela's total energy consumption decreased by 13% to 3.01 million GJ (2021: 3.42 million GJ). Our energy intensity improved by 12% year-on-year to 16.81 MJ/TTM (2021: 19.04).

This was primarily due to energy efficiency projects such as advanced process control (APC) in our coal processing plants; reduction in machine carry back; haul road distance optimisation and condition and construction management; truck and shovel cycle time variability management; the optimisation of ventilation systems; and mine digitalisation.

APC, in particular, has generated significant energy efficiencies and emission reductions since its implementation in 2019. In 2022, savings of 6,657 t CO₂ were realised, bringing total savings to 23,432 t CO₂ over three years.

Scope 1 and 2 emissions breakdown (kt CO₂e)



Our scope 3 emissions decreased 34% to 35,947 kt CO₂e from 54,744 kt CO₂e in 2021 due to a reduction in sales volumes (use of product sold) and updating of the emission factor for use of product sold to the IPCC 2006 emission factor rather than the United Kingdom Department for Environment, Food and Rural Affairs (DEFRA) emission factor. This category accounts for 98% of our scope 3 emissions.

Further details on our scope 1, 2 and 3 are provided in the performance table on **page 104**.

Looking ahead

In 2023, we will focus on our renewable energy strategy and the completion of the feasibility for a 4 MW renewable energy solution for Elders. We will continue to investigate and implement energy-saving projects, particularly for our large energy users, to enable a year-on-year reduction in our carbon and energy intensities.

These initiatives will be accompanied by the continued evolution of our reporting and disclosure practices, and engagement with stakeholders on our climate change journey.



WATER STEWARDSHIP

Water stress is a significant risk to our business, not just because of its potential to disrupt our production processes, but for the effects our operations may have on community supplies.

Apart from saving water wherever we can, we must manage the inherent impacts coal can have on local catchments through the uncontrolled release of mine-impacted water into the environment. In addition, we continually reduce our consumption of all available water resources and increase our reuse and recycling rates.

In early 2022, we recorded a level 4 environmental incident following the uncontrolled discharge of water from a sealed shaft at our closed Kromdraai mine.



See **page 31** for details.

Our approach

Our water policy and an accompanying set of best practice technical management standards facilitate not just regulatory compliance but sustained reductions in our consumption of all water resources, including municipal, groundwater and alternative natural supplies.

They also promote optimised reuse and recycling and improved measures to prevent the contamination of ground and surface water. Administered by designated water champions at each of our sites, these standards govern aspects such as dewatering, collection, storage and the implementation of sustainable water uses across the mining lifecycle, including the planning, construction, operation, decommissioning, closure and rehabilitation phases.

Each mine has its own water management plan and, in 2022, underwent a rigorous self-assessment process to gauge compliance with legislation and our internal standards. A gap analysis was undertaken to identify and capture deficiencies to be addressed within a stipulated time frame.

Our 2023 water targets:

- Reduce freshwater abstraction by 20% against a 2015 baseline
- Increase water recycling levels to 75%
- No level 3 or greater water incidents
- Water treatment 40%

The treatment target is based on reducing recharge, managing stormwater, and creating sufficient storage to ensure uncontrolled discharges are avoided.

Water independence

In South Africa, water demand is expected to outstrip supply by as much as 17% by 2030, a situation that will further be exacerbated by rising population growth, increased urbanisation, and the mounting effects of climate change. All these factors highlight the need to ensure that we do not infringe on local communities' right to a clean, safe, and affordable water supply.

Our operations use water in their washing plants, for dust suppression during cutting and haulage, to douse burning areas and to irrigate vegetation on rehabilitated mine land. The majority of this water comes from within their own operational areas as rising mine water, some of which is sent to our EWRP for treatment to potable quality. A portion of this water is then sent back to them, while the balance is channelled into the eMalahleni Local Municipality's reservoirs for domestic, commercial and industrial use and into the water-stressed upper-Olifants river catchment.

The plant enables our Greenside, Khwezela and Zibulo mines, and our centralised service departments, to operate independently from the municipal water grid and shields them from rising water tariffs and climate-related water insecurity. Even so, they have a duty of care to local communities to conserve water, irrespective of its source.

767

Freshwater abstracted (ML)

2021: 865

96

Water reuse/ recycle (%)

2021: 95

57

Water treatment (%)

2021: 57

Performance

Goedehoop and Isibonelo Collieries and, to a lesser extent, Mafube Colliery, rely on fresh water from external sources and are working towards a reduction target of 20% by 2023, using 2015's 1,015 ML as a baseline. The overall trend for 2022 indicates that the current import of water has decreased by 11% to 767 ML from 865 ML in 2021. Freshwater abstraction in 2022 was 24% lower than the 2015 baseline, thus exceeding the 2023 target.

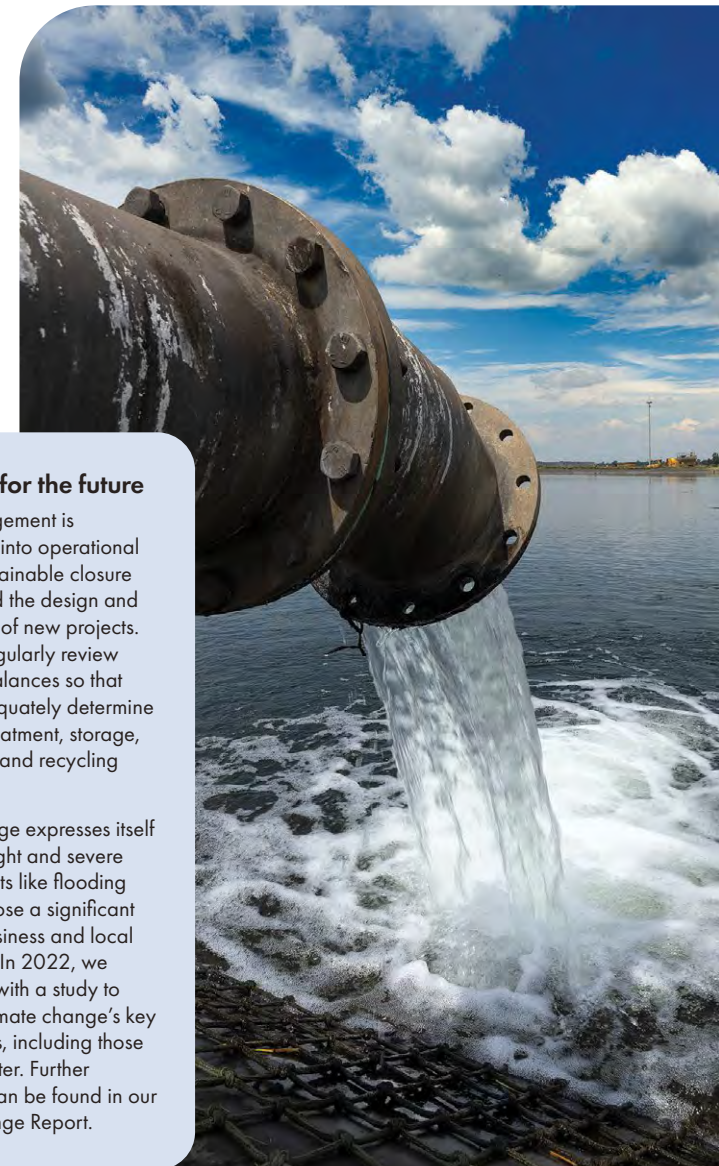
Greenside, Khwezela and Zibulo are working to reduce their consumption of water from the EWRP by 20% by the end of 2023 from a baseline of 1,997 ML in 2015. They have brought down their combined water use by 10% from 1,730 ML in 2021, to 1,553 ML in 2022. This represents a year-on-year reduction of 10% and a reduction of 22% from the 2015 baseline.

A target was set to increase water reuse and recycling levels to 75% each year by 2023. All operations, apart from Isibonelo — where the absence of a washing plant leaves little opportunity for recycling — have exceeded this target by driving efficiencies across their water cycles.

In an effort to improve reporting, a reconciliation of our reuse and recycling efficiency figures was conducted for several operations. Worse than expected values were noted where filter presses and thickeners at processing plants are in use. These technologies ensure that water is recycled numerous times in the coal-washing process. This, however, did not reflect in our data. The calculation methodology was updated to disaggregate activities to sub-task levels to reflect reuse and recycling in thickeners and filter presses. The new efficiency calculation falls within the confines of the Minerals Council of Australia's Water Accounting Framework for the Mineral Industry, which stipulates recommended aggregation levels.

The updated methodology resulted in a water reuse and recycling rate of 96% in 2022, up from 95% in 2021, based on the same calculations. Our 75% reuse and recycling target will be considered and updated during 2023.

Our treatment target of 40% aims to reduce the accumulation of rising mine water to prevent its uncontrolled release into the environment. We have also taken steps to ensure that we manage stormwater and the effects of La Niña and have sufficient storage capacity to avoid such an occurrence. An overall treatment rate of 57% was achieved in 2022, on par with the 57% we recorded the previous year.



Preparing for the future

Water management is incorporated into operational activities, sustainable closure planning, and the design and development of new projects. Our mines regularly review their water balances so that they can adequately determine their future treatment, storage, conservation and recycling needs.

Climate change expresses itself through drought and severe weather events like flooding which may pose a significant risk to our business and local communities. In 2022, we commenced with a study to determine climate change's key future impacts, including those related to water. Further information can be found in our Climate Change Report.

Bolstering community water supplies

The bulk of the water that we purify to potable standards at our EWRP is fed into the water-stressed local municipality's reservoirs. The plant has the capacity to treat 50 ML/day and currently meets 10% of the municipality's daily water needs. This pioneering facility was first built in 2007 to address the safety, productivity, and environmental risks posed by the ingress of water into underground and opencast workings. Since then, it has delivered 5,377 ML to local communities. The plant was the first of its kind on the Mpumalanga coalfields and has since been replicated by several other mining houses.

1,553 ML

Water sent to
Thungela operations

5,377 ML

Water provided
for local communities

10%

Portion of
municipality's
daily water
requirements met

Water partnerships

We are a founding member of the Mine Water Coordinating Body which brings government and Mpumalanga-based miners together to address the region's water challenges. The body was established as a result of a collaborative project under the Strategic Water Partners Network which falls under the umbrella of the World Bank and its 2030 Water Resources Group.

The initiative includes the region's major miners, Eskom and the national DMRE and the Department of Water and Sanitation. The partnership contributes to several innovative projects, including Mafube Coal's crop irrigation trial which aims to prove that moderate-quality pit water can be used to irrigate saline-tolerant crops like maize, year-round. We also participate in several water projects through the Coaltech Research Association. In addition, we build water management capacity at local and regional levels.

In 2022, our business hosted members of the DMRE's research, development and innovation arm which is investigating novel water treatment technologies that can be employed across the mining sector. Site visits included the EWRP, a phytoremediation site, and a 50,000-litre a day demonstration plant that aims to prove that passive treatment can effectively manage the coal industry's water risks post-closure.



Water treatment

Treatment involves a combination of active and passive technologies to mitigate water risks, both during a site's operational life and post-closure. Water management at our closed sites is provided for in line with NEMA's current financial provisioning regulations. The transition date of the NEMA Financial Provisioning Regulations, originally scheduled for February 2017, has been postponed several times and, most recently, was deferred to 19 September 2023. A new draft of the NEMA Financial Provisioning Regulations was released for comment on 11 July 2022.

The regulations require that treatment be provided for based on the costs associated with currently available technologies that have been approved by the DMRE as a result of their proven ability to consistently meet discharge requirements. We are actively working to prove the efficacy of passive treatment technologies in collaboration with academia and the relevant government departments.

CASE STUDY

Phytoremediation

Phytoremediation, a biological process that decontaminates soil or water using plants and trees to absorb or break down pollutants, forms an essential component of our long-term post-closure water management strategy. Goedehoop Colliery, the first site to adopt this approach at its Bank 5 and Hope mineral residue facilities, is the forerunner to a much larger initiative that will involve the planting of a million trees over the next three years.

These trees will play a role in stabilising water levels by taking up mine-impacted water, reducing the ingress of water into in rehabilitated areas and releasing clean water into the atmosphere through evapotranspiration.

The Goedehoop project is being run in partnership with Wits University's School of Animal, Plant and Environmental Sciences. Trees have also been planted on two hectares at our Dixon dam at the Khwezela Kromdraai site.

Planting a million trees in three years

Over the next three years, we will plant a million trees to control seepage and water ingress in mine-impacted areas. It is envisaged that 300,000 trees will be planted in 2023 and a further 350,000 each year for the following two years.

Saplings are propagated at a feeder nursery which will create employment for 15 local people who not only work in the nursery but will undertake composting, planting and maintenance programmes as the project unfolds.

Demonstrating the untapped value of passive treatment

The traditional approach to water treatment relies on high-capex technologies that bear high operating costs and produce significant sludge and brine by-products that must be disposed of. They are also energy intensive and vulnerable to theft and vandalism, particularly in remote areas.

As an alternative solution, we commissioned a 50,000-litre per day demonstration plant in 2022 to prove that passive treatment can effectively manage coal's water risks post-mine closure.

The demonstration plant uses bacteria to remove sulphate, neutralise water and remove metals to create a fit-for-purpose end-product that can be used in agriculture. The process requires minimal, if any, electrical power, minimal chemicals and infrequent but regular operational input and maintenance.



The R18-million study will treat different water qualities so that scientists can optimise process parameters to develop and design a full-scale plant that will be constructed at our closed Kromdraai site and later expanded to other operations.

The project is a collaboration between ourselves and the state-owned mineral research council, Mintek, which is funded by the Technology Innovation Agency. It is also central to a Mintek and Coaltech Research Association study that addresses the recovery of sulphur, a by-product of the treatment process, which could be marketed to the agrochemical sector.

Looking ahead

The focus areas for water management in 2023 will be:

- The rollout of our phytoremediation project at Goedehoop and Kromdraai, running the demonstration passive treatment plant and optimisation of process parameters to facilitate the design of a full scale plant
- Seepage control round our mineral residue facilities using passive treatment options such as Dongalocks and phytoremediation to manage ingress of water
- Rain readiness reviews at our sites

LAND STEWARDSHIP

Mines have social and environmental impacts long after the end of their operational lives. As such, we have a responsibility to protect our natural resources through conservation and the adoption of sustainable practices right from the planning stages.

We aim to leave a positive legacy through the integration of mine closure planning with land rehabilitation, the conservation of biodiversity and the use of non-operational land for the benefit of communities and the environment.

9,499

Total land disturbed (ha)

2021: 9,366

4,537

Total land rehabilitated (ha)

2021: 4,431





Biodiversity

Biodiversity is declining at a faster rate than at any other time in human history. This loss has knock-on impacts on climate change, food security, communities and human health and wellbeing. If not carefully managed, mining has the potential to have a direct impact on biodiversity. To avoid this, all activities are preceded by extensive studies to understand the baseline and impacts we may have. Any species of concern are removed and preserved in dedicated nurseries while biomonitoring and the reporting of quantitative and qualitative key performance indicators is included in our SHE management system. We aim to embed biodiversity conservation into mining by using the information at our disposal, engaging our stakeholders, and forming partnerships to help achieve effective and long-lasting outcomes.



No net loss

Our vision is to achieve no net loss (NNL) of biodiversity and, where possible, to improve biodiversity wherever we operate. We do this by first understanding our potential impacts and then applying the mitigation hierarchy through all phases of the mining lifecycle. Where impact is unavoidable, we implement restoration or offset projects.

We respect legally designated protected areas in line with the International Council on Mining and Metals' position statement on mining and protected areas and do not explore or develop mines in world heritage sites.

Our vision is supported by the Thungela biodiversity standard and guideline, which provides the process, methodology and terminology required to enable operations to manage biodiversity effectively. The biodiversity standard also ensures compliance with the National Environmental Management: Biodiversity Act (NEMBA) 10 of 2004.

Every mine has a biodiversity management plan (BMP) in place. Because our six operating sites are all situated in the Highveld grassland ecoregion of Mpumalanga, South Africa, we developed a regional BMP. Through development of the regional BMP our biodiversity dependencies and impacts were identified.

The BMP indicates that our operations predominantly impact biodiversity through habitat degradation of wetland and grasslands and are dependent on biodiversity for the flood attenuation ecosystem service provided by wetlands. The BMP defines the minimum requirements to manage biodiversity through mitigation of impacts and enhancement of services in all phases across the mining lifecycle. The regional nature of the BMP optimises the potential for balancing losses against contributions to biodiversity across all operations, rather than confining achievable outcomes to specific sites. Regional solutions for biodiversity conservation, protecting remaining areas of high biodiversity value and designing site-based rehabilitation efforts, creates maximum benefit at a regional scale.

The BMPs include plans for measuring and delivering actions against our targets and objectives and performance is ensured through the setting of biodiversity related key performance indicators (KPIs) for each operation. Qualitative and quantitative biodiversity indicators are included in the SHE management system and site-specific BMPs to track progress and changes to significant biodiversity features. All BMPs are reviewed and updated internally on a three-year basis, or when there is a significant change in the site's footprint, area of influence or understanding of relevant biodiversity impacts.

BMPs require sites to undertake biomonitoring annually, or biannually, in the case of water-related systems. The results are used to inform adaptive environmental management practices, including future iterations of BMPs.

Our goal is to declare rehabilitated areas free of invasive species. Relevant sites have alien and invasive monitoring and control programmes in place. These include annual inspections of disturbed and rehabilitated areas as well as interventions to remove alien species. Priority biodiversity projects have been implemented at each operation and as a key part of BMPs, the performance of these projects is tracked monthly against set KPIs.

Where residual impacts on significant biodiversity features remain after the application of the mitigation hierarchy, these are addressed through biodiversity offsets in line with the South African National Biodiversity Institute's (SANBI) Biodiversity Offset Guideline.

Biodiversity management extends beyond the duration of our mining activities, therefore our the NNL goal is integrated into closure plans through a commitment to establish stable and sustainable landforms, monitoring these and by offsetting where impact is unavoidable.

Partnering for biodiversity

To achieve effective and long-lasting biodiversity goals, partnerships with NGOs, local communities, civil society groups, conservation and government agencies are crucial. These collaborations help to bolster in-house expertise and capacity and, due to the public good nature of biodiversity resources, create the commitment to achieve enduring success.

We have joined the National Biodiversity and Business Network (NBBN) to play our part in helping industry become a positive force for nature conservation in South Africa. The network – which falls under the ambit of the Endangered Wildlife Trust (EWT) – works with companies across industry sectors to help them lessen their impacts on the natural environment and come up with more sustainable ways of operating.

The NBBN recently launched a working group for the mining sector which comprises representatives from Thungela, Sibanye Stillwater, Glencore and Anglo American. Also represented is the SANBI. The group aims to explore common challenges and risks, share best practices and develop collaborative solutions to shared challenges while facilitating important interactions with key local and international stakeholders such as the JSE Limited, government, and the International Union for Conservation of Nature.

Performance

The level 4 environmental incident which occurred at Khwezela Colliery's closing Kromdraai site in February 2022, is discussed on pages 31 to 33, where we provide a full update of measures taken to restore the affected areas.



Biodiversity priority projects

Each operation is required to embark on an annual project with tangible and measurable positive outcomes on biodiversity. These projects focus on enhancing biodiversity with the objective of either supporting ecosystems or specific species. They were preceded by the completion of a biodiversity deep dive in terms of the BMP at our six operational sites in which independent experts confirmed the presence of a variety of species. Porcupine, guttural toad and red-billed teal were noted at Goedehoop; aardvark, giant bullfrog and blue crane at Greenside; and African wildcat at Mafube. At Khwezela, they sighted a rock monitor lizard and ground squirrel; at Zibulo, spotted otter and Cape terrapin; and waterbuck at Isibonelo. Serval, bushpig and the red-listed brown hyena have also been sighted at this mine. These sightings support the growing body of knowledge on how large tracts of unused and rehabilitated mine land can be safe havens for biodiversity.

CASE STUDY

e-DNA at Isibonelo

We have partnered with Nature Metrics to trial the use of environmental DNA (e-DNA) metabarcoding at Isibonelo to detect the presence of species in four local river systems and at two of the mine's four wetland offset projects.

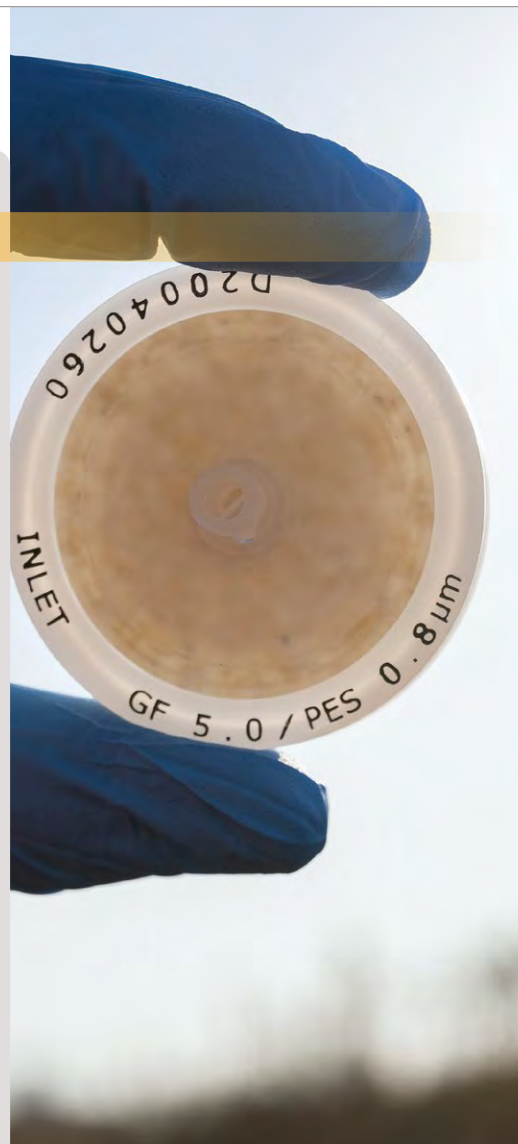
e-DNA provides a rapid, cost-effective way of determining the distribution and abundance of species by filtering out DNA from water, sediment or air samples. Sources include faeces, mucous, reproductive cells, skin and hair.

Just seven samples, taken in just one sampling exercise focusing on upstream catchments and the mine's wetland offset project, produced an extraordinary amount of data and confirmed the presence of 108 species.

These include large-mouthed frog, mosquitofish, bent-winged bat, ostrich and serval as well as *Cyprinus carpio* and African clawless otter. These are species listed as 'vulnerable' and 'near-threatened' on the International Union for Conservation of Nature's Red List.

Mine ecologists were also able to confirm that the speed at which water passes through a system has a direct bearing on biodiversity and that slower flowing waters are more suitable for re-establishing sensitive ecosystems.

Ongoing e-DNA sampling will be used to gauge the return of biodiversity as its wetland interventions mature. It will also inform how such projects should be undertaken in the future and influence the implementation of the most appropriate and sustainable land uses, post-closure.



CASE STUDY

Mafube grass owl project

Mafube Colliery, members of the EWT Birds of Prey programme, and the National Geographic Society are creating a safe haven for owls and, in particular, the rare African grass owl.

The grass owl is particularly susceptible to the degradation of its natural habitat, with its population in South Africa having declined to less than 5,000. Unfortunately, it is now regarded as vulnerable.

The partnership aims to establish a landscape that will see the species' eventual return to the area and has been cemented through the signing of two memoranda of understanding: the first between Mafube and the EWT and the second between the EWT and a local farmer who has agreed that 36 ha of his farmland be enclosed and left in its natural state.

This grassland has been fenced off by the mine to keep out cattle, hunting dogs and natural predators, while firebreaks are created to protect the landscape and breeding species. Other activities include the significant removal of alien plant species, planting native grass species, specifically *Imperata cylindrica* which creates ideal breeding conditions for the African grass owl, and the establishment of a water body.

In 2022, field officers from the EWT were pleased to note the presence of a parliament of marsh owls, their first record of owls on the property since the project's inception. While they have yet to spot an African grass owl, this milestone is a great indication of an improving habitat.



CASE STUDY

Goedehoop wetland intervention

Goedehoop has established a dual biodiversity and water management opportunity in the wetland area and riparian corridor at its rehabilitated Bank 5 mineral residue facility (MRF) that feeds into the Spookspruit.

The biodiversity priority project focuses on wetland areas and riparian corridors and simultaneously addresses water ingress and seepage emanating from the MRF through phytoremediation. For details on this technique, please refer to page 49.

The installation of Dongalock® technology commenced in November 2022, and it aids phytoremediation by increasing the retention time at certain locations for the *Searsia lancea* to absorb potentially polluted seepage. In addition, lime, slag, organic material and concrete rubble is deposited to assist in water retention, pH neutralisation and heavy metal precipitation. The Dongalock structures sited towards the wetland area below the stream will return the wetland to its original size and status and prevent further erosion of the banks.

The improved health of the wetland is expected to result in enhanced biodiversity. A robust monitoring plan will continue to further advance the project's success.



Looking ahead

Significant focus on the rehabilitation of the Wilge and Olifants river catchment will continue in 2023 with the establishment of a native fish breeding facility at Loskop dam as a priority project. We will also be establishing a nursery to meet the commitment we have made to planting a million indigenous trees over the next three years. These trees form the basis of phytoremediation strategy for the sustainable, long-term management of mine-impacted water. In addition, BMPs will be reviewed and updated as required, while focus is to be given to enhancing spacial biodiversity data, tracking and auditing biodiversity projects and enhancing employee awareness of biodiversity.



Mine closure and rehabilitation

We take a holistic approach to mine closure by identifying the full spectrum of life-of-mine opportunities, risks, and liabilities at the outset, and planning with the end in mind. In our efforts to approach closure in a holistic manner, we are integrating social closure aspects into closure management. All plans are fully costed and adequate provision is made for premature closure. Integrating mine closure planning into operational strategy, particularly through concurrent rehabilitation, is the best way to address many of the risks and opportunities associated with closure.

With four opencast operations, it is particularly material that we restore land disturbed by mining to a level of post-mining land use agreed upon with stakeholders. We believe that there is an opportunity to leave a positive legacy through the repurposing of rehabilitated land.

Management approach

Our approach to mine closure and rehabilitation is governed by three systems: a technical standard for mine closure, a mine-closure toolbox, and a technical standard and guideline for rehabilitation, all of which incorporate regulatory requirements and best practice guidance from the ICMM. There is an emphasis on concurrent rehabilitation and working with our stakeholders to address social impacts.

We are committed to reducing the backlog of disturbed land that requires rehabilitation during the lifetime of our current mines rather than after operations cease. Through well-executed rehabilitation, post-mining landscapes that are ecologically functional and support our biodiversity goal of NNL, can be established. They should also be economically viable, reduce our closure costs, and be supported by our stakeholders.

Our mine closure toolbox is a mechanism to ensure that long-term business plans consider what will happen to a mine upon closure before it even starts

operating. This includes focus on key components such as social transition and incorporates our integrated closure planning system, which centres on integrating multidisciplinary closure planning and execution. The toolbox provides a single, consistent framework for closing mines and guides operations on how to meet our closure standard.

Rehabilitation designs are modelled on various platforms to provide an ecologically acceptable blueprint that considers watershed, land capability, and landforms to ultimately create sustainable post-mining landscapes. Monitoring forms a critical part of rehabilitation and allows for adaptive management where required.

Every year, we use a third party to update mine closure financial provisions. These assessments are based on environmental management programmes (EMPR), commitments in any other authorisations, and design closure criteria for the final cessation of each operation. Financial provisions are reviewed and audited in line with internal and external requirements, and are provided once DMRE approvals of liability estimates are received. The 2022 closure liability submission for Thungela-managed mining operations to the DMRE was conducted in terms of the MPRDA as the current prevailing legislation. The transition date of the NEMA Financial Provisioning Regulations, originally scheduled for February 2017, has been postponed on several occasions and was most recently deferred to 19 September 2023.

The fourth draft of the NEMA Financial Provisioning Regulations was released for comment on 11 July 2022, but no feedback has been received on comments submitted by the industry.

Rehabilitation performance – reshaping, topsoiling and seeding completion against target – is included as a metric in the chief executive's scorecard and long-term incentive plan.

During 2022, a significant area of focus was creating internal structures to cater for closed mines (those mines that are fully rehabilitated), closing mines, or mines that have ceased production and are in the process of final rehabilitation. To this end, a new department referred to as the closing collieries, care and maintenance unit was created. This multidisciplinary unit is dedicated to the physical rehabilitation and closure of Khwezela Colliery's Bokgoni, Umlalazi, Kromdraai, Excelsior, and Northwest pit sections, all of which have closed or been placed on care and maintenance in recent years. Substantial progress was made in speeding up rehabilitation in these areas to ensure that they are less vulnerable to criminal activity.

Closure liabilities and corresponding financial provisions

Environmental provisions are calculated using the MPRDA Regulations as a base, and are adjusted for costs we are likely to incur until closure is completed. Financial provisioning required by current regulations amounts to R4.4 billion (2021: R4.1 billion), compared with total environmental provisions recognised by the Group of R7.6 billion (2021: R6.8 billion). This difference is due to the additional costs we are likely to incur through our interpretation of the NEMA Financial Provisioning Regulations and actual costs to be incurred in the period up to, and post-mine closure, most significantly concerning water treatment.

We currently maintain the required financial provisions through two mechanisms, environmental rehabilitation trusts and guarantees with financial institutions. The rehabilitation trust's value as at 31 December 2022 was R3.4 billion (31 December 2021: R3.2 billion). Guarantees of R3.1 billion (2021: R3.1 billion) are primarily in place to meet any immediate obligations under the existing regulations and are issued in favour of the DMRE. All operations' closure liabilities are fully provided for in terms of the MPRDA.

During the reporting period, we ploughed an additional R438 million (2021: R188 million) into long-term investments referred to as the green fund. This was done through two financial institutions to secure the guarantees required to further furnish financial provisioning as required by the MPRDA Regulations. Of this contribution to the green fund, R200 million was additional to the required annual investment amount, to further finance environmental provisions.

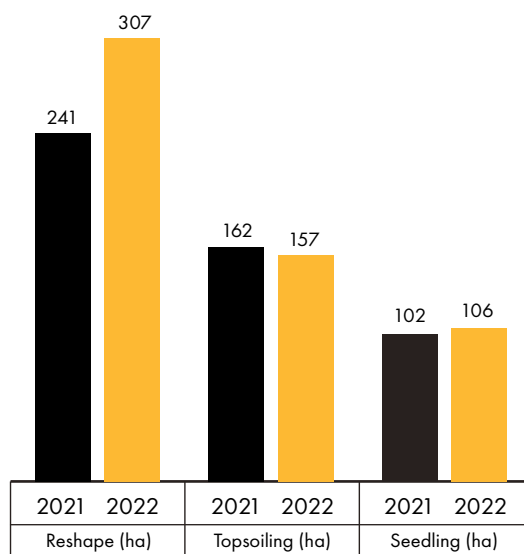
Rehabilitation

We focus on rehabilitating available land concurrently and returning it to near its initial state. This approach results in significant financial and environmental benefits and can reduce closure liabilities. Each of our sites has a five-year rehabilitation plan.

At the end of the year, Thungela had 49,076 ha under its management control (2021: 49,076). A total of 9,499 ha has been disturbed by mining, processing, mineral waste disposal, and supporting infrastructure (2021: 9,366 ha).

In 2022, we reshaped 307 ha compared to 241 ha in 2021. A total of 157 ha was topsoiled compared to 162 ha in 2021. Seeding in 2022 slightly exceeded that in 2021. Topsoiling performance was impacted by the above average rainfall experienced in 2022 which hampered our ability to complete the final shaping and levelling required.

2022 Rehabilitation performance



Looking ahead

The emphasis for 2023 will be on water management and treatment. We will also continue to attend to operational models, mitigating potential regulatory impacts and enhancement of monitoring programmes for residue facilities.



SOCIAL

SAFETY

Our primary focus is the elimination of fatalities and ensuring that every person who works at a Thungela site goes home safely every day.

Performance

We are unwavering in our commitment to run a fatality-free business. We operated without a loss of life in 2022, however our colleague, Breeze Mahlangu, an operator at Zibulo, tragically passed away in February 2023 following complications after an accident in December 2022. This devastating blow serves as a stark reminder that we must be unconditional about safety to ensure that everyone goes home unharmed every day.

While total recordable injuries remained level at 25 for the reporting period, a reduction in working hours resulted in an increase in our total recordable case frequency rate (TRCFR) from 1.35 in 2021 to 1.41 in 2022. Although lost-time injuries stayed the same at 15, reduced working hours saw our lost-time injury frequency rate (LTIFR) climb from 0.81 in 2021 to 0.85 in the period under review. The uncontrolled release of energy, materials handling, and slip, trip and fall incidents each accounted for 27% of injuries in this classification.

On a more positive note, several of our operations reached 100 days or more without a single reportable injury, while one site celebrated a scratch-free year.

High-potential incidents (HPIs) remained the same at six and were related to falls of ground, mobile equipment, assault, violence and crime, and the uncontrolled release of energy. These incidents are tracked and shared to address gaps in our critical controls.

Performance metric	2022	2021	2020	2019
Fatalities	0	1	1	1
Lost-time injuries	15	15	17	18
Medical treatment cases	10	9	12	15
TRCFR per million hours	1.41	1.35	1.51	1.48
LTIFR per million hours	0.85	0.81	0.85	0.78

0

Fatalities
2021: 1

1.41

TRCFR
(Per million hours worked)
2021: 1.35

0.85

LTIFR
(Per million hours worked)
2021: 0.81

6

HPIs
2021: 6

Our workplace safety culture is founded on the safety, health and environment (SHE) principles of:

ZERO MINDSET

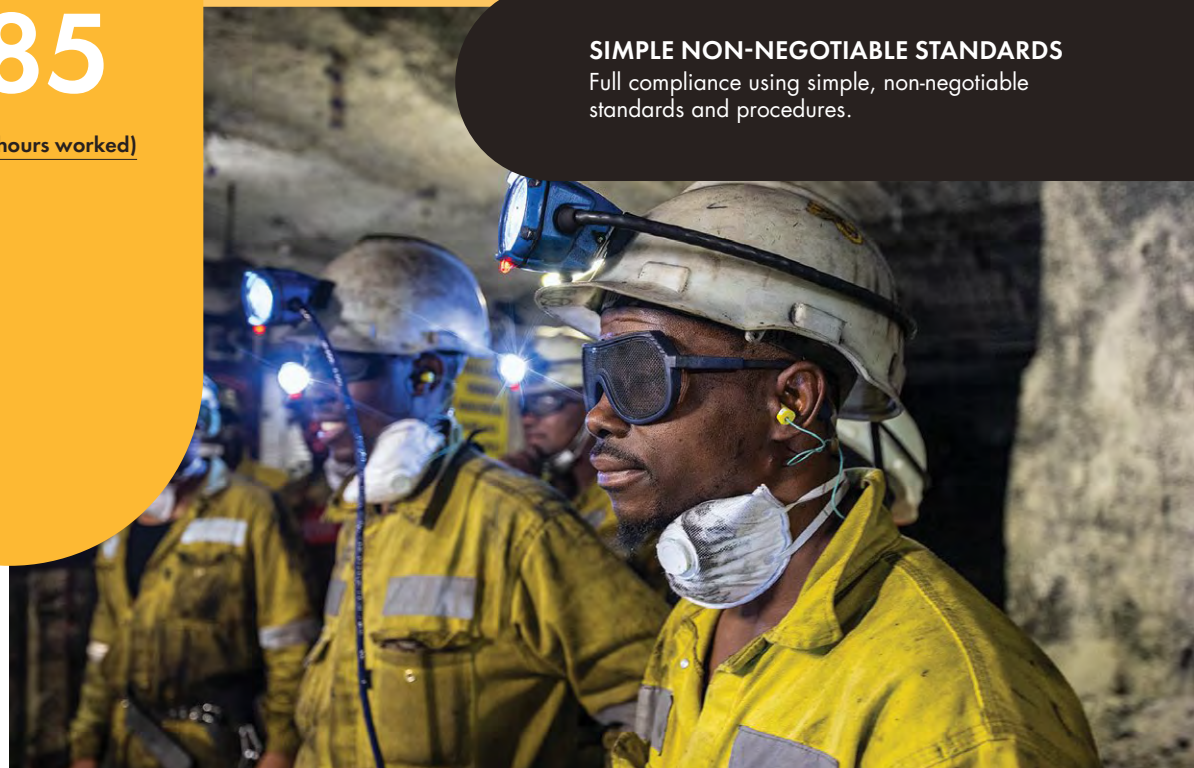
We apply the mitigation hierarchy to all impacts and risks that arise from our activities, products and services.

NO REPEATS

Learning from every incident and audit finding to prevent repeats.

SIMPLE NON-NEGOTIABLE STANDARDS

Full compliance using simple, non-negotiable standards and procedures.



Safety strategy

Our priority risks are falls of ground, interaction with trackless mobile machinery, the uncontrolled release of stored or electrical energy, slope instability, and fire and explosion.

These and all other safety risks are managed through the application of non-negotiable standards and rules, the implementation of life-saving technologies such as proximity detection and collision avoidance for underground machinery, and ongoing efforts to ensure that employees at every level, incorporate risk-based thinking into their daily tasks and routines.

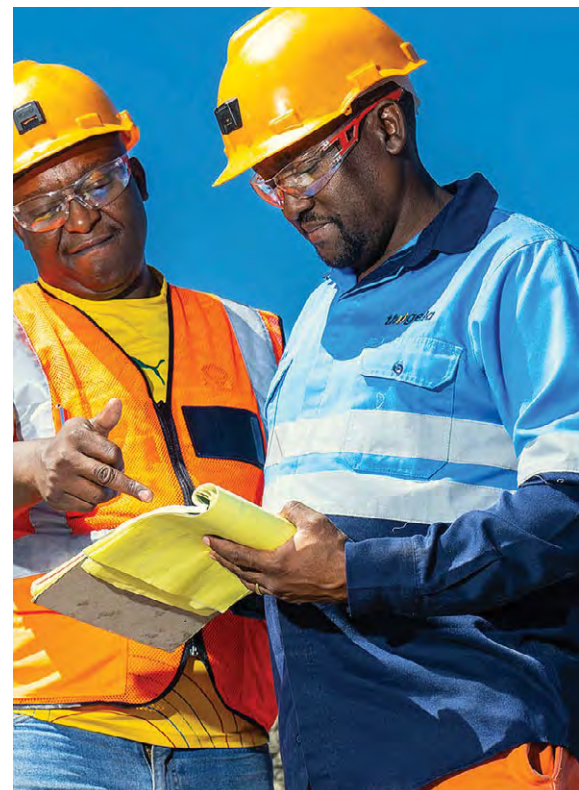
In 2018, we introduced a new and refocused safety strategy that has as its number one priority the elimination of fatalities. This strategy is founded on three pillars, namely getting the basics right, work management, and culture change, all of which serve to strengthen our continuing journey to becoming a fatality-free business.



Getting the basics right

It is vital that employees, contractors, and frontline leaders have a deep understanding of the basics. These include:

- The Six Essentials for safe work: rigorous planning, safe work area design, systematic change management, effective supervision, correct tools and equipment, and creating a competent workforce.
- The Eyethu Rules are a set of 13 life-saving rules that have been simplified so that they can be understood by every employee, regardless of education level or linguistic background. For example, 'I will always Stop, Look, Assess and Manage before performing a task'; 'I will never enter an unsupported area underground'; and 'I will not go under a suspended load'.
- Focused leadership interactions (FLIs) see managers across all levels hold safety conversations with frontline workers. A total of 23,643 FLIs were undertaken during the year.
- The high-risk work verification process involves competent supervisors overseeing high-risk work. In 2022, this process was integrated into 7,821 tasks.
- Scrupulous recording of HPIs and hazards and investigating their root causes takes place in order to avoid repeats.
- Work execution documents (WEDs) are step-by-step guides on everything that must be in place for a task to be executed safely. They are used to ensure that all key and critical controls are in place before and during the execution of tasks. WEDs have been created for all identified priority tasks and were compiled with support from operational employees and supervisors alike.



Work management

The work management model has been fully implemented at four of our mines and provides a framework for the effective approval, planning, resourcing, scheduling, and execution of all tasks by a dedicated site-based work management hub.

Approvals, planning, scheduling, and resourcing were previously undertaken by frontline leaders who faced significant pressure managing these responsibilities while overseeing safe production in their sections.

The model ensures that all work is properly planned, that leaders can effectively supervise their teams, and that frontline workers are given everything they require, including the physical tools and resources they need to do a job, before commencing any task.

Planned work is statistically 75% safer, 30% more productive, and 20% more cost-effective than unplanned work. This way of working has been rolled out to major contracting partners that operate on sites where the operating model is in use.

Building a risk-resilient culture

We partnered with DuPont Sustainable Solutions to develop an approach that would strengthen our safety culture, improve performance and reduce risk in our workplaces. This initiative started with an assessment of day-to-day operations at one of our sites which found that despite a strong commitment to safety, clear systems and processes; discipline and risk culture was, in many instances, reactive.

These findings resulted in the development of a transformation process that involves training, coaching, and education to strengthen leadership behaviour, while making focus on risk part of everyday workplace rituals. These include management operating system meetings, performance reviews, and key performance indicator dialogues. The programme has since been implemented at all our mines, with the result that risk management has been built into operational processes at all levels.

CASE STUDY



Best practice traffic management – from the pit to the parking lot

In 2022, we concluded a two-year, R50 million project that combines industry-leading traffic management designs, operational systems, and operator support technologies to significantly reduce transportation-related risks at our sites.

Using the Minerals Council South Africa's leading practice and adoption process for traffic management in surface environments, site implementation teams analysed and introduced controls across 18 elements. These are related to, among others, traffic flow, access routes, road systems, pedestrian movement, rules for breakdown and recovery, refuelling, brake test ramps, and road maintenance.

Key to the project was the physical separation of light and heavy vehicles on haul roads to eradicate catastrophic incidents between trackless mobile machines and smaller vehicles. Heavy vehicles travelling in opposite directions have also been separated in high-risk areas.

The project's next phase will involve the initiation of a series of operator support technologies that monitor speed, fatigue, the wearing of seatbelts, and compliance with brake testing procedures.





CASE STUDY

Taking human error out of blast exclusion zones

Isibonelo Colliery's human equipment navigational clearance (HENC) system has been rolled out to our opencast mines to ensure that people and equipment are situated out of harm's way during controlled blasting.

Most explosives-related losses of life occur when workers are struck by fly rock – debris ejected at high velocity from a blast. This usually happens because of human error in the form of inadequate access control or failure to clear a blast exclusion zone.

Developed in-house, HENC combines global positioning systems (GPS), mobile technology, and a blast initiation system to make it impossible to initiate an explosion until all safety criteria have been met.

Before blasting, employees are issued with a GPS tag which enables the blaster to track their exact location on a digital tablet showing a geographical map of the exclusion zone. Once the blaster is satisfied that the danger zone is clear, they must complete a checklist and finally input a code to verify that all criteria have been met. Only when the code has been accepted by the initiation system, can a blast proceed. Tags are issued to all members of a blasting team, including guards who are strategically positioned to restrict access.

Managing high-risk periods

The weeks before and after the festive season are considered 'high risk' as people tend to be distracted or fatigued during these periods. Our annual quarter 4.5 (the fourth quarter and first month of the new year) campaign injects additional focus and energy into managing risk and is intended to lead us safely to the December shutdown and into a safe start-up in January.

In 2022, the Thungela Formula One Safety Championship saw mines and centralised service departments compete in a series of safety challenges that encouraged cross-collaboration and learning at all levels. Over a 12-week period, they accumulated 'laps' on virtual circuits each focusing on one of our Six Essentials for safe work.



Criminality

Acts of criminality, including copper, cable theft, and illegal mining at closing sites, are perpetrated by highly-organised syndicates and heavily armed gangs. This has unfortunately led to a rise in high-potential hazards and improvements in our security measures.

During the year, a multidisciplinary team, led by the Hawks, executed a sting operation at our closing Kromdraai site which had been overrun by illegal mining activity. The Hawks are the South African Police Service's directorate for priority crime investigation and target organised crime, economic crime, and corruption.

The operation was supported by various units, including the National Intervention Unit and Tactical Response Team, our contract security provider and protection services. The operation followed months of collaboration with local authorities and national law enforcement agencies and resulted in the arrest of 15 suspects. A large fleet of equipment, including 10 excavators, two articulated dump trucks, a front-end loader, seven coal transporters, and two light delivery vehicles, was seized.

We are unwavering in our commitment to run a fatality-free business

Management approach

Our SHE management system forms part of a suite of documents, including our SHE policy, SHE ISO standard specifications and toolkit, technical and SHE standards and specifications, and external standards and certifications adopted by the business. Each operation has a safety improvement plan to address gaps in performance and track progress, while internal and external audits are conducted annually to monitor and provide assurance on our performance. There were several cross-operational visits and interactions to pinpoint operational blind spots during the year.

All our operations are certified to the ISO 45001 occupational health and safety management system and 100% of employees are represented on formal joint management worker health and safety committees that monitor and advise on occupational health and safety programmes. During the year, we received six safety-related regulatory section 54s from the DMRE.

Employees are actively encouraged to exercise their right to refuse unsafe work and conditions without fear of reprimand.

Operational risk and incident management

Operational risk management (ORM) is a dynamic process that develops, evolves, and improves as we learn from incidents, at our sites and other mines across the coal and other commodity sectors. It supports our integrated risk management policy and framework and is an integral part of our site safety management system. By applying ORM, we aim to ensure that employees and contractors at all levels have an improved ability to identify and understand risks and then initiate the right controls to mitigate them.

The reporting and investigation of incidents enable us to better understand and manage our risks through the implementation of hazard prevention and control measures. Each incident is investigated, with learnings fed into our critical control management and ORM processes. Of significant importance is the reporting of HPIs and hazards that could potentially lead to loss of life. This also serves to heighten awareness, facilitate organisational learning and effect more robust controls.



Looking ahead

We will continue to entrench our three-pillar safety strategy while working to further streamline and simplify complex systems and processes. A key focus in our systems and process review will be the involvement and input of workers who have practical knowledge and experience of the areas under review.

The volume of data we capture in daily interactions, verifications, and inspections provides us with a wealth of knowledge. In 2023, we aim to make this more readily accessible for operational line supervisors so that they can benefit from it.

Training on learning from incidents processes and practical ORM is currently being developed with the key outcome of achieving consistency in management and a clear understanding for each level of employee in these processes.

OCCUPATIONAL HEALTH

When our people retire, they should be able to do so in good health. That is why we are committed to eliminating occupational health hazards at source.

In 2022, we recorded two new cases of occupational disease compared with one the previous year. Unlike workplace fatalities and injuries, the insidious effects of occupational illness emerge later in life but can be equally devastating.

Our occupational hygiene standard sets out the minimum requirements for the identification, monitoring, and management of workplace health hazards. We are guided by the Minerals Council of South Africa (MCSA) and its 2024 occupational health milestones for the South African mining industry. These include targets for HIV and tuberculosis (TB) and exceedances in exposure levels for dust and noise, our two primary occupational health risks.

Our goal is to achieve zero new cases of occupational disease. In addition to strict requirements on the use of personal protective equipment, we make every effort to reduce exposure at source. This is done using a variety of engineering controls and, more recently, the implementation of technology that measures personal and equipment exposure in real time. In the case of dust, our ultimate goal is for machines to automatically come to a halt should thresholds be reached.

The detection of early and low-level signs of exposure in the compulsory annual medical certificate of fitness examination has resulted in a sustained improvement in our performance. All cases are investigated to identify their root causes so that appropriate actions can be taken. Ongoing education promotes an awareness and understanding of occupational hazards and their debilitating effects. Key to this process is their identification, assessment and control. In the event of a serious occupational incident, the same learning from incidents process used in safety inquiries, would be applied.

Dust

Continued exposure to coal dust puts employees at risk of occupational lung diseases, including coal workers' pneumoconiosis, chronic obstructive airways disease and occupational TB which develop over several years.

After two consecutive years without a single dust-related case of occupational illness, two historical cases were confirmed in 2022.

Our decline in new cases can be attributed to an improved emphasis on sampling, which increasingly takes place in real time. This means that employees, who previously relied on lagging indicators, can take immediate steps to suppress dust in their sections. In the same way that members of the workforce report safety HPHs, they are actively encouraged to flag dust-related hazards. Reports rose drastically from 42 in 2020 to 244 in 2021, but dropped to 121 in the reporting year.

Our sites have undertaken several initiatives that will enable them to achieve the MCSA's 2024 target to reduce exposure to below 1.5 mg/m³. Among these, are:

- a monthly review of cutting sequences, operator positioning and ventilation standards by the chief operating officer;
- the use of real-time handheld dust instruments that provide operators with early warnings of personal exceedances so that the correct controls can be put in place;
- the implementation of real-time on-board dust monitors for continuous miner machines;
- a trial at Goedehoop Colliery that uses a foam additive in water sprays to allay dust at conveyor transfer points; and
- a trigger action response plan for dust exceedances.



Looking ahead

Next year, the focus will be on ensuring greater accountability and discipline among frontline leadership to make sure that standards and critical controls are adhered to at all times. The National Union of Mineworkers (NUM) will be involved in the creation of dust improvement plans and investigations, while site control rooms will play an active role in managing exceedances.

Noise

While occupational noise-induced hearing loss (NIHL) may not be life-threatening, it has long-lasting health, psychosocial and economic impacts. Unfortunately, two new cases of NIHL were diagnosed in 2022 (2021: 1).

We have an ongoing focus on engineering and administrative controls, custom-moulded hearing protection for employees working in high-risk areas and advancements made by original equipment manufacturers in incorporating noise reduction measures into their designs for opencast equipment. A 'buy quiet' stipulation is included in supply chain contracts.

We encourage employees to report noise-related HPHs and to stop work when controls fail. As such, not a single employee was exposed to noise levels exceeding 105 decibels (dBA) over a time-weighted average (TWA) of eight hours.

The incidence of exposure to levels greater than 85 dBA over an eight-hour TWA declined further from 3,237 in 2020, to 2,914 in 2021 and 2,643 in 2022.



CASE STUDY

MOSH leading practice for tyre deflation

Our opencast sites have adopted the MCSA's leading practice for tyre deflation to reduce employees' exposure to harmful noise while undertaking tyre maintenance and repairs.

The practice, which was adopted through the council's MOSH process, involves two simple, cost-effective systems that were easily integrated into site maintenance programmes.

Before maintenance and repairs can begin, tyres must be deflated, a process that results in a hissing sound that exceeds the legislated 85 dBA.

A newly-adopted fixed system ensures that noise is isolated and released well away from employees working in the tyre bay, while an easily transportable silencing unit is utilised in the field.

Emissions during the deflation of the R51 haul truck tyre, the largest unit in Khwezela Colliery's fleet, have been reduced from 103.9 dBA to 58 and 54 dBA when using the mobile silencer and fixed system, respectively. Using either system, this operation can now be completed without any hearing protection.

Deflation times have moreover been reduced from 44 minutes to 27 and 12 minutes respectively, when using the mobile and static units.

The MCSA turned Khwezela's adoption of the practice into a case study to encourage opencast operations across commodities to adopt this leading approach.

Employee wellbeing

Our BeWell programme focuses on the whole self rather than just the physical elements of employee wellbeing. While physical health remains a priority, it must be accompanied by adequate levels of mental, psychosocial and financial wellbeing for employees to fully engage themselves in safe, productive work.

Physical

Employees and contractors are actively encouraged to undergo the triple test for HIV, blood pressure and body mass index, with the added options for blood sugar and cholesterol testing. These help them to proactively manage their health and, by doing so, guard against common lifestyle illnesses such as hypertension, diabetes, obesity, heart disease and stroke.

This multi-faceted wellness initiative is driven by site-based BeWell champions and a qualified nursing sister for each mine, who create awareness through monthly health topics ranging from cervical and prostate cancer to TB, nutrition, exercise, flu vaccination and the dangers of using tobacco products. Initiatives are increasingly tailored to site demographics and prominent health issues detected in the annual medical certificate of fitness.

Several sites arrange sporting activities to encourage employees to adopt a fitness-focused lifestyle. The Thungela Athletics Club, one of the largest road-running clubs in the Mpumalanga province, made its debut at the Comrades Marathon in 2022 and is open to employees and host community members.

CASE STUDY



In 2022, employees working in Johannesburg participated in the Fitbit Challenge, a five-month programme designed to encourage employees to adopt a healthy, active lifestyle. Starting with a weigh in, participants took part in a series of team challenges and events, including a family hike at Johannesburg's Walter Sisulu National Botanical Garden, the Absa Run Your City 10K and the 947 Ride Joburg cycling event.



Mental and psychosocial

Our employee assistance programme is administered by ICAS and is tailored to provide professional, confidential support to address a variety of issues. These include stress, relationship concerns, traumatic events, depression and anxiety, adapting to change and addictive behaviours. The programme can be accessed using a dedicated toll-free number and is open to employees and their dependents 24/7, year-round. It also provides financial and legal advice as well as managerial support on conflict mediation and voluntary referrals for subordinates. Services are offered in all 11 official languages.

During the year under review, 13.1% employees utilised the service, seeking support largely to address mental health concerns, relationship issues and managerial support. Uptake has been disappointingly low and will need to be addressed in 2023. This will be done by increasing the workforce's awareness of the service and its offerings and, even more importantly, breaking down the stigma around mental illness.



A world-class health facility

Mental health first-aid

In 2022, we trained a second wave of site-based mental health first-aiders who provide the first line of support for colleagues in distress. While these employees are by no means qualified to provide professional assistance, they are effective in guiding employees to the right support channels. Mental health first-aiders are trained to recognise a person in distress, how to approach them to offer help, to listen non-judgmentally and offer reassurance and information.

Financial

Our Bokamoso financial wellness initiative was introduced to reduce employee indebtedness. Debt is a common problem, in society in general, and particularly in the mining sector. Run by Summit Financial Partners, each of our mines has a financial advisor who is permanently based on site to help employees adopt healthy financial habits. In addition, these advisers help reduce debt instalments by negotiating with creditors on an employee's behalf and challenging excessive or illegal garnishee orders and unscrupulous lending practices. In addition, they help with blacklisting, credit report flagging, and securing improved credit scores.

Our Highveld Hospital situated in eMalahleni offers a range of health services and caters for employees and their direct dependents. Apart from managing the annual medical certificate of fitness for employees and contractors, it assists in the management of chronic illnesses and preventative health. While improvements have been made in general employee wellness, chronic lifestyle illnesses remain a concern.

HIV/AIDS

We have aligned our workplace HIV/AIDS strategy with UNAIDS' 95-95-95 by 2030 targets for testing and treatment. This means that 95% of all employees should know their HIV status, that 95% of those who test positive for HIV are on antiretroviral treatment (ART) and that of these, 95% will have an undetectable viral load by 2030.

During the year under review, 95% of our total workforce underwent voluntary counselling and testing, with several mines having already met or exceeded the new testing target. Of those employees who are HIV-positive, 94% are on treatment while at least 74% of these individuals have undetectable viral loads. We are unable to report this exact figure owing to the privacy considerations of employees who choose to seek treatment outside our health service.

New conversions from HIV-negative to HIV-positive remain a concern. The number of people that tested positive, both first-time testers and conversion, decreased from 52 in 2020 to 28 in 2021 but rose again to 33 in 2022. We continue to revisit awareness and education, encourage spousal testing, and involve communities in health promotion strategies.

95%

Employees who know their HIV status

2021: 94%

93%

HIV +ve employees on ART

2021: 93%

4

New cases of occupational disease

2021: 1

Tuberculosis

The Thungela health service has achieved remarkable success in combating TB, a highly infectious disease where, historically, elevated infection rates were seen in the mining industry. While TB incidence in South Africa remains troubling, numbers in our own workforce are under control and have shown a consistent decline over several years.

That said, five new cases were diagnosed in 2022, possibly due to delayed access to health services and misdiagnoses during the first half of the COVID-19 pandemic. This is a trend that has been seen in South Africa and around the world.

Our progress can be attributed to early detection through active case finding and the fact that employees regularly confirm their health status through the annual medical certificate of fitness. While this continuing downward trend is encouraging, TB will remain a significant concern, particularly as employees continue to test positive for HIV. People with HIV are more likely than others to become sick with TB. Added to this, drug to drug interactions and side-effects can make adherence to vital treatment for both illnesses a major challenge. A compounding, mining-related issue, is exposure to dust in underground sections.

TB cannot be beaten alone and requires collaboration with multiple partners. Long-standing allies in our fight against the illness include the Department of Health, multiple NGOs and organisations such as

The Employment Bureau of Africa, which aid in the tracing and treatment of employees infected with the disease.

Although TB has been contained within our own workforce, community transmission remains a concern. As such, we are long-standing participants in a task team of industry players that actively work to provide TB support for the public health sector.

Thungela's incidence rate for TB stands at just 120 per 100,000 employees, compared with 430 per 100,000 a decade ago. The national figure stands at a significantly higher 615 per 100,000 and Mpumalanga at 402 per 100,000.

In 2020, we handed over a R15 million extension of Witbank's Specialised TB Hospital. The project involved the construction of a state-of-the-art medical unit comprising multiple isolation wards, a modern radiology wing, pharmacy and ART clinic. These facilities enable the hospital to provide better quality care for patients not just from eMalahleni but across the province. During a visit to the hospital in 2021, chairman of the Thungela board Sango Ntsaluba handed over a cheque for R1.5 million that was spent on the purchase of an advanced X-ray machine. The medical unit has come to be regarded as a centre of excellence and has been selected as a trial site for a new TB drug recently approved by the United States Food and Drug Administration.



Looking ahead

In 2023, we will undertake a review of our approach to TB to arrest the rise in cases we saw over the past year. Smoking, a particular risk for underground workers, will be addressed through the further roll out of smoking cessation programmes, while a trigger action response plan will be developed to initiate the appropriate response should an employee be diagnosed with an occupational illness. Furthermore, we aim to accelerate our efforts to eliminate the stigma around mental illness and create greater awareness of the support channels that are available to employees.

New cases of occupational disease



Noise-induced hearing loss

2

2021:	1
2020:	6
2019:	3



Chronic obstructive airways disease

1

2021:	0
2020:	0
2019:	1



Occupational tuberculosis

1

2021:	0
2020:	0
2019:	2



Occupational asthma

0

2021:	0
2020:	0
2019:	0



Coal workers' pneumoconiosis

0

2021:	0
2020:	0
2019:	1

Total cases of occupational disease

Total

4

2021:	1
2020:	6
2019:	7

OUR PEOPLE

We depend on a diverse team of high-performing individuals who have the right skills, expertise and mindset to achieve the highest levels of productivity – safely, and without harm to the environment or the communities that host our mining sites.

This demands a deep commitment to our six guiding values: Safety, Care and Respect, Accountability, Excellence, Agility and Entrepreneurship, from each person who works for us. Our values are the foundation stones of what we call 'The Thungela Way'.

During the period under review, we entrenched these values and their corresponding behaviours in our 'Live our Values' campaign, a 12-week activation that sought to encourage and inspire employees at all levels to incorporate them into their everyday work lives.

Over a three-month period, colleagues from each site recognised, nominated, and celebrated teammates whose work reflected their commitment to a particular value, with an overall champion from each site going into a Thungela-wide winners' pool.

Nominations that went into the final round were adjudicated by members of the executive committee and a multidisciplinary team of leaders, and culminated in our inaugural Excellence Awards. These awards aim to recognise employees for their contribution to our business by providing tangible examples of our values and culture in action.

In 2022, we undertook an assessment of our culture, comparing it with those of various other global mining companies. Employees and fixed-term contractors took part in a baseline survey so that we could gain an understanding of their experience at work. Their responses will form the basis of site-based action plans designed to further enhance and develop various aspects of our culture in 2023.



Top Employer

Thungela was recertified by the Top Employers Institute, a global organisation that promotes excellence in people practices. As a member of this certification programme, we are able to benchmark ourselves against the world's best companies and accelerate the impact of our people strategies on the business.

To gain certification, companies are rated on excellence in employee conditions, the nurturing of talent at all levels and enriching the employee

experience. The accreditation process also considers aspects like working environment and employee wellbeing, engagement, rewards, recognition, and diversity and inclusion.

We scored particularly highly in the segments for values and ethics, approach to sustainability and what we do to create a diverse, inclusive, and rewarding world of work. This endorsement confirms our commitment to our people and places us among a prestigious group of local and global companies that have achieved excellence in the field of human resources.

Our values – the foundation stones of what we call
'The Thungela Way'

As a member of the **Top Employers programme**, we benchmark ourselves against the world's best companies.



Employee value proposition

Our Top Employer status is integral to our ambition to be an employer of choice and our reputation as a responsible mining company that cares for its people. We want our employees to see their jobs as more than a source of income and benefits. They should be an enriching opportunity to learn, grow and connect with broader society in a meaningful way.

Apart from our focus on industry-leading remuneration, rewards and recognition, employees benefit from ongoing career discussions, individually tailored development plans and stretch assignments. These are accompanied by a series of world-class learning and development programmes and an organisational culture built on high performance, strong values, and ethical leadership.

Our employees enjoy competitive remuneration, company contributions to pension and medical aid, annual performance bonuses, housing allowances and other benefits such as paid maternity leave and annual leave, which go beyond the requirements of the South African Basic Conditions of Employment Act.

WE ENRICH

We offer an enriching world of work in which employees are encouraged to fulfil their potential. Individual development plans, exciting career paths and opportunities to stretch and develop themselves are the tools we give them to do this.

WE ENERGISE

We are bold, ambitious and driven by an owner-mindset. This means having an engaged workforce with a high-performance culture.

WE EMBRACE

Being a good employer means creating a sense of belonging where people can bring their whole selves to work. We believe in embracing the differences that make our people, and our business, unique.

Our culture

WE EMPOWER

We empower our employees with the trust and autonomy they need to achieve results. Where possible, we have flexible, productive working arrangements. We also support a healthy work-life balance.

WE ENGAGE

We support agile decision-making and honest, open communication. Our leaders strive always to be engaged and open to ideas, including dissenting views. This is how we grow together.

WE CARE

Core to our culture is the Thungela value of Care and Respect. Apart from caring for our people's safety and overall wellbeing, we care for our environment and host communities.

Attracting and retaining talent

As a coal mining company with aspirations for a robust, long-term future, we must attract and retain the best available talent to sustain our business for decades to come. This depends not just on safe, efficient production, but on reinforcing our reputation as a responsible miner that actively pursues and upholds the highest standards in ESG.

To accomplish these goals, we require a competent, committed and highly skilled workforce made up of people who are passionate about what they do, feel valued, and can grow with our business as they reach their personal and professional potential.

Our talent management and succession planning process is structured to ensure that we proactively secure the right people and the right skills at the right time to take our business forward, while simultaneously meeting our social contracts with government and host communities.

We take a bottom-up approach to talent identification, from operational to executive talent reviews. Leadership teams deliberate on talent, growth potential and securing the right people for business-critical roles, while discussions around career succession planning, career moves and development are incorporated into the executive committee's annual agenda. Succession plans have been developed for all critical roles at executive leadership level and are aligned with our inclusion and diversity objectives.

Our proactive approach to the development of a pipeline that matches our business objectives incorporates:

- Bursary and graduate development programmes for key disciplines, including mining, engineering, metallurgy, geology, safety, and ventilation and occupational hygiene
- Leadership development programmes for talent pools, including young talent, women and high-potential and executive pipeline employees
- Career development panels and manager-once-removed sessions to optimise employee engagement, career development and the retention of critical skills
- Annual talent reviews and succession planning
- Leveraging our employee value proposition to attract and retain key talent
- Strengthening our brand as an employer of choice
- Project and stretch assignments
- The implementation of performance management processes intended to drive a culture of continuous feedback and high performance.



Young talent

Bursaries

We currently have 37 bursary students pursuing qualifications at universities across the country. Bursaries and scholarships are awarded to high-achieving school leavers who receive full financial cover for tuition, academic resources, accommodation, and other basic expenses. Importantly, students are provided with regular encouragement and support from our programme administrators who keep in regular contact with them throughout the duration of their studies. Our bursars are currently studying towards qualifications in environmental sciences, geology, surveying and chemical, electrical, industrial, mechanical, rock, metallurgical and mining engineering. Students benefit from exposure to their future workplaces during annual two-month stints of vacation work.

Preparing graduates for the world of work

University graduates who join us on completion of their degrees immediately enter our professional-in-training (PIT) programme which gives them the confidence, skills and exposure they need to fulfil critical roles in our organisation. Our annual PIT presentations are a highlight of our talent calendar. PITs are each given a real-world business challenge they must address with the help of knowledgeable and experienced mentors. They then present these projects to members of the company's executive committee, general managers, heads of department, technical specialists and mentors. In 2022, we employed 54 PITs across 11 disciplines. Fifteen were appointed to substantive positions having completed the programme over the previous 12 months.

Digital HR

In 2022, we introduced two digital solutions to optimise learning and talent management. The first of these is a tailor-made learner experience platform (LXP) that provides a wide range of courses employees can select to further their individual and professional development. The online platform can be accessed using any smart device and features a library of programmes on subject matter ranging from communication, leadership and business management to presentation and computer skills. The system makes use of artificial intelligence to 'grow' with the user by analysing their learning patterns and providing suggestions for additional study options. On the LXP, supervisors have an at-a-glance view of their employees' learning journey and requests for training. Several courses are accredited by the Sector Education and Training Authority. The platform also plays a key role in our training administration process as accurate records are maintained to support business and statutory reporting.

Our second digital solution is a custom-built digital talent management platform that gives managers, human resources professionals and individual employees visibility of their individual career profiles and development plans. The tool enables employees, together with their managers, to set and record well-defined short and longer-term goals and to track their progress against these objectives.

Performance management

Thungela's new performance management system recognises and rewards excellence at both team and individual levels and is based on a cycle of continuous feedback and development. Our executive committee's scorecards and strategic objectives are filtered down to all teams and individuals, and are aligned with our shared purpose to develop a working culture characterised by high performance and accountability. Apart from supporting and encouraging the development of our employees' careers, the new framework serves to entrench our values and their corresponding behaviours.

Learning and development

A culture of excellence can only be achieved if people have the right competencies to excel, not just in the day-to-day aspects of their roles, but in the face of new and evolving demands in a dynamic business environment.

Our training priorities are:

- Ensuring that all our leaders, including those who facilitate safe production, are adequately equipped to achieve our strategic objectives,
- Learnerships, with special emphasis on people with disabilities, and
- Providing skills programmes that are recognised across the industry.

At the same time, we make every effort to upskill local communities and meet or exceed the training requirements set in our Social and Labour Plans (SLP).

Our expenditure on learning and development in 2022 amounted to R141.5 million, significantly more than the R77 million and R117 million we spent in 2020 and 2021, respectively. The time spent on training was significantly higher in 2022 due to a large increase in the number of internships, learnerships and experiential learners from 187 in 2021 to 443 in 2022. The average spend per employee dropped due to the increased number of employees trained combined with an increase in training in areas such as first-aid, skills and safety programmes. Financial resources invested in learning and development accounted for 4.2% of our wage bill.

**R141.5
million**

Spent on learning and development

R21,006

Average spent on training per employee



Employees trained

6,744

2021: 3,340

2020: 5,134

2019: 4,603



Investment in training (Rm)

141.5

2021: 117.4

2020: 76.7

2019: 116.5



Average spent on training per employee (Rm)

21,006

2021: 32,065

2020: 14,940

2019: 25,309



Total training hours

1,478,562

2021: 425,000

2020: 572,280

2019: 389,552

Thungela Leadership Academy

One of the year's highlights was the launch of the Thungela Leadership Academy which introduced five top-quality programmes intended to enhance the skills and capabilities of current and future leaders.

Presented in partnership with the University of Pretoria's Gordon Institute for Business Science (GIBS), the academy combines virtual and classroom learning with personalised coaching for various levels of employees.

97 employees participated
in the following programmes in 2022:



Ascend

For the development of young leaders who have the personal, interpersonal, and professional skills required to adapt, perform, and learn in an environment characterised by volatility, complexity and ambiguity.



Explore

To build agile professional and middle managers with the ability to think out of the box and have the commercial acumen and leadership skills to excel in an ever-changing business environment.



Exceed

This programme concentrates on the core competencies that enable high-potential senior managers to lead as change catalysts. The programme develops strategic thinking, leadership and the agile skills needed to move our business into the future world of work.



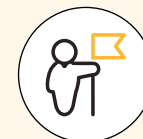
GM Accelerate

For current and future general managers to help them drive performance and operational excellence, make complex decisions, and meet and exceed targets.



Women in Leadership

For female executives and managers seeking to progress in their leadership roles and expand their impact. Delegates learn to overcome gender challenges with long-term solutions and strategies while mastering strategic communication and learning effective and authentic leadership skills.



Frontline leadership

At the end of the year, we launched our new supervisory leadership programme which aims to address frontline leadership capability gaps through baseline and day-in-the-life-of assessments. It includes training core leadership skills, teamwork, communication, and safety leadership while ensuring that already embedded practices such as sustainable risk reduction are entrenched. As ambassadors for change, these leaders will be trained in their role in reinforcing Thungela's new identity and further establishing 'The Thungela Way'.



Learnerships and internships

In 2022, 61 young people were selected to participate in our engineering learnership programme. Of these, 77% were recruited from local communities and the balance from our existing workforce. Some 98% of the group is made up of black South Africans and 39% are women. They join the 94 learner electricians, fitters, diesel mechanics, boilermakers and instrument technicians we recruited in 2021. Twenty-two learners and experiential trainees were absorbed into the workforce in 2022. We also provided 37 internships and 44 experiential training opportunities in support of the commitments our mines made in their SLPs.

Employee study scheme

Our people are encouraged to advance their qualifications through our part-time study assistance programme. In 2022, 79 individuals worked towards their postgraduate master's and honours degrees and completed a range of technical, support, digital and technology-related programmes. Of these candidates, 95% were black South Africans and 53% were women.

Breakdown on learning and development

Programme	Expenditure (Rm)		No of participants *		HDPs (%)		Women (%)	
	2022	2021	2022	2021	2022	2022	2022	2021
Bursaries	22.1	16.6	174	148	95	91	53	49
Internships, learnerships and PITs	77.2	59.0	443	255	95	96	46	48
Work-integrated learning (accredited learning)	15.3	22.2	2,328	1,331	92	91	24	21
Informal training (external providers)	17.3	15.0	1,819	1,433	89	87	25	17
Informal training (internal trainers)	9.6	4.6	3,122	496	91	86	23	6

* The number of participants is greater than the total number of employees trained as some employees attend more than one programme.

CASE STUDY

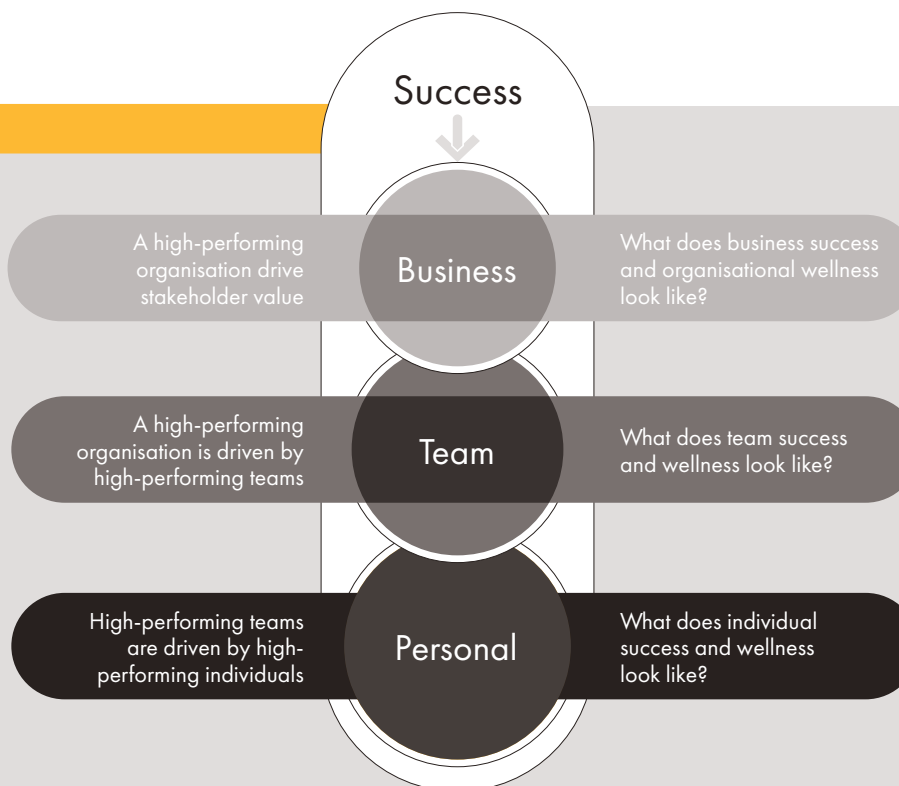
Optimising team performance

High-performing individuals are the foundation on which team and ultimately, business success is based. Our team effectiveness programme identified the need to assess the business' leadership capability, determine team cohesion and effectiveness, measure the culture at each site and, finally, track the progress that has been made once interventions are in place.

The leadership team at Isibonelo Colliery provided specific insights into its leadership profile and management style as well as a better understanding of thought and behavioural habits.

Following one-on-one interviews and a 360° assessment with peers and senior managers, members agreed on commitments, actions, routines, and timelines required to achieve their objectives for 2023.

The programme prioritises the development and upskilling of a high-performance organisation. Isibonelo, Khwezela, Greenside, Zibulo, Mafube collieries and the corporate affairs department formed part of the programme rollout in 2022. There will be further interventions across other sites and teams in 2023.





Communities

Our operations offer a range of mining and non-mining skills training programmes to unlock employment opportunities for young local people who do not have the financial means to further their education. These offer qualifications in, among many others, the operation of capital equipment, computer literacy, hospitality, and plumbing.

Community scholarship scheme

Our community scholarship scheme has had a profound impact on young people's ability to break the cycle of poverty by enabling them to get a university education. Unlike our traditional bursary scheme, beneficiaries are not required to study in fields related to mining. Nor do they have a service obligation to the company on completion of their studies. Scholarships are only awarded to learners born and bred in the communities that host our mining sites and must go to individuals from severely constrained financial backgrounds.

The programme currently comprises 26 students whose individual scholarships include full tuition costs and living expenses, including accommodation and meals. Students also receive guidance and support for the duration of their studies. Established in 2014, the programme has gone on to produce a new generation of accountants, actuarial scientists, engineers and health professionals, among many others. A total of 134 scholarships have been awarded since the projects inception.

CASE STUDY

Learnerships for people with disabilities

During the year, we launched the second instalment of our 12-month learnership programme for people with disabilities. The initiative provides National Qualifications Framework level 3 and 4 certificates in qualifications related to information technology, business administration, and project management and is open to individuals who live with long-term impairments that limit their prospects of employment. Learners, who all reside in host communities, divide their time between our eMalahleni-based training centre and third-party host companies that give them on-the-job work experience based specifically on what they have learned in the classroom. Participants also receive assistance in the writing of their curriculum vitae and interview skills. The project has benefited 98 people under the age of 35 since its inception in 2021.

98

Learnerships for people with disabilities since 2021

CASE STUDY

Portable skills training at Isibonelo Colliery

Isibonelo Colliery has prioritised portable skills training to give young people in its host communities a chance at sustainable employment.

The SLP project will upskill 180 people and in 2022 saw more than 100 trainees be enrolled with a local community training provider. Courses are unit standard-based modules and are accredited by the relevant Sector Education and Training Authorities.

During the year, 39 youngsters completed their training in basic carpentry, 27 in farming and 41 in basic welding.

Minerals Education Trust Fund

As a long-standing contributor and the holder of a seat on the Minerals Education Trust Fund board, we play an active role in helping universities attract and retain appropriately qualified academic staff who have the knowledge, skills and expertise required to shape the next generation of mining professionals.

Annual contributions upwards of R3 million supplement the salaries of 222 academic staff members engaged in the teaching of a variety of disciplines, including mining and chemical engineering, geology, extractive metallurgy, mine ventilation and rock engineering at nine universities across the country. Additional capital grants cover the cost of vital teaching aids that enable universities to keep pace with industry trends.



Looking ahead

In 2023, we will continue to work on embedding the Thungela Way, identifying both culture enablers and derailleurs and implementing action plans to facilitate our desired culture. We will also concentrate on the implementation of our inclusion and diversity strategy, ensuring that we meet and exceed our transformation targets. Our goal remains transformation beyond compliance. Another focus area will be the development of Thungela's organisational model to support our strategic objectives.

Our workforce

Our workforce is made up of 4,592 permanent employees (2021: 4,446) and 1,984 contractors (2021: 2,000) who work primarily at our Mpumalanga-based mines and centralised service departments and Thungela's corporate centre in Johannesburg. During the year, voluntary labour turnover rose from 3.2% to 5% while new hires constituted 7% of the workforce.

Workforce distribution

Permanent employee	2022	2021	2020	2019
Zibulo	949	896	925	865
Khwezela	557	545	980	955
Greenside	875	792	775	769
Goedehoop	783	797	799	1,169
Isibonelo	422	424	356	352
Mafube	427	410	378	368
Rietvlei	30	16	21	19
Head office and centralised services	549	566	642	610
Total own employees	4,592	4,446	4,876	5,107
Mining contractors	1,760	1,825	2,269	2,251
Capital projects contractors	223	175	101	930
Total contracting staff*	1,983	2,000	2,370	3,181
Total workforce	6,575	6,446	7,246	8,288

* Numbers based on a fixed-term equivalent basis.



Creating a diverse and inclusive world of work

Our transformation strategy incorporates the attraction, recruitment, retention and development of a diverse group of individuals whose unique and divergent backgrounds add value to our business. We strive to ensure that all employees, regardless of gender, sexual orientation, age, race, ethnicity, religion, national origin and physical or mental ability, are welcomed, culturally and socially accepted, and treated equally.

A zero-tolerance approach

Our goal is to provide a physically and psychologically-safe working environment. It is for this reason that we have a zero-tolerance stance on discrimination and any form of bullying, harassment and victimisation (BHV). The details of our BHV policy are shared during annual induction sessions and on our company intranet.

During the year, we emphasised South Africa's newly-gazetted code of good practice on the prevention and elimination of harassment in the workplace. This code defines the various forms harassment can take for employers, employees and applicants, and applies to managers, supervisors, volunteers, temporary employees, suppliers, contractors, customers and personnel who may either be perpetrators or victims.

Anyone experiencing this kind of abuse is actively encouraged to report incidents to their human resources department or via our independent and anonymous reporting mechanism, HAIBO!. Zero cases of discrimination were reported in 2022.

People with disabilities and LGBTQA+ community

We want every employee to be able to bring their whole and authentic self to work without fear of judgement or discrimination. Awareness of the rights of persons with disabilities and members of the LGBTQA+ (lesbian, gay, bisexual, transgender, queer and questioning, asexual) was created in the run-up to the International Day of Persons with Disabilities and during Pride Month.

Gender-based violence

We continue to play our part in the fight against gender-based violence (GBV) by creating ongoing awareness and support for victims of violence and/or intimate partner abuse. Regular activations at our sites serve to denounce violence against women and children while communicating the internal and external support channels available to colleagues in need of support. As an example of one of these activations, employees and contractors were given keyrings displaying the contact details of the national GBV helpline and NGOs involved in the protection and empowerment of victims of GBV and domestic abuse.

CASE STUDY

Men stand up against GBV

Greenside Colliery production geologist Adam Ndobe and control room operator Vusi Thobela are activists against GBV and each addressed the National Men's Parliament in the run-up to 2022's 16 Days of Activism campaign.

The annual gathering brings together men from different sectors of South African society who are actively engaged in the fight against GBV and femicide.

Adam and Vusi have for years been activists for men's health and the rights of women and children and established the Greenside Men's Kgoro – the Pedi word for 'meeting place' – in 2013.

These gatherings, which have since been introduced at other mines, allow male employees and contractors an opportunity to be educated and participate in discussions on topics ranging from mental health and financial stress to GBV and men's wellness issues.

Adam is deputy chair of the Mpumalanga AIDS Council's Men's Sector and chairs the Department of Mineral Resources and Energy's GBV and femicide steering committee in Mpumalanga. Speaking in the National Council of Provinces in Cape Town, he addressed the need to challenge mistaken beliefs on what it means to be a man, for men to be vulnerable and to 'stand up', and 'man up', to social ills.

Vusi discussed the role of economic independence in the fight against GBV.

"When a woman is financially independent, she is less likely to stay in a toxic relationship and when a man is financially stable, he does not feel threatened by his partner and her financial status," he said.

Adam and Vusi's establishment of the Men's Kgoro at Greenside in 2013 stemmed from their belief that if men were able to talk about their problems and adequately handle the stresses of being the 'traditional providers and protectors', there would not be the levels of femicide and familicide there are today.



Employment equity

As a South African company, we are committed to achieving the transformation objectives of Section 28 of the MPRDA. During the year, progress in transforming our business continued with the ongoing implementation of appropriate affirmative action measures and human resource development programmes that support our transformation journey.

These are driven by our holistic B-BBEE transformation strategy which includes:

- appropriate internal targets for diversity at senior levels to facilitate continuous improvement. Our goal is to go beyond compliance

- succession planning for senior and middle management positions and critical roles
- career development plans and discussions to keep talent engaged
- exit interviews to highlight areas of concern
- a centralised employment equity and skills development forum to monitor performance against regulatory targets, assess skills training needs and improve workplace culture and conditions.

In many instances, we have exceeded the MPRDA's Section 28 targets for historically disadvantaged persons and have seen a year-on-year improvement in most levels.

28%

Proportion of women in our workforce

23%

Women in core and critical roles

29%

Women in management



Technical services manager at Greenside Colliery, Nozipho Dlamini, became the first female president of the South African Colliery Managers' Association in 2022. The professional body, which has been in existence for more than 40 years, provides thought leadership across the local coal mining sector and has a membership comprising more than 400 colliery managers and executives. Nozipho and Pity Pheko, a section manager at our Khwezela mine, were both featured in the *Mail & Guardian* 200 Young South Africans supplement which showcases trailblazers aged between 18 and 35 across various industry sectors.

Historically disadvantaged persons in management (%)	2022	MPRDA TARGET	2021	2020	2019
Top management (executive committee)	38	50	38	33	22
Senior management	62	60	59	58	58
Middle management	72	60	70	66	64
Junior management	82	70	80	76	72
Core and critical skills	88	60	87	86	84

Women in mining

We are extremely proud of the strides we have made in increasing the number of women at all levels and in all disciplines across our organisation. This progress is driven by the continued attraction and development of female employees, with one such initiative being our Women in Leadership programme in 2022. Every Women's Month, we showcase the achievements of women who are thriving in roles that were previously dominated by men. Female employees now account for 28% of our workforce (2021: 27%).

Women in management (%)	2022	MPRDA TARGET	2021	2020	2019
Top management	25	20	25	22	11
Senior management	30	25	26	22	19
Middle management	32	25	32	29	30
Junior management	27	25	25	23	23
Overall women as % workforce	28		27	25	23



Regional social performance manager Bontle Mfolo was named one of the Minerals Council South Africa's Women in Mining Social Performance Heroes in 2022. Bontle has a passion for uplifting disadvantaged people and is an advocate for sustainable mining that delivers tangible improvements for people living in host communities.



Annette Small was named one of the Minerals Council South Africa's Women in Mining Modernisation Heroes for her rollout of our strategies on collision management and operator support technologies. The first woman to be inaugurated president of the South African Colliery Engineers Association in 2020, she regularly speaks on best practice traffic management and its technologies at technical symposiums for the industry.

Labour rights

We subscribe to the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work. These include employees' right to a safe and healthy working environment, equal pay for equal work, freedom of association and collective bargaining; and zero tolerance for discrimination and child and forced labour.

One of the ways we highlight labour rights is by making sure that our employees, managers and key suppliers are familiar with the Voluntary Principles on Human Rights, our code of conduct and the Thungela Business Integrity Policy. During the year, code of conduct and business integrity training was provided for employees at all levels. Those employees without digital access participated in face-to-face training during induction sessions and received printed material setting out the right channels to follow to report illegal or unethical behaviour.

93%

Employees trained on company code of conduct

Employee relations

Labour unions are vital social partners and have an instrumental role to play in our business's success. Our long-standing relationship with the National Union of Mineworkers (NUM) remained stable in 2022, while relations with the National Union of Metalworkers South Africa (NUMSA) (Mafube Colliery only) continued to develop.

Seventy-two percent of our employees, excluding those based at Mafube Colliery, are represented exclusively by the NUM while the balance choose not to be affiliated with a recognised union. At Mafube, where 78% of employees are unionised, 53% belong to the NUM and 25% to NUMSA.

A highlight for Thungela in 2022 was the conclusion of a three-year wage agreement with the NUM. The agreement, which will run until May 2025, will see salary and salary-related allowances rise by approximately 6% annually over three years. Mafube Colliery signed a two-year agreement that will lapse in July 2023.

No incidents of strike action or labour disruption were recorded during the year. Neither were there any retrenchments or operational changes with the potential to affect employees' standing within our business. Should such a situation arise, our policy is to commence with prompt, transparent engagement conducted in line with labour legislation.



Sisonke Employee Empowerment Scheme

In 2022, we demonstrated our commitment to the creation of shared value through our employee partnership plan, the Sisonke Employee Empowerment Scheme. Sisonke means 'we are together' in Zulu and was chosen in an employee naming competition.

Two major payments were made to the scheme following the declaration of our interim and full year results for 2021. These investments amounted to a combined R387 million.

Eligible employees received their first allocation in December 2022, after a decision was made to amend the award date originally set for 2025. This amendment to the trust deed was approved by the Master of the High Court. Employees participated in financial wellness training before receiving the award.

The additional contribution announced in March 2023 of R198 million will be paid to eligible employee beneficiaries within three months from the payment date of the dividends in line with the trust deed.



Housing and living conditions

We are pleased to report that 98% of our employees now enjoy the benefits of living in their own accommodation. Apart from providing an industry-leading housing allowance, we have made a concerted effort to support employees by selling company-owned houses.

These come with a 20% discount on each property's market value. To date, 300 houses have been sold, while several more are being transferred into their new owners' names. Forty-one houses were sold in 2021 and a further 57 in 2022.

98%

Employees receive a housing allowance and live in their own sustainable accommodation



COMMUNITIES

Right from inception, we expressed our intention to 'spike' in the social element of ESG so that our host communities reap real and demonstrable benefits from our presence in their areas.

Outperforming in the 'S' of ESG

To achieve this, we must ensure that our activities do not negatively impact on communities' rights, build and maintain transparent relationships with our stakeholders, and deliver impactful socio-economic development programmes that make a lasting difference in their lives.

In 2022, we produced the first edition of our Social Policy Toolkit, a step-by-step guide that sets out a simple, structured, and systematic approach for the implementation of the Thungela Social Policy.

This policy promotes, among others, best practice management for stakeholder relationships, the protection of employee and community rights, the proactive management of social risks and impacts, and the implementation of socio-economic development initiatives that produce benefits that extend beyond our mines' operational lives.

Designed to facilitate continuous improvement, the toolkit covers each aspect of the social policy, including social risks and impact management, socio-economic development, stakeholder engagement, human rights, emergency preparedness, grievance mechanisms, grave relocations, and culture and heritage.

Used by multidisciplinary teams from various departments at sites, the toolkit enables our mines to better anticipate and manage their social risks and impacts, achieve regulatory compliance, and respond to evolving societal expectations and needs.

Our most material community challenges are:

- managing the high demand for local employment, particularly entry-level positions
- creating opportunities for local suppliers
- municipal service delivery constraints
- illegal mining and the knock-on effects it may have on neighbouring communities
- mine closure
- land and labour tenant issues.

What it will take for us to outperform in the 'S' of ESG



Leadership oversight and commitment



Engagement and consultation



Integrating key processes, functions and outcomes



Learning and sharing lessons



Aligning plans and actions with business outcomes



Planning and allocating resources



Innovation and continuous improvement



Proactive change management and stakeholder engagement

An integrated approach to dealing with social impacts and opportunities

Our commitment to spike in the social element of ESG has propelled social performance to the top of our business agenda.

Social performance management committees at each mine facilitate the integration of social performance across a diverse range of functional areas. Chaired by the general manager, these meet monthly and include the participation of mining, finance, supply chain, safety, environmental and social performance personnel. Designed for collective cross-functional accountability, these structures ensure that:

- social aspects of the business are adequately attended to, resourced, and monitored
- social performance activities are monitored and measured against long-term objectives and key performance indicators
- people at the right level and in the right functions deal with social risks and impacts
- there is inter-departmental collaboration in dealing with community matters
- mines and their host communities are prepared for the transition between each phase of an asset's lifecycle.



Understanding our stakeholders

Stakeholder buy-in and support are crucial if we are to achieve our purpose – *to responsibly create value together for a shared future*. Apart from being a requirement of the MPRDA, effective engagement results in strong, constructive, and responsive relationships with communities and other stakeholders.

Large-scale unemployment, poverty, and political and social instability, together with municipal service delivery and infrastructure challenges, have placed unprecedented demands on us to materially address social issues. This requires a more proactive and deeper level of engagement than ever before.

Our stakeholder engagement process involves the analysis and mapping of stakeholder groups, transparent and inclusive consultation and participation, incident and grievance mechanisms, and ongoing reporting to interested and affected parties.

A heat map provides our mines with a visual representation of who our stakeholders are and the level of interest and influence they have on the business. It considers material issues and opportunities, the frequency and types of engagement employed, and the status of our relationship with each stakeholder group.

Each of our sites has a community engagement forum made up of community representatives and, in some instances, ward councillors who discuss socio-economic matters related to local employment and procurement opportunities, skills development and

environmental impacts. These meet either bimonthly or quarterly, depending on the site.







Future Forums, which meet annually or twice a year, deal with life of mine issues and are made up of representatives from labour and management, local municipalities and sector departments like the Department of Mineral Resources and Energy (DMRE) and the Department of Employment and Labour. We also participate in our three host municipalities’ quarterly integrated development planning and local economic development forums to ensure that the projects we deliver are a genuine reflection of community needs and priorities. These platforms also give us an opportunity to present our development programmes and initiate partnership opportunities with local authorities, fellow mining houses and other stakeholders.







Stakeholders and their material issues

Status of relationship		Stakeholder group	Categories	Engagement channels	Interests	Status update
2021	2022					
●	●	Communities	<ul style="list-style-type: none"> • Host communities • Local farmers and farm dwellers • Youth-based organisations, schools, business structures • Faith-based organisations • Resettled communities • Next of kin (grave relocations) • Beneficiaries of socio-economic development projects 	<ul style="list-style-type: none"> • Community engagement forums • Online platforms 	<ul style="list-style-type: none"> • Procurement and employment opportunities • Socio-economic development • Skills development • SLP projects • Management of grievances • Nkulo Community Partnership Trust • Positive, negative, direct or indirect impacts arising from our operations • Potential impacts of brown and greenfield projects • Land claims • Mine closure 	Our relationship with communities remained the same based on perception survey ratings and incidents of protest action. We saw 23 protests occur against our seven sites, including Elders and operations that are on care and maintenance.
●	●	Traditional authorities	<ul style="list-style-type: none"> • Manala Mgibe Traditional Authority in Phola, eMalahleni • Borholo Traditional Council, eMalahleni • SoGutjhe Traditional Council, Phola 	<ul style="list-style-type: none"> • Forum for traditional authorities • Meetings 	<ul style="list-style-type: none"> • Formal recognition of traditional authorities as key stakeholders • Employment • Procurement opportunities • Corporate social investment (CSI) initiatives and SLP projects • Access to land, particularly for initiation rites 	Our relationship with traditional authorities has improved significantly following the establishment of engagement platforms for this stakeholder group.

● Challenged relationship ● Moderate relationship ● Good relationship

Status of relationship		Stakeholder group	Categories	Engagement channels	Interests	Status update
2021	2022					
		Local and district government	<ul style="list-style-type: none"> eMalahleni Local Municipality Steve Tshwete Local Municipality Govan Mbeki Local Municipality Victor Khanye Local Municipality Nkangala District Municipality Gert Sibande District Municipality 	<ul style="list-style-type: none"> Integrated development planning forums Local economic development forums Future Forums 	<ul style="list-style-type: none"> Public-private socio-economic development programmes, SLP projects and municipal capacity-building Socio-economic impact of operations on host communities and municipalities Engagement on grievances raised through municipal channels Nkulo Community Partnership Trust Compliance with annual air quality management reports Compliance with municipal bylaws on fire prevention and hazardous substances, waste, noise, blasting and wastewater management Public participation in key projects Land access Spatial planning 	Relationships with our municipalities remain supportive and collaborative. We continue to co-create and deliver local economic development projects that benefit communities.
		Regulators	<ul style="list-style-type: none"> DMRE Department of Employment and Labour Department of Water and Sanitation (DWS) Department of Agriculture, Land Reform and Rural Development Department of Education Department of Health Department of Public Works and Infrastructure Department of Social Services Department of Employment and Labour Department of Forestry, Fisheries and the Environment 	<ul style="list-style-type: none"> Engagement forums Site inspections and visits 	<ul style="list-style-type: none"> Compliance with safety and health, environmental and labour legislation B-BBEE Kromdraai level 4 environmental incident Permitting Partnership in development projects 	The level 4 environmental incident we incurred at Kromdraai put strain on our relationship with national government, particularly the DMRE and DWS. Continuous engagement and close collaboration with these and other partners on the remediation of the river system, have since resulted in significantly improved relationships. Our relationship with other regulators remained stable.
		Civil society	<ul style="list-style-type: none"> Activists Non-governmental organisations Community-based organisations Legal bodies Public benefit organisations Farming associations Mpumalanga Parks Board 	<ul style="list-style-type: none"> Meetings Forums Requests for information through the Promotion of Access to Information Act 	<ul style="list-style-type: none"> Environmental rights and protection Climate change, the just energy transition and the role of coal Land rights and resettlement Partnerships in development projects Resolving grievances related to mining impacts Kromdraai level 4 environmental incident Adequacy of closure provisions 	Mineral extraction, particularly of coal, often results in resistance from civil society. This was exacerbated by the level 4 environmental incident at Kromdraai. We will continue to engage with these stakeholders to improve the status of these relationships.

 Challenged relationship  Moderate relationship  Good relationship

Status of relationship		Stakeholder group	Categories	Engagement channels	Interests	Status update
2021	2022					
		Neighbouring mines and business partners	<ul style="list-style-type: none"> Mines and related industries 	<ul style="list-style-type: none"> Meetings Community engagement forums Local authority and regulatory meetings 	<ul style="list-style-type: none"> Collaboration on development projects and stakeholder engagements Market and industry development opportunities Supplier relationship management Security of supply and logistics Business continuity 	Relationships remain solid and collaborative.
		Supplier partners	<ul style="list-style-type: none"> Suppliers and service providers 	<ul style="list-style-type: none"> Roadshows Individual supplier engagements Electronic channels Advertising through existing market channels Enterprise and supplier development programmes Collaboration with original equipment manufacturers on their provision of technical support for SMMEs Social performance meetings with business forums 	<ul style="list-style-type: none"> Supply chain optimisation Creating a circular supply chain and ensuring responsible sourcing Compliance with long-term sustainability contracts on matters such as local expenditure, employment and investment in local communities Inclusive procurement opportunities Supplier and enterprise development initiatives Development of existing smaller suppliers and other enterprises 	Relationships remain solid and collaborative.

 Challenged relationship
  Moderate relationship
  Good relationship

CASE STUDY

Building sustainable community relationships

A restructuring process for stakeholder engagements took place in 2022 which resulted in Khwezela and Greenside collieries combining their community engagement forums as both sites share similar stakeholders. This has improved our relationship with community stakeholders and has also fostered a wide spread of opportunities to the greater community of eMalahleni.

Like many parts of South Africa, eMalahleni is characterised by serious social, economic and infrastructure challenges, which places pressure on local mining houses to help satisfy continued demands for employment, business opportunities and infrastructure. At Khwezela, these demands played out in regular incidents of protest action.

To remedy this situation, Khwezela and Greenside established an engagement framework made up of several forums that cater for a variety of stakeholder groups.

These include:

Synergy Community Engagement Forum

local business forum

contractor forum

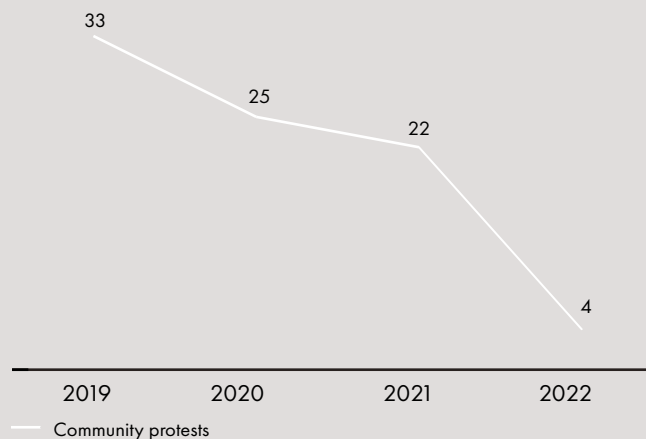
traditional authorities.

Starting out with a team-building session to build cohesion, regular meetings were successful in identifying, managing, and resolving concerns. On the one hand, Khwezela could deal effectively with real or perceived issues, while on the other, stakeholders felt recognised, heard and engaged.

By working together, communities achieved tangible results. For example, engagements through the stakeholder forum resulted in the mine and contracting partners employing over 200 local community members during the framework's first year. The contractor forum led to the creation of approximately 50 business opportunities for host community SMMEs.

A significant decline in protests illustrates the framework's success in building trust and creating resilient and sustainable relationships. Since Khwezela and Greenside collieries share the same stakeholders, all community engagement forum meetings are held jointly.

Consistent reduction in community protests



Social incident and grievance mechanism

We have a target of zero level 4 and 5 incidents with social consequences. To achieve this, we must be proactive, detect and anticipate issues, be swift in handling incidents, and continually reinforce positive relationships with communities and other stakeholders.

It is imperative that we have a robust grievance and incident mechanism in place and the appropriate measures to prevent harm. Our social incident and grievance process and digital incident management system address this requirement and are designed to streamline our receipt, analysis, and response to any concerns stakeholders raise.

Members of the public and other interested and affected parties are actively encouraged to lodge their grievances telephonically, via email or by recording them in a register kept at the entrance to each site.

Acknowledgment of receipt must be issued to the complainant within 24 hours, before the grievance is logged on the platform and allocated to the relevant department for investigation. Feedback on the outcome, together with proposed resolutions, is presented to the complainant within a stipulated time frame.

The complainant may choose either to lodge an appeal or agree that the matter is resolved, in which case it is closed out. In instances where a grievance cannot be adequately resolved, independent mediators are called upon to find a resolution that is acceptable to all parties.

In 2022, we received a total of 50 grievances, including incidents of protest action and unrest outside our mines. Other complaints were around air quality and blasting, and demands for employment and supply chain opportunities. Of these grievances, 96% were addressed and resolved, while 4% are still under investigation or mediation.

Of the total, 19 grievances were classified as level 3 social incidents (2021: 8). Many of these were incurred as a result of protest action at Mafube related to the resettlement activities, as well as at Elders and Khwezela.

 One level 5 incident, the uncontrolled release of mine-impacted water from our closing Kromdraai site, is discussed on **pages 31 to 33**.

 Please refer to the reporting criteria on **page 122** for a description of social incident levels.

Human rights

By its very nature, the extractive sector has the potential to infringe on human rights which is why these are deeply engrained into our company values, code of conduct, policies and procedures. Among our most pressing human rights considerations are the right to a safe working environment and fair labour practices for permanent and contract employees, and communities' right to a clean, safe and healthy natural environment. We guard against potential human rights infringement associated with security, supply chain, and economic and social disruption.

During the year, we undertook a due diligence process to identify our actual and potential salient human rights risks and impacts. This exercise involved extensive engagement with various central and site-based teams. Information gathered

during these engagements was analysed and will form the basis of improved management measures.

Detailed human rights training was provided for members of the executive committee, senior management, and employees in middle management from multidisciplinary teams.

We also increased communication and awareness among the general workforce of what human rights are and why they must be respected. This included the compilation of educational clips to be included in the induction sessions for all employees in 2023. In 2022, 83% of permanent and contract security personnel received detailed training on the Voluntary Principles on Security and Human Rights. We aim to ensure all our employees and contract employees undergo the training.



Responsible resettlement

Community resettlements must be handled sensitively and be accompanied by active engagement at every stage of the process. Should relocation need to be considered, we apply the International Finance Corporation's performance standard on land acquisition and involuntary resettlement and the DMRE's Resettlement Guidelines. In line with this standard, resettlement can only be considered when there is no other realistic alternative.

Responsible resettlement means that families must be considerably better off than they were before. Therefore, mines must provide fair and appropriate compensation, deliver material improvements in community members' standard of living, and put in place robust three-year livelihood restoration programmes post-resettlement. In addition, we establish post-resettlement working groups with affected families to monitor the socio-economic impacts.

Mafube Colliery resettled 88 out of 100 households located at various points along the operation's blasting radius between 2021 and 2022.

Their resettlement – either to the Sikhululiwe village or to a new, secure estate, Sam Rose Valley, gives them security of tenure and access to running water, sanitation and electricity. Families have been compensated based on the needs identified through a socio-economic baseline study. While new homes in Sikhululiwe and Sam Rose Valley may be of similar size and feature comparable amenities, the former is an area characterised by farmland while the latter is on a secure estate just four kilometres outside the town of Middelburg. In both instances, families now reside in close proximity to medical facilities, schools, shops, churches and other amenities. In some instances, properties include additional outside structures that serve as culturally significant ancestral huts for deceased matriarchs.



Sam Rose Valley



Sikhululiwe Village

Grave relocations and chance find procedure

As part of the same resettlement process, more than 270 graves will be relocated to the Sikhululiwe and other cemeteries. Undertaken with consideration of cultural traditions and ancestral beliefs, the process began late in 2021 with a grave assessment and will continue throughout 2023. Grave relocation processes are preceded by significant consultation with the next of kin, communities and local authorities to develop a grave relocation framework that complies with the applicable legislation. The relocations may only be undertaken with authorisation from the South African Heritage Resources Agency, the Department of Health and the relevant local municipality. A wake fee and in-kind compensation is agreed with the next of kin and all cultural requirements observed.

We also have a 'chance find' procedure to cater for the unintentional disturbance of burial grounds, graves and structures of cultural importance in a mining or construction area on Thungela property.

CONTRIBUTION TO SOCIETY

We contribute to communities both directly and indirectly. This is done through the taxes and royalties we pay, the jobs we create, the skills development programmes we provide, the local business opportunities we generate, and the education and community health initiatives we support.

Our contribution includes:

- our well-established socio-economic development work, through which we partner with government, communities and institutions that address the needs of host communities
- the economic value through inclusive procurement policies and supporting local suppliers
- our economic value added to the country through royalties and taxes.

The Nkulo Community Partnership Trust

In keeping with our commitment to create shared value, we contributed R448 million into the Nkulo Community Partnership Trust relating to 2022 performance. The trust was founded as an additional vehicle for the delivery of socio-economic development programmes that benefit local communities. It holds a direct equity stake of 5% in South African Coal Operations and will be administered by a board of trustees.

Work has commenced updating the trust deed to ensure the value that is created by Thungela flows through to the beneficiaries identified and that good governance processes are in place. A socio-economic needs assessment to guide the selection of projects was completed, and several projects are currently under review by the trustees for implementation. Work is also under way to develop criteria for the recruitment of both community and independent trustees.

R448 million
2022 Contribution
Nkulo Community Partnership Trust

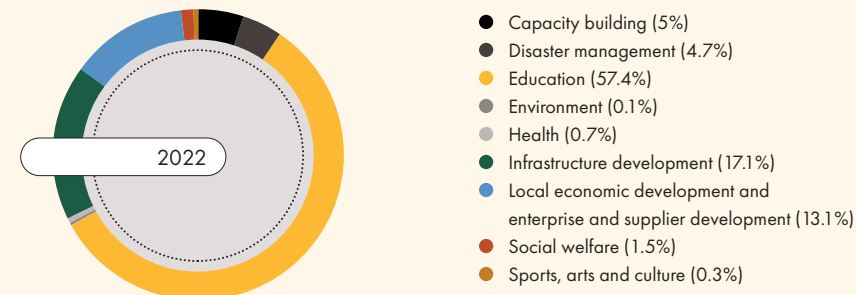
Socio-economic development

Every year, we share the value we create with host communities through our delivery of SLP projects and CSI initiatives that are identified through our engagements with communities, local governments, the DMRE and other sector departments.

In 2022, our expenditure on SLP initiatives decreased from R20.4 million in 2021 to R13.2 million during the period under review. SLP projects are scheduled and planned to be implemented during the five-year cycle of each SLP. In 2022, we achieved the milestone of successfully completing and handing over to the local authorities the seven projects planned for 2022. The target for 2023 is to complete and handover four infrastructure projects.

Investment in CSI was R13.6 million, down from the previous year's R15.1 million. Our spend on strategic programmes focused on high impact interventions in education of R62 million is up from R47 million in 2021, municipal capacity development of R5.4 million compared to R4.5 million in 2021 and enterprise and supplier development (ESD) of R13.2 million compared to R31.7 million in 2021. The lower spend on ESD in 2022 relates to the programme only being launched in June of 2021.

% Spend per focus area



Mine community development expenditure

Rand million	2022	2021
SLP	13.2	20.4
CSI	13.6	15.1
Strategic programmes	81.1	83.2
Education programme (including Star Schools)	62.0	47.0
Municipal capacity development programme	5.4	4.5
Enterprise and supplier development	13.7	31.7
Total	107.9	118.7



Impact in the right areas

We want every project we deliver to make a deep and meaningful difference, and believe that any social investment we make should be measured by its impact rather than financial value alone.

During the year, we commissioned a detailed impact assessment to gauge the progress we have made in meeting our social objectives, to establish the impact of past socio-economic development initiatives, and to provide recommendations for the implementation of future programmes.

The study sought, in particular, to evaluate the depth of the impact our projects, grants, and investments have made on education, health, SMME and skills development, decent living and, sanitation and waste management.

Using quantitative data and feedback provided in interviews with beneficiaries, projects were ranked as having 'no impact', 'clear impact', 'high impact' or 'deep impact'.

The review found that our holistic approach to uplifting education has made a 'deep impact' at participating schools. School readiness for young learners has increased substantially, there has been a considerable improvement in educational infrastructure, and an overall rise in matric pass rates.

Skills development programmes, including computer classes, mine portable skills training initiatives, machine operator training, and municipal capacity-building ranked as 'high impact' projects, while our investment in **health** was deemed to have had a 'deep impact'.

The study assessed the impact of two health projects: Mafube's construction of the Sikhululiwe Clinic, and Greenside and Khwezela's development of a new, modern wing at the Witbank Specialised Tuberculosis Hospital. Both have made much-needed health services more accessible to communities. In addition, the donation of three obstetric ambulances to the Department of Health by Khwezela, Mafube and Greenside has had a 'high impact' by reducing maternal and infant mortality rates.

Two key **sanitation and waste management** initiatives, the donation of two waste trucks to the eMalahleni Local Municipality and the construction of a 4.7km million sewer line in the Govan Mbeki Local Municipality, were said to have had a 'high and deep impact', respectively.

SMME development initiatives ranked highly with 505 young people completing various skills development programmes against a target of 270. Supplier development programmes resulted in the creation of 66 additional jobs, while enterprise development programmes reached 252 entrepreneurs against a target of 190. One area for improvement is the creation of opportunities for these enterprises at our mines, and this is something that our supply chain is currently working on.

Finally, two projects that were assessed under the category for decent living were both seen to have had a 'deep impact'. The first involves the construction of a cemetery in the rural Sikhululiwe village, while the second aims to reduce hunger and poverty through hydroponic farming in Phola, eMalahleni.

The results form the basis of a new Thungela-wide socio-economic development strategy that focuses on:

- education
- community services
- enterprise and supplier development
- projects that reduce communities' reliance on the industry.

We want every project we deliver to make a deep and meaningful difference.



Infrastructure with purpose



Solar high-mast light project

Greenside erected 20 m high-mast solar lights at various locations across Mgewane, a settlement situated in a remote part of eMalahleni. The residential area is made up of about 450 households where most people are unemployed. The community has limited access to water and only a handful of houses are supplied with electricity. An added challenge is that criminality is rife, particularly at night. As part of its contribution to enhancing the wellbeing of local people, the mine installed this solar lighting at a cost of R450,000. Local suppliers and service providers were used.



Sikhululiwe Cemetery

Cemeteries are of significant cultural importance in African culture. They are also tangible and symbolic reminders of individual, family and community histories. Mafube Coal delivered a major SLP project with its development of a R14 million cemetery in Sikhululiwe, a rural village located 40km outside Middelburg. Situated a long and costly commute away from the nearest cemetery, villagers – who are largely old age pensioners or unemployed – had to go to considerable expense to bury or visit a departed loved one. This project enables residents to honour their ancestors in their own community while easing the financial burden on families who must cover the cost of transporting mourners to funerals. A total of R3.9 million was spent with local contractors during the construction phase, while 24 local people gained temporary employment. Past SLP projects Mafube has completed in the village include a state-of-the-art clinic and multipurpose centre that houses various social services.



Waste transfer station and community hall

Khwezela completed the construction of two waste transfer stations, one in eMalahleni's suburb of Reyno Ridge and the other in Schoongezicht. The SLP initiative was delivered at a cost of R5 million and will address some of the eMalahleni Local Municipality's long-standing waste management challenges. These transfer stations address the health and environmental hazards posed by illegal dumping of waste. They also offer community members a convenient drop-off point for household and garden refuse, and provide a centralised location from which informal waste collectors can gather and sort items for recycling. The mine also completed the construction of a community hall in the suburb of Clewer.



Education programme

In 2022, we invested R62 million in education (2021: R47 million), on 24 quantile 1-4 schools and 26 early childhood development (ECD) centres and Star Schools. We saw a 7.8% increase in matriculant pass rates from 80% pass rate in 2021 to 86.2% in 2022. This improvement in performance is above the district, provincial and national average pass rate of 80.1%.

As we transition from the current education programme, we are developing a customised Thungela Education Initiative based on the needs identified in a baseline assessment of 45 schools in the Nkangala and Gert Sibande districts. We are engaging with the district and provincial Department of Education to further develop the programme.

CASE STUDY

Star Schools to expand its life-changing impact

The remarkably successful Star Schools project first adopted by Isibonelo in 2015, was rolled out to learners from four schools in Greenside and Khwezela Collieries' areas of operation in 2022.

The initiative first began when Isibonelo partnered with supplementary school service provider, Star Schools, to improve local pass rates in four key subjects. Today, the programme goes beyond securing passes as the goal is to help learners achieve results that will earn them bursaries and, ultimately, rewarding careers.

Starting in Grade 10, participating learners from various schools take part in Star Schools' intensive three-year study programme. This involves full-day Saturday classes and sessions on most days during the school holidays. Classes are given by expert teachers and come with high-quality academic resources.

The majority of learners come from severely-constrained financial backgrounds which means that most of their parents cannot afford the costs that come with going to university, even with 'free education'.

Top learner in the class of 2022, Philasande Magadulela, earned eight distinctions and studied between six and eight hours every day to achieve these results.

"Our situation at home drove me to study hard so that one day I can provide for my parents and siblings," he said.

A learner in foster care overcame incredible personal odds to earn distinctions in seven subjects. She started her studies in medicine in early 2023.

A 100% matric pass rate has been achieved in six out of the seven years Isibonelo has supported the programme. 2022's class of 64 matriculants achieved a 100% pass rate in English, physical sciences and life sciences and 98% in mathematics. They also earned 50 distinctions.

Greenside and Khwezela's inaugural learners delivered some pleasing results, despite matriculants only joining the programme well into the school year. We look forward to reporting on their progress in our next ESG report.



Nurturing skills for the future

Children from five eMalahleni-based primary schools participated in a robotics challenge that sought to inspire enthusiasm for science, technology, engineering, and mathematics which open doors to the careers of the future.

Creating an inclusive and sustainable supply chain

One of the most significant ways we can support economic development is by enabling black economic empowerment (BEE) and host community suppliers to play a meaningful role in our supply chain.

By doing so we, foster employment creation and skills development, build manufacturing capacity, and expand the pool of local enterprises that can support our mines with the goods and services needed for the efficient running of our sites.

Supporting BEE-compliant businesses – particularly 51% black women-owned entities – is of significant strategic importance to us as we not only improve our broad-based BEE standing but generate further value for host communities. It is also one of the ways in which we support the UN’s SDG 9: to build resilient infrastructure, promote sustainable industrialisation, and foster innovation.

Performance

Our spend with black-owned businesses situated in our host communities has risen by 156% over the past five years as a direct result of initiatives that focus on localising our supplier base without compromising on quality. Expenditure with community suppliers, for which we have our own internal targets, remained constant at R2.3 billion despite the impact of TFR’s poor performance on operational expenditure. The proportion of spend with local suppliers, however, increased to 28% (2021: 24%).

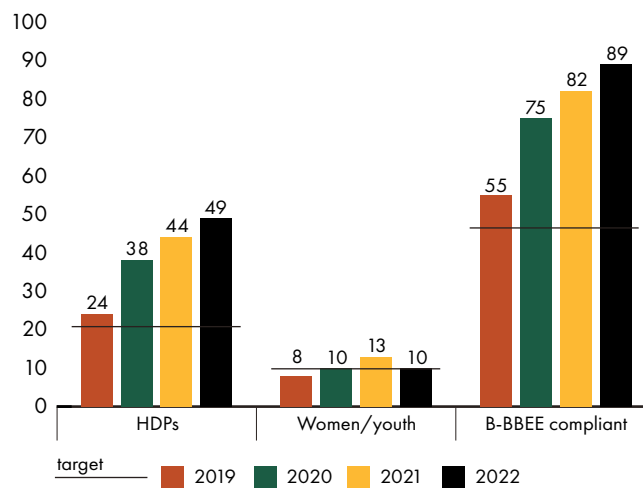
Opportunities are earmarked for enterprises that operate within our local municipalities, with requests for information and engagement with municipal, business and community engagement forums helping to identify prospective local suppliers. These forums, together with electronic platforms like the company website and SAP Ariba, share the details of upcoming opportunities and transparent information on how suppliers can go about doing business with us. Preferential payment terms are extended to qualifying SMMEs to assist in the effective management of cash flow and the servicing of contracts.

Direct spend with host community suppliers over five years

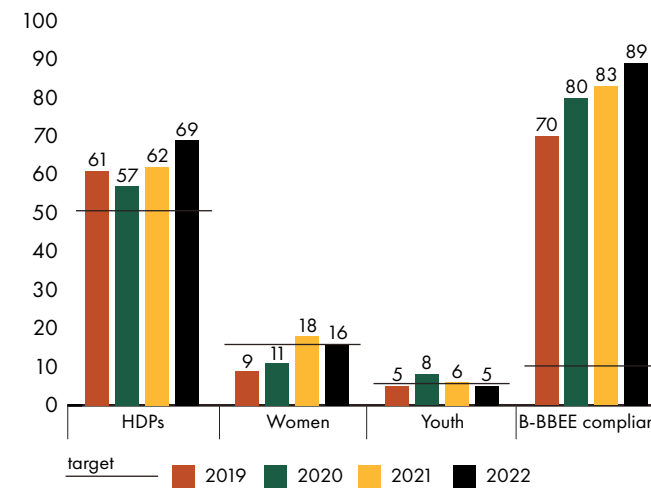
	2022	2021	2020	2019	2018
Expenditure with local suppliers (Rand billion)	2.3	2.3	1.5	1.2	0.9
Percentage of discretionary operational spend	28%	24%	19%	13%	11%

Inclusive procurement targets and progress against these (%)

Mining goods procurement performance (%)



Mining services procurement performance (%)



R2.3 billion spent with host community suppliers

Thuthukani – the Zulu word for uplift

thuthukani

by thungela

Enterprise and supplier development programme

Although we have come a long way in increasing our expenditure with host community suppliers, a significant amount of work still needs to be done to ensure their long-term success.

This will partly be addressed by the new supplier and enterprise development programme we launched in 2022. Named Thuthukani, the programme provides qualifying participants with business skills training, mentorship, technical enablement and in, certain instances, financial support. In 2022, we invested R13.6 million in beneficiaries of the programme.

Administered by business development specialist Raizcorp, it is open to small business, current and potential suppliers from host communities engaged in equipment services, contract mining, general mining supplies and services, facilities management, electrical control and instrumentation, and coal materials handling and processing.

Qualifying enterprises, including strategic mining suppliers, general mine suppliers and broad-spectrum community entrepreneurs, must have a minimum black ownership of 51% and be situated in one of our three host municipalities.

Beneficiaries receive development support, either via a virtual platform or Raizcorp's eMalahleni-based office. This all begins with a gap analysis to identify opportunities for improvement so that these can be addressed in programmes tailored to meet their specific needs.

Enterprise development

The programme's enterprise development segment sees entrepreneurs participate in virtual courses and receive one-on-one sessions with facilitators to support their understanding of each module's contents. Twenty-six beneficiaries participated in the initiative in 2022. We also offer grant funding for qualifying enterprise development beneficiaries who use these funds to grow their businesses. This often occurs through the acquisition of equipment that enables them to improve or expand their service offering and venture into new markets.

Enterprise development beneficiaries

26

Supplier development beneficiaries

12

Supplier development

Participation in Thuthukani's supplier development component may last between 12 and 36 months and sees business owners develop the competencies they need to run profitable, sustainable ventures can enter our supply chain when opportunities become available. It involves day-to-day mentorship which includes target-setting, helping entrepreneurs to achieve these, and addressing the shortcomings identified during this process. They are also given access to Sage accounting software and trained to process transactions and draw financial statements. Twelve beneficiaries joined the programme in 2022.

In partnership with fund administrator Absa, Thuthukani offers access to loan finance at preferential interest rates to qualifying suppliers in need of finance to fulfill their obligations to Thungela to our business.



Maximising our impact through our supply chain

During the year, we conducted strategic engagements with major business partners and original equipment manufacturers to maximise their employment of local people, stimulate the procurement of goods and services from host community suppliers and sub-contractors, and garner their support of social and economic upliftment projects in our shared areas of operation.

Substantial and socially-material contracts with large suppliers are each accompanied by a three-year inclusive procurement plan with established key performance indicators and targets to be achieved over the contract period. These relate to their employment of unskilled, semi-skilled and skilled workers from host communities and their contribution towards skills development and targeted CSI based on a percentage of the contract value.

In several instances, as much as 90% of a large contractor's annual wage bill should go to local communities, 1% to skills development and 0.5% to CSI.

Where a contract cannot be awarded directly to a host community supplier, it is recommended that 30% of the contract value be sub-contracted to a local entity that will benefit from skills training and transfer in core mining services. In addition, non-core goods and services like personal protective equipment, office supplies and plant hire should be bought from local SMMEs while joint venture partnerships between well-established players and businesses requiring development are encouraged. Performance against these plans is tracked on a quarterly basis.

**By working with our major suppliers,
we are able to expand our impact
on local communities.**

CASE STUDY

Positive partnerships

A growing number of major suppliers are broadening the positive impact our mutual operations have on local communities. These are some of the key contributions they made in 2022.

Komatsu Mining Corporation and Columbus Steel contributed R800,000 and R790,000, respectively, to the purchase of a R2 million laser cutter for the Mpumalanga Stainless Initiative. This incubator project develops skills, shares infrastructure and provides technical support services for small businesses and unemployed artisans who manufacture steel products.

Hitachi accepted 10 eMalahleni-based youths into its three-year mechanical learnership programme, giving them a skillset that will virtually guarantee them employment on completion of their trade tests. The learnership includes classroom and on-the-job training at Hitachi sites. Hitachi's investment in this initiative amounts to R4.5 million and includes a stipend for each learner. Of the group, eight learners are young women.

Barloworld Equipment donated R400,000 towards the purchase of mobile classrooms for Kwazamokuhle Secondary School in Hendrina and has recruited several youths to participate in CAT equipment's 'Technicians for the World' programme'.

UAV & Drone Solutions, which provides aerial surveillance services at our sites, donated 150 desks, 250 chairs, and large quantities of printer paper to various schools. It has also granted bursaries for five students in our areas of operation, while nine local youths will qualify as licensed drone pilots. The company's social investment to date exceeds R1.2 million.

Andru Mining, which provides us with contract mining and discard handling services, spent R17 million on the procurement of a large variety of goods and services with host community suppliers and provides monthly updates of its expenditure with these businesses.

Inayo Mining, itself a relatively new local player in the contract mining services sector, spent R800,000 with community-based enterprises while making several contributions to neighbouring schools.

Yale Lifting Services, a well-established supplier of lifting and materials handling equipment, signed a subcontracting agreement with host community SMME Brimis Engineering, to enhance the latter's service offering.

GK Steel is in the process of signing a subcontracting service level agreement with a community supplier called Tempo Engineering to develop and enhance its steel fabrication services at our sites.



Looking ahead

In 2023, we will continue work on the development of a framework to address the social aspects of mine closure. We will also be closing the gaps identified by each site during their implementation of the Thungela Social Policy Toolkit. Another priority is the creation of an externally-focused emergency response plan to reduce communities' vulnerability to catastrophic incidents such as the one experienced by our closing Kromdraai site in early 2022. Three of our sites will embark on identifying new SLP initiatives to be submitted to the DMRE for the next SLP cycle.

Responsible sourcing

Our Responsible Sourcing Standard, available on our company website, sets out the minimum sustainability requirements expected from our suppliers. These include the International Labour Organisation's decent work principles and compliance with all applicable legislation.

The following five responsible sourcing pillars are important conditions for doing business with us:

- Suppliers must protect the safety and health of the people who work for them
- Demonstrate commitment to protecting the environment
- Respect all labour and human rights throughout their value chains
- Contribute to our objectives to create thriving communities
- Conduct business fairly, lawfully and with the utmost integrity

The contractor management component of the Thungela Social Policy Toolkit describes the ways in which our operations must mitigate any potential negative impacts contractors may have on our business and surrounding communities. These may relate to human rights, commercial, and reputational impacts caused during the execution of their contracts.

Our contractor management requirements apply for environmentally or socially-material contracts and include an integrated risk management process that assesses the risks, impacts and opportunities associated with a contractor. These contractors are engaged on our social policy and undergo a human rights due diligence process.

Our comprehensive supplier onboarding procedure ensures that businesses are vetted before being formally accepted as suppliers. This includes the verification of company documentation for validity and integrity and the adoption of the Thungela Business Integrity Policy and Thungela Code of Conduct. Our sourcing standard requires that inclusive procurement and social and sustainability metrics are included in all supplier contracts. All parties, including suppliers, may make use of the HAIBO! anonymous tip-off line to report any unlawful or unethical behaviour they may encounter.

Value added to the economy

Sharing value is core to our purpose

Significant employment creation, our large-scale procurement of the goods and services we require to sustain our operations, and our payment of royalties and taxes to the government all make a positive contribution to society.

In 2022, we continued to create and share value for the benefit of our shareholders, employees, business partners, local communities, and the country at large.

Value distributed

Rand billion	2022
Sisonke Employee Empowerment Scheme	0.5
Nkulo Community Partnership Trust	0.5
Host community procurement	2.3
Total procurement	8.2
Contribution to local communities	0.1
Royalties and mining taxes	9.8
Wages and related payments	4.8
Capital investment	1.9

Payments to government

During the year, we paid R10,598 million in taxes, including corporate income tax, Mineral and Petroleum Resources Royalty Tax, payroll tax, skills development levies and the unemployment insurance fund, dividends withholding taxes and carbon tax. This is substantially higher than the R1,954 million in 2021 due to the higher benchmark coal prices in 2022.

Our dedicated Group tax unit is responsible for ensuring that we pay the correct amount of tax within the correct timeframe and that our fiscal commitments are met in accordance with our company values, code of conduct and the spirit and letter of the law. They must also provide tax policies with detailed guidance for the business and present relevant tax matters to the board and its audit committee as the body responsible for compliance with our tax policy. Tax treatment is aligned with commercial reality and we favourably consider participation with cooperative compliance arrangements when these opportunities arise. Our relationships with the tax authorities are centred on transparency.

Rand million	2022	2021	2020
Corporate income tax	6,567	197	72
Mineral and Petroleum Resources Royalty tax	2,048	394	65
Payroll tax	1,152	1,300	1,763
Skills development levies and unemployment insurance fund	39	59	46
Carbon tax	4	4	3
Dividend withholding taxes (UK shareholders)	788		
Total taxes	10,598	1,954	1,949

Tax transparency and governance

Our reputation as a responsible mining company hinges on transparency across every aspect of our business, including those related to taxation. By upholding the highest tax governance standards and practices, we effectively mitigate risk, develop sound relationships with the relevant tax authorities, and demonstrate the positive contribution mining makes to development. The overall management of our tax risks is guided by our tax policy and risk appetite philosophy that shareholder value must be achieved without compromising our integrity, values and reputation through regulatory non-compliance. The policy applies a coordinated approach to tax risk management and is founded on efficient tax management, recognising our commitment to our stakeholders and good tax practice.

Efficient tax management	Stakeholder engagement and commitments	Good tax practice
<ul style="list-style-type: none"> • Planning tax matters in a responsible manner • Only undertaking transactions and tax positions we would be prepared to fully disclose to revenue authorities • Only undertaking transactions and tax positions that have commercial relevance to the business • Ensuring all tax positions are fully compliant with relevant legal, regulatory and professional requirements 	<p>Shareholders</p> <ul style="list-style-type: none"> • Planning and organising tax affairs to achieve the most beneficial post-tax position for the business and its shareholders within the confines of tax legislation <p>South African Revenue Service and government</p> <ul style="list-style-type: none"> • Building and maintaining a trusted, open and long-term relationship with revenue authorities <p>Communities and society</p> <ul style="list-style-type: none"> • Continuous focus on how we can put our resources to work in addressing the needs of host communities in line with our ESG ambitions • Recognising that taxes help develop the economy and build a sustainable, inclusive future for communities and society <p>Environment and future sustainability</p> <ul style="list-style-type: none"> • Considering ESG programmes as strategic priorities and full compliance with 'green tax' regulations such as the carbon tax • We make a meaningful contribution to ongoing tax and transparency debates and proactively engage with industry bodies, business forums and civil society on tax issues 	<ul style="list-style-type: none"> • Ensuring taxation is consistent with the structure and location of our activities, their human and material resources and the business and financial risks assumed by each • Integrating or aligning our tax policy, risk management and control systems with commercial, financial, human resources and other policies • Conducting transactions with related entities based on normal market value, following the arm's length principle and compliance with transfer pricing documentation obligations established by tax legislation • Never providing any services that may be understood as tax advice and result in tax evasion by clients, service providers or employees • Identifying and controlling tax risks associated with the acquisition of assets, entities and businesses by conducting due diligence studies, structural studies or similar tax analysis • Development of a procedure manual for tax management and control, and for the supervision of internal information and tax control systems that is binding on all employees and third parties where relevant

Tax factors affecting the mining industry

Mining is a long-term business which means that financial, political, and economic factors impact investment decisions and long-term operational strategies.

Jurisdictions with the following tax characteristics assist in the development of strong longer-term relationships with taxpayers.

Tax policy and administration

- Tax regimes which are stable and with predictable rules, and are introduced prospectively, with stakeholder consultation.
- Tax legislation that follows internationally agreed principles and therefore fosters certainty.
- Tax administration procedures which give reliability over acceptable reimbursements and timing of any due refunds.

Basis of taxation

- Tax should be levied on a fair and equitable basis, enabling risk and reward to be shared between the investor and government, supporting long-term investment and job and wealth creation.
- Tax should generally be levied on profits so that appropriate tax revenues can be raised at the appropriate time.
- Detailed tax rules should take into account the specific characteristics of the mining industry, including relief for exploration, infrastructure and capital expenditure.
- Any mining-specific taxation should typically be in the form of a mining royalty or mining tax based on profits rather than revenues.



GOVERNANCE

GOVERNANCE FOR SUSTAINABILITY

The Thungela approach to corporate governance is essential to value creation, and is integrated in our strategies, policies, standards, practices and procedures. High standards of corporate governance support the achievement of business sustainability, and enhance accountability, transparency and effective compliance.

The Group:

- commits to proactively identifying and assessing risks and opportunities for the business and to developing and implementing strategies to address these.
- promotes diversity and inclusion on its board not only at board level, but throughout the organisation.
- has implemented strategies to promote equality and develop a workforce that is diverse in terms of race, age and gender.
- has zero tolerance for corruption and has executed policies, procedures and associated training to ensure that this is achieved.
- has effected policies and initiatives to, among other things, protect whistle-blowers, encourage tax transparency and discourage anti-competitive practices.

We can only effectively manage our risks and build the trust of our many stakeholders by embracing sound corporate governance principles, demonstrating ethical behaviour, meeting the commitments we make, and transparently reporting on the successes or failures of our management approach. A more detailed account of corporate governance in our business, including reports from our board and its committees, can be found in the Governance section of our integrated annual report, starting on page 94.

Our approach

Good governance promotes good business outcomes, an ethical culture, effective management, and legitimacy. Therefore, King IV and ethical leadership are embraced to give effect to our strategy and ensure that we are accountable for our performance.

Our board of directors is responsible for determining the strategies, performance and culture expectations that apply not just to Thungela, but also to its subsidiary companies, associates, trusts and joint ventures. Core to this are critical ESG considerations.

Our board is guided, limited and directed by the various regulations, processes, customs, policies, and laws that govern our organisation. These ensure our compliance with statutory requirements and set the foundation for a strong, ethical culture.

Sustainability governance

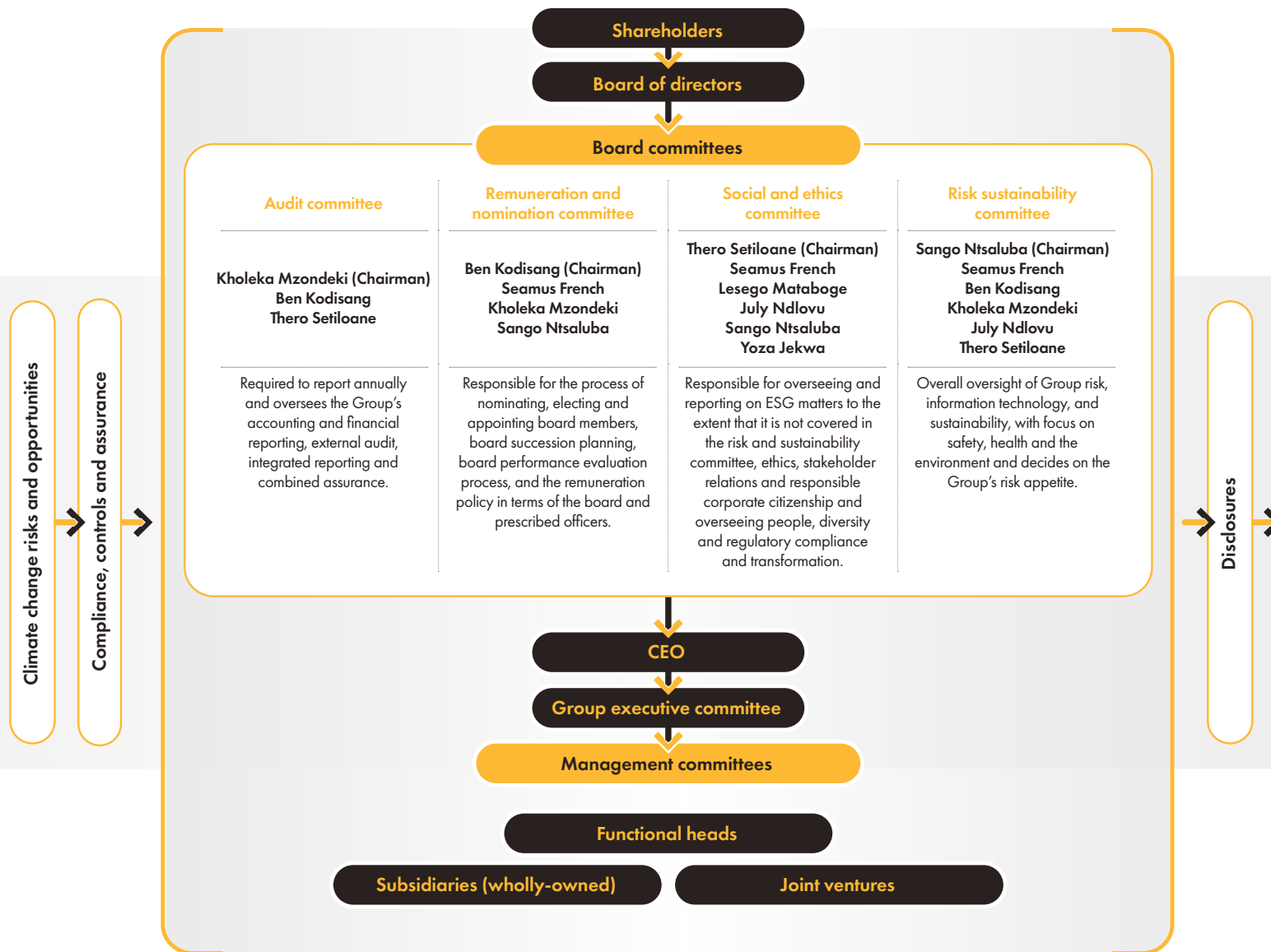
The board bears ultimate responsibility for our ESG strategy, initiatives, progress, and reporting. It must also assess our exposure to material environmental and social threats, and evaluate our management of these through the application of effective risk management and internal controls.

Sound sustainability governance is achieved by a board that not only focuses on the present, but also explores and interrogates new ideas that will lead an organisation into a sustainable future. Given the coal industry's global and national context, an industry-leading approach to ESG issues is not just advisable, but essential.

Our approach to the governance of ESG includes:

- A clear and concise understanding of our ESG goals and objectives
- Appropriate focus on organisational structures, processes, risks and opportunities
- Procedures for assessing and managing sustainability-related risks and opportunities
- Measures for tracking and reporting on sustainability performance
- Training and raising awareness for the board and our workforce on sustainability issues
 - The use of standards and best practice to guide our sustainability efforts.





The board

The board is chaired by Sango Ntsaluba, an independent, non-executive director, who is responsible for providing leadership to the board, overseeing its efficient operation, and ensuring that effective corporate governance practices are applied.

As chief executive officer (CEO), July Ndlovu is supported by the executive committee and is responsible for leading the implementation and execution of the business's strategy, operational planning, and ensuring that day-to-day affairs are appropriately supervised and controlled. Chief financial officer Deon Smith manages the company's financial conduct.

Kholeka Mzondeki, Benjamin Kodisang, Thero Setiloane, Seamus French and Yoza Jekwa are independent non-executive directors. Please refer to page 28 of the *Thungela Integrated Annual Report* for details on each board member's skills and background.

Directors have no direct business dealings with the company, and regular declarations of business interest are submitted to the remuneration and nomination committee to substantiate their independence. The nomination committee, through the company secretary, is responsible for ensuring that directors receive ongoing development and training as well as information on developments in the coal industry. Those requiring additional information on Thungela-specific matters meet with internal subject matter experts one-on-one. External service providers also develop specific, targeted training on request.

The executive committee

The executive committee, headed by the CEO, is responsible for business processes and the implementation and oversight of our ESG strategy. It provides direction, leadership and oversight of the performance of individual operations. In addition, it is responsible for managing climate-related risks and opportunities, delivering on our strategic objectives, and providing progress reports on the control of risks, implementation of opportunities, and proposed public disclosures to the relevant board committees.

General managers at each operation take responsibility for overseeing day-to-day ESG performance and mitigating or avoiding the possible impacts of our activities through the social performance management committees. Frontline management reports to the executive committee in monthly and quarterly performance reviews, as well as in a monthly SHE steering committee attended by internal subject matter experts. The SHE steering committee meetings focus on deep dives into ESG topics, governance, and operational feedback on action items.

Risk, sustainability and compliance

The board's risk and sustainability committee and social and ethics committee have overall oversight of sustainability, with a focus on the SHE and social aspects of our business. The risk and sustainability committee's work plan is informed by the threats and opportunities we face, among them, climate change and the decarbonisation of our operations. As part of our enterprise risk process, the board is provided with an update each quarter of major risks and changes, including those related to ESG. The chairman of each committee provides a summary of their respective committees' discussions to the board, which addresses the most material issues raised.



Please refer to **page 132** of our Integrated Annual Report for the risk and sustainability committee's report and to **page 130** for the social and ethics committee report.

Reporting

The board ensures the integrity of the organisation's integrated report as well as its alignment with best practice in integrated reporting, including other reporting from time to time. The board also oversees the publication of the integrated annual report, including the annual financial statements, the ESG report, the climate change report, annual general meeting notices and proxy forms, ancillary reports forming part of the interim and annual reporting suite of documents, and other online or printed information that complies with legal requirements and/or meets the legitimate and reasonable information needs of stakeholders.

Reports issued by Thungela aim to enable stakeholders to make informed assessments and decisions based on the organisations performance, as well as its short, medium and long-term prospects.



Ethical leadership

We are committed to upholding the highest ethical standards and apply integrated thinking to create and preserve value for a resilient, competitive and accountable organisation. The board is ultimately responsible for governance, ethics and values, and is supported by the social and ethics committee.

This committee provides leadership within a framework of practical and effective control, thereby ensuring that ethics are managed effectively and that we demonstrate responsible corporate citizenship.

The board derives its rights and duties from the board charter and maintains a clear balance of power and authority to ensure that no one director has unfettered powers of decision-making. Thungela materially complies with the principles of King IV as set out in detail in our King IV application register for the financial year ended 31 December 2022. This is available on our website <https://www.thungela.com/investors/corporate-governance>

Avoiding conflict of interest

In terms of the Companies Act and King IV, directors and prescribed officers must disclose direct and indirect conflicts of personal financial interest, as well as perceptions of a conflict. Accordingly, regular general declarations of business interests are required from the directors and prescribed officers.

In addition, each board and committee meeting begins with an agenda item dealing with declarations of interest. Attendees are required to formally declare any direct or indirect financial interests at this point, and this is recorded in the meeting minutes. Similarly, all employees by way of an electronic register must declare conflicts of interest and external directorships. This is audited annually by the internal audit department.

Code of conduct and business integrity policy

Our code of conduct and business integrity policy are available on our company intranet. In accordance with these, employees must disclose conflicts of interest, while vetting is undertaken during their appointment. Furthermore, a standard protocol for the declaration of gifts and entertainment, conflicts of interest, and a whistle-blowing facility is in place.

In 2022, online training on the code and our business integrity policy was rolled out while face-to-face training was provided for employees without access to computers. More than 80% of the workforce has completed the online training.

Contraventions to these policies were investigated and closed out, and disciplinary action taken where necessary.

Operations assessed for risks related to corruption

Operations across the Group are assessed for risks related to corruption. The Internal Audit team that focuses on risk and assurance ensures risks related to corruption are monitored and reported accordingly through the various boards and committees of our subsidiaries and joint ventures. A summarised report is submitted to the Risk and Sustainability Committee on a quarterly basis, which in turn reports to the Thungela board.

Whistle-blowing

A whistle-blowing facility known as HAIBO! has been put in place and is managed by Deloitte, which supports anonymity and confidentiality. The process is frequently communicated to employees via the company's weekly newsletter and during face-to-face refresher training. HAIBO! is available to employees, contractors, suppliers and other stakeholders in all 11 official languages.

During the year, HAIBO! was contacted 109 times, with 23 reports being registered. Of these, 17 have been resolved. Only two of the resolved cases were proven and the necessary corrective measures and disciplinary actions have been taken.

Fairness and transparency are exercised during all investigations and the outcome of each investigation is properly considered to ensure that corrective action is taken to address control failures. Feedback on incidents and the outcome of investigations is presented to the social and ethics committee.

Inclusion and diversity

In line with paragraph 3.84(i) of the JSE's listings requirements, the board has adopted an inclusion and diversity policy on the promotion of broader diversity at board level. This focuses on the promotion of inclusivity attributes such as gender, race, culture, age, field of knowledge, skills and experience. The board appointed an African woman as an independent non-executive director on 12 August 2022, to increase gender representation and skill.

The nomination committee and board are satisfied that the board is properly constituted with complementary skill sets, balance of power, experience, and personal characteristics which support the principles and aims of gender, racial, cultural, and age diversity. Currently, there are two female directors, representing 20% of the board. There are six black executives, and an appropriate balance of older and younger directors from diverse cultural backgrounds.

Delegation of authority

Thungela's approvals framework, or delegation of authority, formalises the delegation of levels of approval, and was agreed to by the board after audit committee support. Areas covered include project sanctioning and execution; operational expenditure and supply chain; communication and ESG; human resources, finance, legal, assurance; sales and marketing; and governance and strategy. The framework is reviewed annually for relevance and submitted for sign-off.

Regulatory compliance

Regulatory observance is critical to business continuity and our social licence to operate. It is also an important enabler, or destroyer of reputation, investor confidence, and equity. Our stakeholders require that we demonstrate leadership in the industry by thinking beyond compliance and aligning with respected local and international practices, standards, and frameworks. Adherence to, and compliance with, all necessary regulations is non-negotiable. The board is responsible for ensuring compliance with laws and regulations. New legislation is made available to board members and discussed as required.



APPENDICES

PERFORMANCE TABLES

Safety and health

Safety

	2022	2021	2020	2019
Fatalities	0	1	1	1
Lost-time injuries (LTIs)	15	15	17	18
Lost-time injury frequency rate (LTIFR)*	0.85	0.81	0.85	0.78
Total recordable case frequency rate (TRCFR)*	1.41	1.35	1.51	1.48
Total medical treatment cases (MTC)	10	9	12	15
Total recordable cases (TRCs)	25	25	30	34
High-potential incidents (HPIs)	6	6	6	0
Voluntary stoppages	36	20	10	25

* Rates are calculated per 1,000,000 hours and include employees and contractors.

Occupational exposures

	2022	2021	2020	2019
Total number of workers in HEG A – respirable hazards	639	685	635	372
Total number of workers exposed to carcinogens > OEL	0	0	0	0
Total number of workers exposed to noise >105 dB(A) 8 hr TWA	0	0	0	0
Total number of workers exposed to noise levels >85 dB(A) 8 hr TWA	2,643	2,914	3,237	2,708
Number of health HPIs reported	0	1	0	0
Number of health HPHs reported	121	244	42	160

New cases of occupational disease

	2022	2021	2020	2019
Noise-induced hearing loss	2	1	6	3
Chronic obstructive airways disease	1	0	0	1
Occupational TB	1	0	0	2
Occupational asthma	0	0	0	0
Coal workers' pneumoconiosis	0	0	0	1

HIV/AIDS

	2022	2021	2020	2019
Number of employees (annual average value)	4,592	4,467	4,936	5,142
Number of employee voluntary testing and counselling cases (total tested)	4,364	4,067	4,544	4,831
Percentage of employees who know their status	95	94	92	91
Number of new HIV cases	33	28	52	46
Number of known HIV-positive employees put under INH prophylaxis therapy	709	344	287	226
Known HIV-positive employees on antiretroviral therapy (ART) (%)	93	93	94	93
Number of employee AIDS deaths	0	0	0	0

TB

	2022	2021	2020	2019
New pulmonary TB cases	3	2	3	6
New extra-pulmonary TB cases	2	0	2	1
Proven TB deaths	0	0	0	0
Annualised TB incidence rate per 100,000 population	120	45	101	136

Environment

GHG emissions (kt CO₂e)

	2022	2021	2020	2019
Scope 1	308	362	369	398
Fossil fuels	112	137	155	145
Fugitive emissions	192	219	209	248
Process emissions (wastewater treatment and water neutralisation)	4	5	5	4
Scope 2	440	457	514	551
Total scope 1 and 2 (kt CO ₂ e)	748	819	883	948
Scope 3 ^{1,2}	35,947	54,744	64,680	68,457
Scope 1 and 2 GHG intensity (kt CO ₂ /TTM)	4.18	4.56	4.60	4.77

¹ Category 9: Downstream transportation and distribution – in prior years shipment of coal to our export markets was included however as our product is sold Free-on-Board (FOB) the shipment does not fall within the boundary. Shipment of product was therefore excluded from the 2023 calculations.

² Category 11: Use of sold products – historically the DEFRA emission factor for use of sold product was used. The emission factor has been updated to the IPCC 2006 factor.

Energy consumption

	2022	2021	2020	2019
Energy from electricity (million GJ)	1.50	1.57	1.78	1.91
Energy from fossil fuel use (million GJ)	1.51	1.85	2.09	1.95
Solar energy (million GJ)	0.1	0.38	0.36	0.96
Total energy used (million GJ)	3.01	3.42	3.87	3.86
Energy intensity (MJ/TTM)*	16.81	19.04	20.16	19.4
Electricity consumption (MWh)	415,732	494,626	434,916	415,490
Diesel consumption (kl)	41,800	57,838	51,285	41,815

* Our intensities have been calculated on a Total Tonnes Moved (TTM) basis to account for rehabilitation.

Environmental incidents

	2022	2021	2020	2019
Level 3	1	1	0	0
Level 4	1	0	0	0
Level 5	0	0	0	0

Air emissions

	2022	2021	2020	2019
Total SO ₂ from processes and fuel use (tonnes)	815	1,357	3,771	3,311
Total NO ₂ from processes and fuel use (tonnes)	1,744	2,096	2,338	2,197

Water

	2022	2021	2020	2019
Water withdrawals by source (1,000 m³)				
Freshwater withdrawal	767	865	785	714
Potable water withdrawal from EWRP	1,553	1,730	1,935	2,160
Total withdrawal	34,472	28,444	25,861	30,926
Ground water	25,788	19,384	16,929	24,965
Surface Water	6,413	6,050	5,537	3,031
Third-party	2,271	3,067	3,432	2,965
Water treated (%) ¹	57	57	58	
Water efficiency (reuse/recycle) (%) ^{1,2}	96	95	66	
Water discharges (1,000 m³)				
Total water discharged ¹	19,869	21,835	20,347	
Treated water discharged from EWRP	8,037	9,489	7,640	7,603
Total consumption ¹	12,567	11,994	13,075	

¹ Owing to the change in water accounting and definitions, 2019 data is not available for some of the indicators.

² Water efficiency value for 2021 has been restated due to a change in the calculation methodology which is described on page 121.

Non-mineral waste

	2022	2021	2020	2019
Hazardous waste to legal landfill (tonnes) ¹	776	916	931	1,182
Non-hazardous waste to legal landfill (tonnes) ²	1,103	1,416	1,297	1,355

^{1,2} Our hazardous and non-hazardous waste to legal landfill figures for 2021 have been restated. Historically, these indicators were not assured. Targets have been set in this new focus area, and assurance is now given on waste data. During this process, it was determined that the volumes stated in our 2021 ESG report were under-reported.

Biodiversity

Operation	Company managed land (ha)	Land disturbed (ha)	Adjacent to globally or nationally important biodiversity areas	Biodiversity management plan in place
Khwezela	17,251	6,137	No	Yes
Isibonelo	3,791	1,981	Yes	Yes
Goedeheop	10,145	130	No	Yes
Greenside	3,453	263	No	Yes
Zibulo	3,798	286	No	Yes
Mafube (50%)	10,639	1,504	No	Yes

People

Occupational levels

Group	Male				Female				Foreign Nationals		Total		Total
	A	C	I	W	A	C	I	W	Male	Female	Male	Female	
Top management	1	0	0	4	1	0	0	1	1	0	6	2	8
Senior management	28	4	7	41	14	1	4	15	1	0	78	34	112
Middle management	142	8	4	102	91	2	3	34	11	0	270	130	400
Junior management	264	6	10	79	114	3	0	21	12	1	371	139	510
Disabled	3	0	0	1	0	0	0	0	0	0	4	0	4
Total	438	18	21	227	220	6	7	71	25	1	729	305	1,034

Per South African classification:

A – Africa

C – Coloured

I – Indian

W – White

% Women in management

	Actual 2022	Actual 2021	Actual 2020	Actual 2019
Top management	25	25	22	11
Senior management	30	26	22	19
Middle management	32	32	29	30
Junior management	27	25	23	23

Age and gender profiles of employees (%) (permanent, FTEs, mining contractors and learners)

	2022	2021	2020	2019
Full time employees (average age)	41	41	42	42
Employees below 30 years of age (%)	10	9	8	10
Employees between 30 – 50 years of age (%)	72	74	72	68
Employees more than 50 years of age	17	17	20	22
Female employees (average age)	38	39	38	38
Female employees below 30 years of age (%)	4	3	3	3
Female employees between 30 – 50 years of age (%)	21	21	19	17
Female employees more than 50 years of age	3	3	3	3
Overall Women as % workforce	28	27	25	23

Employment statistics

Permanent employee	2022	2021	2020	2019
Zibulo	949	896	925	865
Khwezela	557	545	980	955
Greenside	875	792	775	769
Goedehoop	783	797	799	1,169
Isibonelo	422	424	356	352
Mafube	427	410	378	368
Rietvlei	30	16	21	19
Head office and centralised services	549	566	642	610
Total Own employees	4,592	4,446	4,876	5,107
Mining contractors	1,760	1,825	2,269	2,251
Capital projects contractors	223	175	101	930
Total contracting staff*	1,983	2,000	2,370	3,181
Total workforce	6,575	6,446	7,246	8,288

Turnover by Gender and Age in 2022

	20-29	30-39	40-49	50-59	60-69	Total
Female	5	14	5	3	3	31
Male	11	17	19	8	15	69
Total	16	31	24	11	18	100

Employment creation

	2022	2021	2020	2019
Total number new employees	296	189	164	305
New employees (%)	7	0.04	0.03	0.07

Labour turnover

	2022	%	2021	%	2020	%	2019	%
By reason for separation								
Resignations	145	41	90	18	57	10	112	34
Redundancies	0	0	69	13	8	1	8	2
Dismissals	59	17	63	12	42	7	39	12
Voluntary severance package	1	0	177	35	333	56	8	2
Other	145	41	114	22	153	26	160	49
By ethnic group								
African	269	77	395	77	430	73	225	69
Coloured	2	1	8	2	2	0	2	1
Indian	3	1	7	1	3	1	7	2
White	76	22	103	20	158	27	93	28

GRI INDEX

GRI content index

Statement of use	Thungela Resources Limited has reported in accordance with core requirements of the GRI Standards for the period January 2022 to December 2022		
GRI 1 used	GRI 1: Foundation 2021		
Applicable GRI Sector Standard(s)	GRI 12: Coal Sector 2022		
GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
General disclosures			
GRI 2: General Disclosures 2021		2-1 Organisational details	Environmental Social Governance Report (ESGR): 126 Integrated Annual Report (IAR): Inside Back Cover
		2-2 Entities included in the organisation's sustainability reporting	ESGR: 2, 5 – 6
		2-3 Reporting period, frequency and contact point	ESGR: 2, 127 IAR: Inside Back Cover
		2-4 Restatements of information	ESGR: 104 – 107
		2-5 External assurance	ESGR: 117 – 119
		2-6 Activities, value chain and other business relationships	ESGR: 20 – 23 IAR: 14 – 26, 40 – 43
		2-7 Employees	ESGR: 76, 105 – 106
		2-8 Workers who are not employees	ESGR: 76, 105 – 106
		2-9 Governance structure and composition	ESGR: 98 – 100 IAR: 28 – 31, 90 – 97
		2-10 Nomination and selection of the highest governance body	ESGR: 98 – 100 IAR: 28 – 31, 90 – 100
		2-11 Chairman of the highest governance body	ESGR: 99 IAR: 28, 90 – 100
		2-12 Role of the highest governance body in overseeing the management of impacts	ESGR: 98 – 100 IAR: 90 – 95, 124 – 125
		2-13 Delegation of responsibility for managing impacts	ESGR: 98 – 101 IAR: 90 – 95, 124 – 125

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
		2-14 Role of the highest governance body in sustainability reporting	ESGR: 2, 100 IAR: 88, 95
		2-15 Conflicts of interest	ESGR: 101
		2-16 Communication of critical concerns	ESGR: 98 – 101 IAR: 124 – 125
		2-17 Collective knowledge of the highest governance body	IAR: 28 – 31
		2-18 Evaluation of the performance of the highest governance body	IAR: 91 – 109
		2-19 Remuneration policies	IAR: 98 – 122
		2-20 Process to determine remuneration	IAR: 98 – 122
		2-21 Annual total compensation ratio	IAR: 98 – 122
		2-22 Statement on sustainable development strategy	ESGR: 11 – 15
		2-23 Policy commitments	ESGR: 15 – 17, 21, 29, 79, 86, 95, 101
		2-24 Embedding policy commitments	ESGR: 15 – 17, 21, 29, 79, 86, 95, 101
		2-25 Processes to remediate negative impacts	ESGR: 29, 31 – 33, 35, 46, 79, 80, 81, 86, 87 IAR: 124 – 125
		2-26 Mechanisms for seeking advice and raising concerns	ESGR: 19, 86, 98, 101
		2-27 Compliance with laws and regulations	ESGR: 30 – 34
		2-28 Membership associations	Climate Change Report (CCR): 28
		2-29 Approach to stakeholder engagement	ESGR: 20 – 23, 82 – 84
		2-30 Collective bargaining agreements	ESGR: 79
Material topics			
GRI 3: Material Topics 2021		3-1 Process to determine material topics	ESGR: 24
		3-2 List of material topics	ESGR: 24 – 26
Economic performance			
GRI 3: Material Topics 2021	12.8.1	3-3 Management of material topics	ESGR: 80 – 96
GRI 201: Economic Performance 2016	12.8.2; 12.21.2	201-1 Direct economic value generated and distributed	ESGR: 10, 95, 96
	12.2.2	201-2 Financial implications and other risks and opportunities due to climate change	CCR: 12, 18 – 20, 26
		201-3 Defined benefit plan obligations and other retirement plans	Annual Financial Statements: 45, 54, 108 – 110
	12.21.3	201-4 Financial assistance received from government	None

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Market presence			
GRI 3: Material Topics 2021		3-3 Management of material topics	IAR: 98 – 122
GRI 202: Market Presence 2016	12.19.2	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	IAR: 98 – 112
	12.8.3; 12.19.3	202-2 Proportion of senior management hired from the local community	ESGR: 25, 69 – 72, 75, 76, 78, 79
Indirect economic impacts			
GRI 3: Material Topics 2021	12.8.1	3-3 Management of material topics	ESGR: 80 – 96
GRI 203: Indirect Economic Impacts 2016	12.8.4	203-1 Infrastructure investments and services supported	ESGR: 88 – 90
		203-2 Significant indirect economic impacts	ESGR: 88 – 96
Procurement practices			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 92 – 95
GRI 204: Procurement Practices 2016	12.8.6	204-1 Proportion of spending on local suppliers	ESGR: 10, 92
Anti-corruption			
GRI 3: Material Topics 2021	12.20.1	3-3 Management of material topics	ESGR: 19, 20, 98 IAR: 88, 89, 124, 125
GRI 205: Anti-corruption 2016	12.20.2	205-1 Operations assessed for risks related to corruption	ESGR: 101
	12.20.3	205-2 Communication and training about anti-corruption policies and procedures	ESGR: 101
	12.20.4	205-3 Confirmed incidents of corruption and actions taken	ESGR: 101
Additional Sector Disclosures	12.20.6	List the organisation's beneficial owners and explain how the organisation identifies the beneficial owners of business partners, including joint ventures and suppliers	ESGR: 6
Anti-competitive behavior			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 19, 101 IAR: 88
GRI 206: Anti-competitive Behavior 2016		206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	None

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Tax			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR :96
GRI 207: Tax 2019	12.21.4	207-1 Approach to tax	ESGR: 96
	12.21.5	207-2 Tax governance, control, and risk management	ESGR: 96
	12.21.6	207-3 Stakeholder engagement and management of concerns related to tax	ESGR: 96
	12.21.7	207-4 Country-by-country reporting	Thungela only operated in South Africa in the reporting year
Energy			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 17, 29, 45
GRI 302: Energy 2016	12.1.2	302-1 Energy consumption within the organisation	CCR: 25, 29 ESGR:104
	12.1.3	302-2 Energy consumption outside of the organisation	CCR: 25
	12.1.4	302-3 Energy intensity	CCR: 29 ESGR:104
		302-4 Reduction of energy consumption	CCR: 25, 29 ESGR: 45
Water and effluents			
GRI 3: Material Topics 2021	12.7.1	3-3 Management of material topics	ESGR: 29, 46 – 49
GRI 303: Water and Effluents 2018	12.7.2	303-1 Interactions with water as a shared resource	ESGR: 46 – 48
	12.7.3	303-2 Management of water discharge-related impacts	ESGR: 31 – 34, 46 – 48, 53
	12.7.4	303-3 Water withdrawal	ESGR: 47, 104
	12.7.5	303-4 Water discharge	ESGR: 48, 104
	12.7.6	303-5 Water consumption	ESGR: 47, 104

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Biodiversity			
GRI 3: Material Topics 2021	12.5.1	3-3 Management of material topics	ESGR: 51
GRI 304: Biodiversity 2016	12.5.2	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	ESGR: 104
	12.5.3	304-2 Significant impacts of activities, products and services on biodiversity	ESGR: 50 – 53
	12.5.4	304-3 Habitats protected or restored	ESGR: 53 – 56
	12.5.5	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	ESGR: 52, 53
	Emissions		
GRI 3: Material Topics 2021	12.1.1 ; 12.4.1	3-3 Management of material topics	ESGR : 29, 41 – 45
GRI 305: Emissions 2016	12.1.5	305-1 Direct (Scope 1) GHG emissions	ESGR: 45, 104
	12.1.6	305-2 Energy indirect (Scope 2) GHG emissions	ESGR: 45, 104
	12.1.7	305-3 Other indirect (Scope 3) GHG emissions	CCR: 25
	12.1.8	305-4 GHG emissions intensity	ESGR: 45, 104
	12.2.3	305-5 Reduction of GHG emissions	ESGR: 41 – 45, 104
		305-6 Emissions of ozone-depleting substances (ODS)	Thungela does not emit ODS
	12.4.2	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	ESGR: 36
Waste			
GRI 3: Material Topics 2021	12.6.1	3-3 Management of material topics	ESGR: 29, 38
GRI 306: Waste 2020	12.6.2	306-1 Waste generation and significant waste-related impacts	ESGR: 39, 40
	12.6.3	306-2 Management of significant waste-related impacts	ESGR: 38, 40
	12.13.2	306-3 Significant spills	ESGR: 31 – 33
	12.6.4	306-3 Waste generated	ESGR: 38 – 40
	12.6.5	306-4 Waste diverted from disposal	ESGR: 38 – 40
	12.6.6	306-5 Waste directed to disposal	ESGR: 38 – 40

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Supplier environmental assessment			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 95
Employment			
GRI 3: Material Topics 2021	12.15.1	3-3 Management of material topics	ESGR: 69 – 79
GRI 401: Employment 2016	12.15.2	401-1 New employee hires and employee turnover	ESGR: 76, 106
	12.15.3	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	IAR: 101 – 109
	12.15.4; 12.19.4	401-3 Parental leave	ESGR: 70
Labour/management relations			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 79
GRI 402: Labor/ Management Relations 2016	12.3.2;12.15.5	402-1 Minimum notice periods regarding operational changes	ESGR: 79
Occupational health and safety			
GRI 3: Material Topics 2021	12.14.1	3-3 Management of material topics	ESGR: 58 – 68
GRI 403: Occupational Health and Safety 2018	12.14.2	403-1 Occupational health and safety management system	ESGR: 62
	12.14.3	403-2 Hazard identification, risk assessment, and incident investigation	ESGR: 59 – 64
	12.14.4	403-3 Occupational health services	ESGR: 63 – 67
	12.14.5	403-4 Worker participation, consultation, and communication on occupational health and safety	ESGR: 58 – 68
	12.14.6	403-5 Worker training on occupational health and safety	ESGR: 59 – 61
	12.14.7	403-6 Promotion of worker health	ESGR: 65 – 68
	12.14.8	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	ESGR: 58 – 68
	12.14.9	403-8 Workers covered by an occupational health and safety management system	ESGR: 62
	12.14.10	403-9 Work-related injuries	ESGR: 58, 103
	12.14.11	403-10 Work-related ill health	ESGR: 68, 103

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Training and education			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 71 – 76
GRI 404: Training and Education 2016	12.15.6; 12.19.5	404-1 Average hours of training per year per employee	ESGR: 72
	12.3.3;12.15.7	404-2 Programs for upgrading employee skills and transition assistance programs	ESGR: 71 – 76
		404-3 Percentage of employees receiving regular performance and career development reviews	ESGR: 72
Diversity and equal opportunity			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 77, 78
GRI 405: Diversity and Equal Opportunity 2016	12.19.6	405-1 Diversity of governance bodies and employees	ESGR: 77 – 78, 98, 101
Non-discrimination			
GRI 3: Material Topics 2021	12.19.1	3-3 Management of material topics	ESGR: 77
GRI 406: Non-discrimination 2016	12.19.8	406-1 Incidents of discrimination and corrective actions taken	None
Freedom of association and collective bargaining			
GRI 3: Material Topics 2021	12.18.1	3-3 Management of material topics	ESGR: 79, 95
GRI 407: Freedom of Association and Collective Bargaining 2016	12.18.2	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	None
Child labour			
GRI 3: Material Topics 2021	12.16.1	3-3 Management of material topics	ESGR: 79, 95
GRI 408: Child labour 2016	12.16.2	408-1 Operations and suppliers at significant risk for incidents of child labour	None

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Forced or compulsory labour			
GRI 3: Material Topics 2021	12.17.1	3-3 Management of material topics	ESGR: 79, 95
GRI 409: Forced or Compulsory Labour 2016	12.17.2	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	None
Security practices			
GRI 3: Material Topics 2021	12.12.1	3-3 Management of material topics	ESGR: 86
GRI 410: Security Practices 2016	12.12.2	410-1 Security personnel trained in human rights policies or procedures	ESGR: 86
Rights of indigenous peoples			
GRI 3: Material Topics 2021	12.11.1	3-3 Management of material topics	ESGR: 86
GRI 411: Rights of Indigenous Peoples 2016	12.11.2	411-1 Incidents of violations involving rights of indigenous peoples	None
Additional Sector Disclosures	12.11.3	List the locations of operations where indigenous peoples are present or affected by activities of the organisation.	None
Local communities			
GRI 3: Material Topics 2021	12.9.1	3-3 Management of material topics	ESGR: 80 – 95
GRI 413: Local Communities 2016	12.9.2	413-1 Operations with local community engagement, impact assessments, and development programs	ESGR: 80 – 95
	12.9.3	413-2 Operations with significant actual and potential negative impacts on local communities	ESGR: 80 – 95
Additional Sector Disclosure	12.9.4	Report the number and type of grievances from local communities identified	ESGR: 86
Supplier social assessment			
GRI 3: Material Topics 2021		3-3 Management of material topics	ESGR: 95
GRI 414: Supplier Social Assessment 2016	12.15.8; 12.16.3; 12.17.3	414-1 New suppliers that were screened using social criteria	ESGR: 95

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Public policy			
GRI 3: Material Topics 2021	12.22.1	3-3 Management of material topics	The Thungela Code of Conduct which is available on our website. https://www.thungela.com/suppliers/learn-about-fraud
GRI 415: Public Policy 2016	12.22.2	415-1 Political contributions	No political contributions were made in accordance with Thungela's Code of Conduct
Climate adaption, resilience, and transition			
GRI 3: Material Topics 2021	12.2.1	3-3 Management of material topics	ESGR: 41 – 45
Additional Sector Disclosures	12.2.4	Describe the organisation's approach to public policy development and lobbying on climate change	CCR: 28
Closure and rehabilitation			
GRI 3: Material Topics 2021	12.3.1	3-3 Management of material topics	ESGR: 55
Additional Sector Disclosures	12.3.4	List of operational sites that have closure and rehabilitation plans, been closed, undergoing closure activities	ESGR: 55, 56
Additional Sector Disclosures	12.3.5	Report the total monetary value of financial provisions made by the organisation for closure and rehabilitation.	ESGR: 55
Additional Sector Disclosures	12.3.6	Describe non-financial provisions made by the organisation to manage the local community's socio-economic transition to a sustainable post-mining economy,	ESGR: 80 – 95

GRI Standard/ Other source	GRI Sector standard Ref. No.	Disclosure	Location
Land and Resource Rights			
GRI 3: Material Topics 2021	12.10.1	3-3 Management of material topics	ESGR: 87
Additional Sector Disclosures	12.10.2	List the locations of operations that caused or contributed to involuntary resettlement or where such resettlement is ongoing and describe how peoples' livelihoods and human rights were affected and restored	ESGR: 87
Asset integrity and critical incident management			
GRI 3: Material Topics 2021	12.13.1	3-3 Management of material topics	ESGR: 40
Additional Sector Disclosures	12.13.3	Report the number of critical incidents in the reporting period and describe their impacts.	ESGR: 31 – 33
Additional Sector Disclosures	12.13.4	List the organisation's tailings facilities, and report the name, location, and ownership status.	ESGR: 40

INDEPENDENT ASSURANCE STATEMENT

To the directors of Thungela Resources Limited

Introduction

IBIS Environmental Social Governance Consulting Africa (Pty) Ltd (IBIS) was commissioned by Thungela Resources Limited to conduct an independent third-party assurance engagement in relation to the sustainability information in the Integrated Report and Environmental, Social and Governance (ESG) Report (the Reports) for the financial year that ended 31 December 2022.

IBIS is an independent licensed provider of sustainability assurance services. The assurance team was led by Petrus Gildenhuis with support from Bongani Machabe, Ibrahim Akoon, Megan Nair and Bradley Riley from IBIS. Petrus is a Lead Certified Sustainability Assurance Practitioner (LCSAP) with more than 25 years' experience in sustainability performance measurement involving both advisory and assurance work.

Assurance standard applied

This assurance engagement was performed in accordance with AccountAbility's AA1000AS v3 (2020) ("AA1000AS") and was conducted to meet the AA1000AS Type II Moderate and High-level requirements respectively, as indicated below:

Respective responsibilities and IBIS' Independence

Thungela Resources Limited

Thungela Resources Limited is responsible for preparing its Integrated Report and Environmental, Social and Governance Report and collecting and presenting sustainability information within the Reports.

Thungela is also responsible for maintaining adequate records and internal controls that support the reporting processes.

IBIS

IBIS' responsibility is to the management of Thungela Resources Limited alone and in accordance with the scope of work and terms of reference agreed with Thungela.

IBIS applies a strict independence policy and confirms its impartiality to Thungela in delivering the assurance engagement.

Assurance objectives

The purpose of the assurance engagement was to provide the management of Thungela and its stakeholders with an independent assurance opinion on whether the Reports meet the following objectives:

- Adherence to the AA1000AP (2018) AccountAbility Principles of Inclusivity, Materiality, Responsiveness and Impact
- Fair reporting on a selection of operational disclosures for High and Moderate assurance levels, and presented below.

Level of assurance	Key performance indicators	Unit of measure	Page reference
High assurance	Total work-related fatal injuries	Number	8, 58, 103
	Energy Used	GJ	8, 45, 104
	Total Scope 1 emissions	tCO ₂ e	45, 104
	Total Scope 2 emissions	tCO ₂ e	45, 104

level of assurance	Key performance indicators	Unit of measure	Page reference
Moderate assurance	Total number of Level 3, 4 and 5 environmental incidents reported	Number	9, 30, 104
	Water use, re-use and recycle	Kilolitres	8, 47, 104
	Land rehabilitation (Reshaping completed, growth medium completed and seeding completed)	Hectares	56
	Total work-related injuries	Number	58, 103
	Fatal injury frequency rate (FIFR)	Per 1 000 000 hours worked	n/a
	Total recordable case frequency rate (TRCFR)	Per 1 000 000 hours worked	8, 13, 58, 103
	Lost time injury frequency rate (LTIFR)	Per 1 000 000 hours worked	58, 103
	Total number of new cases of noise induced hearing loss (NIHL)	Number	8, 64, 68, 103
	Employees exposed to inhalable hazards over the occupational exposure limit	Number	103
	Employees exposed to noise over 85 dBa	Number	64, 103
	Total amount spent on corporate social investment (CSI), Socio-economic Development projects (SED) and Social and Labour Plans (SLP)	ZAR Million	88
	Total number of Level 3, 4 & 5 Social related incidents reported (logging, consequence ratings)	Number	9, 86

Assessment criteria

The following assessment criteria were used in undertaking the work:

AA1000AP (AccountAbility Principles)

AA1000AP (2018) adherence criteria for the Principles of inclusivity, materiality, responsiveness and impact

Thungela's Sustainability Reporting Guideline

Sustainability manual that specifies definitions and guidance for reporting sustainability information

Greenhouse Gas Protocol

Greenhouse Gas Protocol: Revised Edition (WRI & WBCSD, 2004) (GHG Protocol)

Assurance Procedures Performed

Our assurance methodology included:

- **Testing**

Testing, on a sample basis, the measurement, collection, aggregation, and reporting processes in place. Site visits to Goedehoop, Khwezela and Mafube, and desktop reviews for Isibonelo, Zibulo and Greenside.

- **Interviews**

Interviews with relevant data owners to understand and test the processes in place for maintaining information in relation with the subject matters in the assurance scope.

- **Inspection**

Inspection and corroboration of supporting evidence received electronically to evaluate the data generation and reporting processes against the assurance criteria.

- **Assessing**

Assessing the presentation of information relevant to the scope of work in the Sustainability Report for consistency with the assurance observations.

- **Reporting**

Reporting the assurance observations to management as they arose to provide an opportunity for corrective action prior to completion of the assurance process.

Engagement Limitations

IBIS planned and performed the work to obtain all the information and explanations believed necessary to provide a basis for the assurance conclusions for a moderate level of assurance in accordance with AA1000AS.

The procedures performed in a Moderate Assurance engagement vary in nature from, and are less in extent, than for a High Assurance engagement in relation to risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. As a result, the level of assurance obtained for a Moderate Assurance engagement is lower than for High Assurance as per AA1000AS.

The scope of work did not extend to any subject matters other than specified in this assurance statement. IBIS experienced no limitations to the agreed extent of work required for the engagement.

Assurance Conclusion

High assurance conclusion

In our view, based on the work undertaken for High Assurance as described, we conclude that the subject matters in the scope for High Assurance have been prepared in accordance with the defined reporting criteria and are free from material misstatement.

Moderate assurance conclusion

In our view, based on the work undertaken for Moderate Assurance as described, we conclude that the subject matters in the scope for Moderate Assurance are supported by the evidence obtained.

Key observations and recommendations for improvement

Based on the work set out above, and without affecting the assurance conclusion, the key observations and recommendations for improvement are set out below.

In relation to AA1000AP

Inclusivity:

Thungela has made public commitments to be transparent and accountable to stakeholders in both its ESG and Integrated reports. These commitments are embedded in Thungela's policies, frameworks, and standards, such as their Board-approved ESG Policy, Social Policy and Stakeholder Engagement Protocol. Thungela's Stakeholder Engagement Protocol describes the scope and objectives of stakeholder engagement, the outputs of which are used to inform several governance and strategy initiatives including the materiality determination process and risk management processes. Thungela stakeholder engagement functions are embedded across the Group and operational sites, with responsibility for various engagement activities being allocated to specific roles and functions.

It is recommended that Thungela consider setting relevant metrics to measure engagement effectiveness, outcomes, and impact. This will drive improvements in stakeholder engagement effectiveness.

Materiality:

Thungela follows a materiality determination process as described in their annual integrated report. The process involves senior managers from across the Group, and the final outcomes are reviewed, interrogated and approved by the Board. Thungela's internal risk and assurance department, together with other functional areas are responsible for managing, and responding to, the material risks in their areas.

Responsiveness:

Thungela's Stakeholder Engagement Protocol describes the process for engagement with stakeholders, and forms part of the suite of risk management procedures used by Thungela. Thungela's operational sites develop their own communication procedures, and Thungela has informally delegated the responsibility to consider the relationship between the maturity, impact and prioritisation of a topic and the appropriateness of the response to managers and functions at operational sites.

It is recommended that Thungela consider developing a Group-level policy to ensure consistency in the process to develop responses and to communicate with stakeholders.

Impact:

Thungela has identified, assessed, and disclosed its impacts, and processes to measure, evaluate and manage these impacts in its ESG report. Its identified impacts have been aligned to the United Nations Sustainable Development Goals. To support and enable its impact management, Thungela has documented policies, frameworks, and standards, that are part of its risk management infrastructure, and the internal risk and assurance department works closely with the other functions across Thungela to ensure adequate management of impacts. This is further enhanced through external assurance, and public disclosure, of its ESG performance.

The assurance statement provides no assurance on the maintenance and integrity of sustainability information on the website, including controls used to maintain this. These matters are the responsibility of Thungela Resources Limited.

In relation to the selected disclosures

IBIS observed that appropriate measures are in place to provide reliable source-data related to the selected sustainability disclosures in the assurance scope for 2022. Thungela has an established sustainability data management system, which assists with collecting and consolidating sustainability information.

Discrepancies in data identified during the assurance process for 2022 mostly related to manual capturing errors on the sustainability data management system that were subsequently corrected.

IBIS recommends the implementation of a more rigorous review process, including a review of data directly against supporting evidence, before finalisation and submission. Where possible, consideration should also be given towards the replacement of manual data-related processes with automated alternatives.

A comprehensive management report detailing specific findings and recommendations for continued sustainability reporting improvement has been submitted to Thungela management for consideration.


Petrus Gildenhuys

Director, IBIS Environmental Social Governance Consulting Africa (Pty) Ltd

Johannesburg [To Insert Date]



REPORTING CRITERIA

KPI	Definition
Fatality	A death resulted from a work-related injury
Total recordable case frequency rate (TRCFR)	Total recordable case frequency rate (calculated) is the number of recordable injuries (fatalities + lost-time injuries + medical treatment cases) per 1,000,000 hours worked (TRC x 1,000,000/total hours worked)
Land rehabilitation, reshaping, growth material construction completed and seeding completed	Total hectares reshaped during the current year, total hectares where the relevant growth medium has been constructed to date in the current year and total hectares seeded and/or planted in the current year
New cases of noise induced hearing loss (NIHL)	Number of employees diagnosed with NIHL during the reporting period. New cases are recorded when: <ul style="list-style-type: none"> • The rules for diagnostic criteria for occupational disease in Thungela have been met • There is a pattern consistent with NIHL on the audiogram • The average hearing loss at frequencies 0.5, 1, 2, 3 and 4 kHz for both ears is greater than 25 dBA • There has been a 10 dB change in the average hearing loss since the pre-placement audiogram recorded on employment with Thungela • The employee has not previously been counted as NIHL.
Number of employees who know their HIV status	The total of all employees who are known to be HIV+ on the medical records (irrespective of year of testing or testing facility) – and who are still in employment at the end of the last reporting year. Plus the total of all employees whose last test confirmed an HIV seronegative status (based on a VCT result during a calendar year) – and who are still in employment at the end of the last reporting year.
Total Energy Consumed	Total energy use is calculated from electricity purchased, energy from fossil fuels and energy from renewable fuels, and reported in million GJ.
Total greenhouse gas emissions (kt CO₂e)	Greenhouse gas calculations are based on the GHG Protocol, Intergovernmental Panel on Climate Change 2006 Guidelines and the South African Department of Forestry Fisheries and Environment Technical Guidelines for Monitoring Reporting and Verification of Greenhouse Gas Emissions by Industry: https://www.environment.gov.za/sites/default/files/legislations/technicalguidelinesformrvofemissionsbyindustry.pdf
Water Abstraction	Volume of water received by the site from the water environment or a third party supplier (excludes water supply from the Emalaheni Water Reclamation Plant)

KPI	Definition
Water efficiency (Reuse/ Recycle)	<p>A total reuse/recycle efficiency metric for Thungela has been developed to increase water 'reuse' and 'recycling' behaviours such that the reliance on imported water is reduced. Water is assigned a status and either classified as raw, worked, or treated which is required to define water stores and to calculate the reuse and recycling efficiency.</p> <p>In an effort to improve reporting, a reconciliation of our reuse and recycling efficiency figures was conducted for several operations. Worse than expected values were noted where filter presses and thickeners at processing plants are in use. These technologies ensure that water is recycled numerous times in the coal washing process. This, however, did not reflect in our data. The calculation methodology in use was updated to disaggregate activities to sub-task level to reflect reuse and recycling in thickeners and filter presses. The new efficiency calculation falls within the confines of the Minerals Council of Australia's Water Accounting Framework for the Mineral Industry which stipulates recommended aggregation levels.</p> <p>The Water Accounting Framework for the Minerals Industry User Guide (MCA, 2014) and Thungela's Guideline Document and Definitions for Water Reporting the different water statuses are defined as follows:</p> <ul style="list-style-type: none"> • Raw water is water that is received as an input and has not been used in a task. • Worked water is water that has been through a task. • Treated worked water is water that has been through a task and has subsequently been treated on-site to provide water of a suitable quality for a particular purpose. It can include raw water treated once received on-site or water used in the process then treated to allow further use or release to an output destination. <p>The following definitions define reuse and recycle:</p> <p>Reused water = "Worked water that is used in a task without treatment beforehand."</p> <p>The Re-use Efficiency is the sum of worked water flows to the tasks as a proportion of the sum of all flows into the tasks.</p> $\text{Reuse Efficiency} = \frac{\sum \text{Worked Water Flows to Tasks}}{\sum \text{All Flows to Tasks}}$ <p>Recycled water = "Worked water that is treated before it is used in a task".</p> <p>Recycling Efficiency is the sum of treated worked water flows to tasks as a proportion of the sum of all flows into the tasks.</p> $\text{Recycling Efficiency} = \frac{\sum \text{Treated Worked Water Flow to Tasks}}{\sum \text{All Flows to Tasks}}$
Water treatment (%)	<p>The treatment target is based on reducing recharge, managing stormwater and creating sufficient storage to ensure uncontrolled discharges are mitigated by achieving a 40% treatment target. This includes desalination treatment at the EWRP and the Proxa plant at Mafube as well as Lime treatment at Kromdraai and Navigation.</p>

KPI	Definition
Total number of level 3, 4 and 5 environmental incidents reported	<p>Environmental incidents are unplanned or unwanted events that result in negative environmental impacts.</p> <ul style="list-style-type: none"> • A level 1 incident results in minor impact; • A level 2 incident results in low impact; • A level 3 incident results in medium impact; • A level 4 incident is considered to be a significant incident, that results in high impact; and • A level 5 incident is considered a significant incident that has a permanent impact on the environment • We classify environmental incidents on a scale of 1 to 5 based upon increasing severity, in accordance with the Thungela 5x5 risk matrix, which plots potential incidents against their likelihood of occurring and the severity of their consequence. <p>The following components are taken into consideration when rating the severity of environmental incidents:</p> <p>Scale: How significant is the size/scale of the impact relative to the size/scale of the receiving environment?</p> <p>Sensitivity: How sensitive is the receiving environment to the impact? How special or unique is the area that has been impacted?</p> <p>Remediation and clean-up: How difficult is the impact to contain, remediate and/or clean up? How much time and/or resources are required to manage the incident?</p>
Number of level 3, 4 or 5 reportable incidents with social consequences	<p>Reportable incidents with social consequences are unplanned or unwanted events that result in negative social impacts. The consequences are rated according to the scale of the impact on the receptors, the vulnerability of the person or cultural heritage to the impact and our ability to remediate the impact.</p> <ul style="list-style-type: none"> • A level 1 incident results in minor change to peoples lives and is temporary, those impacted have high ability to adapt and no mitigation or corrective action is required; • A level 2 incident creates a notable change to the way of life and in the short term, those impacted have a high ability to adapt and it is easy to remediate; • A level 3 incident creates a significant change in the way of life and in the medium term, those impacted are able to adapt in part to the incident and it is not easy to remediate; • A level 4 incident is creates a fundamental change to the way of life and the impact is long term. The ability of those impacted to adapt is severely restricted and it is challenging to remediate; and • A level 5 incident creates a fundamental change to the way of life and the impact is permanent. Those impacted are not able to adapt to the impact and it is very difficult or impossible to remediate.

GLOSSARY

Term used	Definition
AAIC	Anglo Inyosi Coal Proprietary Limited
AAML	Anglo American Marketing Limited
AASA	Anglo American South Africa Proprietary Limited
AASAF	Anglo American South Africa Finance Limited
ACSSA	Anglo Corporate Services South Africa Proprietary Limited
AMD	Acid Mine Drainage
Anglo American	The Anglo American plc Group, and its subsidiaries
AOPL	Anglo Operations Proprietary Limited
APC	Advanced process control
APM	Alternative performance measure
ART	Antiretroviral treatment
ASA	Anglo South Africa Proprietary Limited
ASAC	Anglo South Africa Capital Proprietary Limited
B-BBEE	Broad-based black economic empowerment. This is a broader version of earlier BEE (see below) policy and attempts to spread the benefits of economic empowerment to the widest possible spectrum of black South Africans
BEE	Black economic empowerment, a policy of the South African government aimed at increasing the access of black South Africans to productive assets. It seeks to 'promote new opportunities for and increase the levels of participation of black people in the ownership, management and control of economic activities
Bioremediation	Treatment or waste-management technique that uses naturally occurring organisms to break down hazardous substances into less toxic or non-toxic substances
BMP	Biodiversity management programme
BSP	Bonus share plan
Business-as-usual	The projected impact under a baseline scenario in which no additional mitigation policies or measures are implemented beyond those that are already in force, legislated or planned to be adopted
Butsanani Energy	Butsanani Energy Investment Holdings Proprietary Limited

Term used	Definition
Coaltech	The Coaltech Research Association is a voluntary collaborative non-profit organisation which addresses the research needs of the Coal Industry of South Africa.
CCUS	Carbon capture, utilization and storage
CEO	Chief executive officer
CFO	Chief financial officer
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
Company managed land	Area of land under the direct management of the Company and includes company-owned land, land managed or mined on behalf of third parties, land leased from third parties, company-owned land leased to third parties, land under servitude and land set aside for biodiversity offsets, as at the end of the reporting period. The parameter excludes privately or state-owned land above company-owned mineral or mining rights areas and undeveloped projects or prospects where the land does not yet fall under the direct management or ownership of the Company. This also excludes prospecting licences and claims, which are captured under a different parameter
NCPT	The Nkulo Community Partnership Trust
CSI	Corporate social investment
Decade of Action	A term used by the United Nations to call for accelerating sustainable solutions to all the world's biggest challenges — ranging from poverty and gender to climate change, inequality and closing the finance gap in the last 10 years before 2030
Demerger	The process to separate Thungela from Anglo American, as fully described in the PLS
DFFE	Department of Forestry, Fisheries and the Environment
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EBITDA	Earnings before interest, tax, depreciation and amortisation
EMP	Environmental management plan
EMPR	Environmental management plan
Sisonke	The Sisonke Employee Empowerment Scheme
ESG	Environmental, social and governance

Term used	Definition
EWRP	Emalahleni Water Reclamation Plant
FOB	Free on board
GBV	Gender-based violence
Group	Thungela and its subsidiaries, joint arrangements and associates
HDP	Historically disadvantaged person
HDSA	Historically disadvantaged South African
HFI	Combined Carve-out Historical Financial Information of the SA Thermal Coal Operations
HIV	Human immunodeficiency virus
HPH	High-potential hazard
HPI	High-potential incident
IAS	International accounting standard
ICMM	International Council on Mining and Metals
IFRS	International Financial Reporting Standard, as issued by the IASB
IPP	Independent power producer
ISO	International Organization for Standardization
IT	Information technology
IWUL	Integrated water use license
JSE	Johannesburg Stock Exchange Limited
King IV ^(TM)	King IV Report on Corporate Governance for South Africa 2016
KPI	Key performance indicator
kt	A measure representing 1,000 tonnes
LOM	Life of Mine
LSE	London Stock Exchange
LFI	Learning from incidents
LGBTQI+	Lesbian, gay, bisexual, transgender, queer and intersex
LOM	Life of mine
LTI	Lost-time Injury is a work-related injury resulting in the employee/contractor being unable to attend work, or to perform the full duties of his/her regular work, on the next calendar day after the day of the injury, whether a scheduled work day or not.

Term used	Definition
LTIFR	Lost-time injury frequency rate (calculated) rate of lost-time injuries per 1,000,000 hours worked
LTIP	Long-term incentive plan
Mafube Coal Mining	Mafube Coal Mining Proprietary Limited
MCDP	Municipality capacity development programme
MCERTs	The United Kingdom Environment Agency's Monitoring Certification Scheme
MCT	Mine closure toolbox
M&A	Mergers and acquisitions
MHSC	The Mine Health and Safety Committee
Mineral Residue facility	A mineral residue facility is the term used to describe a coal discard facility, where the by-product or waste of coal processing is disposed of. These structures are engineered facilities.
Mintek	Mintek is South Africa's national mineral research organisation and is one of the world's leading technology organisations specialising in mineral processing, extractive metallurgy and related areas. Mintek is a state owned science council which reports to the Minister of Mineral resources
ML	Mega litre
MPRDA	The South African Mineral and Petroleum Resources Development Act No. 28 of 2002
Mt	Million tonnes
Mtpa	Million tonnes per annum
NAEIS	National atmospheric emission inventory system
NCI	Non-controlling interest
NEMA	The South African National Environmental Management Act No. 107 of 1998
NEMBA	National Environmental Management: Biodiversity Act No. 10 of 2004
NEMWA	National Environmental Management: Waste Act No. 59 of 2008
NGO	Non-governmental organisation
NIHL	Noise-induced hearing loss
NUM	National Union of Mineworkers
NUMSA	National Union of Metalworkers South Africa

Term used	Definition
NWA	National Water Act No. 36 of 1998
OEL	Occupational exposure limits
OEM	Original equipment manufacturer
OHSAS	Occupational Health and Safety Assessment Series
ORM	Operational risk management
PCR	Polymerase chain reaction
PIT	Professional in training
PLS	Combined Prospectus and Pre-listing statement of Thungela, published on 8 April 2021
PM10	Particles smaller than 10 µm
PPE	Personal protective equipment
PUE	Priority unwanted event
RBCT	Richards Bay Coal Terminal Proprietary Limited
RMC	Rietvlei Mining Company Proprietary Limited
RO	Reverse osmosis
ROM	Run of mine, representing the product extracted from mining operations before it is processed into saleable product
SACO	South Africa Coal Operations Proprietary Limited
SAICA	South African Institute of Chartered Accountants
SANBI	South African National Biodiversity Institute
SANCA	South African National Council on Alcoholism and Drug dependence
SARS	South African Revenue Services
SA Thermal Coal Operations	Anglo American's South African thermal coal operations which were the subject of the Demerger, as defined in the PLS
SHE	Safety, health and environment

Term used	Definition
SLAM	Stop, look, assess and manage
SLP	Social and Labour Plan
SMME	Small, medium and micro enterprise
T	Metric tonnes i.e. 1,000kg
TB	Tuberculosis
Thungela	Thungela Resources Limited
TFR	Transnet Freight Rail
TOPL	Thungela Operations Proprietary Limited (known as AOPL until the name was formally changed)
TRCFR	Total recordable case frequency rate, rate of recordable cases per 1,000,000 hours worked
TTM	Total tonnes moved
TWA	Time-weighted average
VAT	Value added tax
VCC	Vryheid Coronation Colliery
VOHE	Ventilation and occupational health engineering
WAF	Water accounting framework (for the mineral industry)
WHO	World Health Organisation
WUL	Water use license
UIF	Unemployment insurance fund
UNAIDS	Joint United Nations Programme on HIV/AIDS
UN SDGs	United Nations Sustainable Development Goals
USD	United States Dollar
ZAR	South African Rand

Additional information

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FORWARD-LOOKING STATEMENTS AND THIRD-PARTY INFORMATION

This document includes forward-looking statements. All statements included in this document (other than statements of historical facts) are, or may be deemed to be, forward-looking statements, including, without limitation, those regarding Thungela's financial position, business, acquisition and divestment strategy, dividend policy, plans and objectives of management for future operations (including development plans and objectives relating to Thungela's products, production forecasts and resource and reserve positions). By their nature, such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Thungela, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Thungela therefore cautions that forward-looking statements are not guarantees of future performance.

Any forward-looking statement made in this document or elsewhere is applicable only at the date on which such forward-looking statement is made. New factors that could cause Thungela's business not to develop as expected may emerge from time to time and it is not possible to predict all of them. Further, the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statement are not known. Thungela has no duty to, and does not intend to, update or revise the forward-looking statements contained in this document after the date of this document, except as may be required by law. Any forward-looking statements included in this document have not been reviewed or reported on by the Group's independent external auditor.

The information contained within this report is deemed by the Group to constitute inside information as stipulated under the market abuse regulation (EU) No. 596/2014 as amended by the market abuse (amendment) (UK MAR) regulations 2019. Upon the publication of this report via the regulatory information service, this inside information is now considered to be in the public domain.