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Metrics and currency

Our reporting currency is South African rand. However, we provide US dollar equivalents of significant financial metrics and percentage movements to aid sector and peer comparisons.

The key metrics used in this report include:

- PGK – kina, the currency of Papua New Guinea
- Moz – million ounces
- Mt – million tonnes
- Mlb – million pounds
- All production volumes are in metric tonnes (t), unless specifically stated as imperial tons.

Refer to page 178 for the full glossary of terms.

Quick reference

Report navigation

We use icons throughout this report to aid navigation and connectivity. Our key icons include:

The capitals we use and affect

- Human capital:** Workforce skills and know-how
- Financial capital:** Includes funds from financing or generated by productivity
- Manufactured capital:** Physical infrastructure or technology we use
- Intellectual capital:** Intangibles associated with our brand and reputation, organisational systems and related procedures
- Natural capital:** Natural resources, such as our orebodies, water and energy, used to operate our business
- Social and relationship capital:** Relationships with all stakeholders

Feedback

We welcome your feedback on these reports.

If you have any comments or suggestions on this report, contact our investor relations team at: IARreports@harmony.co.za

Referencing

- Cross reference to information elsewhere in the report.
- Information online at www.harmony.co.za.

Mining with purpose

A profitable, sustainable company

Harmony is a world-class gold mining and exploration company with a copper footprint, operating in South Africa and Papua New Guinea.

As an emerging market specialist with more than 70 years' experience, we are well positioned for sustainable, impactful value creation through mining with purpose.

Generating infinite opportunities from a finite resource

Mining with purpose means:

- Mining ethically to build corporate trust
- Contribute to economic development in the countries in which we operate
- Caring for, protecting and empowering our employees
- Being stewards of the environment
- Mining with social conscience ensuring we remain relevant to host communities.

We do this while ensuring we run profitable, sustaining businesses, delivering returns to shareholders and having a lasting positive impact.

Our culture of achievement and philosophy of creating shared value is encapsulated in mining with purpose. Every Harmonite fully supports and commits to this purpose, our mission and values, equally fostering and maintaining healthy and thriving relationships with our stakeholders. Our strategy and business model are geared to ensure we mine with purpose.

Refer to **The value we have created** in the **Integrated annual report** for more information.

Creating and preserving value for all stakeholders

As a sustainability-conscious organisation, our business model was designed to help us manage our capitals and deliver on our strategy. In turn, we are able to reduce our negative impacts, sustain or create positive impacts, mitigate risks and leverage opportunities. Only then can we have meaningful and strategic engagements with our stakeholders to further entrench sustainability and value creation in our business.

Refer to **How we create value** in the **Integrated annual report** for more information.

Our four strategic pillars

- Responsible stewardship
- Operational excellence
- Cash certainty
- Effective capital allocation

Sustainability is at our core

The principles of sustainable development are embedded in our business strategy and decision making. For example, our strategic investments and trade-offs drive our ambitions for gold going green. Our integrated approach to environmental, social and governance (ESG) commitments ensures we consider and make a positive impact on the environment, communities and broader society wherever we operate. This is guided by our voluntary commitment to the United Nations Sustainable Development Goals (UN SDGs).

Refer to **ESG in practice** for more information.

We meaningfully impact:

Through our business



Through our existence and activities



Through collaboration



Cover: Papua New Guinea – agricultural project.

About this report

Integrated ESG thinking is ingrained within the company, our strategy and how we do business. We are cognisant of our accountability to our stakeholders and our connectivity to them, and of the significance and impact of our ESG performance in sustainable value creation.

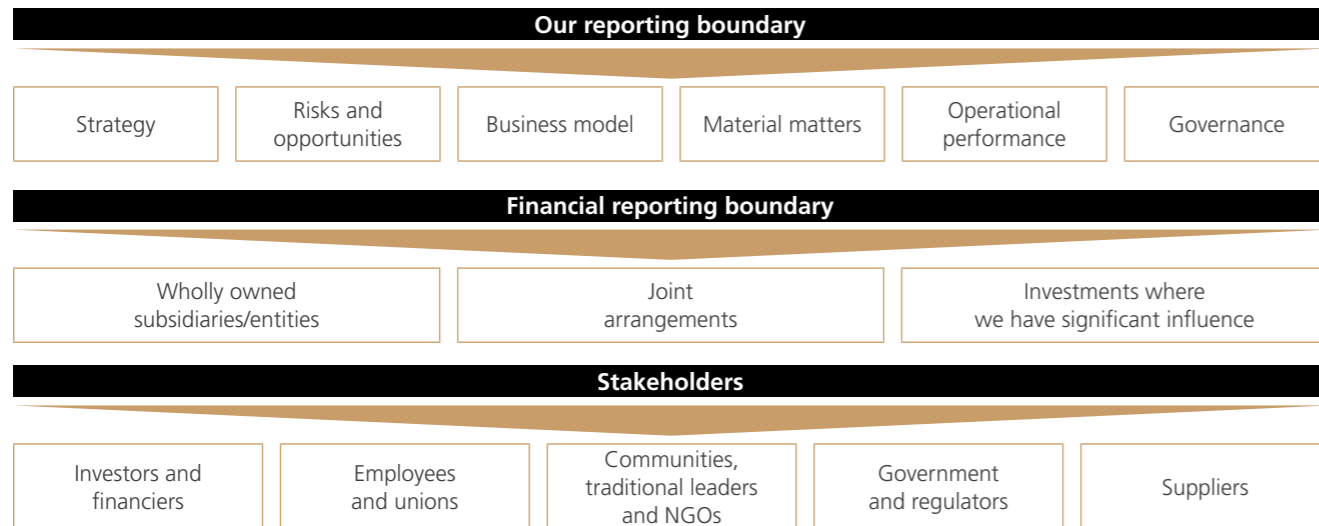
This report is the primary platform we use to provide our stakeholders with a balanced, holistic and transparent overview of our ESG journey and how we performed against our commitments through mining with purpose. The report is largely data based and intended as a useful guide to support analysis.

Scope and boundary

Harmony's 2022 ESG report provides information about our operations and activities in South Africa and Papua New Guinea for the financial year ended 30 June 2022 (FY22). We included significant events between year end and the date of approving this report.

Our overarching governance framework, using an integrated risk-based approach, guides all our decisions and is critical in ensuring and protecting value creation and delivery of our strategic objectives.

In compiling this report, we have determined our reporting boundary by taking into account:



Materiality

Harmony follows the principle of materiality to determine our report content. In 2022, we conducted a double materiality assessment to identify those matters that impact our ability to create value (financial materiality) and our impact on society, communities and the environment (impact materiality). We consider these matters as key to our performance now or in future, and therefore our ability to deliver on our strategy.

Key to determining materiality is engaging with stakeholders to identify their primary concerns. For a better understanding, see the section on stakeholder engagement on page 26. Our materiality process, material matters and risks and opportunities are detailed in the **Integrated annual report**. These sections provide context for how we manage material matters. Specific material matters and risks and opportunities related to ESG are discussed on pages 23 and 14 respectively.

Reporting frameworks, guidelines and standards

We are guided by the following in compiling this report:

	IAR	ESG	FR	MRR
Integrated Reporting Framework	✓	✓		
Companies Act 71 2008, as amended (Companies Act)	✓	✓	✓	
JSE Listings Requirements, www.jse.co.za	✓	✓	✓	✓
King IV Report on Corporate Governance™ for South Africa, 2016 (King IV)*	✓	✓	✓	
International Financial Reporting Standards (IFRS)	✓	✓	✓	
CDP Water	✓	✓		
Task Force on Climate-related Financial Disclosures (TCFD)	✓	✓		
UN SDGs	✓	✓		
World Gold Council Responsible Mining Principles	✓	✓		
South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC)	✓			✓
South African Mineral Asset Valuation Code (SAMVAL)	✓			✓
Global Reporting Initiative (GRI) Standards for sustainability reporting	✓	✓		
International Council on Mining and Metals – 10 principles	✓	✓		
United Nations Global Compact (UNGC)	✓	✓		
Voluntary Principles on Security and Human Rights	✓	✓		

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We have also considered the Principles for Responsible Investment, a UN-supported international network of investors, which reflect the increasing prominence of ESG issues to investors.

Our **CDP Water report** is available online.

Assurance

Assurance on selected key performance indicators (KPIs) disclosed in this report is provided by Ngubane & Co (Jhb) Inc. This was performed according to the revised International Standard on Assurance Engagements (ISAE 3000) assurance standard.

Details of the scope of the assurance engagement, the data assured and the statement of assurance are provided on pages 169 to 174.

Our 2022 reporting suite

This report is supplemented by and should be read with our full reporting suite, comprising:

Scan QR code to download our full suite of 2022 annual reports.



About Harmony

Mining with purpose is how we create shared value – the golden thread that links our purpose to our business model and strategy.

Shared value drives our pursuit of operational excellence, ensures an inclusive approach to stakeholders and guides the way we manage our capitals.

We understand that our activities and the way we conduct our business affects the lives of the people we employ, communities surrounding our mines and the environment. This impact has economic and social implications for our stakeholders and the countries where we operate. That is why sustainable development principles are embedded in our business strategy, processes and decisions.

Harmony must be able to prepare for and respond to external factors impacting our business, identify and understand the risks and opportunities we face, and address matters that we impact or could affect our ability to create value.

This chapter is an overview of who we are, our approach to ESG, the risks and opportunities we face, and the material matters impacting our business and stakeholders.



Read more about Harmony at www.harmony.co.za.

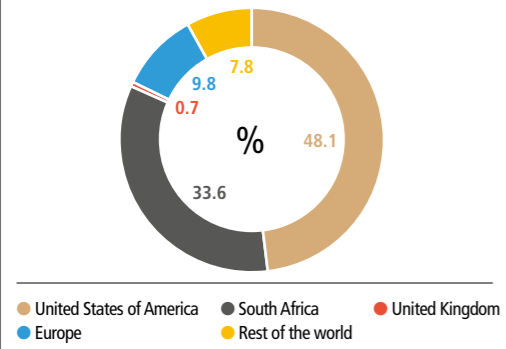


Great Noligwa Complex.

Who we are

Harmony is a global, sustainable gold mining and exploration company with a copper footprint in our Tier 1 Wafi-Golpu asset. We are also a significant operator of gold tailings retreatment facilities.

Geographic representation of shareholders at 30 June 2022



Headquartered in Randfontein, South Africa, Harmony has a primary listing on Johannesburg's stock exchange, the JSE Limited (HAR) and an American depositary receipt programme listed on the New York Stock Exchange (HMY). African Rainbow Minerals Limited (ARM) is our largest shareholder with a 12.12% stake. Our remaining shareholders are geographically diverse and include some of the largest fund managers globally. The largest shareholder base is in the United States (48%), followed by South Africa.

Refer to **Shareholder information** in the **Integrated annual report**.

70+ years' gold mining experience in South Africa and almost two decades operating in Papua New Guinea	1.5Moz produced (2021: 1.5Moz)
Market capitalisation of R32.0 billion (US\$2.0 billion) at 30 June 2022 (2021: R32.5 billion (US\$2.3 billion))	39.8Moz gold and gold equivalent Mineral Reserves (2021: 42.5Moz)

What we do

<p>Exploration and acquisitions Exploring for and evaluating economically viable gold-bearing orebodies and/or value-accretive acquisitions.</p>	<p>Mining and processing Establishing, developing and operating mines and related processing infrastructure. Ore mined is milled and processed by our gold plants to produce gold doré bars.</p>
<p>Sales and financial management Generating revenue through the sale of gold produced and optimising efficiencies to maximise financial returns.</p>	<p>Stewardship and responsible mine closure Empowering communities and employees throughout and beyond the life of our mines. Being responsible to our environment during operations. Restoring mining impacted land for alternative economic use post-mining and having approved mine closure commitments.</p>

How we do it

Mining with purpose
Our purpose is to be a global, sustainable gold producer, creating shared value for all stakeholders while leaving a lasting positive legacy through:

- Creating longevity, profitability and sustainability
- Committing to safe, ethical, social and ecologically responsible mining
- Positioning our business to contribute to a low-carbon future.

Our mission
To create value by operating safely and sustainably, and growing our margins.

Our values

No matter the circumstances, safety is our main priority	We are all accountable for delivering on our commitments	Achievement is core to our success
We are all connected as one team	We uphold honesty in all our business dealings and communicate openly with stakeholders	

Delivering impact

At Harmony, we understand that our activities and the way we conduct business affects the lives of the people we employ, communities surrounding our mines and the environment. This impact has economic and social implications for our stakeholders and the countries where we operate.

In line with our purpose, we strive to ensure that our overall contribution is positive and that our positive legacy endures once mining stops.

Our investment case

Doing what we know best

<p> Our embedded ESG practices will create lasting legacies and ensure a sustainable future for all stakeholders</p> <ul style="list-style-type: none"> • Safety – a core value that always precedes production • Focus – quality ounces and cost reduction aimed at lowering all-in sustaining costs • Proven track record – sustaining and prolonging operating lives of deep-level mines • Wealth of mining expertise – combined, senior executive management and prescribed officers have decades of industry experience • Digitisation – driving further improvements in our safety journey • Decarbonisation – greener energy mix, focusing on renewables • Collaboration – feeding excess energy generated by our solar plants while working with government on additional solutions that address the energy crisis in South Africa. 	<p> We are geared to the rand gold price, with rand costs and US dollar revenue</p> <ul style="list-style-type: none"> • Positioned to benefit from gold price and foreign exchange (operating free cash flow highly geared to current gold price environment). 	<p> As a 1.5Moz gold producer, we are expanding our margins through organic growth and new projects, as we transition into a low-cost copper-gold producer</p> <ul style="list-style-type: none"> • Transition to a low-cost copper-gold miner – Tier 1 copper-gold asset in Papua New Guinea, Wafi-Golpu. This will be further strengthened on closing the Copper Mountain transaction, when we would add a near-term copper project to our portfolio • Emerging-market specialist (South Africa and Papua New Guinea) • Meaningful value-enhancing improvement in South African recovered grade through acquisition and development • Locking in high margin for future returns • Acquisition synergies and other investments have potential to reduce all-in sustaining costs. 	<p> We have re-engineered our portfolio and deleveraged our balance sheet to create optionality and pay a dividend while growing the company</p> <ul style="list-style-type: none"> • Positive shareholder returns through sustainable mining • Strengthened balance sheet supports future growth and capital returns • Capital allocation towards high-grade underground assets and high-margin surface operations to deliver superior returns and improved cash flow generation • Portfolio value supported by joint ownership of Wafi-Golpu asset.
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Who we are continued

To produce safe, profitable ounces and improve margins through operational excellence and value-accretive acquisitions.

🌍 Responsible stewardship

- Embedded ESG.
- Sustainability-linked loans secured
- Green loan for renewable energy projects.
- Net-zero target set.

🏠 Operational excellence

- | Financial indicators | Operational indicators |
|---|--|
| <ul style="list-style-type: none"> • ↓ 20.2% decrease in production profit to R9.5 billion (US\$628 million) (2021: R12.0 billion (US\$777 million)) • ↑ Average gold price received increased by 5% to R894 218/kg (US\$1 829/oz) • ↑ Group all-in sustaining cost increased by 15.6% to R835 891/kg (US\$1 709/oz). | <ul style="list-style-type: none"> • ↓ 3.2% decrease in production to 46 236kg (1 486 517oz) (2021: 47 755kg (1 535 352oz)) • Underground recovered grade of 5.37g/t. |

💰 Cash certainty

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • ↑ Revenue increased by 2% to R42.6 billion (US\$2.8 billion) (2021: R41.7 billion (US\$2.7 billion)). | <ul style="list-style-type: none"> • ↓ Operating free cash of R2.9 billion (US\$191 million) (2021: R6.5 billion (US\$424 million)). | <ul style="list-style-type: none"> • The derivative programme stood at a net positive value of R645 million (US\$40 million) (2021: R1.6 billion (US\$111 million)). |
|---|---|---|

📊 Effective capital allocation

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> • Approved capital of R8 billion (US\$528 million) and spent R6.2 billion (US\$407 million). | <ul style="list-style-type: none"> • Total dividend of 62 SA cents (4.0 US cents) per share declared (2021: 137 SA cents (9.5 US cents)). | <ul style="list-style-type: none"> • Total dividend yield of 1.1%# (2021: 2.4%). |
|---|--|--|

As at 25 August 2022.



Phakisa shaft (Tshepong Operations).

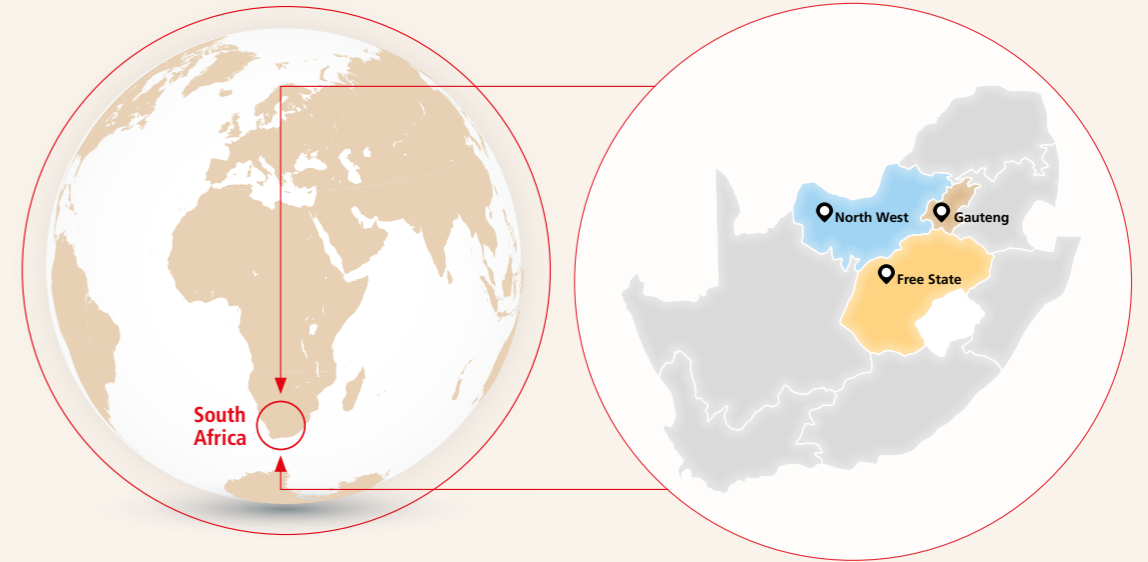
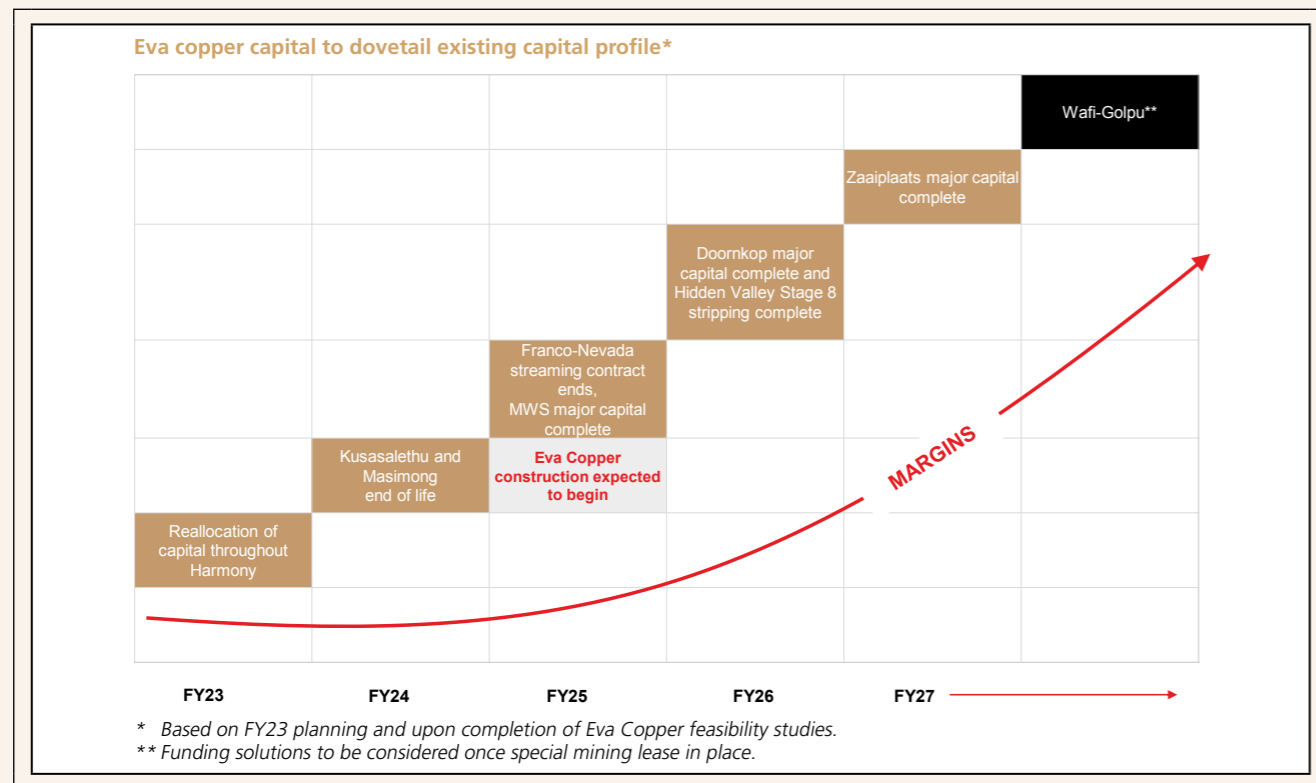
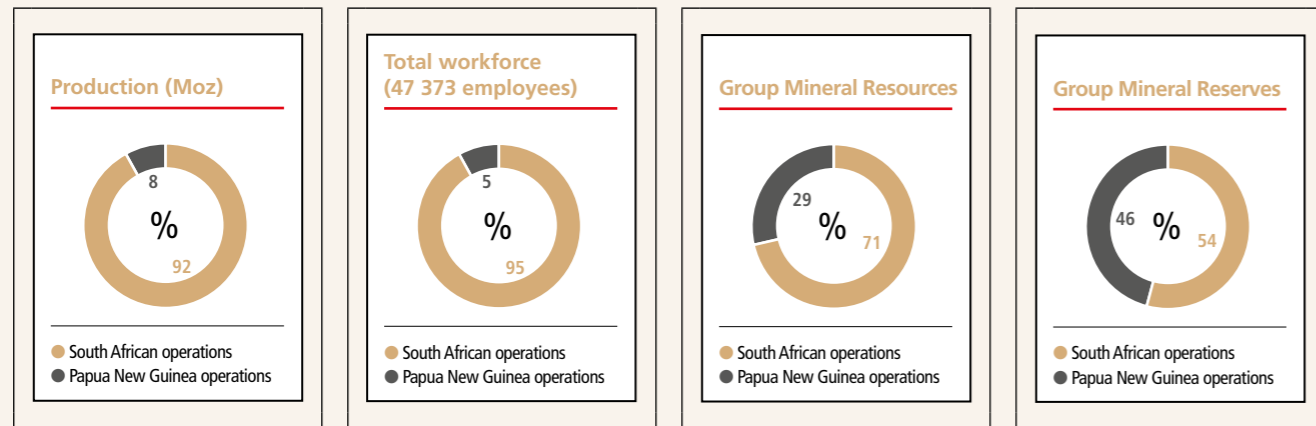
Our operations

With operations in South Africa and Papua New Guinea, Harmony is a profitable, sustainable gold producer creating shared value for all stakeholders and leaving a lasting positive legacy – delivering high-impact and greener gold through embedding ESG in everything we do. With an abundance of opportunities to deploy capital across the world, we carefully determine which projects will deliver optimal shareholder returns on the basis of where we operate, how we manage risk and what skills we can leverage.

We have actively pursued opportunities to extend the life of some of our larger and higher-grade assets, adding lower-risk, higher-margin ounces to our portfolio. This included re-engineering our portfolio between 2017 and 2021 through the Hidden Valley, Moab Khotson and Mponeng acquisitions, reducing our debt and identifying substantial opportunities in our existing portfolio through exploration and brownfield projects. On 6 October 2022, we entered into an agreement with Copper Mountain Corporation, to acquire its wholly owned Eva Copper Project in Queensland, Australia. The total consideration is up to US\$230 million, and includes an upfront cash payment as well as two contingent payments based on various criteria. The closing of the transaction is still subject to certain customary conditions but has received approval from the South African Reserve Bank.

To demonstrate our commitment to good ESG practices and achieving a low-carbon future, we are accelerating the expansion and rollout of numerous renewable energy projects. Refer to **Environment** in this report.

A summary of our operations is presented below and detailed information can be found in the **Operational report 2022**.



South African operations

Location: Witwatersrand Basin and Kraaipan Greenstone Belt
Production: 1.37Moz (92%) (FY21: 1.38Moz (90%))
Total workforce: 45 002
Assets:

- **Eight** underground operations*
- **One** open-pit mine
- **Several** surface source operations.

We have grouped our underground assets based on grade and life-of-mine (LoM) as follows:

- High-grade, long-life assets: Moab Khotson and Mponeng
- Short to medium-life assets with a focus on free-cash generation: Tshepong Operations*, Doornkop, Joel, Target 1, Kusasaletu and Masimong.

Major capital allocation for our underground assets will be determined by grade and returns.

Our high-margin surface assets comprise Mine Waste Solutions, Phoenix, Central Plant reclamation and dumps.

At 30 June 2022, our South African operations accounted for 71% of group Mineral Resources and 54% of group Mineral Reserves, both inclusive of gold and gold equivalent ounces.

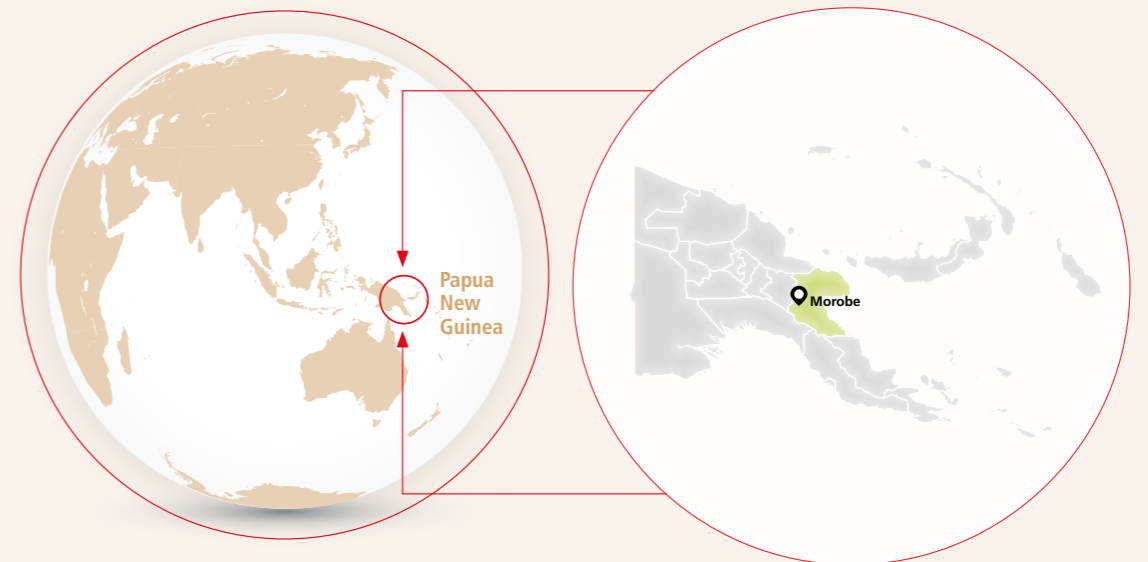
* At 30 June 2022, includes Tshepong Operations, which will be restructured in FY23 and reported as Tshepong North and Tshepong South.

Papua New Guinea operations

Location: New Guinea Mobile Belt in Morobe
Production: 0.12Moz (8%) (FY21: 0.15Moz (10%))
Total workforce: 2 306
Assets:

- **Hidden Valley** (open-pit gold and silver mine)
- **Wafi-Golpu** project (significant copper-gold portfolio)
- **Multiple** exploration areas.

At 30 June 2022, our Papua New Guinea operation accounted for 29% of group Mineral Resources and 46% of group Mineral Reserves, both inclusive of gold and gold equivalent ounces.



Our operations continued

South Africa

Underground



North West		West Rand ¹	
Moab Khotsong	Doornkop	Kusasaletu	Mponeng
6 518	4 093	4 127	5 287
209 237oz 6.79g/t grade	110 726oz 3.94g/t grade	146 833oz 7.52g/t grade	195 669oz 7.25g/t grade
22 years² 10.2Moz Resources 4.0Moz Reserves	16 years 7.4Moz Resources 1.9Moz Reserves	2 years 3.9Moz Resources 0.3Moz Reserves	7 years 24.3Moz Resources 1.9Moz Reserves

Free State			
Tshepong Operations ³	Target 1	Joel	Masimong
9 074	1 859	2 063	2 033
225 763oz 4.50g/t grade	57 872oz 3.96g/t grade	50 026oz 3.59g/t grade	61 407oz 3.93g/t grade
8 years 25.6Moz Resources 1.7Moz Reserves	6 years 3.5Moz Resources 0.6Moz Reserves	8 years 3.0Moz Resources 0.6Moz Reserves	2 years 0.8Moz Resources 0.1Moz Reserves

WORKFORCE
(includes permanent employees and contractors)

PRODUCTION

LOM

¹ Border between Gauteng and North West.

² Includes Zaaiplaats.

³ From FY23, Tshepong Operations will be reported on separately as Tshepong North and Tshepong South.

Surface

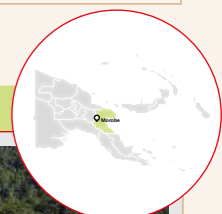
Surface	Waste rock dumps		
Kalgold	Free State	North West	West Rand
684	431*	766*	1 031*
36 555oz 0.79g/t grade	20 834oz 0.37g/t grade	20 062oz 0.35g/t grade	49 576oz 0.28g/t grade
11 years 2.0Moz Resources 0.8Moz Reserves	±1 year 0.25Moz Resources	±1 year 0.05Moz Resources	±1 year 0.02Moz Resources

* Some of this material is treated along with reef, while some is treated at dedicated waste rock treatment plants. The numbers for the Free State, North West and West Rand facilities above exclude MWS, Phoenix, CPR and Kalgold.

Tailings

North West	Free State	
Mine Waste Solutions (MWS)	Phoenix	Central Plant Reclamation (CPR)
1 425	359	248
93 205oz 0.12g/t grade	24 659oz 0.12g/t grade	18 840oz 0.15g/t grade
17 years 2.7Moz Resources 2.2Moz Reserves	6 years 0.5Moz Resources 0.3Moz Reserves	13 years 0.4Moz Resources 0.4Moz Reserves

Papua New Guinea



Surface	Project
Hidden Valley	Wafi-Golpu Project
2 191	59
119 182oz 1.15g/t grade	n/a
5 years 3.1Moz Resources 1.2Moz Reserves	27 years 37.7Moz Resources 17.0Moz Reserves

Our risks and opportunities

Harmony follows an integrated risk-based approach to business. Our exposure to risks and opportunities inherent to mining and factors in our external environment impact our ability to achieve our strategy and deliver sustainable returns over time.

Through identifying and understanding our material risk drivers and their interrelated dynamics, we are better able to manage their impacts and position Harmony to capitalise on opportunities, meet future challenges and deliver on our growth prospects. It also creates value by enabling employees to make risk-based decisions that consider Harmony's strategy, risks and resilience through established risk management practices.

Our systems and processes are underpinned by effective governance and active management, and enable us to proactively evaluate, manage and mitigate risks. We have built our expertise in operating in emerging environments and we are experienced in managing socio-political challenges for over seven decades. This includes our ability to navigate the challenges of our various stakeholders, especially at our deep-level, labour-intensive and unionised gold mines in South Africa.

Our enterprise risk management (ERM) process

Our approach is to implement and maintain an integrated risk and resilience management framework, methodology and system that enables us to apply an integrated risk-based approach to our strategy, business planning and business management. This ensures sustainability and resilience. The process we follow aligns with the ISO31000:2018 Risk Management Guidelines and the COSO's enterprise risk management framework, ensuring that we are implementing global best practice risk management at Harmony.

Our risk management approach is informed by our business strategy and related objectives. To achieve our goals, identifying and understanding the factors that could limit our ability to deliver on our strategy is vital. Equally, we need to understand those factors that present opportunities.

Since 2019, our enterprise risk management team focused on progressively evolving Harmony from risk-competent to risk-intelligent, enabling us to make risk-based decisions within our risk appetite and tolerance levels.

A risk-intelligent Harmony means the ability to:



We finalised our ERM policy, risk management guidelines plan and risk appetite framework in 2021. Combined, these aim to improve the effectiveness of risk management at Harmony through a more holistic and forward-looking approach to managing risk and uncertainty. We have appointed the Institute of Risk Management South Africa to do frequent maturity assessments and to apply best practice to our ERM processes and standards. We are entering the middle stages of our five-year maturity development plan.

Our top strategic risks and opportunities

Our risk profile is based on potential events or factors that present a threat or an opportunity. These downside risks and upside opportunities are considered in our daily business activities and once identified, are integral to formulating and implementing our group strategy.

For a detailed discussion on risk mitigation, and our risks and opportunities, see [Our risks and opportunities](#) in the [Integrated annual report 2022](#).

Group risk and opportunity profiles

Strategic risk profile – top risks

The below list contains 14 risks that were reported in the fourth quarter of the financial year 2021/2022 to the Executive committee. The five highlighted risks are the top strategic risks that were reported to the respective board committees.

Top strategic risks

a	Loss of life/safety
b	Security of electricity/power supply and the impact of higher electricity costs
c	Depleting the Ore Reserve base
d	Geopolitical risks
e	Unsuccessful project execution
f	Non-compliance with or the choice not to comply with additional and ever-increasing environmental, social and governance (ESG) requirements
g	Not achieving operational plans at our critical operations
h	Supply chain disruptions (including supply of goods and increasing costs)
i	Illegal mining, attacks on plants, theft and possible legalisation of artisanal mining.
j	Retaining key skills and experience
k	Gold price and forex fluctuations (varying from planned levels)
l	Regulatory changes and/or compliance with regulatory requirements
m	Dysfunctional basic services
n	The increasing cost of capital and attracting new capital

Group risk exposure

- Our business is gold mining – a high-risk/high-reward business
- We operate across the gold mining value chain – from exploration, feasibility studies, building and buying mines, operating mines to closure followed by rehabilitation
- We are exposed to gold price and exchange rate volatility – we mitigate some of this exposure through derivative programmes
- We operate well in emerging economies and manage associated socio-political impacts
- We continue investing in exploration – one of the most effective ways to grow an orebody and create value
- We have an appetite for change and continuous improvement – we continuously look for innovative ways to improve our existing mines and acquire assets that we can improve operationally
- We have the skills to deal with the challenges of multi-stakeholder labour relations – implicit in deep-level, narrow-reef gold mining in South Africa
- Our experienced teams have strong values and are committed to deliver.

Risk appetite and tolerance

Harmony's risk appetite and tolerance levels are measured against our nine risk categories that were carefully selected by the group executive committee and the board to evaluate the risk impact we are exposed to and reduce the risk exposure through our mitigation strategies. We only report to the board on the risks that are outside our risk appetite and tolerance levels.

Environmental risk matrix

Potential sustainability impact	High	Point source emissions, effluents and waste	Health and safety Energy use and GHG emissions	
	Medium	Physical impacts of climate change Bribery and corruption	Preserving critical skills base Water quality Water security Community relations	
	Low	Human rights	Land use and biodiversity	
		Low	Medium	High
Potential business impact				

Top strategic opportunities

Strategic opportunity profile

Top strategic opportunities

a	Mponeng deepening project
b	Drive Wafi-Golpu up the value curve
c	Productivity improvement projects
d	Exploring value-accretive merger and acquisition opportunities
e	Unlocking the full potential of our surface source ounces
f	Exploring alternative sources of energy to reduce electricity costs to less than 15% of our production costs and reduce the effect of load curtailment

ESG opportunities we pursue

Enhancing our ESG commitments by including sustainability metrics in our funding agreements

Decarbonisation strategy for energy security and improved margins

ESG in practice

To deliver on our ESG commitments, we are guided by our sustainable development framework. The framework design ensures that sustainable development principles are embedded in everything we do, including our strategy, daily operations and decision making.

Our approach

Including all elements of sustainable development under the **responsible stewardship** strategic pillar

Guided by **sustainable development guidelines and frameworks**

Supporting the achievement of the **UN SDGs**

Enhancing **disclosure and measuring our performance** through benchmarking against global best practice and industry peers, and setting group targets

Material matter: Adapting to a changing context

Our business is exposed to risks and opportunities inherent to mining, as well as factors and events in our external environment. These can affect our ability to achieve strategic objectives and generate sustainable value for all stakeholders. Our external operating environment is influenced by economic, social, political and environmental pressures at a macro-economic and national level. These can change over the short, medium or long term. It is therefore vital for Harmony's sustainability that we anticipate, identify and understand all external influences that affect our business, and develop appropriate responses.

Refer to the **Integrated annual report** for more information.

Our sustainable development framework is supported by ESG philosophies, with key tenets for measuring our progress against achieving specific targets.

ENVIRONMENTAL PHILOSOPHY Page 36	SOCIAL PHILOSOPHY Page 80	GOVERNANCE PHILOSOPHY Page 136
<p>To co-exist with the natural environment, we must understand and fully appreciate the negative effects of our operations. Our environmental strategy enables us to manage, mitigate or offset environmental risks associated with our operations. The strategy sets out clear plans for us to operate, decommission or close our mines responsibly while going beyond compliance. Performance, reputational benefit and risk management are the cornerstone of this strategy.</p>	<p>We have a responsibility to:</p> <ul style="list-style-type: none"> • Create relationships of trust with our employees, suppliers, host communities and government • Promote shared value for all • Close our operations with dignity knowing that we have created positive and enduring value where we operated. 	<p>Ethical mining equals ethical leadership that equals corporate trust. Good governance lies at the heart of our performance and our reporting. Guided by our policies and codes, we aim to do the right thing and tell our story honestly. Harmony is a business, but we operate in a broader, interlinked context.</p> <p>Considering every element of those links in our thinking and actions will make Harmony a sustainable business – poised for growth.</p>
<p>Tenets Targets and interventions are unpacked in the relevant sections in this report.</p>		
<ul style="list-style-type: none"> • Decarbonising our business • Environmental stewardship of natural resources • Restoration and value creation. 	<ul style="list-style-type: none"> • Employee safety and health • Employment, labour relations and fair practice • Human rights and diversity • Employee and community safety and health • Philanthropy and socio-economic development. 	<ul style="list-style-type: none"> • Fairness and equality • Inclusivity • Political stability • Governance • Assurance and transparency • Accountability • Corruption and conflict. • Risk and performance management • Values and ethics.

Reporting and disclosure

Reporting and disclosure are important components of our framework:

- We voluntarily report in accordance with guidelines issued by the GRI. Harmony has a self-declared compliance to the core level of the GRI Standards
- We report on environmental information aligned with CDP Water
- Our reporting aligns with TCFD, available at www.har.co.za

Assurance

Corporate credibility is crucial to our business and reinforces the need for us to build on our reputational capital. We achieve heightened credibility through our sustainable development performance and reporting. We assure six material indicators at reasonable level and an additional 16 indicators at limited assurance – all aligned to our materiality index. Through our limited assurance process in 2022, we closed out gaps identified in the gap analysis or self-assessment against the World Gold Council's Responsible Gold Mining Principles that was undertaken in FY21, as required for year one of the three-year World Gold Council certification process. We continue improving our assurance programme to cover key performance indicators and the level of assurance.

Refer to page 169 for the **Assurance report**.

The social and ethics committee is responsible for governance of the sustainable development framework, with the board having ultimate accountability.

Responsible stewardship

Responsible stewardship supports our operating philosophy of profit with purpose, and hinges on maintaining strong relationships by engaging and collaborating with stakeholders. We are mindful of our responsibilities as a corporate citizen, environmental stewards and in truly living our values.

In line with our aim to produce safe, profitable ounces, we continuously consider the impacts of our business activities on the countries where we operate, our employees, host communities and the environment. We also evaluate the effectiveness of our plans to manage and mitigate these impacts. We keenly understand the importance of inclusive stakeholder engagement and partnerships that enable Harmony to mine gold responsibly and sustainably.

Over the next five years, we will continue to strengthen our delivery on sustainable development KPIs (page 43) and the SDG targets most relevant to our business.

Our sustainable development framework can be found **online**.

Sustainable development guidelines and frameworks

	<p>The 17 UN SDGs were adopted by member states in 2015 with 169 indicators and targets. They are aimed at creating a better world by 2030 by eliminating poverty, fighting inequality and ensuring that the world is safe from the worst effects of climate change. An important aspect is the role of the private sector, to support governments, civil society and the public, in achieving these targets.</p> <p>We aligned our sustainable development framework to the SDGs in 2018.</p>
	<p>The World Gold Council's Responsible Gold Mining Principles address key ESG issues for the gold mining sector and set out clear expectations for consumers, investors and the downstream supply chain on what constitutes responsible gold mining. After completing the required year one gap analysis, we are in year two of a three-year process for formal certification against these principles.</p>
	<p>The TCFD was established by the Financial Stability Board and provides recommendations on measuring, reporting and responding to climate-related risks. We produced our third report against these recommended climate-related financial disclosures in FY22.</p>
	<p>The CDP motivates organisations to disclose their environmental impacts. We submit an annual performance report to CDP Water to help us manage our risks and opportunities.</p> <p>The report is available on www.har.co.za.</p>
	<p>As a member of the Minerals Council South Africa, we subscribe to its membership compact, a mandatory code of ethical business conduct, and its guiding principles.</p>

Although we are not a member, our sustainable development framework recognises the principles articulated by the **International Council on Mining and Metals (ICMM)**. These principles are expressed in our various sustainable development policies and position statements.

Although we are not a signatory to the **UNGC** or **Voluntary Principles on Security and Human Rights**, we have adopted their principles to support our sustainable development framework.

We consider the **Organisation for Economic Co-operation and Development's (OECD)** guidelines for responsible investment. Harmony has adopted key aspects of the international tailings standards and will take decisions on full implementation once the operating guidelines have been released.

ESG in practice continued

Aligning with the SDGs

We understand our role in contributing to broader sustainable development issues. We have identified areas where we can lessen our negative impacts and increase our positive impacts through targeted efforts. These include taking action against climate change and fossil-fuelled energy consumption, ending poverty, efficiently managing our use of scarce natural resources such as water and land, while protecting biodiversity and observing human rights.

Equally, as a private-sector company, we are committed to supporting the governments in South Africa and Papua New Guinea in reaching these goals. Our core purpose also aligns our business objectives with the SDGs.

We have prioritised eight SDGs directly aligned with our business strategy and its four pillars. We have also identified five SDGs where we can meaningfully contribute through our sustainable development framework and by meeting our socio-economic development commitments. Many of the SDGs are interconnected. Collaboration is an SDG that is core to all others and calls for partnerships, and pooled efforts and resources to bring sustained beneficial change to our people.






Tier 1 – central to our core business and strategy

What Harmony is doing

 <p>Ensure good health and promote the wellbeing of all</p>	<p>Harmony prioritises the safety, health and wellbeing of our employees because no product is as important as our employees, who should return home safely and healthy every day.</p> <p>Our approach extends beyond the mine boundary to the communities affected by our operations and where many of our employees live. We believe that contributing to the health and wellbeing of our communities facilitates an ecosystem in which our business and all stakeholders can thrive.</p> <p>Refer to Safety and Health for more information.</p>
 <p>Promote gender equality and empower women and girls</p>	<p>Gender equality and inclusivity is an important aspect of our human resources policy. We have gender diversity targets and are actively increasing the number of women employed across the company at all levels.</p> <p>Refer to Caring for our employees and Corporate governance for more information.</p>
 <p>Ensure availability and sustainable management of water and sanitation for all</p>	<p>The climatic conditions in our two geographies are significantly different. South Africa is characterised as a water-stressed region and Papua New Guinea is a high-rainfall, tropical climate. As such, our water management strategies consider the risks, needs and impact of each geography, mine, the surrounding environment and communities with whom we share this resource.</p> <p>We manage and mitigate our impacts on water-catchment areas by ensuring we do not degrade the quality or affect ecosystem health. Our overarching objective is to conserve this natural resource by improving our water efficiencies through reuse and recycling.</p> <p>We contribute to SDG 6 through socio-economic projects that include assisting municipalities in managing their waste water.</p> <p>Refer to Water management for more information.</p>

Tier 1 – central to our core business and strategy

What Harmony is doing

 <p>Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p>South Africa experiences power outages due to various stages of loadshedding implemented by the country's power utility. We are investing in alternative energy sources, including three solar photovoltaic (PV) plants.</p> <p>Given the energy shortage in South Africa, our first imperative is to reduce consumption to increase availability for the country's economic growth and societal needs. This is driven by our energy efficiency programme and a pipeline of projects at different stages of development which will depressurise the grid by adding 200MW to the grid in the short term. For social upliftment, we are liberating land for green energy projects that will feed into the grid.</p> <p>Refer to Climate change, energy and emissions management in this report and our TCFD report 2022 for more information.</p>
 <p>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work</p>	<p>To achieve our strategic objectives and ensure our long-term viability, we aim to be a fair and responsible employer that respects the rights of employees to associate freely. We aim to enhance the lives of our 47 373 employees by enabling them to improve their living conditions, and to have better access to social services, healthcare, education and training.</p> <p>Refer to Caring for our employees for more information.</p>
 <p>Ensure sustainable, responsible consumption and production patterns</p>	<p>A key pillar of our business strategy is operational excellence. By re-engineering our portfolio for quality assets, optimising our processes, grade management and costs, we improve and sustain productivity and efficiencies. This inherently involves the efficient use of natural resources, responsible waste management, sustainable procurement practices and regular reporting to stakeholders.</p> <p>Refer to Environmental management and stewardship in this report and Operational report 2022.</p>
 <p>Take urgent action to combat climate change and its impacts</p>	<p>Mining and extractive processes are highly energy intensive. The energy we consume is mostly generated by fossil fuels in South Africa, a contributing factor to climate change.</p> <p>To reduce our impact and help combat climate change, we are transforming our portfolio into low-carbon assets. We launched our decarbonisation strategy, set net zero targets and are investing in alternative energy sources.</p> <p>Refer to Climate change, energy and emissions management in this report and our TCFD report 2022 for more information.</p>
 <p>Protect, restore and promote the sustainable use of terrestrial ecosystems, halt and reverse land degradation, and halt biodiversity loss</p>	<p>Our mining activities negatively impact natural ecosystems. Guided by our environmental strategy and related policies and procedures, we aim to mitigate these impacts by restoring land and biodiversity, and planning for post-mine closure.</p> <p>Refer to Land rehabilitation and management, and Biodiversity and conservation for more details.</p>

ESG in practice *continued*


Tier 2 – SDGs we support through our existence and sustainable development activities

For more on our contribution to these SDGs, see [corporate social investment](#).

What Harmony is doing






 <p>End poverty in all its forms everywhere</p>	<p>Our 47 373 employees support an estimated 475 000 dependants, local businesses and municipalities in the communities where they live. Many of our socio-economic initiatives create empowerment, employment and economic upliftment through, among others, sustainable economic activities – see SDG 11 – and help to combat poverty.</p>
 <p>End hunger, achieve food security and promote sustainable agriculture</p>	<p>We support broad-based agriculture and commercial agricultural ventures to establish alternative, sustainable economic activities that will continue beyond mining operations and contribute to food security.</p>
 <p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities</p>	<p>We aim to advance mathematics, science and technology at secondary schools in our South African communities. We promote training in entrepreneurial and portable skills, and in information and communication technology among the youth. Ongoing training and skills development for our employees are a business imperative.</p>
 <p>Make cities and human settlements inclusive, safe, resilient and sustainable</p>	<p>Our socio-economic development strategy focuses on agricultural, infrastructure and sustainable energy projects, which have greater potential to deliver sustainable benefits to communities. This is supported by preferential and local procurement, as well as enterprise and supplier development. The aim is to help establish sustainable communities that are economically viable post-mining. Infrastructure projects (such as roads in South Africa and water and sanitation in Papua New Guinea) help boost host community resilience.</p>
 <p>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>	<p>Through ethical mining, we aim to drive ethical business practices, meet or exceed regulatory requirements, and continue partnering with key stakeholders.</p> <p>We have established stakeholder forums where we engage in dialogue with our various stakeholders to understand their needs and expectations. By being honest and transparent and delivering on commitments, we build credibility. We work closely with our local governments through various structures to ensure that we are jointly identifying opportunities to support our communities.</p> <p>In Papua New Guinea, we have assisted with law and order infrastructure including magistrates houses and police stations, among others, to improve access to peace and justice for our communities. We have also established a memorandum of agreement that allows our asset protection department to offer reserve policing capabilities.</p>

Collaboration

 <p>Collaboration with various stakeholders</p>	<p>We believe that mutually beneficial partnerships enable SDG achievement. We partner with communities, municipalities, tertiary institutions, small businesses and governments, locally and nationally, for sustainable development. We continue strengthening current partnerships and building new partnerships by having constructive engagements and addressing our stakeholders' needs and concerns.</p> <p>Refer to Stakeholder engagement and Material matters for more information.</p>
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Measuring how we perform

We recognise the importance of reporting transparently and accurately and continue working to enhance the quality and quantity of our ESG disclosure. We monitor our ESG scores closely, particularly any areas where we may be underperforming against our industry peers. Our ESG performance is annually assessed by global ratings agencies. In FY22, we received the following scores:

 <p>FTSE4Good</p>	 <p>MSCI</p>	 <p>Sustainalytics</p>	 <p>Bloomberg Gender-Equality Index 2021</p>	 <p>CDP DRIVING SUSTAINABLE ECONOMIES</p>
<p>4.0 out of 5.0 FTSE Russell ESG rating</p> <ul style="list-style-type: none"> • Environment: 4.2 • Social: 3.0 • Governance 5.0. <p>Harmony ranks 91st percentile improving from 64th percentile last year.</p>	<ul style="list-style-type: none"> • CCC to B ESG rating <p>Overall, we performed better than the industry average but acknowledge that we need to improve our health and safety, labour management and community relations performance.</p>	<p>Harmony ranks in the top 50 under the precious metals category.</p>	<p>Harmony was included in the Bloomberg Gender Equality Index 2022.</p>	<p>CDP score of "A" for water management.</p> <p>Refer to page 61 for our Water management strategy.</p>

We also measure our sustainable development performance by group aggregate targets.

Sustainable development key performance indicators

KPIs	5-YEAR BASELINE TARGET (FY18-22)		PROPOSED 5-YEAR BASELINE TARGET (FY23-27)
	Target	Cumulative actual	Recommended target
Energy			
Renewable energy (%) ¹	n/a	n/a	20% by 2025 25% by 2027
SBTi: Absolute carbon emissions (m tonnes/CO ₂) ¹	n/a	n/a	3.8 by 2027
Water			
Water intensity (% Kl/tonne treated)	7	34	10% by 2027
Water recycling (% recycled)	6	103	50% by 2027
Reduction in potable water consumption (% of total water used) ¹	n/a	n/a	10% by 2027
Waste			
Non-hazardous waste recycled (% recycled) ¹	10	40	70% by 2027
Land and biodiversity			
Reduce impacted land footprint (%)	3	—	1% by 2027
Implement Biodiversity Action Plans (%)	100	70	100%
Compliance			
Environmental fines	—	—	—
Safety and health			
Significant injuries	—	2 808	—
Loss of life	—	41	—
Silicosis	—	542	0 new cases among unexposed employees to mining dust prior to 2018 based on current diagnostic testing
Noise induced hearing loss	—	435	0 employees standard threshold shift shall exceed 25dB from baseline
Human resources			
Diversity and inclusivity	24% 60%	27% 56%	30% women in leadership 60% of management by designated groups
Governance			
Independence	no target	63%	>60% non-executive directors
Representation	20%	23%	30% female representation at board
ESG	no target	15%	20% ESG linked remuneration for leadership
Social			
Social upliftment	no target	no numeric target	to deliver a high impact legacy project in each of our regions

¹ New indicators introduced for FY23 and onwards.

To mine with purpose, we consider factors that we impact or could affect our ability to create and preserve value over time – our material matters. Our material matters inform the content of our integrated and ESG reports – presenting the most material information to providers of financial capital and other stakeholders.

To identify material matters, we conducted a thorough materiality determination process. This year, we considered our broader impact through a double materiality lens:

- How a material matter impacts society, communities and the environment
- How a material matter impacts Harmony's ability to create value over time.

The matters identified align with the capitals we impact, our risks and strategy, and are prioritised and grouped into material and broader (social, environmental, financial/operational and ethical) themes.

Refer to the [Integrated annual report 2022](#) for a detailed discussion about our materiality determination process.

We unpack the material themes below and ESG-related material matters under the relevant sections in this report.

Material themes	Material matters
Social	
<p>Employee health and safety</p> <p>In line with our purpose and commitment to responsible mining, our focus on zero harm is an investment in our people and business. A safe, healthy workforce means engaged, motivated and productive workers. This in turn minimises operational stoppages, reduces potential legal liabilities and averts reputational damage.</p>	<ul style="list-style-type: none"> • Ensuring employee safety • Protecting employee health and wellbeing.
<p>Supporting our people</p> <p>A meaningful employee value proposition is key to a satisfied workforce, reducing the risk of labour-related disruptions and ensuring employee retention.</p> <p>As a fair and responsible employer, promoting inclusivity and equality, we can deliver on our strategy and create sustained and shared value for all our stakeholders. This includes open engagement, development and training, and fair and responsible pay. These factors positively impact employees by enabling them to improve their living conditions and have better access to social services, healthcare, education and training. They also contribute to attracting and retaining talent.</p>	<ul style="list-style-type: none"> • Maintaining sound labour relations • Driving equity, inclusion and diversity • Instilling an enabling culture and empowered workforce.
<p>Partnering for thriving, sustainable communities and our social licence to operate</p> <p>We recognise that partnering with communities, local municipalities, small businesses and various levels of government contributes to engaged, economically sustainable communities. In addition, strategic procurement facilitates the creation of sustainable businesses and entrepreneurial development, while reducing inequalities and supporting job creation as well as the sustainable socio-economic development of communities and regions where we operate.</p> <p>Failing to embrace our communities could result in miscommunication, expectation misalignment, erosion of trust and potential unrest – threatening our social licence.</p>	<ul style="list-style-type: none"> • Engagement and partnership for sustainable communities • Supply chain transformation and preferential procurement.
<p> For more information, refer to the Social chapter on page 80.</p>	

Our material matters continued

Material themes	Material matters
Environmental	
<p>Environmental conservation and protection Mining is one of the industrial sectors with the greatest potential impact to the biophysical environment through pollution, depleting natural resources and disrupting land use and management. By not managing our environmental impacts responsibly, we put our mining licence, reputation and business at risk. As a sustainability-conscious business, we understand that environmental protection is essential to operating effectively, responsibly and sustainably.</p> <p>Resource management Our operations require natural resource inputs to operate safely and efficiently. These include energy from renewable and non-renewable sources, water and the land we mine. We need to manage these finite, shared and fragile resources responsibly as an ethical, social and business imperative. Mismanagement results in financial loss, credibility loss, and business risk and liability.</p> <p>Resource management aligns with pursuing operational sustainability (detailed below).</p> <p> For more information, refer to the Environment chapter on page 36.</p>	<ul style="list-style-type: none"> • TSF management and safety • Pollution prevention • Climate change and extreme weather susceptibility • Prudent use of natural resources. <ul style="list-style-type: none"> • Addressing energy use and climate change • Water management • Land management, biodiversity and post-closure sustainability.

Material themes	Material matters
Financial/operational	
<p>Pursuing operational sustainability A resilient and profitable business can invest in sustaining itself and employees, rewarding investors and, as a responsible corporate citizen, honouring its socio-economic commitments. New technology presents opportunities to improve safety and enhance our ability to improve cost and productivity efficiencies, as well as overall financial management. However, failure to adopt digital technologies may influence the upskill or reskilling of existing employees and retaining talent.</p> <p>The global trend towards zero-emission industries is accelerating. Our portfolio of assets is characterised by high energy use and will remain so, given our future deepening projects. This poses an environmental impact and cost implication linked to carbon tax. We are diversifying from a depleting Ore Reserve base to low-carbon assets to ensure a future production pipeline of quality reserves that will enable us to operate sustainably and profitably.</p> <p>Managing business resilience Mining is a cyclical business – as commodity prices fluctuate, so too does available funding for exploration and project development. Our shareholders expect a level of performance that ensures sustainable returns on their investment. In contrast, our broader stakeholder groups expect performance that ensures sustainable benefits. Balancing these expectations is a business imperative and reflects management's ability to navigate good and bad times.</p> <p>Our exposure to factors in our external environment and the risks and opportunities inherent to mining can affect our ability to achieve strategic objectives and generate broad sustainable value. It is vital for our sustainability that we anticipate, identify and understand all external influences that affect our business, and develop appropriate responses.</p> <p> Refer to the Integrated annual report for more information.</p>	<ul style="list-style-type: none"> • Pursuing zero emissions and renewable alternatives. <ul style="list-style-type: none"> • Adapting to a changing context.

Material themes	Material matters
An ethical organisation	
<p>Ethical and accountable leadership Good governance is overarching and embodies everything we do as a business. We believe ethical leadership equals ethical mining. Our board has a responsibility and commitment to Harmony's responsible corporate citizenship, ethical leadership and robust governance standards in line with global good governance practice. The rise of global ESG standards adds to this governance agenda, as failure to embrace these goals may impact Harmony's market capitalisation and reputation.</p> <p>The annual reviews of our board composition, fair and responsible remuneration practices as well as our governance frameworks and disclosures are aligned with best practice to ensure we are held accountable for delivering on our sustainability targets and ambition.</p> <p>Ethical mining As ESG issues come to the fore globally, we believe our industry is setting benchmarks for ethical conduct and transparent disclosure that create value across the capitals = corporate trust and credibility.</p> <p>Changing regulatory landscapes in our operating territories create uncertainty, delay key decisions, could affect investor sentiment towards Harmony and could impact our sustainability and licence to operate.</p> <p>As a responsible employer, we adhere to corporate policies, comply with applicable laws and regulations, engage with our stakeholders regularly and contribute, directly or indirectly, to the general wellbeing of communities where we operate.</p> <p> Refer to the Governance chapter for more information.</p>	<ul style="list-style-type: none"> • Governance excellence • Fair and responsible remuneration. <ul style="list-style-type: none"> • Upholding human rights • Ensuring legal, regulatory and compliance excellence • Transparent disclosure.

Stakeholder engagement



Impacting SDG 17

We engage with our stakeholders, principally employees, host communities, supply chain and government authorities, to address a wide range of issues and ultimately retain our social licence to operate. This is particularly important for Harmony, as the geographically fixed nature of mineral deposits can pose unique socio-economic, environmental and political challenges.

Engaging for meaningful and lasting impact

Effective stakeholder engagement builds partnerships and helps us understand stakeholders' needs and expectations, and perceptions of Harmony.

We believe that our competitive strengths lie in our ability to effectively connect with our stakeholders. Operating in South Africa and Papua New Guinea has sharpened our skills in stakeholder engagement and given us a clearer understanding of the needs and challenges facing our host communities. Equally, we recognise the importance of balancing the needs, interests and expectations of different stakeholders.

Managing stakeholder relationships

The quality of relationships with stakeholders and how well these are managed affect our ability to deliver on our strategy. In addition, building long-term, stable, mutually beneficial relationships protects and maintains our social licence to operate and creates shared value for all our stakeholders.

Harmony established a stakeholder relations committee in FY22 to guide the effective implementation of a cohesive stakeholder management and communication strategy. This strategy provides consistency and alignment in Harmony's communication with internal and external stakeholders and facilitates proactive and collaborative stakeholder management, including grievances in accordance with the AA1000 Stakeholder Engagement Standard.

Our approach

Our stakeholder engagement approach aims to build and maintain lasting relationships with all our stakeholders, fostering partnerships and helping us better understand each other, build trust and identify areas for collaboration. It enables Harmony to understand stakeholder needs and expectations and better manage our social performance, potential risks and opportunities.

- When engaging, we are guided by our values and strategic intent to:
- Develop relationships founded on integrity, transparency and trust
 - Support government by establishing collaborative partnerships
 - Balance and align our goals and stakeholder expectations
 - Establish accountability
 - Improve stakeholders' understanding of Harmony's challenges, requirements and concerns
 - Support value creation by maintaining awareness of broader economic and ESG issues.

Stakeholder engagement initiatives

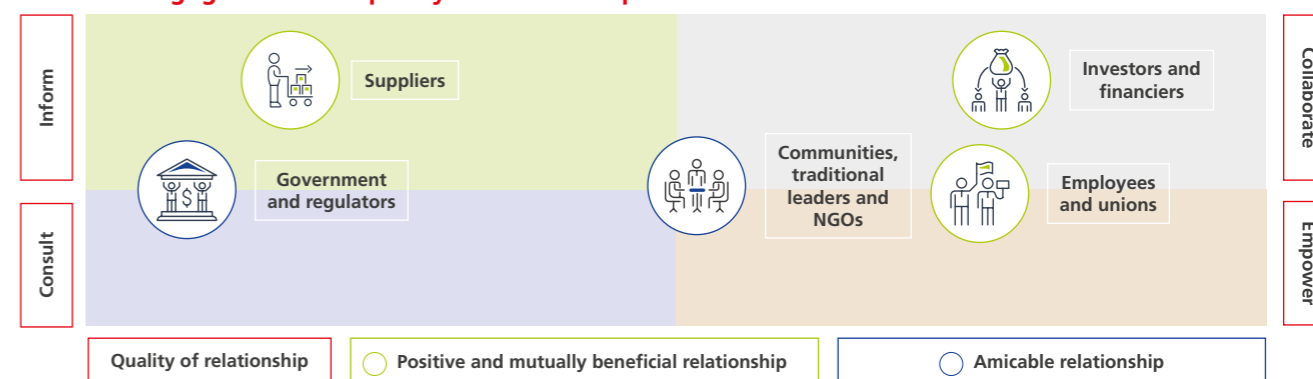
A critical element of our stakeholder engagement approach is proactive, broad-based and inclusive engagements with our key stakeholders. We achieve this through structured engagements guided by the annual stakeholder engagement plan.

The structured community engagement approach introduced in FY21 is reaching maturity and is fully operational. This approach strengthened our engagements with host communities and continues to be an effective platform for:

- Engaging formally and promoting constructive dialogue with our host communities
- Aligning and coordinating stakeholder engagement initiatives across our operations
- Creating shared value and sustaining our social licence to operate.

The tenacity of the community engagement structures is demonstrated by a turnaround from a standoffish engagement approach, that was prevalent in communities hosting our South African based operations, to constructive dialogue that resulted in amiable and mutually beneficial relationships and partnerships.

Levels of engagement and quality of relationship



Investors and financiers

Includes capital providers, current and future shareholders and, indirectly, investment analysts and financial media

Why we engage

- Maintain the confidence of existing investors and financiers, and attract investments in our business
- Continue to deliver shareholder returns, generating positive earnings and share price growth
- Manage financial and operational expectations
- Deliver on our strategy and perform in line with guidance
- Communicate Harmony's ESG commitments and achievements.

How we engage

- Results presentations
- Annual reporting
- Website
- One-on-one calls and industry conferences
- Meetings and AGM
- Regulatory announcements
- Responding to emails sent to our database.

Key concerns

- Exchange rate volatility on margins
- Power security in South Africa
- All-in sustaining costs, cash generation and margins, and the cost impact of greater ESG expectations
- Delivering on commitments to diversify Harmony's geographic presence and commodity mix, and integrating new acquisitions
- Meeting production targets and controlling operational costs in the face of inflation pressure
- Safety performance
- Expanding dividend payments
- Project permitting timeframes in Papua New Guinea.

How we responded

- Implemented the final phases of our risk-based management strategy to improve our safety performance
- Launched Harmony's decarbonisation strategy and applied to join STBi
- Started investing in alternative energy, including ESG-linked loans and commencement of construction of three 10MW solar PV plants
- Continued sustaining our business and host communities during the pandemic aftermath
- Continued unlocking synergies from new acquisitions.

Capitals impacted



Related material themes

- Employee health and safety
- Supporting our people
- Partnering for thriving, sustainable communities and our social licence to operate
- Environmental conservation and protection
- Resource management
- Pursuing operational sustainability
- Managing business resilience
- Ethical and accountable leadership
- Ethical mining.

Stakeholder engagement continued

Employees and unions

Provide human capital, including skills and experience

Why we engage

- Emphasise the importance of safety, reducing risks and requiring procedural compliance
- Maintain stable, constructive and peaceful labour relations
- Reporting on our performance against our strategic objectives, commitments and targets, including our ESG achievements and CSI projects.

Key concerns

- Safety – eliminating injuries and preventing loss of life
- Pandemic and related health concerns, including treatment
- Transformation in South Africa and maximising employment and development opportunities for landowners and local communities in Papua New Guinea
- Training, upskilling and diversifying our workforce
- Wage agreements
- Protecting human rights.

Related material themes

- Employee health and safety
- Supporting our people
- Partnering for thriving, sustainable communities and our social licence to operate
- Ethical and accountable leadership
- Ethical mining.

How we engage

- Frequent engagement via mass meetings, briefs, intranet, newsletters, emails, internal broadcasts and social media
- Structured, formal and regular meetings with unions
- Structured regular meetings with employee representative committee in Papua New Guinea.

How we responded

- Ongoing intensive communication to raise safety awareness
- Encouraged a more engaged and proactive safety culture
- Enforced Covid-19 standard operating procedures, with regular communication
- Continued initiatives to improve transformation
- Continued employee recruitment and development efforts in line with MoA commitments in Papua New Guinea
- Encouraged and delivered Covid-19 vaccinations through the workforce programme
- Settled three-year wage agreement with all five representative unions for 1 July 2021 to 30 June 2024 in South Africa.

Capitals impacted



Communities, traditional leaders and non-governmental organisations (NGOs)

An aspect of social and relationship capital that represents responsible corporate citizenship and impacts our social licence to operate

Why we engage

- Establish and maintain collaborative partnerships with host communities for shared value
- Uphold commitments made to our stakeholders
- Identify, understand and manage our impacts and community expectations
- Proactively identify and address stakeholder concerns, complaints and grievances
- Respond to grievances raised
- Promote economic stability
- Keep host communities informed of activities and performance
- Seek input and support for future projects
- Co-create solutions to generate lasting socio-economic development and growth in host communities
- Build capacity of NGOs to address social needs that are not catered for in government services.

Key concerns

- Covid-19 vaccination programme roll-out in host communities
- Set net zero targets to meet societal and investor expectations
- Maximise employment, localisation and socio-economic development opportunities
- Enterprise and local supplier development opportunities and expectations
- Mine community development expectations
- Local procurement opportunities
- The impact of illegal mining and illegal land occupation
- Project permitting timeframes in Papua New Guinea.

Related material themes

Partnering for thriving, sustainable communities and our social licence to operate

How we engage

The main aim of our engagements is to promote open and constructive dialogue with relevant key stakeholders. Our stakeholder engagements are facilitated through, among others:

- Formal quarterly updates and meetings with host communities and key stakeholders
- Social media pages
- Ad hoc and planned topic/issue-based meetings.

South Africa

- Open days with NGOs in host communities.

Papua New Guinea

- Community affairs employees and offices accessible to communities
- Appointing village liaison officers
- Topic-specific socio-economic studies and engagements, for example, DSTP, closure planning and tailings dam safety awareness and consultation
- Effective use of media to support engagement
- Public Information Centre for the Wafi-Golpu project.

How we responded

- Established inclusive community engagement structures
- Rolled out various topic-based engagement campaigns and socio-economic development initiatives in Papua New Guinea
- Hosted supplier days in host communities to facilitate local economic development in South Africa
- Hosted workshops with community-based organisations
- Addressed concerns, complaints and grievances received through company grievance mechanisms
- Facilitated public participation for environmental authorisation.

Capitals impacted



Stakeholder engagement continued

Governments and regulators

Enact legislation and related regulations that Harmony must comply with to earn or retain its regulatory licence to operate, aligning and managing interests, needs and expectations

Why we engage

- Maintain government stakeholders' confidence in Harmony and positive relations at all government levels to promote a conducive environment for investing in Harmony's long-term growth
- Meet or exceed regulatory requirements and ensure compliance reporting on operations/projects performance
- Understand, develop and implement plans to address issues and manage risks
- Understand and provide feedback on proposed regulatory changes and their potential impact on the mining industry
- Support governments by contributing to national revenue
- Collaborate with government on strategic initiatives
- Align our socio-economic interventions to contribute to the implementation of national, provincial and local growth and development plans
- Policy reform.

How we engage

- Formal reports
- Issue-based meetings
- Providing feedback, including via representative industry bodies, on proposals relevant to the mining industry
- Regular scheduled meetings aligned with stakeholder engagement plans
- Also via industry bodies such as Minerals Council 8A.

How we responded

- Accelerated transformation programme in South Africa
- Continued compliance with legislation in South Africa
- More structured approach in improving relations at provincial and municipal levels in South Africa
- Paid taxes and royalties
- In-country investment supporting growth in operating countries
- Direct and indirect economic stimulation (inducing economic impact)
- Engagement with Hidden Valley landowners and the State to seek resolution of royalty payment dispute.

Capitals impacted



Key concerns

- Compliance
- Safety performance
- Crime and poverty alleviation
- Job creation
- Economic development through procurement.

South Africa

- The appeal for a pending approval (by the DMRE) of a Mineral and Petroleum Resources Development Act section 102 application for Kalgold mine
- Transformation
- Land redistribution.

Papua New Guinea

- Project permitting timeframe for the Wafi-Golpu project (negotiations for the special mining lease are continuing)
- Resolution by the State of a royalty payment dispute related to the Hidden Valley Mine Memorandum of Agreement.

Refer to the **social** chapter for details.

Related material themes

- Partnering for thriving, sustainable communities and our social licence to operate
- Environmental conservation and protection
- Ethical and accountable leadership
- Ethical mining.

Suppliers

Provide raw materials, inputs and services essential to our business

Why we engage

- Manage costs and align with our key policies to support delivery of our strategic objectives and long-term viability
- In South Africa, this engagement is essential in meeting procurement targets for our mining rights
- In Papua New Guinea, engagement is essential to meeting our commitments under mining-related agreements.

Key concerns

- Sustainability of our business
- Preferential procurement
- Alignment with Harmony's values, policies and practices (human rights, labour relations, safety and environmental)
- Unethical conduct, bribery and corruption
- Carbon emissions footprint and scope 3.

Related material themes

- Partnering for thriving, sustainable communities and our social licence to operate
- Environmental conservation and protection
- Ethical and accountable leadership
- Ethical mining.

How we engage

- One-on-one, issue-based meetings
- Email and website
- Industry meetings, exhibitions and conferences
- Contracts and service agreements.

How we responded

- Continued connecting with potential suppliers to encourage participation in tender processes
- Continued working with suppliers to diversify our supply chain
- Continued integrating local SMMEs into supply chain
- Maintained policies, procedures and employee communications regarding ethical conduct, anti-bribery and corruption.

Capitals impacted



Social and ethics committee: Chairperson's report



Dear stakeholder

Once again, we are pleased to publish our ESG Report 2022, complementing our 2022 suite of annual reports. It is an honour and a privilege to preside over this committee at a time when ESG is so pivotal to our company's purpose and shared value intent. This report will provide further insight on our environmental, social and governance (ESG) performance. Many of the challenges facing the world today, such as climate change, water scarcity, inequality and hunger, can only be resolved by promoting and striving for development that is sustainable in the long term. Harmony understands and supports that our business can have a positive influence in all ESG spheres and in doing so, create shared value for all our stakeholders. Mining with purpose is ingrained in our business strategy, models and processes.

Consequently, the work of the social and ethics committee has become even more significant. Our sustainable development framework and associated policies are evidence of our commitment to responsible stewardship. In compiling our framework, policies and related procedures, we have considered the principles of the International Council on Mining and Metals, the United Nations Global Compact and the Voluntary Principles on Security and Human Rights.

Integrating the six capitals into our organisational strategy enables us to unlock profits while fulfilling our purpose to deliver optimal bottom line results. This while also ensuring we build trust with our employees and stakeholders, as we aim to protect the delicate natural environment for future generations.

At Harmony, good corporate citizenship and tangible acts of moral responsibility have become the way we do business. We have demonstrated our intent of a harmonious coexistence with host communities and working collaboratively with our suppliers, communities and partners to ensure the development of healthy, inclusive communities.

This committee has a unique mandate set out by the Companies Act. It is also responsible for overseeing governance and our performance in terms of our sustainable development activities. These include ESG considerations; ethics management; stakeholder engagement; employee relations (including empowerment, transformation, employee health and wellness); environmental management and stewardship; socio-economic development and upliftment; and public health and safety. The committee also considered the inevitable trade-offs between capitals to ensure Harmony continues to create shared value.

The committee thus complied with its regulatory, legal and other responsibilities mandated by the board. Accordingly, we have applied the principles of King IV with greater emphasis on ethical governance and conduct, as well as responsible corporate citizenship to support the sustainable growth of the company.

For further details on the committee, its members and activities in the review period, refer to [Corporate governance](#) in this report.

Value creation – Key focus areas in FY22

As part of ongoing initiatives to create and share value, this committee continues to assess, review and approve the ethics policy, stakeholder engagement policy, environmental policy, employment equity as well as the preferential procurement policy and strategy.

Although some gaps are still being addressed, we are particularly pleased with the company's progress against short-, medium- and long-term targets.

In the review period, the committee focused on ESG issues and its oversight role. Understanding that our business may have an impact on ecosystems, we ensured that our environmental management programmes are robust and effective.

Harmony's energy transition

Pivotal to our environmental strategy is our climate-change and decarbonisation strategy. Since 2016, we have focused on using less energy as well as being more efficient in the use of that energy. Given that South Africa and Papua New Guinea are members of the 2015 Paris Agreement (a legally binding international treaty on climate change); Harmony, with operations in both countries, recognises its impact on carbon emissions as well as its obligation to combat climate change.

The committee recommended Harmony's decarbonisation strategy for board approval and supported the science based targets for 2026, 2031 and 2036. The committee further endorsed the intent to achieve net zero by 2045.

This is underpinned by an aggressive renewable plan and a substantive green loan.

See [Climate change, energy and emissions management](#) in this report.

Ethics management

The Ethics Institute of South Africa continued to assist management and the committee to embed and further improve the governance of organisational ethics. While the governance of ethics is mandated to this committee, the board sets the group's approach to ethics and is equally responsible and committed to the highest standards of ethical conduct throughout Harmony.

See Organisational ethics in [Corporate governance](#) in this report.

We understand that implementing sound corporate governance practices to mine ethically cannot be compromised or negotiated – our licence to operate rests on legitimate and ethical leadership. Equally, the principles of sustainable development are fundamental in ensuring sustainability and profitability for our stakeholders.

The negative impact of illegal mining in South Africa remains a challenge for our economy and stakeholders alike. Although Harmony has intensified its partnerships to combat the issue, we remain cognisant that further partnerships and collaborations are required to develop innovative solutions in this regard. The committee continued to monitor and assess key improvement areas to address this challenge in Harmony and the industry at large.

See [Land rehabilitation and management](#) in this report.

Kareerand tailings storage facility

As part of our commitment to our strategic pillar of responsible stewardship, our responsible tailings management measures at Kareerand limit environmental impact, particularly on the nearby Vaal River which is a crucial water source for South Africa, and neighbouring communities.

The board approved an investment of R2 billion in the Kareerand expansion project. The extension design includes a full geomembrane liner and a comprehensive cut-off drainage system to avoid groundwater and surface impacts by shifting 70% of deposition. As with Kareerand's current siting, the extension will be on stable geology and away from dolomites.

See [Tailings and waste management](#) in this report.

Social responsibility

Harmony continues to support the spirit of the mining charter as it relates to transformation and we are making good progress against the key tenets. As it relates to our social and labour plans, we are making good traction in delivering on our commitments. That said, our mine community development programmes are behind plan for the financial year, however, we are currently expediting delivery and are making good progress.

The committee continued to monitor the company's improved stakeholder engagement to proactively reach all levels of government and host communities in South Africa and Papua New Guinea. This stakeholder-inclusive approach focuses on reactive and proactive engagements, which positions Harmony well with its stakeholders and increases our social and reputational capital.

The successful three-year wage agreement signed in September 2021 with all five organised-labour representatives is testament to our inclusive approach. An agreement of this nature secures a stable labour force with limited business interruptions.

The safety and health of our workforce remains a key focal point of Harmony's sustainability. Safety is an important consideration for the committee in terms of ESG and during board discussions. The technical committee has specific oversight of employee safety, while this committee focuses on employee health and public safety.

For more on our approach and initiatives on employee safety, see the [Chief executive's report](#) in our [Integrated report](#) and [Safety and Health](#) in this report.

The board, through the remuneration committee, ensures the implementation of Harmony's remuneration policies as approved by shareholders. We remunerate fairly and responsibly by ensuring that our remuneration is market-related and in line with the performance of the company. Our safety and ESG outcomes are therefore carefully considered and reinforced in our remuneration policy.

For more detail on our remuneration policy, refer to the [Remuneration report](#) in the [Report to shareholders 2022](#).

Preferential procurement

The committee continued to monitor the implementation of the company's preferential procurement strategy and enterprise supplier development in South Africa and Papua New Guinea to assess our contribution and impact in local communities. In South Africa, Harmony has made steady progress with its preferential procurement strategy to integrate black-owned businesses into its supply chain. We must ensure that these transformation initiatives include our communities, and Harmony has been resolute about advancing opportunities to entrepreneurs in host communities. We remain challenged on women and youth inclusion and are working hard to close this gap.

We are grateful to our supply-chain partners who work with us to promote inclusive participation by black-owned, black women-owned and youth-owned companies. Harmony has already achieved its targets for FY25 by spending over 80% of its discretionary expenditure with companies that have more than 25% black ownership, which includes over 50% with companies that have more than 50% black ownership.

Social and ethics committee: Chairperson's report *continued*

TCFD

In FY20, we published our first report in line with recommendations of the TCFD in our suite of annual reports. The purpose of this report was to demonstrate our risk management processes and articulate the likely financial impact of climate change. This report was well received and we have published a similar report this year. For ten years, prior to FY20, we had submitted reports to the CDP Climate Change and CDP Water (formerly the Carbon Disclosure Project). We believe that the TCFD disclosure provides better understanding and context of the implications, financial and otherwise, for Harmony on climate change. It also facilitates the company's evolution to a low-carbon economy.

📄 See **Environmental management and stewardship** in this report.

World Gold Council – responsible gold mining principles

The World Gold Council's (WGCs) responsible gold mining principles acknowledge the unique roles of gold and gold mining in many countries and communities. In South Africa especially, the gold mining industry plays a unique role. The 10 principles encapsulate key ESG issues and provide a single, consolidated framework of what constitutes responsible gold mining. This provides comfort to consumers, investors and downstream supply chain that the gold we produce has been responsibly mined and processed.

Harmony champions responsible mining and we believe the WGC framework will reinforce good practices at our operations. We are therefore formally implementing the framework.

United Nations Sustainable Development Goals (SDGs)

📄 As in the previous year, Harmony interrogated the individual SDGs and our contribution to achieving these goals by 2030. In this report – see **ESG in practice** – we explain the goals that are central to our core business and strategy (tier 1), and those where we can contribute through our socio-economic development activities (tier 2).

📄 For more information, see **Caring for our employees, Empowering communities, Environmental management and stewardship, Safety and Health.**

In closing

Our intention and commitment remain to continue focusing on: ensuring employee safety and health, contributing to self-sustaining communities and responsible closure planning, mitigating the environmental impacts of our mining activities, ensuring an enabling culture and empowering our workforce and navigating political and regulatory uncertainty.

I wish to thank my fellow committee members, the board and management for their support and contribution to ensuring Harmony's progress towards a sustainable future. I wish to extend a special word of thanks to my predecessor, Dr Simo Lushaba, who stood at the helm as committee chairperson for the first half of FY22. A concerted effort has been placed on creating value for our stakeholders, particularly our employees and the communities within which we operate. The board continues to fully support the committee in this commitment.

Karabo Nondumo
Chairperson: social and ethics committee

25 October 2022



Rietvallei agri-project.

Environment

LEAVING a lasting positive legacy

In line with our purpose, we are committed to ecologically responsible mining that contributes to a low-carbon future and leaves a lasting positive legacy.

Mining is one of the industrial sectors with the most significant potential impact on the biophysical environment through pollution, depleting natural resources and disrupting land use and management.

Harmony has long understood that environmental protection is ethical, required and essential to running effective and sustainable business units. We embed ecological considerations and ecosystem health in our systems and processes from design to construction, operation, decommissioning and closure. Our responsible practices extend beyond our mine boundary to our supplier partners and market (Rand Refinery).

We believe responsible management of natural resources and ecosystems is vital to realise a sustainable future for our operations, host communities and future generations. Accordingly, we focus on:

- Our emissions through decarbonising Harmony's energy profile as we support the orderly transition to a low-carbon future (or economy)
- Efficient and effective use of natural resources, especially water, while managing and protecting (where possible) the quality and quantity of water resources for users as well as the health of the watershed ecosystem
- Reducing our impacted footprint by consolidating our mining footprints, especially minerals waste, where we drive the physical and chemical stability of our landforms
- Protecting and restoring, where applicable, biodiversity and ecosystems to be able to deliver associated services.



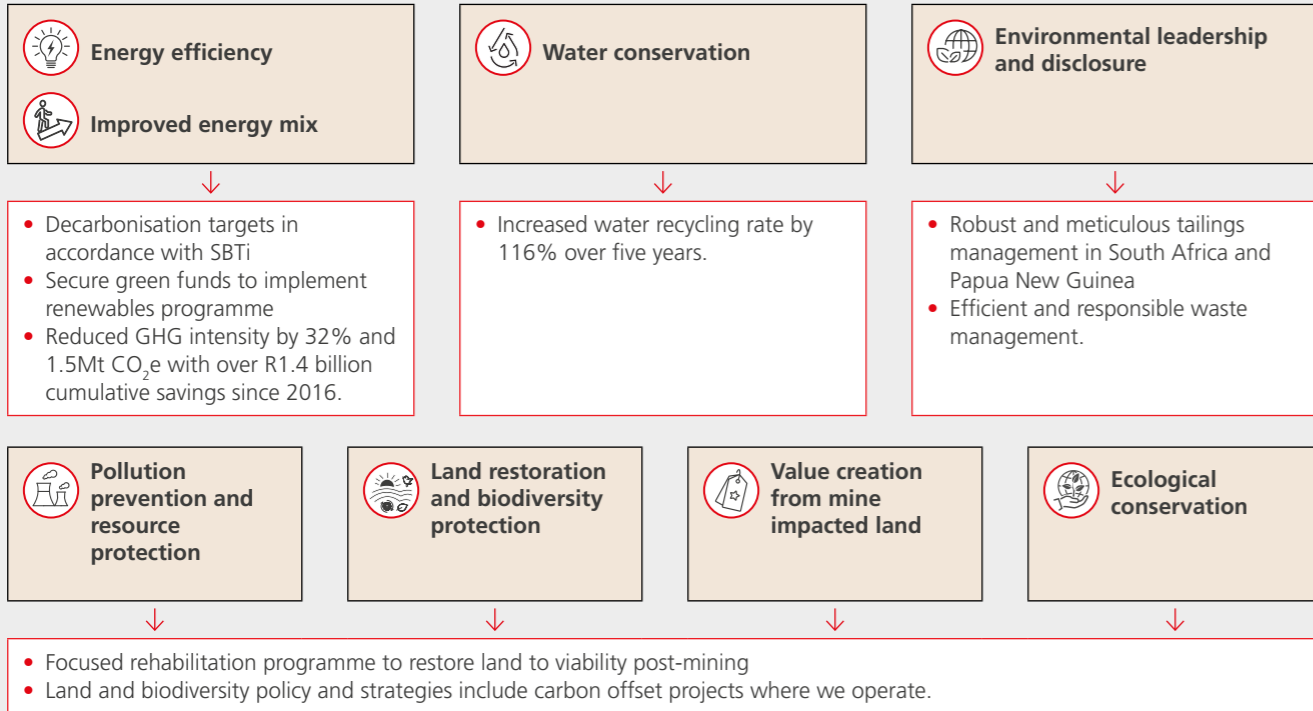
Read more about our environmental stewardship at www.harmony.co.za/sustainability/environment.



Agri Project Wedela.

Environment continued

Tenets of our environmental management philosophy



GRI Standards

We list the relevant Global Reporting Initiative (GRI) Standards in each section of this chapter and will include the GRI Sector Standards for Mining when published.

Related material themes and material matters

Material themes
Environmental conservation and protection
Tailings storage facility (TSF) management and safety
The failure of any TSF has potentially catastrophic consequences downstream with severe financial and reputational risks for the company. The global spotlight on tailings management in recent years underscores the broader impact of mining activity. As an industry, we recognise the potential harm to our people, communities and the environment presented by tailings failure, waste and pollutants.
Pollution prevention
Our mining and extractive processes generate mineral and non-mineral waste including emissions, which by the very nature of our business does impact on our environment. Environmental management performance is essential to our business, hence where we operate we aim to identify and understand our risk and impact on the environment. This is followed by either avoiding pollution or otherwise minimise, mitigate and remediate or offset our impact.
Addressing energy use and climate change
Mining and extractive processes are highly energy-intensive with a considerable impact on our operating costs and environmental credentials. Rising electricity costs directly impact our business while carbon tax affects margins and our carbon footprint destroys our responsible miner reputation. The energy we consume is mainly generated by fossil fuels contributing to climate change. Companies' responses to climate change affect reputational capital and access to financial markets. This could have implications for a growing organisation.
Energy consumption is a related significant financial and environmental concern for Harmony. We remain committed to mitigating ever-increasing electricity costs, ensuring energy security, and reducing our carbon footprint and overall negative impact.
Resource management
Climate change and extreme weather susceptibility
Climate change is the most serious environmental risk confronting our business. We are susceptible to extreme weather events such as storms, drought and flooding, and increasing temperatures that could affect underground ambient temperatures and food security. Land degradation is also a major contributor to climate change and therefore a significant environmental risk. Climate-related risks will affect our future operating costs, infrastructure requirements, operations and operating conditions, host communities and supply chain.
Water management
Water is a critical and scarce natural resource in our mining and processing activities, and as potable water for our employees and communities. Harmony deals with the twin challenges of South Africa being a severely water-stressed region while Papua New Guinea has a tropical climate characterised by high rainfall. Managing and mitigating our impacts on water catchment areas – by taking action to avoid degrading the quality or reducing the volume of water in surrounding areas – are crucial to maintaining our social licence to operate. We are also supporting host communities addressing water challenges, such as through our Wafi-Golpu project water, sanitation and hygiene programme, which delivers improved infrastructure and increases supply security.
Land management, biodiversity and post-closure sustainability
Potential positive and negative impacts arise at different points in the lifecycle of our assets, including at closure. For example, a key issue in socio-economic planning is mitigating the impact of mine closures on our communities. As such, our holistic approach to closure planning starts early and continues throughout the asset lifecycle. We examine both socio-economic and biodiversity aspects – considering how land rehabilitation and biodiversity management can bring benefits to our host communities and support post-mining uses and related economic activity.
Pursuing operational sustainability
Pursuing zero emissions and renewable alternatives
Harmony is a socially and ecologically conscious miner. Our portfolio of assets is characterised by high energy use and will remain so, given our future deepening projects. We are focused on transforming these assets into low-carbon consumers. There are financial and stewardship benefits in diversifying our energy mix with opportunities for funding through sustainability-linked bonds.

We are committed to championing environmental stewardship through pollution prevention, prudent use of natural resources, maximising circular economy and a transition to a low-carbon future. Our actions aim to minimise, mitigate and remediate the harmful impacts of our operations on the environment.

In South Africa, our activities are primarily regulated by the Mineral and Petroleum Resources Development Act and related environmental laws such as the National Environmental Management Act (together with a suite of supporting Acts and Regulations), the National Water Act and the Carbon Tax Act, which aim to mitigate and manage our impacts and promote a low-carbon economy. Legislation in South Africa continues to be updated or amended, most notably the financial provisioning for mitigation and rehabilitation of environmental damage caused by reconnaissance, prospecting, exploration, mining or production operations due to be implemented in September 2023.

In Papua New Guinea, water extraction and waste discharge by mining projects are regulated by the Environment Act 2000, administered by the Conservation and Environment Protection Authority. Extensive legislative review continues with several policy changes under consideration. Of particular relevance to Harmony is the revised mine closure policy and mine closure guidelines, which include provision for financial assurance as security for mine closure costs, and the proposed introduction of a biodiversity offsets policy.

GRI Standards
Prepared in accordance with 3-3, 308-1 and 308-2.



Our approach

Harmony's environmental strategy, and related policies and procedures, seek to mitigate the impacts of our mining activities by focusing on:

Emissions reduction through energy efficiency	Emissions reduction through improved energy mix such as renewables	Water conservation	Environmental leadership and disclosure	Pollution prevention and resource protection	Land restoration	Value creation	Environmental conservation
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Our mining activities transform natural capital while avoiding or mitigating any adverse environmental impacts. We therefore approach environmental management and stewardship intending to preserve our natural capital.

Excellent environmental performance is a pillar of our business strategy. We operate in compliance with legislation as a responsible steward of our shared natural resources. The business benefit of mitigating our environmental impact is reduced operating costs and risk exposure while supporting our endeavours to leave a positive post-mining legacy.

Find our environmental policies at <https://www.harmony.co.za/sustainability/environment/related-policies/>.

Our environmental management and stewardship policy, outlined in Harmony's sustainable development framework, guides us in fulfilling our commitments to:

- Prevent pollution wherever we operate or minimise, mitigate and remediate our harmful impacts on the environment

- Comply with host country environmental laws and regulations
- Promote active partnerships with governments, communities, labour and NGOs for environmental protection and conservation
- Continually improve environmental management systems with:
 - Targets that promote efficient use of resources and reduce environmental exposure
 - Progress reporting to internal and external stakeholders
 - Responsible management of hazardous substances
- Contribute to biodiversity protection and consider ecological values and land use aspects in investment, operational and closure activities
- Engage in transparent dialogue about environmental matters with our communities
- Disclose our environmental KPIs through GRI assurance processes.

Independent auditors conduct detailed assurance of these material KPIs annually (see report on page 169).

Environmental management and stewardship continued

Operations are guided by technical and performance standards, incorporated into environmental management systems, and implemented according to ISO 14001 (2015). Environmental management programmes include detailed closure plans for each operation within five years of planned closure to expedite beneficial post-mining land use and activities to ensure sustainable community livelihoods.

Harmony's assets range from development to long-life operational, short-life operational, decommissioned and closed operations. Accordingly, we require that long-life assets with a remaining life of more than five years are ISO-certified, and short-life and decommissioned assets are compliant although not certified. Improvements are noted annually (see **Compliance and certification** on page 47).

In addition, we subscribe to global best practice. Although Harmony is not a member of the World Gold Council, we implement the World Gold Council's Responsible Gold Mining Principles applicable to our business.

For details on the completed gap analysis or self-assessment, refer to the assurance statement on page 47).

In line with best practice, we provide environmental awareness training to new South African and Papua New Guinea employees, reinforced by leadership training courses and monthly initiatives.

Environmental strategy

To enhance our delivery of the SDGs, in alignment with Harmony's strategic priorities, we have outlined our key environmental deliverables with associated measurements and targets.

<p>Capitals affected</p> <p>Natural capital</p>	<p>SDGs impacted</p>	<p>Key deliverables</p> <ul style="list-style-type: none"> Secure/maintain licence to operate Enhance credibility Pollution prevention Reduce and/or diversify energy and natural resource consumption Environmental footprint reduction.
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Responsible stewardship: suppliers and market
Considering environmental impacts in our supply chain

Suppliers
 To comply with South Africa's National Environmental Management Act, each supplier must adhere to our environmental management policies and standards. We thus ensure our suppliers observe laws and regulations governing issues like water and air quality, and employ reasonable measures to avoid environmental pollution and degradation.

As our extensive supply chain indirectly contributes to our scope 3 greenhouse gas emissions, we engage with our top 20 suppliers about their carbon and water footprints to reduce their emissions and associated climate change.

Market
 Rand Refinery, in which Harmony has a 10% stake, is committed to excellent environmental performance and compliance as well as internationally accepted responsible sourcing (specifically the London Bullion Market Association's responsible gold guidance and OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas).

Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients. One of our executive directors is also a non-executive director and chair of Rand Refinery's social and ethics committee. Our board therefore oversees and influences Rand Refinery's ESG strategy and performance.

For Harmony, as a company with a cradle-to-grave approach to environmental management, sound practice in our downstream value chain is significant for us to deliver gold ethically and responsibly.

The certified gold chain of custody is independently audited as independent bodies and legislation require.

Setting environmental targets

We finalised new environmental targets to be implemented from FY23 to FY27. Our baseline group environmental performance targets focus on our strategic imperatives and material risks, including energy, water, land and biodiversity. Our five-year baseline target, which ended during this period, will be followed by a new set of five-year targets ending in FY27. These targets are aligned with our adoption of science-based targets to achieve net zero emissions by 2045.

In FY21, data for our newly acquired Mponeng and Mine Waste Solutions assets was recorded over nine months. We recorded a full 12 months for these and other assets in FY22. Therefore, while consumption increased, we saw an improvement in intensities and efficiencies and achieved our targets.

Group environmental targets*

KPI	Five-year baseline target (FY18 to FY22)		Year on year		
	Target	Cumulative actual	Target	Actual	Achieved
Energy					
Reduce absolute electricity consumption (% MWh)	5	(64)	1	(30)	✗
Electricity intensity (% kWh/tonne treated)	5	41	1	33	✓
Total carbon emission intensity reduction (% tCO ₂ /tonne treated)	5	32	1	34	✓
Diesel intensity (% kl/tonne treated)	2	42	0.4	50	✓
Petrol intensity (% kl/tonne treated)	2	43	0.4	39	✓
Energy intensity (% GJ/tonne treated)	5	43	1	34	✓
Water					
Reduce water used for primary activities (% m ³)	7	(84)	1.4	(54)	✗
Water intensity (% m ³ /tonne treated)	7	34	1.4	21	✓
Water recycling (% increase)	6	116	1.2	38	✓
Waste					
Non-hazardous waste recycled (% increase) ¹	10	37	2	52	✓
Land and biodiversity					
Reduce impacted land footprint (%)	3	n/a	0.6	0.03	✗
Environmental fines	—	—	—	—	✓
Implement biodiversity action plans (%)	100	70	20	70	✓

¹ Timber, steel and plastic.

Consumption KPIs

KPI	Five-year target based on consumption (FY18 to FY22)			Year five (FY22)		
	Target	Actual	Achieved	Target	Actual	Achieved
Energy						
Renewable energy (% of total electricity consumption) ¹	10	3	✗	2	3	✓
Waste						
Hydrocarbon recycling ² (% increase of total hydrocarbon consumption)	80	24	✗	16	3	✗

¹ Sources that produce electricity for Harmony's consumption. Renewable sources are based on installed capacity.

² Hydraulic oil and lubricants.


* This is the last time we are reporting on these targets, please refer to page 22 for next cycle.

Mitigating environmental risks

Our environmental risk matrix (page 15), included in our corporate risk register, underscores the importance of our natural capital and environmental management strategy. This matrix details the most significant threats to our business, employees and communities over the medium to long term. Related risks (page 39) could affect future operating costs, infrastructure requirements, operations and operating conditions, host communities and the supply chain.

Material climate-related risks, which could have substantive financial impacts, include safety (due to excessive heat and heavy rainfall), regulatory changes (such as South Africa's Carbon Tax Act and the Climate Change (Management) Act in Papua New Guinea) and major infrastructure incidents such as those caused by flash flooding.

Environmental-related lost production days have a substantial financial impact, equivalent to approximately R10 million per day at a typical Harmony operation. Additionally, we estimate the impact on our business from the carbon tax will be R300 million to R500 million by 2030. There are ongoing conversations with national treasury as it relates to their plans for carbon tax rates beyond 2026.


 For more on environment-related lost days, see our [TCFD report 2022](#).

We are de-risking the business through our ESG-linked financial transactions concluded in FY22 (page 58). The key performance indicators (KPIs) of this sustainability-linked funding focus on energy and associated greenhouse gas emissions and water. These are two major environmental concerns for Harmony and South Africa.

The KPIs reflect an absolute reduction in greenhouse gas (GHG) emissions, an increase in renewable energy consumption as a percentage of the total energy mix and reduction in absolute potable water consumption. These KPIs also address four of the six material environmental sustainability issues in the metals and mining industry according to the Sustainability Accounting Standards Board (SASB) materiality map. The six material issues identified by the SASB include: GHG emissions, air quality, energy management, water and wastewater management, waste and hazardous materials management, and ecological impacts.

Our environmental risk matrix shows how these KPIs address risks with a high business impact and a medium to high sustainability impact.



 For more on climate-related risks, see our [TCFD report 2022](#).

 For details on water as a risk, refer to page 60.

Another consideration in our environmental risk matrix is land degradation as a significant contributor to climate change. Land degradation generally means poorer vegetation cover, which impairs the ability of plants to absorb carbon dioxide, increases the likelihood of soil erosion during rain and dust storms (particularly detrimental to high arable land) and impacts biodiversity.

Legislative framework

The legislative frameworks regulating the mining industry in South Africa and Papua New Guinea remain in flux with several new and amended bills and draft policies before the respective parliaments. The pandemic delayed promulgation while regulatory uncertainty continued in both countries, particularly regarding managing and reporting environmental impacts in and around mining operations. The associated implications for our business are outlined below.

 South Africa	 Papua New Guinea
<ul style="list-style-type: none"> <p>• Financial provision regulations</p> <p>The mining industry continues to engage with the Department of Environment, Forestry and Fisheries on the publication of the financial provisioning for mitigation and rehabilitation of environmental damage caused by reconnaissance, prospecting, exploration, mining or production operations. Implementation of these regulations was deferred to September 2023 to allow for draft reviews. We remain concerned that some of the implications for the industry, such as the inclusion of VAT, remain unaddressed. Harmony will present comments to the regulator.</p> <p>• Carbon tax</p> <p>In February 2022, the Minister of Finance commented on proposed changes to the Carbon Tax Act. Some of these comments were published in draft regulations that realise a substantial increase in the base rate of the levy on emitted emissions through carbon tax. These costs would increase in phase 1 of carbon tax implementation, which ceases in December 2025, before a stricter new tax regime becomes applicable in 2026. Harmony will engage with National Treasury to motivate a lower tax rate. Our response is detailed on page 46.</p> 	<p>Policy changes</p> <p>While the principal environmental legislation in Papua New Guinea (the Environment Act 2000) remains applicable, several national policy changes are being considered with provisions for imposing additional taxes and levies on resource industries:</p> <ul style="list-style-type: none"> <p>• Mine closure</p> <p>Revised mine closure policy and mine closure guidelines include provision for financial assurance as security for closure costs.</p> <p>• Climate change taxes</p> <p>Fees to support the country's Climate Change (Management) Act include taxes on carbon in fuel products and a green fee (departure tax applied to non-residents exiting the country). We are taxed on carbon in fuel through our bulk fuel supplier at a nominal rate per litre.</p> <p>• Protected Areas Bill</p> <p>In March 2022, the latest draft of the proposed Protected Areas Bill was tabled in the Papua New Guinea parliament. It aims to:</p> <ul style="list-style-type: none"> – provide for the conservation and replenishment of the environment, biodiversity, the land and its sacred, scenic and historical qualities – regulate the management of a protected area network, protected area policies and protected areas. <p>Concerns about the bill, ongoing since the first draft was released in 2016, are addressed with the regulator by the Papua New Guinea Chamber of Mines and Petroleum working group, comprising industry representatives and their legal teams. Limited progress was made in 2022 on addressing these concerns and future engagement remains critical. The bill includes the introduction of a biodiversity offsets policy, including a mechanism for associated payments to support national biodiversity incentives. Beyond this, financing for protected areas is unclear and further definition is required on proposed funding mechanisms.</p>

Environmental management and stewardship continued

Our response to South Africa's carbon tax requirement

Accounting for our direct and indirect carbon tax liability

In South Africa, the carbon tax is levied on operations that exceed the regulated emissions threshold. Operations that exceed the threshold must also report annual emissions to the Department of Environment, Forestry and Fisheries.

Harmony's currently reported scope 1 GHG emissions liable for the carbon tax are derived from:

- Combustion of diesel and jet fuel by generators
- Fuel combustion by boilers
- Railway diesel combustion
- Wastewater treatment and managed waste disposal sites.

Phased approach to carbon tax and allowances

The carbon tax is being implemented in phases. The current phase 1 is due to end in 2025 when tax-free allowances will remain applicable in calculating the carbon tax liability to ease implementation. Tax-free allowances will then change and fall away over time. Basic tax-free allowances (60%) will be reduced and will likely completely fall away from 2026 to 2030. In phase 2, the carbon offsets allowance is due to increase by 5%, the trade exposure allowance from the current 10% and the carbon budget allowance could fall away. Changes to the tax-free allowances will affect the direct carbon tax liability and therefore the pass-through from Eskom.

Decarbonisation strategy

Our carbon tax considerations align with the successful implementation of our decarbonisation strategy (page 54). This considers the life-of-mine and energy consumption of each operation, based on audited figures, as well as implementation of energy efficiency projects, implementation of solar renewable energy, wheeling and liquefied natural gas (LNG) energy sources. The decarbonisation strategy will address carbon taxes and address greenhouse gas emissions, energy security and lower energy costs.

Our focus areas and performance in FY22

We spent R328 million (US\$22 million) (FY21: R281 million/US\$18 million) on our group environmental portfolio in FY22.

Annual expenditure on our environmental portfolio	FY22		FY21		FY20	
	Rm	US\$m	Rm	US\$m	Rm	US\$m
South Africa						
Implementation of environmental control	249	16	198	13	64	4
Mine rehabilitation projects	52	4	49	3	62	4
Total	301	20	247	16	126	8
Papua New Guinea						
Implementation of environmental control	27	2	34	2	32	2
Harmony total	328	22	281	18	158	10

Material used	FY22	FY21	FY20	FY19	FY18
Tonnes treated (000t)	53 801	49 253	25 429	25 980	22 441

Compliance and certification

South Africa

Compliance

No directives or fines were issued by regulators in FY22.

Certification

- 13 of our South African operations are ISO 14001 compliant (including Mponeng plants and Mine Waste Solutions)
- Bambanani and Unisel are not certified as both are in closure
- The Central and Saaiplaas plants were certified in FY22
- We expect recertification of the Mponeng shaft in FY23.

Papua New Guinea

Compliance

While Hidden Valley did not have formal regulatory inspections or audits during the year, the mine hosted two representatives from the Conservation and Environment Protection Authority in September 2021 via a helicopter tour (as per Covid-19 protocols that restricted movement of people to the operation) following an extended absence due to the pandemic. The regulator found the site infrastructure performance and the current monitoring programme within receiving catchments satisfactory.

Hidden Valley continues to operate in accordance with the conditions of its environmental permit, last amended in April 2021, and the supporting environmental management plan.

Certification

Hidden Valley's environmental management plan is aligned with the ISO 14001 standard.

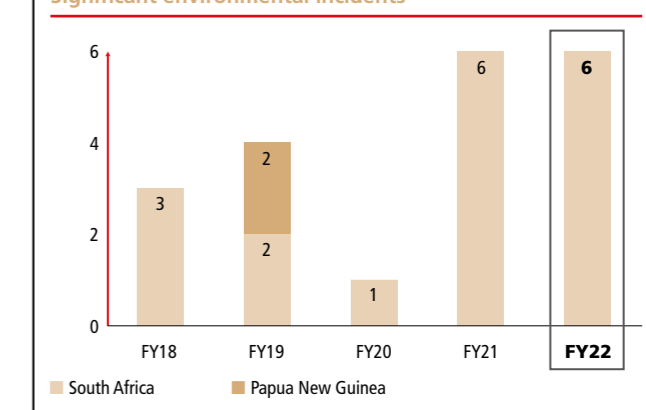
Environmental incidents

Harmony reports environmental incidents in terms of a risk matrix that evaluates the severity of the incident against the financial and reputational implications for the group. It reflects the levels of severity, incident descriptions, financial and legal implications, and aligns with Harmony's enterprise risk matrix.

South Africa experienced more frequent water-related incidents due to exceptionally high rainfall in FY22. All incidents were of a very short duration and have been corrected immediately with limited impact to receiving environments.

Harmony recorded six level 3 (moderate) reportable environmental incidents in South Africa during the year and zero in Papua New Guinea. Appropriate remedial action was taken in all cases.

Significant environmental incidents



Severity level	Mitigation costs	Environmental impact	Reputation impact	Legal impact
5	>R10 million	Irreversible damage to habitat or ecosystem	International condemnation	Potential director liability
4	<R10 million	Significant impact on habitat or ecosystem	National and international concern (NGO involved)	Very significant fines or prosecutions
3	<R5 million	Longer-term impacts and ecosystem compromised	Adverse media attention (locally and nationally)	Breach of legislation and likely consequences from the regulator
2	<R1 million	Moderate short-term effects but do not affect ecosystem function	Unresolved local complaints and possible local media attention	Minor breach of legislation
1	<R500 000	Localised affected area of low impact	Local complaints	No major breaches of legislation

Environmental management and stewardship continued

Reportable environmental incidents in South Africa are summarised below.

South Africa		
Location	Incident level and description	Environmental impact
Kalgold	Level 3: Heavy rainfall of 130mm was received in the space of three days in January 2022. The water catchment area was saturated and flowed down the Morokwa stream. Relevant dams were filled to capacity. The stream burst its banks, broke through the river diversion running into the D-Zone Pit, where tailings from the plant is being deposited.	No environmental damage or impact to downstream users was recorded. The breached berm walls for the river diversion have since been repaired.
Mine Waste Solutions	Level 3: Heavy rainfall was received resulting in Bokkamp Dam containment reaching near capacity. The theft of pipelines and electrical cabling that usually pumps water to a different containment facility directing process water worsened the overflow to Bokkamp Dam and subsequently limited flow reached the Vaal River. The overflow incident in February was repeated in April 2022, thus the incident was recorded on two occasions.	Our impact was monitored from a point source where higher sulphate levels and total dissolved solids were detected. However, no detrimental impact could be detected on the receiving environment based on laboratory samples taken. The stolen pipelines have been replaced.
Mine Waste Solutions	Level 3: Heavy rainfall was recorded during this period and process water was contained in the Queen Mary Dam. The containment facility from a separately owned gold plant in the vicinity overflowed, thus resulting in discharge into the Schoon Stream.	The impact was monitored from the point source as well as within the stream. Water quality results indicated higher levels of total dissolved solids within the discharge. Lower sample results indicated no detrimental impacts to downstream users.

Our focus areas in FY23

In South Africa, we are planning for electricity tariff increases due to the carbon tax while implementing our decarbonisation plan. We will also advance water optimisation by increasing recycling to decrease our reliance on external potable water supply. At the same time, our land management systems will focus on ongoing rehabilitation of our tailings storage facilities and implementation of our biodiversity programme.

In Papua New Guinea, we will continue focusing on responsible waste and water management, and pursue involvement in industry working groups supporting legislative reform.

Land rehabilitation and management

We offset the impact of our mining activities by restoring sustainable value to land disturbed by our operations with respect for local ecosystems and people.

Our rehabilitation strategy in South Africa aims to reduce our environmental footprint through concurrent and final rehabilitation. We honour the commitments of our environmental management programme, reduce our environmental liability and mitigate the risk of illegal mining activities by, where feasible, refurbishing infrastructure for alternative use by communities and by demolition and rehabilitation of decommissioned infrastructure.

In Papua New Guinea, most disturbed areas at our Hidden Valley mine remain actively used in support of ongoing operations. Progressive rehabilitation activities are therefore predominantly intended to stabilise exposed areas, prevent ground movement near critical infrastructure and limit off-site sediment transportation.

GRI Standards
Prepared in accordance with 3-3 and 304-3.

Related SDGs



Our approach

The main objectives of our group's rehabilitation strategy include:

- Set aside sufficient funds to cover closure and rehabilitation
- Conduct Closure Cost Assessments on an annual basis and update the Closure and Rehabilitation Plans
- Rehabilitation of decommissioned mine infrastructure to reduce the mine-impacted footprint
- Where possible, liberating land for alternative land uses
- Using land for carbon removal, offsets and biodiversity conservation and ecosystem function, where feasible, and to cultivate crops for food security
- Promoting job creation and environmental skills development among youth and women
- Engaging with the community in closure planning and enabling communities to be involved in greening for the future of their environment
- Focus on biodiversity management and development through rehabilitation.

REHABILITATION STRATEGY

Responsible stewardship



- Responsible environmental impact management is a priority:
 - Demolition and rehabilitation of mining impacts
 - Carbon sink/offsets
 - Biodiversity offsets
- Enhance socio-economic benefits for host communities through holistic closure planning
- Strive to create and share value through resource inputs (human, financial, natural, manufactured, and social and relationship capitals)
- Responsibility to host communities extends beyond direct employment
- Adoption of SDGs.

Alternative energy mix climate mitigation



- Using rehabilitated mine land for generating alternative energy sources and reducing carbon emissions
- Planting vegetation to create a carbon sink.



Vegetation management



Identifying and mapping sensitive and protected plant species and environments through our environmental impact assessment processes.

Developing site specific Biodiversity Action Plans for all our assets.



Socio-economic benefits



- Developing local host community entrepreneurs in rehabilitation and restoration
- Social licence to operate (corporate citizenship) through job creation
- Assisting with the development of township economies and food security at local level.

Socio-economic development focuses on

- Uplifting communities
- Infrastructure
- Agriculture
- Educating, upskilling and enabling youth.



Final land use



- Link to agri business, agri-processing and food security
- Woodlots for carbon removal
- Conservation and biodiversity protection
- Composting and converting land to agri-quality
- Establish modified natural ecosystems in remote mining areas.



Our focus areas and performance in FY22

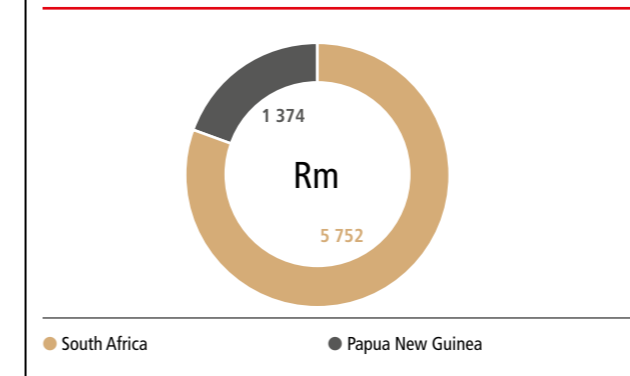
Our undiscounted value of the land rehabilitation liabilities carried on Harmony's balance sheet, amounted to R7.1 billion (US\$438 million) in FY22. The increase was due to higher rates, as a result of increases in fuel prices and inflation, and continued mining operations that increase the footprint of our liabilities.

Land rehabilitation liabilities (Rm)	FY22	FY21	FY20	FY19	FY18
South Africa	5 752	5 559 ¹	3 038	2 884	2 919
Papua New Guinea	1 374	1 306	1 378	1 039	1 336
Group	7 126	6 865	4 416	3 923	4 255
Total US\$m	438	438	244	278	308

¹ Following acquisition of Mponeng and related assets.

See [ESG data tables](#) for more statistics.

Land rehabilitation liabilities by country – FY22



Refer to the [Form 20-F](#) for further detail on risks and liabilities.

South Africa

The total land under our management is 92 255ha. Of this, 13 925ha is affected by our mining-related infrastructure. In FY22, we rehabilitated 31.8ha of the planned 117ha.

Over more than a decade, Harmony's rehabilitation of decommissioned shafts and hostels has mitigated the impacts of illegal mining, particularly in the Free State (refer to page 133).

In FY22, we rehabilitated two plant footprints, and decommissioned and closed shafts as well as one hostel. We also sealed and capped shaft barrels for safety purposes, and to deter illegal mining access. Before rehabilitation work continued, the regulator had to approve various safety-related aspects for deposition into the shaft barrel. In addition we have started the rehabilitation of our decommissioned tailings in the Free State with plans to also expand this initiative to the North West.

To date, we have demolished 46 shafts while rehabilitating broader footprints (former plants and ancillary service infrastructure).

Rehabilitation and socio-economic development in South Africa

Integrating our environmental stewardship and socio-economic development imperatives

We integrate our environmental stewardship and socio-economic development imperatives in rehabilitating and reclaiming land, tailings dams and waste-rock dumps by:

- Seeking opportunities to make unused rock dumps available to entrepreneurs after receiving relevant radiation clearances
- Donating dumps with commercial quantities of recoverable gold to local communities in line with our shared ownership principle
- Conducting extensive due diligence of our community partners and providing protection against criminal groups involved in illegal mining
- Ensuring the success of these small businesses by assisting in building their technical and financial capacity.

It remains incumbent on us to contain our impacted footprint and seek responsible practices for avoiding, mitigating and remediating negative impacts as we aim to create positive benefits for healthy ecosystems and societies. The rehabilitation programme has already created 200 jobs, supported the development of numerous local small businesses and decreased illegal mining activity in the Free State. As a result, safety and security have also improved for employees and communities.

The next phase in the strategy is to use mine-impacted land to support the agribusiness sector for small-scale and commercial production.

Our decarbonisation plan also includes planting of thousands of trees on our tailings facilities. This has been costed and we are preparing to establish a nursery that will employ local people to grow and plant the trees. We will thus rehabilitate land and reduce our emissions by 2045.

Other socio-economic development projects underway on rehabilitated land include:

- The labour-intensive alien and invasive vegetation removal project near Kusasalethu and Doornkop (this project, which began in 2016 at Kusasalethu, is rolling out in phases)
- Establishing commercially viable agricultural projects as well as subsistence agriculture in Gauteng, Carletonville and Matlosana.

See [Empowering communities](#) for details.

Reclamation of waste-rock dumps is progressing well at Kusasalethu, Doornkop, Moab Khotsong and several sites at our Free State operations. Waste rock is considered a resource by the aggregate industry. Additionally, we are attempting to support and assist a junior and local community grouping to participate in this sector. This approach is growing in Welkom and initiatives are being finalised in Klerksdorp.

See waste rock under [Tailings and waste management – Mineral waste](#) for details.

When a feasibility study showed that the cost of repurposing old mine-site buildings into employee accommodation in the Free State was prohibitively expensive, Harmony began seeking empty or serviced stands within municipal proclaimed land. This investigation is due to be completed at the end of August 2022, focusing on civil and electrical engineering, foundation and architectural designs, and associated development costs, including the cost per unit.

Our focus areas in FY23

The group will be closing the gap in compliance in our biodiversity action plans and implementation of carbon offset programme.

In Papua New Guinea, we propose to maintain our rehabilitation programme to safeguard infrastructure and advance our understanding and readiness for eventual mine closure.

In South Africa, we continue to rehabilitate, with specific focus being given towards growing rehabilitation of our decommissioned tailings facilities.

Our decarbonisation strategy is taking us towards a sustainable future by reducing our consumption of fossil fuel-based energy and related costs.

Energy consumption is a significant financial and environmental concern for Harmony.

Mining and extractive processes are highly energy intensive, with a considerable impact on our operating costs:

- Our assets are predominantly deep underground mining operations, which are more energy intensive than surface-level mines, and in FY22 accounted for 97% of the group's total electricity consumption and 19% of operating expenditure.

In South Africa, our dependence on the country's coal-based electricity grid means the energy we consume is mainly generated by fossil fuels, a contributing factor to GHG emissions and climate change, and that carbon tax liabilities and electricity supply security are material risks. As electricity accounts for around 18% of our operating costs, incremental cost increases by Eskom add millions of rand to our operating cost.

In Papua New Guinea, our Hidden Valley Mine sources power from the Ramu grid, while also maintaining backup diesel generators on site to address supply shortfall. The primary generator for the Ramu grid system is the Ramu hydropower plant, which experienced a number of disruptions to output in FY22. Hidden Valley is presently exploring opportunities to enhance the reliability of hydroelectric power supply to the mine via direct connection to the Bauine hydro power station located nearby.

GRI Standards

Prepared in accordance with 3-3, 302-1, 302-2, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4, 305-5 and 305-6.

Related SDGs



Our approach

Harmony's policies and strategies acknowledge that climate change will impact the gold mining sector, in terms of physical environmental changes and the socio-economic mobilisation necessary to achieve the United Nations Framework Convention on Climate Change (UNFCCC) objectives, over the coming decades. We are pursuing the Paris Agreement's goal to limit global warming to 1.5°C by the end of the century with science-based targets, approved by our board and verified by the Science Based Targets initiative, and key performance indicators (KPIs) linked to our sustainability performance targets.

The group's policy on energy efficiency and climate change mitigation is responsive to our current context, and is based on the following commitments:

- Optimising electrical energy and carbon resource consumption to enhance efficiency in operations while identifying opportunities to improve the energy mix
- Improving energy efficiency through effective energy management
- Reducing GHG emissions, measuring progress and reporting results
- Developing appropriate responses to climate change through implementation of renewable energy and mitigation
- Encouraging employees to continuously conserve energy at work and home
- Collaborating with government in associated policies and strategies.

Meeting the requirements of our sustainability-linked loan facilities

Demonstrating ESG in action

The energy-related KPIs included in our sustainability-linked facilities (outlined on page 58) are:

- Absolute reduction in scope 1 and 2 GHG emissions from an FY21 baseline of 4 896 000 tonnes to 4 074 000 tonnes carbon dioxide equivalent (CO₂e) by FY25
- Increase in renewable energy consumption as a percentage of the total energy mix from 0% in FY21 to 20% by FY25.

An independent service provider applying the sustainability-linked loan principles, issued by the Loan Market Association, among others, verified the credibility of these targets. Upon meeting the KPIs, Harmony will receive meaningful interest savings. If we miss targets, penalties will be payable.

Climate change, energy and emissions management continued



Climate change reporting

Transparent disclosure of quantitative and qualitative financial and non-financial data on our journey to a low-carbon economy

In line with global best practice, we publish a separate report on our carbon-related performance, and associated risks, concerns and opportunities. Available on our website at www.har.co.za, this report aligns with TCFD requirements. We continue to submit annual water performance reports to CDP.

The TCFD, the South African carbon tax and related updates from National Treasury are incorporated into our financial modelling to enhance our understanding of the likely impact of climate change on our business. We also include carbon pricing in our strategic and operational plans.

Decarbonisation strategy

Acknowledging the global shift towards a low-carbon economy, our decarbonisation strategy is an important aspect of our environmental management approach.

Our asset portfolio is characterised by high energy use. We therefore focus on transforming these assets into low-carbon consumers by:

- Advancing our surface reclamation programme to produce ounces at lower energy intensity, and growing our low-carbon metals and minerals portfolio
- Decommissioning energy-intensive and low-margin assets to avoid generating high emissions for low returns
- Driving efficiency programmes (page 57)
- Enhancing our energy portfolio mix with a strong pipeline of renewable and low-carbon energy sources (page 58).

In the short to medium term, we remain focused on renewable energy sources so that, in addition to our copper and silver output necessary for renewable electrification and transportation, Harmony is well positioned to support the transition to a clean energy future.

Our progress and plans are summarised below.

Decarbonising Harmony

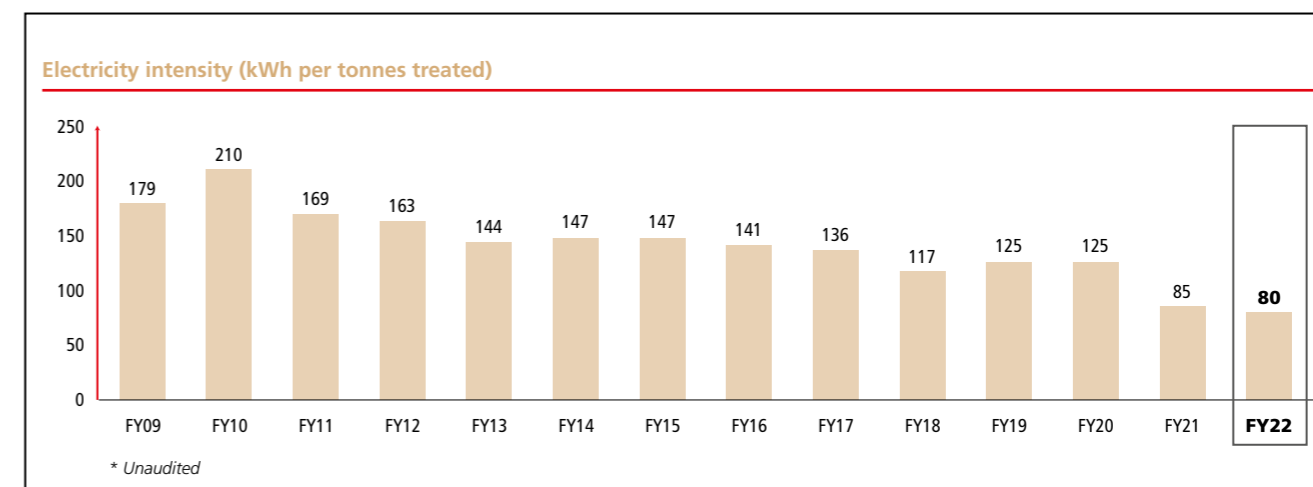
Energy efficiency	Adaptation	Rebalancing our asset portfolio	Energy mix
<p>2016 – 2022</p> <ul style="list-style-type: none"> • Reduction: 1.3TWh • Investment: R181 million • Cumulative savings: R1.3 billion and 1.5Mt of CO₂. <p>2023 – 2026</p> <ul style="list-style-type: none"> • Planned reduction: 1.5% per annum • Estimated investment: R44 million per annum • Estimated savings: R85 million per annum. 	<ul style="list-style-type: none"> • Carbon removal • Agriculture and forestation • Water beneficiation. 	<p>2008 – 2020</p> <ul style="list-style-type: none"> • Closed energy-intensive shafts. <p>2019 – 2023</p> <ul style="list-style-type: none"> • Closed further deep-level and energy-intensive shafts • Increased portfolio of surface assets • Papua New Guinea: – Hidden Valley secures increased supply of hydropower. 	<p>Renewable energy roll-out plan</p> <p>Harmony is implementing various initiatives to reduce GHG emissions in line with our target to be net zero by 2045. This phased strategy (page 58) includes:</p> <ul style="list-style-type: none"> • Solar PV projects • Wheeling in wind energy and hydropower • Energy from other sources including, for example, LNG • Energy efficiency projects.

Our focus areas and performance in FY22

See [ESG data tables](#) for more statistics.

We reduced our electricity intensity by 42% over the past seven years through our commitments to optimising energy efficiency and climate change mitigation. The graph below illustrates the success of our energy management programme, supported by our service provider, ETA Operations. Since 2016, we have generated cumulative savings of around R1.3 billion in energy costs and reduced CO₂ emissions by 1.5 million tonnes.

As illustrated below, the acquisition of Mponeng and related assets significantly positively impacted our performance. While Mponeng is a deep-level mine, Mine Waste Solutions is a high-volume surface tailings retreatment operation, which is less energy intensive and helps to eliminate and process surface sources. The combined result is a decrease in energy intensity per tonne of ore treated.



Climate change, energy and emissions management continued

Improving energy efficiency by reducing consumption

The group improved efficiencies by reducing energy and fuel consumption during the year. Energy consumption increased by 6% due to the acquisitions and recording a 12 month consumption for Mponeng and Mine Waste Solutions while our total carbon emissions intensity increased by 1% primarily due to marginal increases in electricity purchased for Mponeng and Mine Waste Solutions and Hidden Valley's increased diesel consumption.

Energy consumption (000MWh) ^{1,3}	FY22	FY21	FY20	FY19	FY18
Electricity	4 253	4 123	3 171	3 326	2 518
Diesel ⁴	605	448	462	488	486
Other sources (petrol and heating oil) ²	66	60	5	5	3
Total	4 924	4 631	3 638	3 819	3 007
Energy consumption intensity (MWh per tonnes treated)	0.09	0.09	0.14	0.15	0.13

¹ Annual DEFRA conversion factors used for PNG and Technical Guidelines for monitoring, reporting and verification of GHG emissions by industry for SA.

² Heating oil reported from FY21.

³ Acquisition of Mponeng and Mine Waste Solutions operations from October 2020 (only 9 months reporting in FY21).

⁴ PNG internal energy consumption is accounted for under diesel.

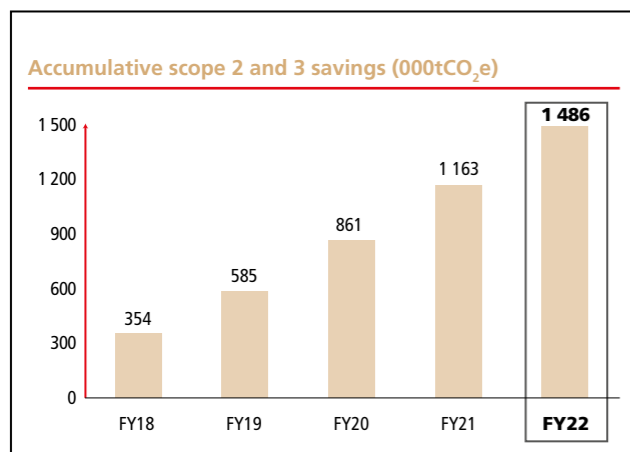
Electricity purchased (000MWh) ³	FY22	FY21	FY20	FY19	FY18
South Africa ^{1,2}	4 190	4 020	3 051	3 209	2 458
Papua New Guinea ⁴	63	103	120	117	59
Total	4 253	4 123	3 171	3 326	2 517
Consumption intensity (MWh per tonnes treated)	0.08	0.08	0.12	0.13	0.11

¹ Increase in energy consumption driven by Harmony's acquisition of Moab Khotsong in FY19.

² Acquisition of Mponeng and Mine Waste Solutions operations from October 2020 (only 9 months reporting in FY21).

³ Operational excellence programme started May 2016.

⁴ PNG values updated to only reflect electricity purchase from bulk supplier.



South Africa

Harmony consumes energy as electricity purchased from the state-owned power utility Eskom and generated by coal-fired power stations in South Africa. From 2005 to 2022, Eskom increased electricity tariffs by 2 213% while inflation over this period increased by 125%.

The tariff increase in FY22 was 9.61%, which translates to around R540 million in additional operating costs. We therefore focus on reducing our electricity consumption and dependence on Eskom's energy.

While we are pursuing renewable energy options to reduce our dependence on fossil fuels and to improve margins (page 58), we are also keenly aware of the need to be far more efficient in consuming energy.

Our energy efficiency initiatives focus on mine cooling, compressed air, water management and ventilation. Total savings from these initiatives were R365 million for FY22 of which R22 million originated from new projects (difference reflects ongoing savings from earlier projects). To date, we have implemented over 200 energy-efficiency initiatives at our operations, generating cumulative savings of around R1.3 billion since 2016.

Energy management projects producing the most significant annual savings include:

South Africa: Energy-saving projects in FY22			
Operation	Project description	Description	Annual cost savings
Kusasaletu	Optimise refrigeration and dewatering control	Optimisation of dewatering and refrigeration control and improved utilisation of available dam capacities	R11.6 million
	Optimise compressor control	Optimisation of underground users (leak fixing and OAN valve control)	R4 million
	Deelkraal fan optimisation	Improved ventilation supply through main fan control	R4.8 million
Moab Khotsong	Optimise control of refrigeration units	Improved control and utilisation of Moab refrigeration equipment, extending ice melt through improved dam utilisation	R7.4 million
	IGVs on main fans	IGV control implemented to improve ventilation supply	R7 million
Great Noligwa	IGVs on main fans	IGV control implemented to improve ventilation supply	R1 million
Mponeng	Optimise dewatering control	Implementation of a complete pumping load shift out of Eskom's peak time-of-use periods	R11.4 million
	Optimise refrigeration control	Improved TOU control of surface refrigeration units	R1.7 million
Masimong	Ventilation sealing plan and IGVs on main fans	Sealing off inactive mining areas and control IGVs to accurately match demand requirements.	R1.7 million
	Optimise refrigeration control	Improved TOU control of surface refrigeration units	R1.7 million
Tshepong	Optimise refrigeration and dewatering control	Improved time-of-use control on refrigeration and pumping systems. Load shifts on refrigeration units without influencing service delivery.	R1.3 million
Savuka, Covalent, Eland and Deelkraal	Critical Peak Pricing (CPP) programme	Participated in Eskom's Critical Peak Pricing (CPP) programme.	R6.7 million
All Operations	Power Factor Correction	Improved control and monitoring of power factor correction banks at the operations.	R2.8 million

Papua New Guinea

During FY22, we used 52% (FY21: 78%) grid power and 48% (FY21: 22%) site diesel-generated electricity. Overall, total energy consumed was lower than FY21. A contributing factor to this was the failure of the Hidden Valley overland conveyor that interrupted production between January and March 2022.

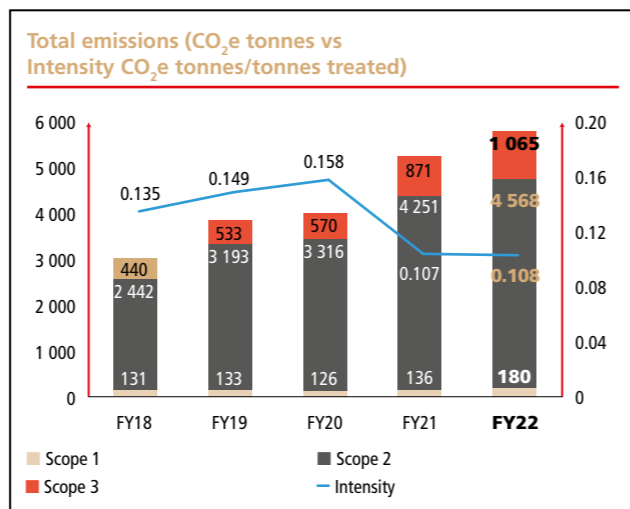
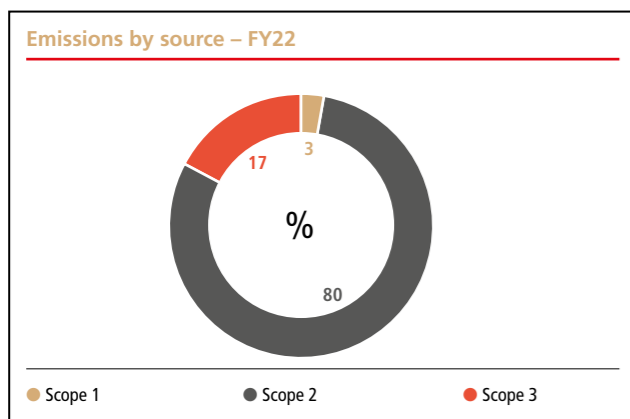
The decreased percentage of grid power supply in FY22 compared to FY21 was primarily due to the reliability of grid supply, which was affected by disruptions at the Ramu hydropower station. This was despite the Yonke Toe-of-Dam project being recommissioned by PNG Power, adding a further 18MW to the Ramu grid. Several other projects are underway to strengthen the Ramu grid system's hydropower capacity and transmission capabilities.

The opportunity of isolating Hidden Valley from the Ramu grid and receiving power directly from the nearby Bauine hydropower station will be harnessed with permission of PNG Power, moving forward to allow for direct feed from the Baiune plant if or when the PNG Power network is down. The upcoming PNG Forestry Products Baime hydropower plant is also set to be commissioned by early 2023. This presents an opportunity for power required by Hidden Valley to be entirely from hydropower sources and further de-risk the current unstable power supply.

Climate change, energy and emissions management *continued*

Reducing GHG emissions with renewable energy initiatives

Most of our emissions are scope 2 as South Africa uses fossil-fuel-generated electricity (evident in the graphs below).



¹ FY21 Scope 3 value restated from 748 016 to 870 851 due to an update in calculation methodology in Chemwes (Mine Waste Solutions) sodium cyanide and caustic soda figures.

Decarbonisation strategy

During May 2022, we secured funding to pursue our phased decarbonisation strategy (outlined below).

Phase 1	Phase 2	Phase 3
<ul style="list-style-type: none"> 30MW solar power (in construction) Cost saving: R340 million over 15 years Carbon reduction: 62 000tpa Capital investment: R5 million. 	<ul style="list-style-type: none"> 137MW solar energy Estimated NPV over 15 years: R3 billion Carbon reduction: 444 000tpa Capital investment: R1.56 billion. 	<ul style="list-style-type: none"> 56MW solar power (Harmony considering to increase renewable energy through wheeling up to 100MW).
<p>An independent power producer is building three PV plants with total installed capacity of 30MW to deliver more than 68GWh of clean power to our Free State operations and mitigate 65 000 tonnes of CO₂e emissions in the first 12 months.</p> <p>Over 20 years, these plants are expected to produce 1.3TWh of clean energy.</p> <p>Jointly developed by Harmony, Energy Group and BBEnergy, to deliver energy from March 2023, the solar PV plants will be among the largest for private offtake in South Africa to date.</p>	<p>Currently in feasibility stage and awaiting the necessary permits and licences, an additional 137MW of solar energy will be installed at our longer-life mines to deliver over R500 million per annum in electricity cost savings at full production by FY25.</p>	<p>This phase is in planning and progressing as anticipated. We are looking to source an additional 100MW of renewable energy, predominantly wind and solar, to augment the phase 1 and 2 initiatives. We are also exploring opportunities to access gas and hydropower.</p>

Sustainability-linked facilities and the green loan

Our decarbonisation strategy is facilitated by a project finance debt solution from Rand Merchant Bank, supported by African Clean Energy Developments, and equity-funded by African Infrastructure Investment Managers and Mahlako Energy Fund. Absa and Nedbank lead this lending group's syndicated, multi-tranche, multi-currency loan facilities of R4 billion and US\$400 million.

The facilities comprise a R1.5 billion green loan for phase 2 and sustainability-linked R2.5 billion and US\$300 million revolving credit facilities as well as a US\$100 million term loan.

The green loan closely matches the solar PV project's expected cash flow and the expected energy cost savings for Harmony's South African mining operations. The sustainability-linked loans align with Harmony's ESG and sustainable development targets.

Our focus areas in FY23

The group will focus on meeting its FY23 targets for decarbonisation; supported by our energy efficiency programme and the renewable energy mix. We will be evaluating mobilisation opportunities to further advance our decarbonisation programme.

In South Africa, we will focus on energy efficiency, complete the phase 1 build and phase 2 feasibility study, and begin our offset programme.

In Papua New Guinea, we will focus on reliability improvements and opportunities, and driving energy efficient processes.

CASE STUDY

Towards zero emissions and renewable alternatives: Response to load shedding

Harmony to run Nufcor uranium plant and head office on solar power

We are installing solar PV systems at our Nufcor uranium plant and Randfontein head office to power the facilities during the day. Eskom-supplied electricity will be used at night.

At Nufcor digitisation underpins the design in order to maintain outputs. This is a single-axis tracking system that follows the sun to optimise the solar radiation concentration. At Randfontein head office we adapted a different design. It is a fixed design but works perfectly as its aligned to our load profile.

The PV installations will be ground-mounted, on an area the size of a rugby field, at Nufcor and replace canopies above covered parking bays at head office.

Final commissioning at both sites is scheduled for the end of October 2022.

 Read more about our endeavours to become a more socially and ecologically conscious miner in **Climate change, energy and emissions management** on pages 53 to 59.



Solar covered parking bays at Randfontein Office Park.

Water use

Water availability is critical for developing our assets, the mining process and our growth prospects.

It is a business imperative to manage water consumption and secure water supply. Water is a critical natural resource necessary for our mining and processing activities as well as future growth and development. Potable water is a crucial resource for Harmony's employees and the communities in which the group operates. As such, managing and mitigating the impact on water catchments, by ensuring we do not degrade water quality or reduce the volume of potable water available to surrounding areas, is crucial to maintain our social licence to operate.

Harmony has the twin challenges of South Africa generally being a water-scarce region while our operations in Papua New Guinea experience a positive water balance with over two metres of rainfall every year.

GRI Standards

Prepared in accordance with 3-3, 303-1, 303-2, 303-3, 303-4 and 303-5.

Related SDGs



Our approach

Our water management policy guides the group's approach. However, given that our operations face drastically different climatic conditions, our water management strategies are adapted to the characteristics and requirements of each area in which we operate.

We have an embedded understanding of water management and risks across our operational spectrum. Water security and risks are integrated into managing long-term strategic business objectives and financial planning. Harmony's commitment to responsibly managing water use is driven from executive level, and has evolved from a strategy into practical and relevant actions across the group.

The group's overarching objective is to conserve water by improving our efficiencies through reuse and recycling. Where we return water to the source, we aim to ensure it is treated and discharged responsibly into the receiving environment, complying with relevant legislation in our host countries.

Our focus areas and performance in FY22

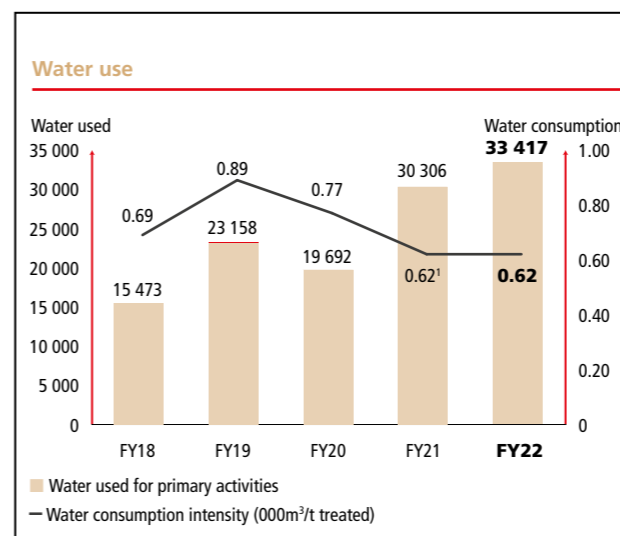
Absolute potable water consumption is one of the KPIs of our sustainability-linked funding agreement (page 58) that was concluded in June 2022. This KPI is material to our core sustainability and business strategy, and addresses a relevant environmental challenge experienced by our industry. Harmony therefore focuses on reducing potable water demand from our mining operations to reduce supply pressure on constrained local water treatment and distribution infrastructure, and increase water available to communities (especially due to droughts and climate-related water availability challenges). We thus also improve local municipal systems' climate change resilience. We have also linked our water management strategy to our social investment strategy to improve our support of WASH programmes.

Our successful water recycling initiatives continue to drive these efforts. Harmony's operations measure volumes of water used and recycled at least monthly. This tracks performance against our target to reduce potable water consumption by 10% from the FY21 baseline by FY26.

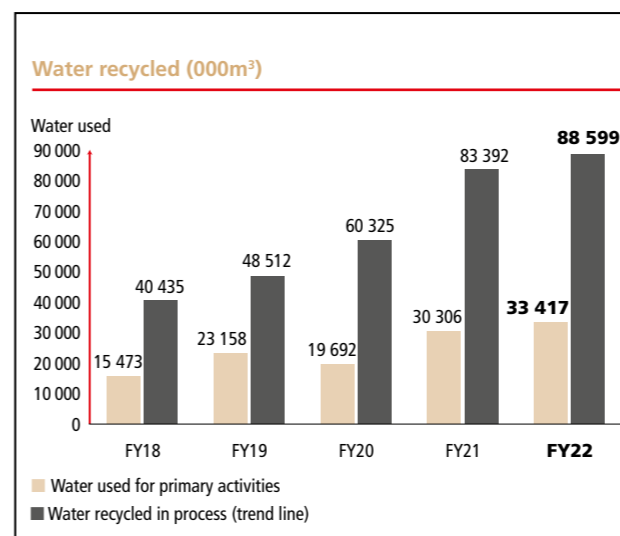
We aim to reuse process water while increasing the amount of water recycled. In addition we aim to reduce absolute potable water consumption through water treatment plants and engineering initiatives, including demand and pumping optimisation and leak management. This enables the group to maintain or improve water use intensity.

- The split of water withdrawal from municipal sources is 63% and from surface and groundwater sources is 37%
- Our water discharge increased marginally by 6%. Margaret shaft realised an increase due to high precipitation reporting into the deep aquifer and discharges realised at Target operation
- Water recycled increased by 6%.

See [ESG data tables](#) for more statistics.



¹ FY21 water intensity has been corrected from 0.59 to 0.62.



South Africa

Harmony's South African operations largely depend on municipal water, which exposes the group to tariff increases and supply shortages. Water availability is also unpredictable in parts of water-stressed South Africa where it is critical for our current and future operations.

Water-stressed areas are determined by the World Resources Institute, which uses an aqueduct tool to plot water-related risks on a water risk atlas. Baseline water stress measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. Water withdrawals include domestic, industrial, irrigation, and livestock consumptive and non-consumptive uses. Available renewable water supplies impact water availability for upstream consumptive water users and large dams downstream.

Water management strategy

Our water management strategy, committed to climate change mitigation and adaptation, supports water conservation and demand management, including optimisation to secure supply during a protracted drought. It also considers the sustainable development of businesses and host communities.

Our climate change scenario analysis indicates water security is a risk due to extreme storm and drought events, and increased temperatures that could affect the underground environment and food security. Harmony manages this risk through various initiatives and close water use monitoring across our operations.

Water use, treatment and discharge

We reuse process water which increases the amount of water recycled. This enables us to maintain or improve our water use intensity.

See details in our CDP water submission at www.har.co.za.

At many of our underground operations, three water-treatment plants treat fissure water to quality standards for use in our processes and to liberate fresh water for other users in line with our zero discharge aspiration. These plants deliver dual benefits: reducing potable water consumption and recycling much of our fissure water while saving operating costs. We are therefore undertaking a feasibility study to assess the purpose and volume treatment of plants to be constructed in the North West and Free State provinces where water is particularly scarce. In parallel, Harmony also engaged the Institute for Technology and Society to conduct feasibility studies into innovative agriculture applications using relatively expensive water for economically viable cultivation of high-income crops and fruits.

Other valuable assets in our portfolio are the Covalent and Margaret water companies, which present opportunities to beneficiate and commercialise water. The previous owners established the water companies to manage dewatering from adjacent historical mine voids. Covalent discharges an average of 20ML per day into the nearby Wonderfontein spruit. Margaret also pumps an average of 20ML daily, mostly recycled in the Moab Khotson and Mine Waste Solutions reticulation circuits. This discharge of high-quality dolomitic water positively impacts the Vaal River by supplying local farmers while improving water quality for downstream users.

We ensure that our water use does not impact upstream and downstream users by continuously engaging with stakeholders through regional water management. As orebodies are contiguous, many mines are in the same catchment area. Combined with water scarcity, this warrants a collaborative, coordinated approach. Harmony participates in several regional catchment management agencies, including the Far West Rand Technical Working Group, KOSH (Klerksdorp, Orkney, Stilfontein and Hartbeesfontein) mine water forum and the Free State government task team. In the western basin, we collaborate with Sibanye-Stillwater in its Cooke shafts closure programme to prevent water ingress into our Doornkop operation.

Target and Kusasaletu are our only local operations currently discharging water. We have plans to ensure Target achieves zero discharge status. Kusasaletu, striving to achieve zero discharge, currently discharges an average of 1.5ML per day of fissure water.

Water use continued

Water use categorised by water quality (MI)

		FY22	FY21	FY20	FY19	FY18
Water withdrawal						
Potable water from external sources	Fresh water	21 190	19 468	14 576	15 933	12 646
	Other water	—	—	—	—	—
Surface water	Fresh water	2 144	2 695	2 570	3 252	1 359
	Other water	612	89	118	798	673
Groundwater	Fresh water	9 166	218	191	337	234
	Other water	304	7 836	2 238	2 838	561
Water discharged^{2,3}						
Surface source	Fresh water	892	912	246	547	655
	Other water	2 947	2 706	2 918	2 130	2 350

Water use categorised by water-stressed areas (MI)^{1,4}

		FY22	FY21	FY20	FY19	FY18
Water withdrawal						
Potable water from external sources	Arid and low water use	—	—	—	—	—
	Low	14 553	13 669	11 289	12 597	284
	Low-medium	945	716	601	177	9 826
	High	5 692	5 083	2 686	3 159	2 536
Surface water	Arid and low water use	61	89	113	207	94
	Low	2 695	2 695	2 575	3 843	1 938
	Low-medium	—	—	—	—	—
	High	—	—	—	—	—
Groundwater	Arid and low water use	315	178	194	376	230
	Low	9 090	7 789	2 120	2 642	437
	Low-medium	65	71	64	89	61
	High	—	16	52	68	68
Water discharged^{2,3}						
Surface water	Arid and low water use	—	—	—	—	—
	Low	3 087	3 463	3 008	2 130	2 350
	Low-medium	—	—	—	—	—
	High	752	156	156	547	655

¹ Water-stressed areas are classified using the WRI Aqueduct Water Risk Atlas.

² Due to operational issues and maintenance at Doornkop Reverse Osmosis Plant, water was discharged.

³ A group-wide review of our water discharge streams was done and reporting control measures were updated for all previously reported figures.

⁴ Harmony's moisture in ore figures is part of our WDP reported figures.

Water companies' water use (MI)

		FY22	FY21	FY20	FY19	FY18
Water sold	Covalent	—	37	n/a	n/a	n/a
	Margaret ¹	3 259	4 020	3 231	3 100	n/a
Water pumped	Covalent ²	5 688	6 948	n/a	n/a	n/a
	Margaret ¹	6 411	5 447	4 339	3 684	n/a
Water discharged to surface source	Covalent ²	5 688	6 948	n/a	n/a	n/a
	Margaret ¹	3 245	1 072	737	584	n/a

¹ Harmony has a 66% share in Margaret Water Company.

² Water pumped and discharged corrected for FY21.

Papua New Guinea

At Hidden Valley, steep topography, high rainfall and low evaporation levels create a year-round positive water balance. This presents significant environmental challenges, particularly in managing water discharge from the mine site into the surrounding environment.

Water management strategy

Our management approach therefore includes:

- Rainfall run-off control to prevent erosion and sediment entering the Watut River system
- Recycling site water to limit water stored in the tailings storage facility and reduce extraction from surface water sources
- Treating wastewater before discharge.

Water use, treatment and discharge

We primarily extract water from Pihema Creek, one of many tributaries draining to the Watut River and prioritise process water recycling to limit volumes extracted as far as practical. Wastewater is treated at a cyanide detoxification plant beside the tailings storage facility before being discharged to the receiving environment at either Pihema Creek or the Upper

Watut River. We measure the performance of our discharges and the impact of our operations at a compliance point in Nauti village, 18km downstream of the mine, in accordance with our environmental permit. This compliance monitoring continued to detect low-level exceedances of dissolved (soluble) manganese during FY22. All other metals remain below their respective water quality criteria. Geochemical test work programmes are in progress to understand the properties and behaviour of the elevated manganese source (understood to be waste rock material) and to inform refinements to operational waste management practices and landform designs for closure. Despite these exceedances, an independent review by Australian-based consultants concluded that the overall objectives of the Hidden Valley mine acid and metalliferous drainage management plan and the waste-rock dumping strategy remain appropriate to limit acid and soluble metals discharge from the landforms to the Watut River system. Manganese at current levels detected in the river is unlikely to cause any significant impact on the river system as recorded concentrations remain well below conservative international ecosystem protection guidelines.

We routinely provide updates to the regulator, outlining the ongoing monitoring programme, results and potential remedial actions.

Our focus areas in FY23

As water availability is less predictable, particularly in some regions of South Africa where it is critical for our growth prospects, particularly hydraulic tailings reclamation, we are acutely aware of the impact on our future mineable reserves, especially in water-scarce regions, such as the Free State in South Africa where our two water companies add strategic value by limiting the impact of climate change on our business and our use of water shared with host communities.

In South Africa, to reduce potable water use, we plan to build water-treatment plants at Covalent in FY23, and at Chemwes and Moab Khotsong in FY24, while expanding the facility at Nyala.

As a group, we will commit significant capital to increasing our water recycling ratio and reducing potable water intake by materially adjusting our water sourcing profile in line with good industry practice and local sustainable development objectives.

CASE STUDY

Vaal River operations: optimal excess water management

Optimal management of excess water to address environmental and financial liabilities

When Harmony acquired the Moab Khotsong and Mine Waste Solutions operations in the KOSH region from AngloGold Ashanti in March 2018 and October 2020 respectively, the acquisition included 66% of Margaret Water Company. The company had to continue pumping from the KOSH groundwater system to prevent flooding of our Moab Khotsong operations and other mines. It will do so for another 20 years following our board's approval of the Zaaiplaats and Kareerand life-extension projects in FY22.

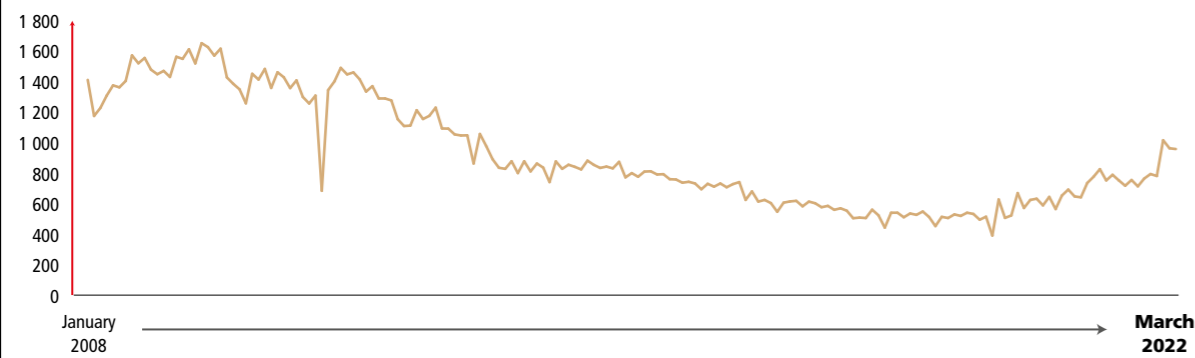
However, water pumping by Margaret Water Company presents a significant cost burden to the operations. It is therefore imperative to find cost-effective alternative excess water use to offset some of the pumping costs.

We are therefore working with specialist engineers in evaluating excess water volumes and quality at our Vaal River operations (Mine Waste Solutions, the Moab Khotsong/Great Nologwa complex and Margaret Water Company) to establish one or more treatment plants that will optimally use the resource. This is being supported by a feasibility study to be concluded by December 2022.

Environmental and financial benefits:

- Zero polluted water discharge
- Reduce potable water and operating costs by replacing Midvaal municipality supply with treated water
- Increase revenue or offset Margaret Water Company pumping costs
- Add value over life of operations.

Margaret Water Company water pumped (MI/month)



Volumes of water pumped by Margaret Water Company (shown in the graph) decreased dramatically between 2016 and 2019 due to severe drought, completion of re-mining of the second Mine Waste Solutions tailings storage facility and limited water release into the Koekemoerspruit. Pumping volumes increased again to around 25MI to 26MI per day due to normalisation and above-average rainfall. Excess water in the region will also increase with closure of the Kopanang plant and the planned increase in pumping from the pollution interception boreholes at Kareerand to reduce volumes on top of the tailings storage facility and thus maintain stability.

Tailings and waste management

Our global gold mining industry acknowledges that tailings and waste are harmful to communities and the environment within our sphere of influence, and we understand the imperative to proactively mitigate associated risks.

Part of the mining process results in the deposition of waste material into tailings storage facilities. Harmony manages 85 tailings storage facilities in South Africa and one in Papua New Guinea.

GRI Standards

Prepared in accordance with 3-3, 306-1, 306-2, 306-3, 306-4 and 306-5.

Related SDGs



Our approach

Tailings management approach

Robust and meticulous engineering and dam design, continuous management of risks, layered assurance and oversight ensure sustainable integrity, stability, environmental and legal compliance for our tailings storage facilities. These are all in good standing as verified by:

- International Mining Industry Underwriters (IMI) annual audits of operating tailings storage facilities
- International Cyanide Management Institute (ICMI) audits every 18 months
- Mine residue deposit updates to the DMRE every two years
- Quarterly reports by accredited consulting engineers in South Africa and Papua New Guinea.

Global tailings management standard



Integrating social, environmental and technical considerations

We implement aspects of the Global Industry Standard on Tailings Management (GISTM) that augment our existing protocols for heightened protection. Harmony will revisit implementation of GISTM when the supporting guidelines are issued.

In the meantime, we continue to enforce exemplary standards in the design, engineering, operation and decommissioning of tailings dams with controls dictated by the terrain.

The GISTM, published in 2020, with an integrated approach to tailings management, aims to prevent catastrophic failure and enhance the safety of our host communities.

For more information on the **GISTM**, see <https://globaltailingsreview.org/global-industry-standard>.

Environmental management around our tailings facilities is also conducted in line with ISO 14001:2015 requirements. Similarly, environmental standards and associated proceeds are determined by ISO14001:2015 and IFC standards.

Tailings and waste management continued

Waste management approach

<p>Responsible and effective waste management is a priority focus area as this reduces our environmental impacts and mitigates associated liabilities. We include guidelines on mineral, non-mineral and hazardous waste materials in operations' environmental management systems.</p> <p>Waste management begins from generation to handling, storage and transport as well as recycling, re-treatment and/or disposal.</p> <p>By understanding the actual cost of waste management, we can plan effectively for new projects and mine closure. Pragmatically, we maximise recycling and waste reduction during the life of a mine, and design plans to minimise waste and reclaim mineral waste (such as waste rock from dumps as aggregate) to curtail our total mining footprint.</p>	<p>Cyanide Code A voluntary industry programme for the safe management of cyanide, and cyanidation of mill tailings and leach solutions</p> <p>Harmony's plants operate according to the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (the Cyanide Code).</p> <p>Seven of our nine operational processing plants are certified against the code following audits by an independent third party.</p> <p>Our Kalgold and Saaiplaas plants in South Africa, and Hidden Valley in Papua New Guinea, meet the requirements for certification but have not pursued recertification as remaining mine life is limited.</p>
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Our focus areas and performance in FY22

Tailings management

Harmony manages 21 operational, 10 re-mining, and 54 dormant and inactive facilities in South Africa – all operational facilities use upstream deposition incorporating day wall and basin deposition or upstream cyclone deposition.

Our Hidden Valley operation uses a tailings storage facility designed and operated in accordance with the Australian National Committee on Large Dams (ANCOLD). The facility comprises two cross-valley embankments (main and saddle dams) constructed using the downstream build methodology. It is the first large facility of this kind to be operated successfully in Papua New Guinea.



Hidden Valley tailings dam.

Our daily tailings management focus areas

Overtopping	Slope failure	Foundation failure	Progressive failure	Liquefaction	Operational status
<ul style="list-style-type: none"> Lack of freeboard Penstock status Basin shape/profile. 			<ul style="list-style-type: none"> Seepage and sloughing Erosion. 	<ul style="list-style-type: none"> Seismic events Pore water Pressure. 	<ul style="list-style-type: none"> Infrastructure management Controlled/authorised deposition.

Our interventions include but are not limited to:

- Freeboard control
- Water management
- Maintaining stability and safety, as advised by the engineer of record
- Erosion controls
- Monitoring and control measures implemented to ensure compliance
- Fallout Dust Management
- Emergency Preparedness and Response Planning.

This includes regular inspections, audits and meetings at various intervals with subsequent actions, minutes and reports ensuring we deliver the desired outcomes. Areas of concern are addressed and resolved by management, the appointed experienced deposition contractor and specialist consulting engineer that assist with the operation, maintenance and management of the facilities to ensure global best practice.

Freeboard (safe operating water levels on top of the tailings storage facility) remains one of the most critical parameters for legal compliance at operational facilities. However, water management and control are important as excessive water should not accumulate on facilities except during the night shift to allow controlled decanting (pour out) during the day shift. We have 24-hour decant at Kareerand in South Africa as this facility holds a specific volume of water. Drone technology is used to support monthly freeboard surveillance. At Hidden Valley, continuous compliance in maintaining sufficient freeboard on our tailings storage facility is an important element of the overall mine site operating conditions, as is the need to minimise free water held on the facility surface. The Hidden Valley tailings storage facility is operated as a "zero-discharge of untreated water" facility, hence water drawn from the tailings dam is either recirculated back to the process plant for re-use or passed through a treatment system prior to controlled discharge.

At re-mined facilities our focus remains on accurate water control through effective management and establishment of containment paddocks in the general and mined our areas. Most of the facilities are re-mined from the top to the bottom of the face to minimise the risk of sloughing and inundation and to maintain a stable slope face by stopping limits on the monitoring gun that controls the angles.

On dormant and inactive facilities, we primarily use containment paddocks in the basins and berms to lower groundwater levels and dry out the tailings dam. In addition, we continually repair side slopes after rains while ensuring safe and proper access

routes to the top of the tailings facilities. We also maintain solution trenches around the tailings facilities and monitor return water to the plants.

South Africa

Our internal auditors conducted an audit of tailings dam compliance and found our performance to be satisfactory. Over and above this, Ngubane assures compliance and concluded that 71% of material recommendations have been implemented for heightened control. An independent audit of Harmony's tailings management in 2022 found that our South African operations satisfied the country's legal requirements. In most cases, our standards exceed legal requirements, and the extent of our surveillance and investigative work is comparable with international standards. Remedial action closed out areas of concern identified in the independent inspections:

- St Helena 123: This facility showed signs of historic wet spots along the toe of the facility and resulted in seepage flowing through the legacy tailings material on which the facility was constructed. Phase 1 remedial work included additional toe drains which were installed to improve drainage. This was completed in June 2022. Phase 2 buttressing has commenced
- St Helena 4: Construction work for the re-commissioning of the St Helena 4 facility commenced in June 2021 and was completed in June 2022. This site was commissioned as an alternative deposition site for Harmony One Plant to improve deposition flexibility after stability concerns led to the de-commissioning of the Free State South 8 complex
- Target 1: Phase 2 of the remedial work for improved drainage and the installation of rock buttresses in the affected areas for improved overall stability was completed in February 2022. Remedial work for Phase 3 as a continuation of the remedial work from phase 2 to improve drainage and overall stability in the affected areas will commence towards the end of 2022.

Our tailings storage facilities in South Africa are highly compliant with the tailings facility code of practice.

International Mining Industry Underwriters risk ratings received in 2022 have once again confirmed our performance in managing our assets and business continuity. Our tailings are measured against the most conservative measures to assure industry-leading stability and to align with our company strategy which includes responsible stewardship and operational excellence.


Engineering reports are available at <https://www.harmony.co.za/sustainability/environment/tailings-management/>.

Tailings and waste management continued

Nature of tailings storage facilities	Tailings management strategy			
	Operation	Inspection	Monitoring	Periodic review
Operating (21 locations)	✓	✓	✓	✓
Re-mined (10 locations)	✓	✓		
Dormant (54 locations)		✓		✓

Papua New Guinea

Independent audits of the tailings storage facility at Hidden Valley were interrupted by Covid-19 restrictions affecting international travel, and limiting visitor and contractor access to the Hidden Valley mine in FY22. However, independent construction audits were conducted remotely (desktop reviews and meetings) and via a site visit in June 2022. The desktop construction review concluded that the facility's construction, operations and surveillance were satisfactory in accordance with ANCOLD standards. We await the outcomes of the site visit.

 Read about our early-warning system in the case study on page 74.

The detailed design for a second tailings storage facility at Hidden Valley, to support the life of the mine, progressed in FY22 although construction did not begin. The proposed site of the facility is the final void of the Hamata open pit, which significantly reduces the disturbance footprint associated with this landform. As with our existing tailings storage facility, the new dam has been designed in compliance with ANCOLD standards and will require a single cross-valley embankment for tailings storage. The early-warning system will similarly safeguard communities downstream of this second facility.

Wafi-Golpu project deep-sea tailings placement

The Wafi-Golpu Joint Venture is confident that DSTP is the safest and most environmentally and socially responsible tailings management solution for this project

For the Wafi-Golpu project the environment permit, secured in 2020, approves construction and operation of a deep-sea tailings placement system, which is the preferred solution after investigations of on-land and submarine options.

Submarine tailings placement is currently employed in six countries and used at three operations in Papua New Guinea. Terrestrial tailings sites examined for the project present significant risks and constraints, given the region's high seismicity and rainfall, topography and soil type. A surface tailings facility would severely impact heritage sites, communities, and productive and ecologically sensitive land.

Instead, tailings could be deposited in the Huon Gulf from an outfall at some 200m depth, mixing with natural sediments from various rivers as they flow down the submarine Markham Canyon and settle on its floor. The tailings will represent only a small percentage (less than 20%) of the total sediment flow in the area. The Markham Canyon does not have clear water suitable for most fish life and lacks biodiversity because of significant volumes of natural sediment.

Wafi-Golpu is expected to place over 360 million tonnes of tailings over its 28-year life-of-mine. After closure of the mine, natural sediment loads will continue and eventually bury the deposited tailings. Tailings placement will occur well below the productive surface layers of the ocean, and is not predicted to affect the coastal environment, biologically productive surface waters, community health or fisheries.

At the boundary of the proposed mixing zone in the Huon Gulf, the tailings discharges will be diluted to levels that meet Papua New Guinea water quality criteria as well as Australian and New Zealand water quality guidelines for marine aquatic ecosystem protection.

Our stakeholder engagement on this project and the deep-sea tailings placement facility continued throughout FY22.



Papua New Guinea.

Waste management

Our mining and extractive processes generate **mineral** and **non-mineral** waste. Mineral waste comprises tailings and overburden, often viewed as a resource in waiting. Non-mineral waste is classified as hazardous and non-hazardous, and managed by recycling or reuse, off-site treatment or disposal to on-site landfills.


Mineral waste

Effective mineral waste management reduces aesthetic and land use challenges of mining, particularly during closure, as well as the potential for water and air pollution while maximising the recovery of ore, minerals and metals with significant savings and reduced energy consumption.

Our year-on-year increase in mineral waste is due to waste stripping in cutbacks at Hidden Valley. Waste rock is also generated from our underground operations in South Africa.

We have a five-year target to reclaim at least 10% of our total available mineral waste footprint. Meeting this target depends on the market as well as provincial infrastructural needs and capacity to support repurposing activities.

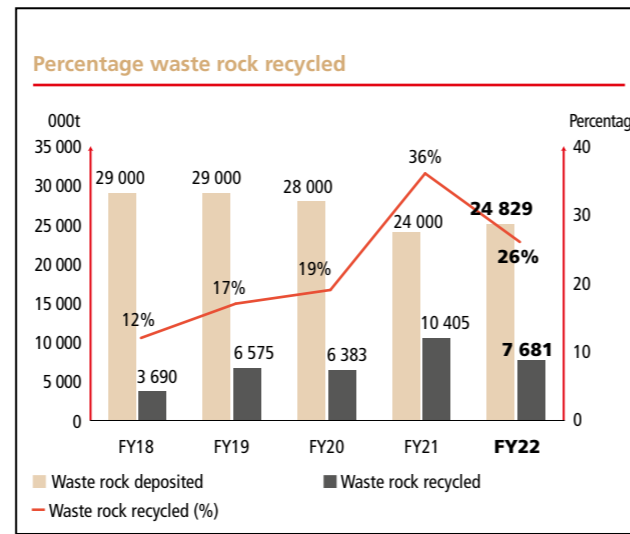
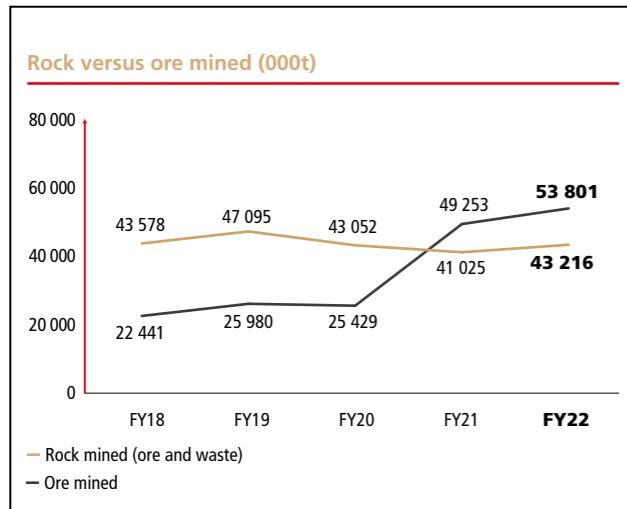
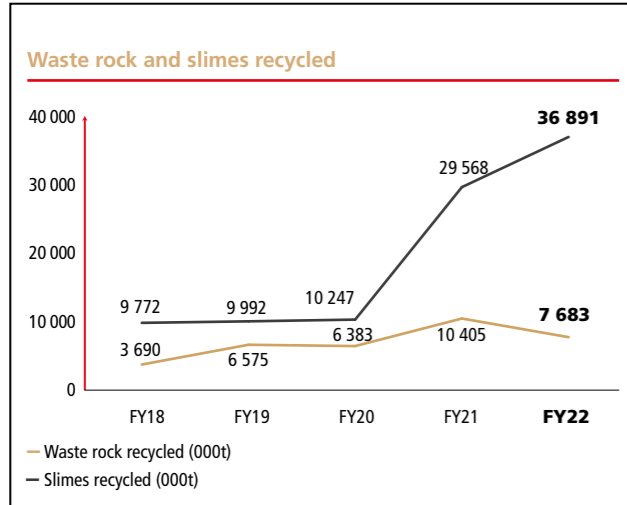
Although waste rock is not valuable as a gold mineral resource, it is useful as plant grinding media and backfill plant feed, and is regarded as a resource by the aggregate industry. Committed to inclusive mining and our social purpose, we ring-fence some of our waste rock for local businesses and entrepreneurs. This supports our relationships with legitimate licensed artisanal and small-scale operators in our South African host communities (as outlined below).

 South Africa	
Gauteng and Free State	We are investigating the feasibility of waste rock dumps creating employment through aggregate initiatives. This would enable local participation in economic development and make economical use of a liability. Additionally, the land is available for rehabilitation when the waste-rock dumps are cleared.
North West	We are engaging with host communities in Orkney on the reclamation of the Scott rock dump, which will be donated to the local municipality for the benefit of residents.
Welkom	In a commercially sustainable venture, surplus waste rock has been processed by local aggregate producers for more than a decade. We are exploring opportunities to work with local community representatives from Allanridge and a BEE entrepreneur to establish additional aggregate producers.

Tailings and waste management continued

In FY22/over the past five years:

- Our waste rock decreased by 26% due to the closure of Koponang Plant previously used to treat waste rock
- Slimes recycled increased by 25% due to Mine Waste Solutions recording a full 12 months of production compared to the previous 9 months
- The rock mined (43Mt) increased by 5%.



See [ESG data tables](#) for more statistics.

Non-mineral waste

We ensure responsible storage, treatment and disposal of non-mineral waste with group environmental standards integrated into existing ISO 14001 systems.

Hydrocarbons are the principal hazardous waste streams at our operations. We aim to minimise waste sent to landfill by sending these waste streams to accredited institutions, such as the Recycling Oil Saves the Environment (ROSE) Foundation, for repurposing while the remaining hydrocarbon waste is sent to appropriate landfill sites.

In regards to effluent management; initiative are in place to reduce, reuse and recycle our effluent from our operation. Mechanisms have similarly in place to monitor and measure effluent and effluent management in effort to prevent pollution or otherwise minimise, mitigate and remediate harmful effects of this exposure. Reporting on effluent issues is being done as required.

Hazardous waste by type

	FY22	FY21	FY20	FY19	FY18
Oils and grease waste generated					
Grease (t)	524	552	424	506	426
Lubricating and hydraulic oil (Ml)	3.0	3.0	2.5	3.2	2.7
Hydrocarbons recycled (000l)	698	527	813	978	n/a
Hazardous waste generated					
Tailings (Mt)	52	47	24	24	21
Hazardous waste to landfill (t)	803	524	250	399	344

As we actively promote recycling of our waste streams, we have initiated a reclamation programme that harvests underground equipment and infrastructure, which is sent to the salvage yard and repurposed for potential consumption by other operations. In keeping with our transformation objectives, this initiative has helped develop and promote local entrepreneurs in the core mining sector.

Non-hazardous waste generated and recycled (tonnes)

(000t)	FY22	FY21 ¹	FY20	FY19 ²	FY18
Timber	2 727	3 121	1 868	2 377	1 085
Steel	8 889	8 739	5 863	7 765	5 699
Plastic	591	625	509	479	314
Total	12 207	12 485	8 240	10 621	7 098

¹ Inclusion of Mponeng and related assets.

² Increase reflects the inclusion of Moab Khotsong.

Our focus areas in FY23

We will continue to operate safely and responsibly, demonstrating a high degree of compliance and integrity in our tailings storage facilities, managing surface water levels, and reclaiming and recycling as planned.

In addition, we will continue to plan, build and operate our waste management assets at Hidden Valley in a manner that maintains rigorous governance, ongoing compliance and stakeholder support.

In South Africa, we are seeking growth opportunities to expand surface reclamation, rolling out the buttressing programme, building the Kareerand surface dam extension and recommissioning in the Free State.

CASE STUDY

Kareerand: responsible tailings management

Harmony enhances measures at the Kareerand tailings storage facility to protect the environment and local communities from potential harm.

In accordance with the approved environmental management programme, our responsible tailings management measures at Kareerand limit environmental impacts, particularly on the nearby Vaal River, a crucial water source for South Africa, and neighbouring communities.

Extensive water management measures include reducing the volume of water on top of the facility by maximising our use of return water in the Kareerand gold tailings retreatment plant. This is very important for safety and dam integrity that water levels are optimally managed. Design and engineering controls have been operationalised to ensure water drainage and removal is maximised. An elaborate drainage system is designed in and is being constructed to remove interstitial water effectively. In addition, berm walls and paddocks on the facility's side slopes trap silt and maintain holding capacity in the return water dams. Only clear water runs to the dams, which prevents overflows, especially during abnormally high rainfall seasons.

Further mitigation measures manage dust emanating from the tailings storage facility. The effectiveness of this dust management system in complying with residential standards is demonstrated in monitoring results at sampling points outside our site boundaries.

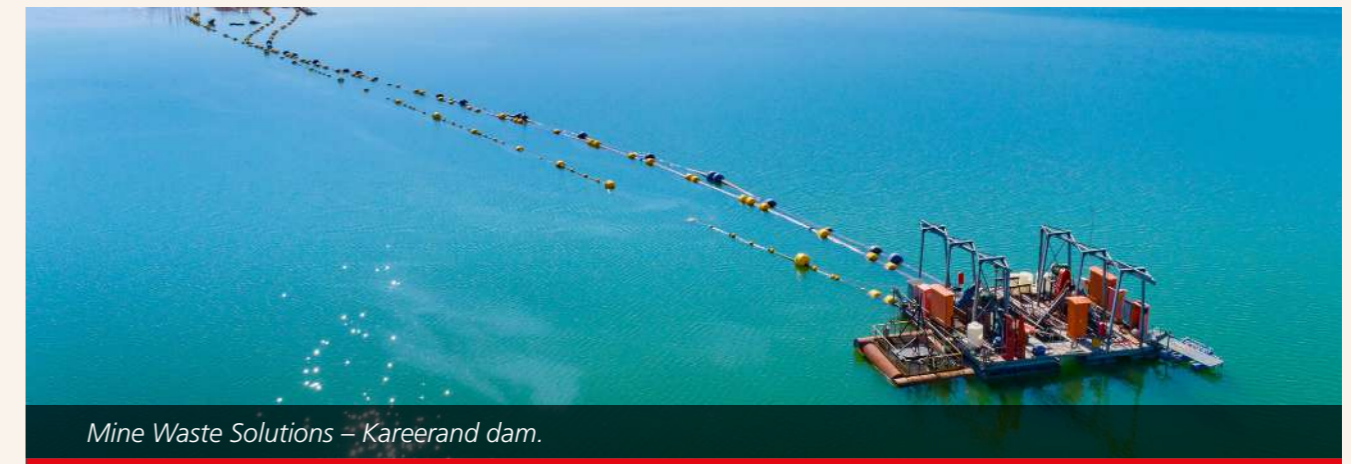
We are investing R2 billion in the Kareerand expansion project (details in the timeline/infographic alongside). The extension design includes a full geomembrane liner and a comprehensive cut-off drainage system to avoid groundwater and surface impacts by shifting 70% of deposition.

As with Kareerand's current siting, the extension will be on stable geology and away from dolomites. It has been certified in terms of, among other regulations, SANS 10286 (South African national standard for mine residue), SANS 1200 (specifications for civil engineering construction norms and standards for waste disposal to landfill) and the Global Industry Standard on Tailings Management. Outcomes will be regularly monitored and reported to authorities.

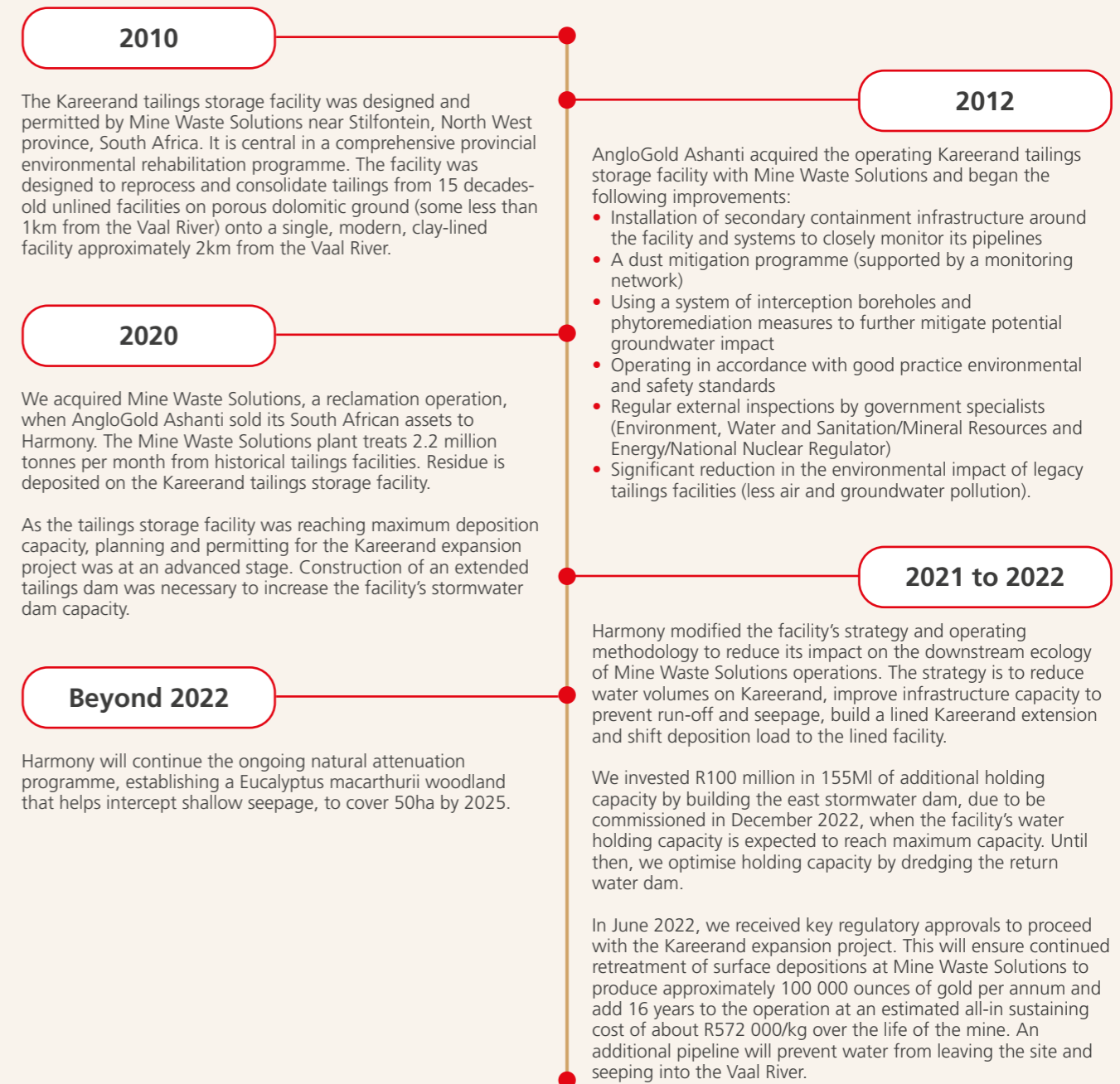
The socio-economic benefits of this project will be harnessed by ring-fencing 30% of spend for local businesses (R600 million will be spent in Matlosana).



Kareerand tailings dam.



Mine Waste Solutions – Kareerand dam.



CASE STUDY

Hidden Valley: early-warning system upgrade

State-of-the-art technology protects communities and the environment from tailings storage facility breach.

We completed the technologically advanced early-warning system upgrade at Hidden Valley in Papua New Guinea during the year to ensure downstream communities are notified well in advance of the occurrence of an unlikely breach in the on-site tailings storage facility.

The warning system was initially designed to send text messages to potentially affected communities. It was subsequently upgraded to include a solar-powered, satellite-based system capable of sending a distinctive siren sound and warning messages via three siren towers, which cover some 25km from the mine site to land downstream along the Watut River. The sirens and messages can be triggered on site or from any off-site global location via the internet. The siren towers are equipped with two-way voice communication enabling direct, real-time communication between communities and the incident controller.

The solution is sympathetic to the challenging operating environment with its high annual rainfall, access constraints and limited communication networks. It is a sustainable, low-maintenance solution that will function beyond mine closure until the potential risk of facility breach is sufficiently reduced.

Ongoing activities related to our tailings storage facility and its early-warning system include:

- Extensive engagement and education programmes among host communities, and provincial and national governments
- Scenario modelling, emergency preparedness and testing of water pumping systems
- Dedicated governance and oversight of ongoing embankment construction and design performance
- Regular independent reviews and inspections.



Hidden Valley advanced technology station.

Air quality

We implement area-specific mitigation measures to reduce atmospheric emissions from our gold plants and tailings facilities.

Primary atmospheric emissions from our gold plants are sulphur oxides (SO_x), nitrous oxides (NO_x) and particulate matter as well as non-greenhouse gas emissions (dust fallout) from our operations (including tailings storage facilities). Preventing or managing air pollution is an essential facet of our environmental strategy and crucial in protecting our surrounding communities and environment.

GRI Standards
Prepared in accordance with 3-3 and 305-7.



Our approach

We measure our primary atmospheric emissions in terms of atmospheric emissions licences for each plant.

Most of our gold plants meet the thresholds stipulated by government with occasional exceedances in particulate matter. We address these exceedances by purchasing higher-quality carbon from suppliers. With regard to GHG emissions risk management, Harmony identifies and monitors its GHG risks at company and asset level as part of a multi-disciplinary process. GHG risk management processes are similarly multi-dimensional to determine the best approach for mitigating these risks, including developing GHG reduction programmes.

📄 Refer to the [TCFD 2022 report](#).

In addition, we monitor and mitigate dust fallout from our operations (including tailings storage facilities), applying the American Standard for Testing and Materials Method (D1739) across the group. In South Africa, we also comply with the National Environmental Management: Air Quality Act national dust control regulations in our collection and analysis of dust fallout.

Monitoring often indicates other fugitive dust sources coupled with tailings facility fallout. When we find exceedances, we record these as non-compliance and take remedial measures where applicable. Other sources include algal growth in wet seasons as well as soil and other organics that may cause results to be recorded as contaminated samples.

Although our remote Hidden Valley operation in Papua New Guinea is far from sensitive receptors, we monitor atmospheric emissions as we do in South Africa where our operations comply with regulations governing air quality standards and dust control.

Our focus areas and performance in FY22

In FY22, Harmony was largely compliant except for sporadic and infrequent exceedances at Doornkop, Kalgold and our Free State operations. Where exceedances were attributed to our mining operations, dust management plans have been developed. At the Doornkop tailings facility, we installed wind breaks as the mitigation measure. At tailings facilities contributing to dust fallout, mitigation focuses on areas where sequential exceedances are prevalent. Over the next three years, we will continue to roll out mitigating measures, including installing barriers (artificial netting or trees), dust suppressants and vegetation through rehabilitation. The success of these measures depends on cooperation by communities in preventing vandalism of installed barriers.

An anomaly for nitrous oxides was registered at Mponeng in FY21. Maintenance at the plant has fixed the error to ensure emissions remain in an appropriate range. Mine Waste Solutions and Mponeng plants will require focused strategies to reduce atmospheric emissions for these emission elements.

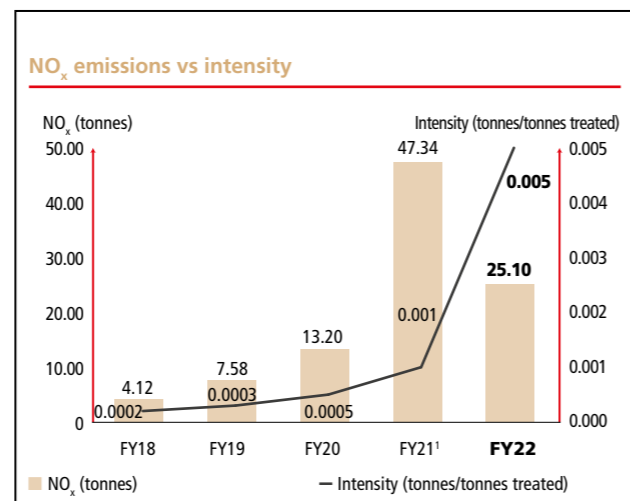
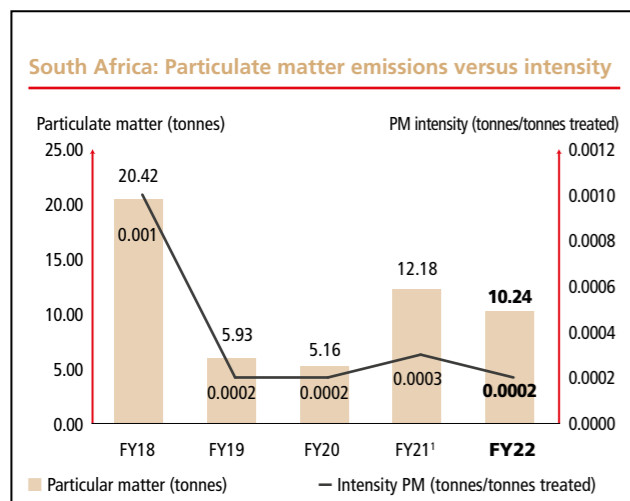
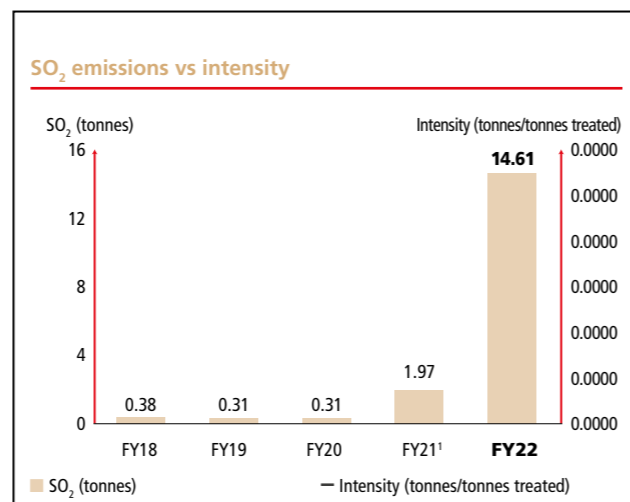
In FY22/over the past five years:

- Particulate Matter (PM) Intensity: Our particulate matter intensity decreased due to improved management practices and understanding of the plant processes. Furthermore, sampling methodologies were refined at identified plants allowing for a truer representation of results
- Sulphur Dioxide (SO₂) Intensity: SO₂ increased due to an increased amount of SO₂ recorded at Harmony One Plant. Although an increase was recorded, it did not result in Harmony One Plant breaching regulated limits
- The NO_x intensity increased in FY21 as a result of Harmony's acquisition of Mponeng shaft and Mine Waste Solutions retreatment plant. Since FY21, the NO_x intensity has decreased through improved management practices and understanding of the plant processes at Mponeng and Mine Waste Solutions.

Air quality continued

All plants that have emissions, applied and received their respective Air Emissions Licences from Department of Forestry, Fisheries and Environmental Affairs. Conditions within these licences dictate whether plants are to sample on an annual basis or on a quarterly basis. There has been no uniform application by our regulators, that determine the frequency of samples for Harmony's South African assets.

The monitoring campaign for those plants monitored annually have had their results allocated according to the financial year they fall within. If a plant is not monitored before the end of the financial year, then it is excluded from the from that financial year's calculations. However, in the following financial reporting year, the emissions data and tonnes treated data will be included in the calculations for the previous financial year. Hence the FY21 calculations have been updated to reflect the data collected.



¹ Not all sites were sampled in FY21 as some samples were taken later in calendar year 2021. None of the samples in calendar 2021 detected SO₂.

Our focus areas in FY23

In South Africa, we will increase rehabilitation efforts by planting vegetation to mitigate dust and rehabilitate land to final closure standards.

Biodiversity and conservation

We conduct biodiversity impact assessments and progressive rehabilitation governed by policies on sustainable management of natural resources.

Our operations in South Africa and Papua New Guinea are in vulnerable ecosystems with various endangered and threatened species. Recognising that our mining activities affect the biodiversity and ecology of the surrounding environment, and that these impacts could span the life-of-mine and beyond, we implement appropriate management systems and processes to limit our footprint and mitigate and offset our impacts.

GRI Standards
Prepared in accordance with 3-3, 304-1, 304-2, 304-3 and 304-4.

Related SDGs
12 Responsible Consumption and Production, 15 Life on Land

Our approach

In line with our goal of net positive gain on biodiversity in ecologically sensitive environments as stipulated in our biodiversity and rehabilitation statement, our approach focuses on protecting, restoring and promoting sustainable use of terrestrial ecosystems while halting and reversing land degradation. Sensitive and protected species and ecosystems are identified and mapped through our environmental impact assessments. Our approach includes:

- Developing and implementing Biodiversity management and action plans
- Undertaking Invasive alien plant eradication
- Identifying and implementing conservation programmes and offset opportunities.

We consider land degradation in our environmental risk matrix (page 15) as a significant contributor to climate change. Land degradation generally means poorer vegetation cover, which impairs the ability of plants to absorb carbon dioxide, increases the likelihood of soil erosion during rain and dust storms (particularly detrimental to high arable land) and impacts biodiversity.

Our focus areas and performance in FY22

We operate in compliance with the stringent conditions of our environmental authorisations.

South Africa

Implementation of our approach in South Africa is summarised below.

Biodiversity management and action plans	Invasive alien plant eradication	Conservation programme	
<ul style="list-style-type: none"> • Policy and strategy in place • Gap analysis • Management and action plans to include: <ul style="list-style-type: none"> – Sensitive habitats (such as riverine systems along the Vaal River) – Wetland delineations – Avoiding operating in World Heritage sites • Participating in biodiversity disclosure projects (such as the Endangered Wildlife Trust). 	<ul style="list-style-type: none"> • Programmes developed and implemented at Kusasaletu, Kalgold and our Free State operations. 	Biodiversity offsets and trade-offs <ul style="list-style-type: none"> • Develop one offset project in each region to ensure net zero impact • Investigate carbon trading. 	Land rehabilitation <ul style="list-style-type: none"> • Continue demolition and rehabilitation programmes • Land use function determined by land capability • Re-vegetate areas with indigenous grasses or create alternative, economically viable end-use land post-closure.

Biodiversity and conservation continued

Biodiversity management and action plans

Our long-life South African sites implement biodiversity management plans through their mine closure plans, environmental management plans or specific biodiversity action plans. Our biodiversity management plans are aligned with biodiversity disclosure projects implemented across our operations to ensure compliance. In addition, biodiversity offsets are planned per region.

In the North West province, our operations are in a critical biodiversity area with endangered, vulnerable ecosystems including endemic vegetation types such as the critically endangered *Brachystelma canum* and endangered *Aloe braamvanwykii*. Both plants are endemic to a province that has experienced agricultural expansion in recent decades, resulting in habitat loss. According to the IUCN Red List of Threatened Species, the only critically endangered fauna is the white-backed vulture (*Gyps africanus*).

Also in North West, Moab Khotsonq is beside the Vaal River, the main tributary of South Africa's largest river, the Orange River. The region has differing biodiversity criteria, including sandy and rocky grasslands as well as riverine and valley bottom wetlands.

Our Free State operations are in the Vaal-Vet sandy grassland and the western Free State clay grassland ecosystem. The Vaal-Vet vegetation is considered endangered as it is in a conserved area. No Red Data species are identified although the commonly known threatened sungazer or giant girdled lizard and near-threatened lesser flamingo are in these habitats.

In Gauteng, our operations are near urban areas and not in critically endangered, endangered or vulnerable biodiversity areas but we encounter near-threatened ecosystems or species.

Invasive alien plant eradication

We continue to minimise alien species' growth and infestation, aiming to eradicate these plants. Infested areas are mapped and divided into management units for prioritisation and appropriate planning. Since FY16, these efforts primarily focus on our Kusasaletu operation with some 5 000ha of the surface mining right area cleared of alien vegetation. Once an area is cleared, follow-up monitoring continues for a period.

Conservation programme and offset opportunities

To offset our impact in clearing vegetation for mining activities at our Kalgold operation, we planted another 200 indigenous trees within the mining boundary, including *Combretum erythrophyllum*, *Olea africana*, *Rhus lancea* and *Vachellia erioloba*, in partnership with the local community.

In the Free State, we built a breeding site for the lesser flamingo, a near-threatened species commonly found in shallow eutrophic, open saline water bodies (salt pans, estuaries and lagoons). The site is on an island in a pan near Welkom.

Biodiversity management in Papua New Guinea

Home to the third-largest block of unbroken tropical forest and the largest tract of primary forest remaining in the Asia-Pacific region, Papua New Guinea supports over 5% of the world's plant and animal species. Some two-thirds of its flora and fauna are endemic. Hidden Valley in Morobe Province hosts a variety of habitats, and flora and fauna communities. The Huon Peninsula, forming most of the province, has moderate to high species richness with a variety of threatened mammal fauna. Of some 3.3 million hectares, two-thirds are forest, and lowland forests are heavily deforested or degraded.

Human activities have disturbed the area around Hidden Valley over a long period. The area is home to several species of mammals or birds protected under Papua New Guinea's Fauna (Protection and Control) Act 1976, the Red List or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Vulnerable or endangered fauna include two species of tree kangaroo (*Dendrolagus dorianus* and *Dendrolagus goodfellowi*), the long-snouted or giant echidna (*Zaglossus bruijnii*), the rare nectar bat (*Syconycteris hobbit*) and the New Guinea harpy eagle (*Harpyopsis novaeguineae*).

Hidden Valley operations remain within a confined footprint without expansion to new undisturbed areas in FY22 and for many prior years.

At Wafi-Golpu, three ecological subdivisions assess the national conservation status of principal forest types in the area as part of baseline characterisation for the project:

- Floodplain forest vegetation is vulnerable as its extent reduced by more than 30% over the past 50 years due to ongoing commercial logging across Papua New Guinea
- Mixed hill forest (over an estimated 13.3 million hectares across Papua New Guinea) reduction is estimated to be less than 30% over the past 50 years and therefore not considered threatened
- Swamp forest is difficult to safely access for assessment as Papua New Guinea has not experienced broad-scale draining and clearing of swamps for agriculture.

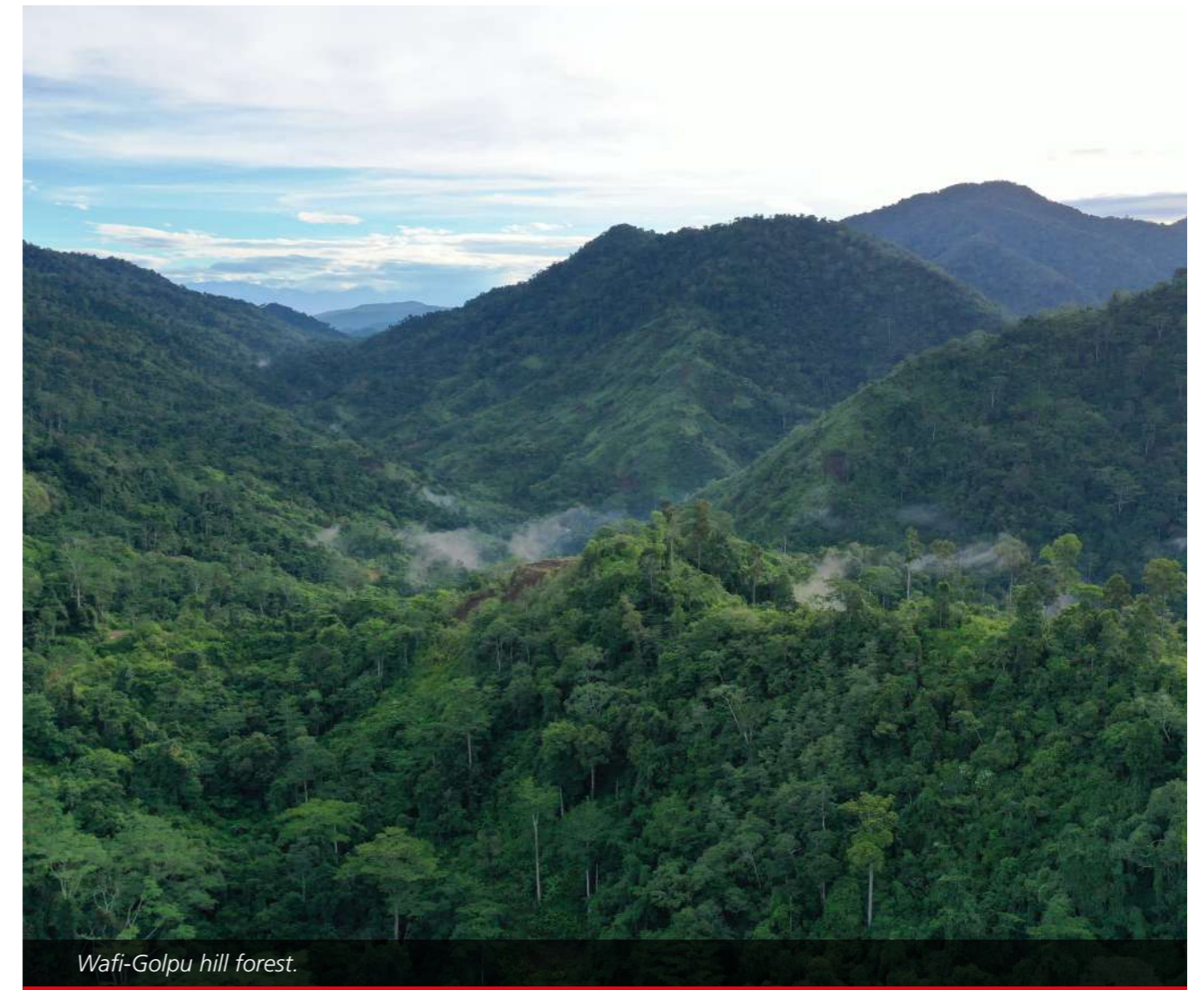
We have recorded seven fauna species of conservation significance. One is classified as critically endangered, three as vulnerable, one as near-threatened and the rest as data-deficient. Two other near-threatened species, Doria's goshawk (*Megatriorchis doriae*) and forest bittern (*Zonerodius heliosylus*), are respectively likely or potentially located in the terrestrial ecology study area.

Project design for Wafi-Golpu includes extensive efforts to avoid potential biodiversity impacts, minimise those that cannot be avoided and consider restoration and offset opportunities. These will be explored further as the project advances beyond permitting stage.

Our focus areas in FY23

In the coming year, our focus will be on:

- Planning and designing the biodiversity and climate change offset programmes
- Accelerated rehabilitation and mine closure programmes.



Wafi-Golpu hill forest.


Social

We **CARE** deeply about our people

Harmony mines with purpose to be relevant in the lives of our employees and communities.

We invest in meaningful development that optimises our impacts for greater good.

Our socio-economic philosophy is to foster relationships of trust with our employees, suppliers, host communities and government in creating shared value that endures beyond our presence in their lives.

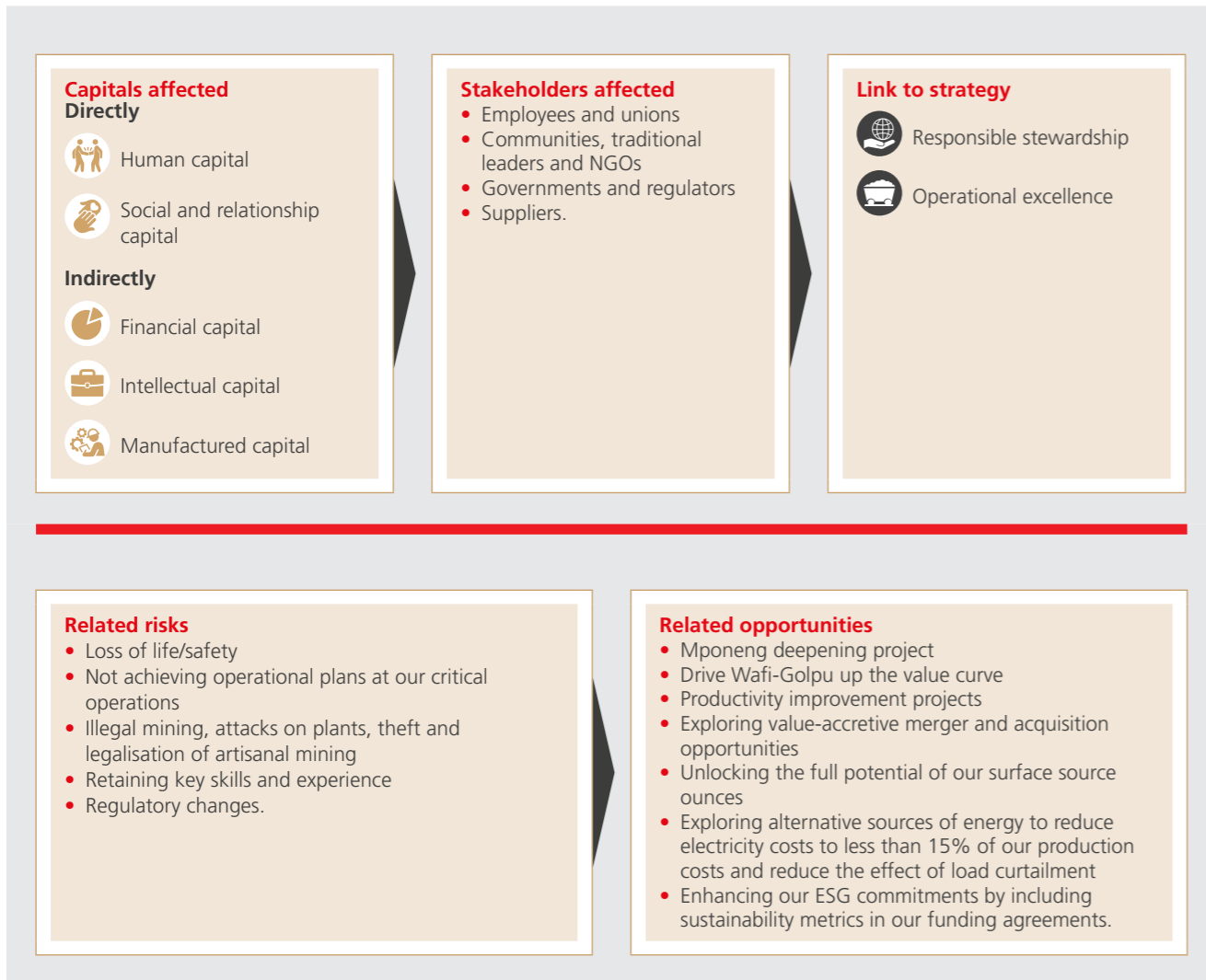
 Read more about our socio-economic development at www.harmony.co.za/sustainability/social.



Mponeng underground.

Principal social imperatives

Creating a safe working environment to prevent loss of life	Human rights are articulated in our human resource policies, charters and contracts of engagement	Risk management innovation: development of a systematic model to embed safety risk management and promote safe behaviours at our operations	Meaningful and sustainable socio-economic development to build resilient communities	R34.8 billion (US\$2.2 billion) total economic value distributed to employees, investors, suppliers, communities and government stakeholders
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Governance and management

Safety and health

The board's **technical committee** approves and monitors compliance with our safety and health policy and legislation although there is oversight by the social and ethics committee as safety and health relates to sustainability and ESG criteria. Our CEO regularly reports safety incidents and achievements to the technical committee and board. At every board meeting, the technical committee chairman provides feedback on safety performance. Management also considers safety a key performance indicator (KPI) in determining remuneration.

In South Africa, our regional COO reports on safety to the group executive committee weekly and quarterly, and quarterly to the technical committee. Demonstrating our inclusive approach, representatives of management, unions, Minerals Council South Africa and government participate in structures emphasising safety and how to eliminate loss of life. Harmony also contributes to external safety initiatives and leading best practice through the Mining Industry Occupational Safety and Health (MOSH) community-of-practice adoption process.

For each aspect of occupational safety and health, nominated champions attend industry meetings and disseminate information to operations. Safety and health committees ensure employees are involved in safety management. In FY22, we had 76 (FY21: 77) full-time safety and health representatives at operations.

In Papua New Guinea, safety managers report at least monthly to the South-east Asia executive committee. Through our regional CEO, this committee reports weekly to Harmony's group executive team and quarterly to the technical committee. In addition, an independent clinical team, executive general managers and business unit managers attend Covid-19 meetings.

Human resources and community engagement

Aligned with the guidelines of the International Labour Organization, our employment policies and practices comply with labour legislation in South Africa and Papua New Guinea. Recruitment initiatives focus on local communities in both countries. We regularly review related procedures and policies, including remuneration and incentive schemes.

Reporting to the social and ethics committee of the board, our human resources function and community engagement managers closely monitor human rights performance at operations.

The **social and ethics committee** oversees socio-economic development, corporate social responsibility and public safety policy and strategies. Our management team and executive responsible for sustainable development implement policies. Guidelines and standards informing site-specific management systems, aligned with our sustainable development framework, support discipline-specific policies.

Social investment governance is formalised with a local economic development strategy, supported by operating procedure and a strategy for investing in mine community development, to ensure processes and systems are entrenched in Harmony. We thus roll out projects responsibly, successfully and sustainably.

Related SDGs

 <ul style="list-style-type: none"> We implement broad-based agriculture and viable commercial agricultural ventures to promote food security, sustain livelihoods and contribute to alternative sustainable post-mining economic activities. 	 <ul style="list-style-type: none"> Our employees' health and wellness are important for full, productive lives We focus on employees' comprehensive wellbeing including occupational health and chronic diseases such as TB and HIV/ Aids among other lifestyle-related conditions We embedded our proactive safety and health approach during the Covid-19 pandemic.
 <ul style="list-style-type: none"> Education is a key aspect of our strategy: <ul style="list-style-type: none"> We support primary schools in Papua New Guinea In secondary schools, we promote mathematics, science and technology In tertiary institutions and communities, we develop entrepreneurial and portable skills, especially in information and communication technology, focusing on mining-related fields (engineering, surveying and environmental science, among others) in Papua New Guinea. 	 <ul style="list-style-type: none"> Gender equality is an essential aspect of our human resources policy We have gender diversity targets in South Africa and actively increase the number of women employed at every level, focusing on women in mining in both countries.
 <ul style="list-style-type: none"> As a responsible employer, providing decent work includes safeguarding employees, ensuring workplaces are safe and preventing harm so that they return home safe every day Employees have the right to refuse to work in a workplace considered unsafe Training and other support encourage safe behaviour. 	 <ul style="list-style-type: none"> Promoting preferential local procurement as well as enterprise and supplier development uplifts and economically sustains communities Infrastructure projects (roads, water and sanitation) enhance community resilience and functionality.

GRI Standards

We list the relevant GRI Standards in each section of this chapter and will include the GRI Sector Standards for Mining when published.

Related material themes and material matters

<p>Material themes</p>
<p>Employee health and safety</p> <ul style="list-style-type: none"> Ensuring employee safety Protecting employee health and wellbeing.
<p>Supporting our people</p> <ul style="list-style-type: none"> Maintaining sound labour relations Driving equity, inclusion and diversity Instilling an enabling culture and empowered workforce.
<p>Partnering for thriving, sustainable communities and our social licence to operate</p> <ul style="list-style-type: none"> Engagement and partnership for sustainable communities Supply chain transformation and preferential procurement.
<p>Ethical and accountable leadership</p> <ul style="list-style-type: none"> Fair and responsible remuneration.



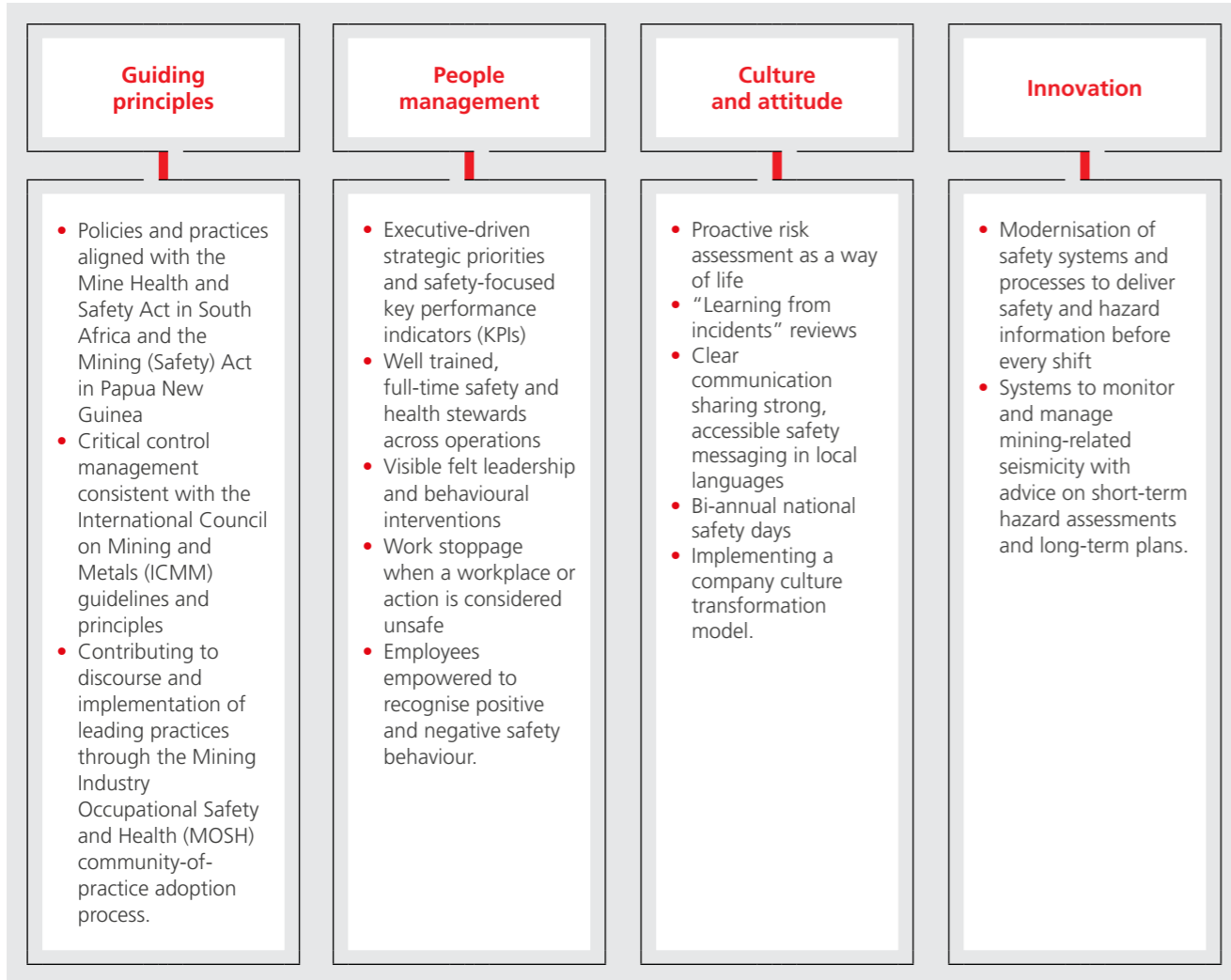
Mponeng medical centre.

Safety

Zero loss of life is a core value and therefore a non-negotiable imperative.

Our commitment to complex underground mining in South Africa requires the most stringent safety measures to offset the risks that accompany this complexity.

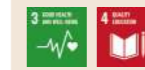
Applying the same principles in Papua New Guinea, our open-pit gold and silver Hidden Valley operation has an exemplary safety record.



GRI Standards

Prepared in accordance with 3-3, 403-1, 403-2, 403-4, 403-5, 403-6, 403-7, 403-8 and 403-9.

Related SDGs



Related material matter

Ensuring employee safety

Our employees are our most important stakeholders and a vital capital resource. Ensuring their safety is a moral and business imperative. Safety is our foremost corporate value – no product is as important as our people who should return home safe and healthy every day.

Our approach

We are embedding safety in everything we do with internal and external stakeholders participating in our multifaceted and cooperative approach aimed at achieving our goal to reduce injuries and eliminate loss of life.

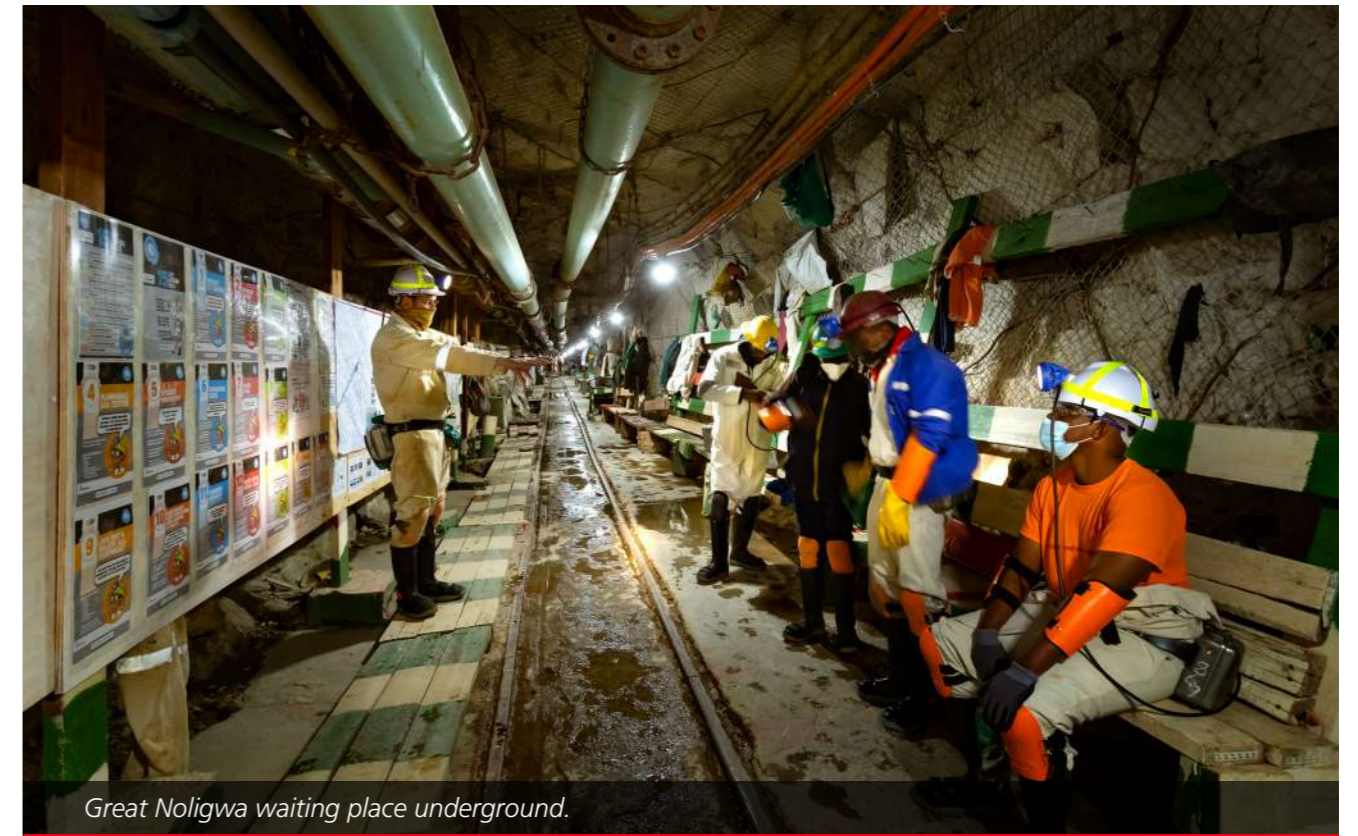
Our employees' safety is among the top strategic risks in our business. We therefore foster a proactive zero harm culture, encouraging employees to stop, assess and manage risks.

Risk management strategy

Our group-wide safety risk management strategy involves identifying, assessing and controlling harmful threats. It is based on real-time data, particularly leading indicators, to support proactive risk management initiatives and safe, profitable production. It also strives for more engaged and proactive behaviour.

We are encouraged by our leading indicators (more reliable indications of preventing harm than lagging indicators, which monitor past events), particularly safe declarations, golden control monitoring and learning from incidents. Automated systems and processes enable continuous assessment of workplace conditions and equipment to avoid risks on surface and underground, and effectively monitor safety-related initiatives at our operations.

We are rolling out this strategy to systematically embed risk management in our operational culture and employees' behaviour.



Great Noligwa waiting place underground.

Safety continued

Capacitation

In the second phase, from April 2018, we modernised systems, processes and information sharing to facilitate proactive management. Our mining teams therefore require information before entering a workplace so that crews are aware of hazards identified in previous shifts and can ensure the area is safe before entry.

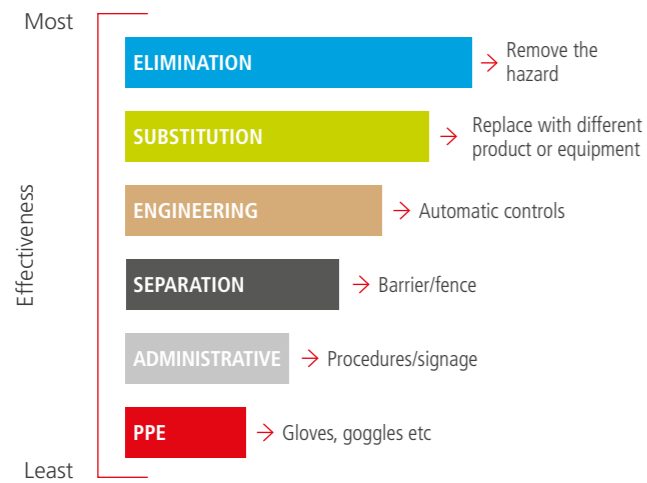
Interventions

Since February 2021, we have been systematically entrenching the ICMM's critical management plan in the third phase so that we are better equipped to identify significant unwanted events and related mitigating controls.

This phase, which we plan to complete by the end of January 2023, focuses mainly on ensuring appropriate processes are in place at each operation to embed a proactive approach to safety. It includes implementing golden control monitoring and improved responses to golden control failures.

Golden controls are the principal preventive safety measures in our operations such as hazard awareness campaigns, including training, with risk assessment methods such as the new engineering safe operating model (ESOM) that identifies potentially high-risk tasks.

Hierarchy of controls

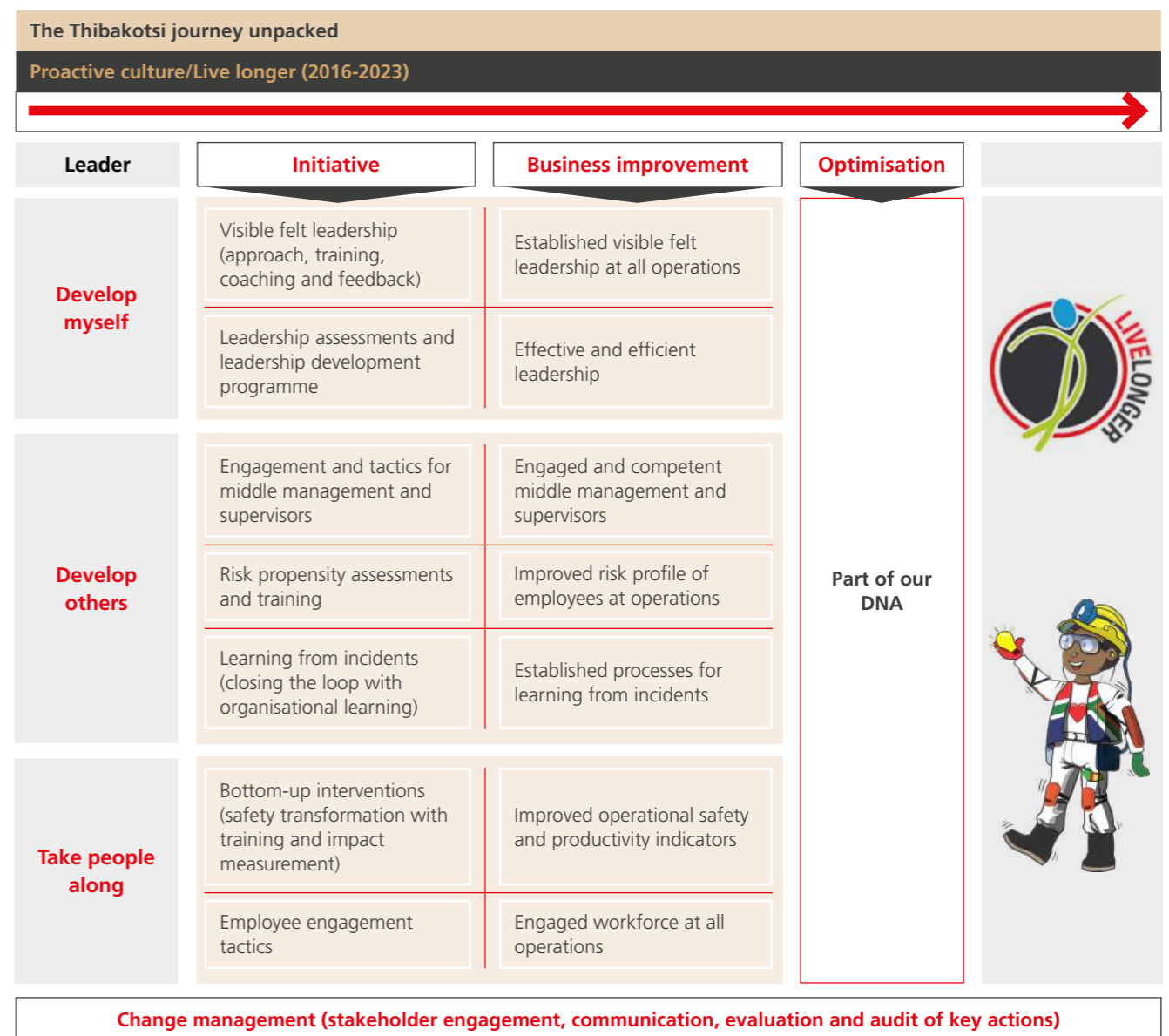


We have introduced a risk manager role to support operations in implementing this proactive approach to create a safety first culture in an environment that enables employees at all levels to live the company's values and experience high levels of mutual trust, respect and hope. This will manifest in the belief that zero loss of life is possible with an empowered workforce.

Reinforcement

In calendar years 2021 to 2023, Harmony is focusing on the sustainability and integration of our Thibakotsi (Sesotho for "prevent harm") initiative as a humanistic approach to transforming our company culture on a proactive journey to zero harm.

Harmony began the Thibakotsi journey in FY16 to empower employees and contractors to significantly reduce injuries and ultimately eliminate loss of life.



- The culture transformation framework has three key company culture change drivers:
- How leaders show up, develop themselves and adopt a collaborative leadership style aligned to the company values
 - How leaders empower, develop and engage with middle management and supervisors
 - How leaders empower and engage with front line employees to ensure a bottom-up approach to culture change.

Our focus areas and performance in FY22

Our safety risk management strategy significantly increased our white flag (accident-free) days in FY22. Our lost-time injury frequency rate (LTIFR) in South Africa improved to 5.90 (FY21: 6.46) per million hours worked and our group LTIFR was 5.65 (FY21: 6.18) per million hours worked at year end.

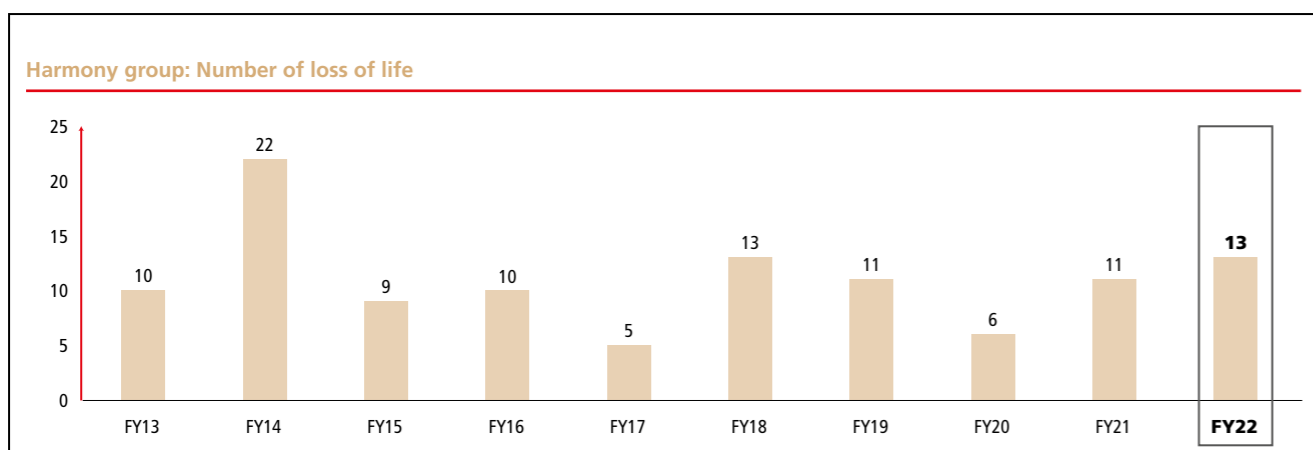
Despite this progress, we tragically lost 13 (FY21: 11) colleagues at our South African operations while our Hidden Valley operation in Papua New Guinea had no loss of life for the fifth consecutive year.

Team training is crucial in this humanistic transformation process. Our Humanistic Transformation Charter includes Thibakotsi team training as a bottom-up culture change driver. Team training began at one operation in 2016 and was implemented at all operations by April 2021 by four service providers. A multi-disciplinary steering committee governs implementation.

Emphasis is on learning from each other through a community of practice forum in which best practice, lessons learnt and feedback are shared. Training is followed by visits to crews when organisational effectiveness improvement officers assess behaviour in the workplace (such as absenteeism and implementation of S300). Training implementation is also monitored and reported monthly. Initially, we focused on management visibility and formalising feedback on issues raised by crews in training. We now analyse employee feedback and measure business impact.

Loss of life

Each loss of life is investigated in detail to ensure that no life was lost in vain and that we learned lessons now embedded in our strategy. In addition, we ramp up business improvement initiatives to identify feasible best practice mitigation measures.



	FY22	FY21	FY20	FY19	FY18
Number of loss of life					
Group	13	11	6	11	13
South Africa	13	11	6	11	13
Papua New Guinea	—	—	—	—	—
Fatal injury frequency rate (per million hours worked)					
Group	0.13	0.11	0.08	0.12	0.16
Lost-time injury frequency rate (per million hours worked)					
Group	5.65 ¹	6.18 ²	6.33 ²	6.16 ²	6.26 ²
South Africa	5.90	6.46	6.69	6.48	6.67
Papua New Guinea	0.17	—	0.77	0.35	—

¹ Assured by independent assurance providers in the current year. Refer to the assurance report and the glossary of terms on the website, www.har.co.za.

² Assured by independent auditors in prior years – refer to <https://www.harmony.co.za/investors/reporting/annual-reports>.

In memoriam	Cause		
15 July 2021	Thembile Simon Mabala	Phakisa rock drill operator	Scraper winch accident
6 August 2021	Pule Jan Mokhatsi	Moab Khotsong stope team member	Gravity-related fall-of-ground
1 September 2021	Richard Mohapi	Mponeng rock drill operator	Seismic-related fall-of-ground
21 October 2021	Thobela Gwangxu	Kusasaletu winch operator	Seismic-related fall-of-ground
	Mbongeni Zulu	Kusasaletu stope team member	
31 October 2021	Sicelo Tshovana	Doornkop artisan	Fall down shaft
10 December 2021	Andile Michael Mafilika	Kusasaletu stope team leader	Scraper winch accident
11 March 2022	Makoe Cosma Makhang	Doornkop tramming team leader	Rail-bound equipment accident
7 May 2022	Sifiso Siphamandla Gumede	Kusasaletu fitter and turner	Settler dam inundation
	Emmanuel Zolile Dhlamini	Kusasaletu engineering assistants	
	Joao Andre Nhanthumbo		
	Lemohang Lerato		
6 June 2022	Linda Mgudzi	Kusasaletu development team member	Conveyance accident

Understanding causes of injury

In FY22, contributors to reportable injuries included slip-and-fall incidents, gravity-induced falls of ground, rolling rock and material handling. Each incident was investigated through a section 11(5) process to determine the causes and contributing factors. Lessons learned are an integral part of our learning from incidents (LFI) process.

Identifying leading indicators, using Harmony's risk management strategy as a basis, enables front line employees to proactively address risks in the workplace, implement mitigating controls and decrease the probability of an incident, accident or injury.

The leading indicators are reported daily in the miner's work note, which provides safety, occupational health and production-related information that informs crews about workplace risks.

South Africa: Loss of life-free shifts and injury-free days in FY22

	Loss of life-free shifts	Loss of life-free production shifts	Fall-of-ground loss of life-free shifts	Rail-bound equipment loss of life-free shifts	Consecutive white flag (injury-free) days
Operations and plants					
Operations total	2 000 000		7 000 000	21 000 000	
Underground operations	3 000 000				
• Masimong	2 500 000			4 000 000	
• Masimong/Bambanani/Joel unit	1 000 000		2 000 000	10 000 000	
• Tshepong	2 000 000		1 000 000	9 000 000	
• Tshepong Operations			3 000 000	12 000 000	
• Tshepong/Target/Phakisa unit	1 000 000		3 000 000	15 000 000	
• Joel	2 000 000		2 000 000		
• Phakisa/Nyala unit			3 000 000		
• Phakisa				5 000 000	
• Doornkop	1 000 000		3 000 000	7 000 000	
• Kusasalethu				2 000 000	
• Kusasalethu/Mponeng unit			3 000 000	4 000 000	
• Moab Khotsong	1 000 000		1 000 000	5 000 000	
• Moab Khotsong/Doornkop/Kalgold unit	1 000 000		5 000 000	8 000 000	
• Moab Khotsong/Doornkop unit			2 000 000		
• Mponeng				2 000 000	
• Asset Management Forum					500
Surface operations	2 000 000				
• Moab Khotsong Central Services	2 500 000				1 000
• Mponeng gold plant		39 000			400
• Kusasalethu plant		33 000			200
• Doornkop plant					200
• Target plant		33 000			300
• Central plant					400
• Saaiplaas plant		22 000			800
• Harmony One Plant		33 000			300
• Free State laboratory					300
• Free State surface operations					300
• Free State Commercial Services					100
• Randfontein surface operations	5 250 000				500
• Randfontein Commercial Services and Transport	1 500 000				1 700
• Vaal River surface sources					300
• Vaal River Commercial Services and Transport					1 300
• West Wits surface operations					200
• Mine Waste Solutions re-mining and deposition		17 000			200
• Mine Waste Solutions gold plant		17 000			100
• Savuka gold plant	4 000 000				200
• Kalgold pit		22 000			100
• Kalgold plant	1 750 000	22 000			
• Kopanang gold plant		42 000			300
• South Uranium plant		33 000			600
• Nologwa gold plant		33 000			600
• Nufcor plant		33 000			2 700

Loss of life and serious injury compensation

Loss of life and serious injuries have a devastating impact on employees' families. Many of these employees are sole breadwinners, supporting more than 10 other extended family members. We therefore provide the following compensation to these bereaved families:

- Coffins, transportation of the deceased person and funeral services at no cost to the family
- At least two senior managers attend the funeral
- Eight union members attend the funeral on paid leave
- Six mourners may travel in the hearse
- Transportation in a 60-seater bus and paid leave for colleagues
- Employees attend an on-mine memorial service
- R40 000 advance from the Mineworkers Provident Fund
- R50 000 Rand Mutual Assurance funeral policy
- R50 000 donation (provided as soon as possible after loss of life)
- Accommodation for six family members on the mine to attend to the affairs of the deceased person
- Enrolment of children in the Harmony Education Fund (unlimited as per our policy)
- Immediate offer of employment at underground entry level.

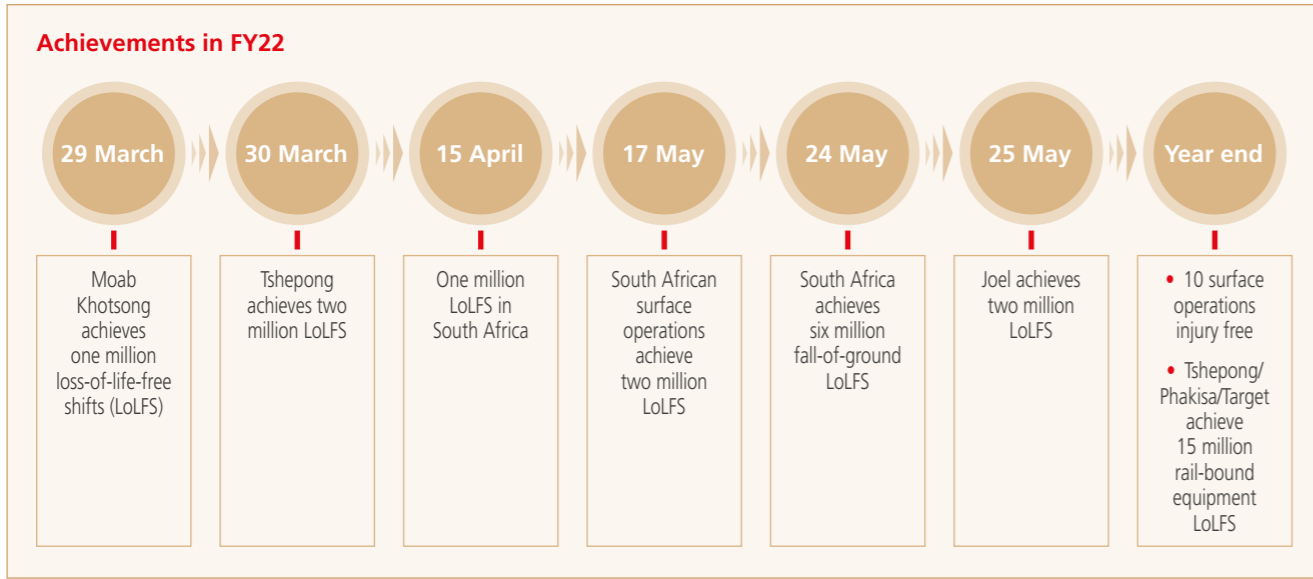
Compensation for serious injury on duty includes:

- Lump sum or monthly compensation paid to employees based on the percentage disability rating of the Compensation for Occupational Injuries and Diseases Act
- Investigation and provision of alternative work if suitable vacancies exist
- Two weeks' termination compensation (minimum R70 000) per completed year of consecutive service if alternative work is not available
- Employment offer to an immediate family member
- Employees medically incapacitated by injury on duty are placed in the TEBA home-based care programme.

For employees who become paraplegic after an injury at work, we provide the same compensation listed above with an enhanced termination package and renovation of the employee's home to make it wheelchair accessible.

Safety continued

South Africa

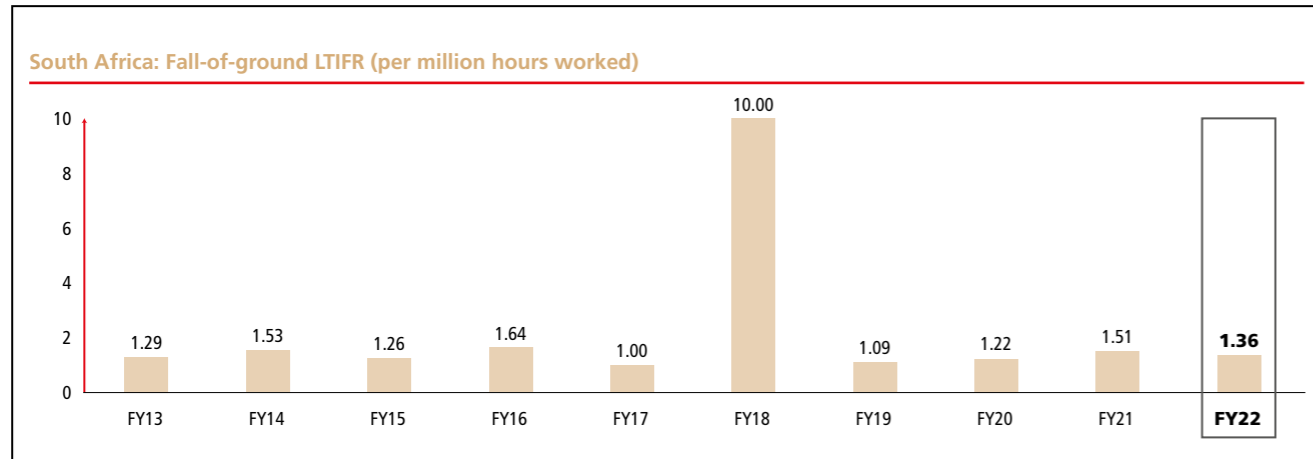


We reduced our fall-of-ground LTIFR in South Africa to 1.36 (FY21: 1.51) per million hours worked by increasing risk monitoring with golden controls and addressing inadequate control performance.

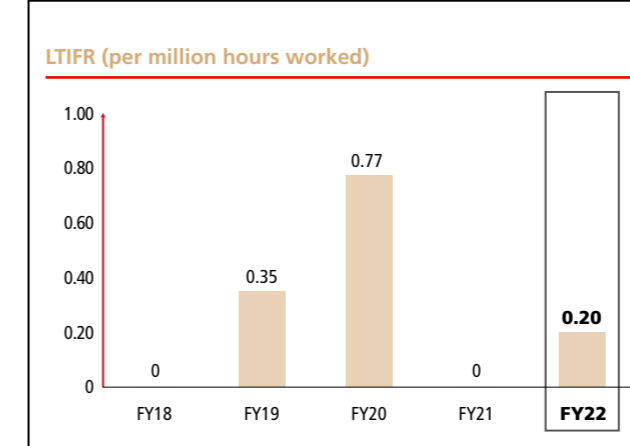
Our critical control monitoring tools included:

- Monthly pre-planning digitisation to ensure mine layout and design support ground conditions
- Analysing data on declaration of safe areas to identify improvement opportunities
- Weekly walkabouts to examine rock engineering and compliance with mining sequence and layout
- Strata control inspections to monitor potential changes in strata.

We addressed inadequate performance by focusing on repeated control deviations to either correct behaviour, the environment or the control.



Papua New Guinea



Hidden Valley maintains a world-class safety record without loss of life since 2015, equating to three million LoLFS as this open-pit operation has fewer risks than our underground operations in South Africa. In addition, the operation implements our safety risk management strategy with critical controls and has a proactive safety culture. Visible felt leadership and regular, focused safety training reinforce positive behaviour.

The operation is also highly mechanised so vehicle interaction is the most significant safety risk, followed by fatigue and uncontrolled release of energy (hydraulic and compressed) in workshops. Monitors on mining vehicles mitigate driver fatigue, prevent collisions, observe driver behaviour and track productivity.

At our Wafi-Golpu project, we similarly ensure proactive safety risk management with critical risk monitoring and visible felt leadership.

Radiation protection

Harmony has 17 certificates of registration (CoRs) from the National Nuclear Regulator (NNR)

The CoRs are managed by eight legally appointed radiation protection officers (RPOs) assisted by two permanently employed radiation protection monitors (RPMs). The RPOs and RPMs report to the group radiation manager.

The NNR requires the following from Harmony as a licence holder:

- Monitoring occupationally exposed employees (OEPs) for all pathways (radon, beta, gama and long-lived alpha) to ensure operations remain within legal dose limits included in our medical surveillance programme
- Monitoring and safeguarding the public visiting radiologically controlled areas
- Screening, sampling and monitoring of scrap waste and repairable items as well as effluent and gas discharges from our operations
- Safeguarding the public by analysing strategic water sampling points (surface and underground)
- Managing and reporting occurrences (surface water dams overflowing, spillages etc), transportation of radioactive materials as per NNR guidelines and decommissioning of redundant operations
- Reporting quarterly, bi-annually and annually on all of the above to the NNR.

No overexposure of OEPs was reported within the Harmony group in FY22.

In compliance with the radiation protection programme, the group conducts quarterly self-inspections, internal radiation audits, and NNR inspections and audits. In FY22, we achieved:

- Average self-inspection compliance: 99%
- Average internal audit compliance: 98%
- NNR compliance: 19 inspections and audits, and 11 non-conformances.

Our focus areas in FY23

We will continue our digitisation programme with ESOM, data integration to provide a holistic view of critical information for proactive decision making, and middle management engagements to support and sustain the Thibakotsi journey while investigating the feasibility of new technologies to improve controls.

A major focus area will be the S300 programme aimed at achieving an average of 300m² of zero harm per in-stope team every month.

We safeguard our employees' health and wellbeing with accessible healthcare services.

Harmony is dedicated to employees' health and wellness (occupational healthcare in the workplace) and non-occupational (lifestyle-related) healthcare so that every person can live a fulfilled and productive life.

GRI Standards
Prepared in accordance with 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9 and 403-10.

Related SDGs

Related material matter

Protecting employee health and wellbeing

The health and wellbeing of employees are important for full, productive lives. A motivated, engaged and productive workforce enables Harmony to deliver on our business strategy and create sustained and shared value for our stakeholders. Our duty of care for employees extends beyond compliance to ensure safe and healthy workplaces, easy access to healthcare and occupational disease related compensation.

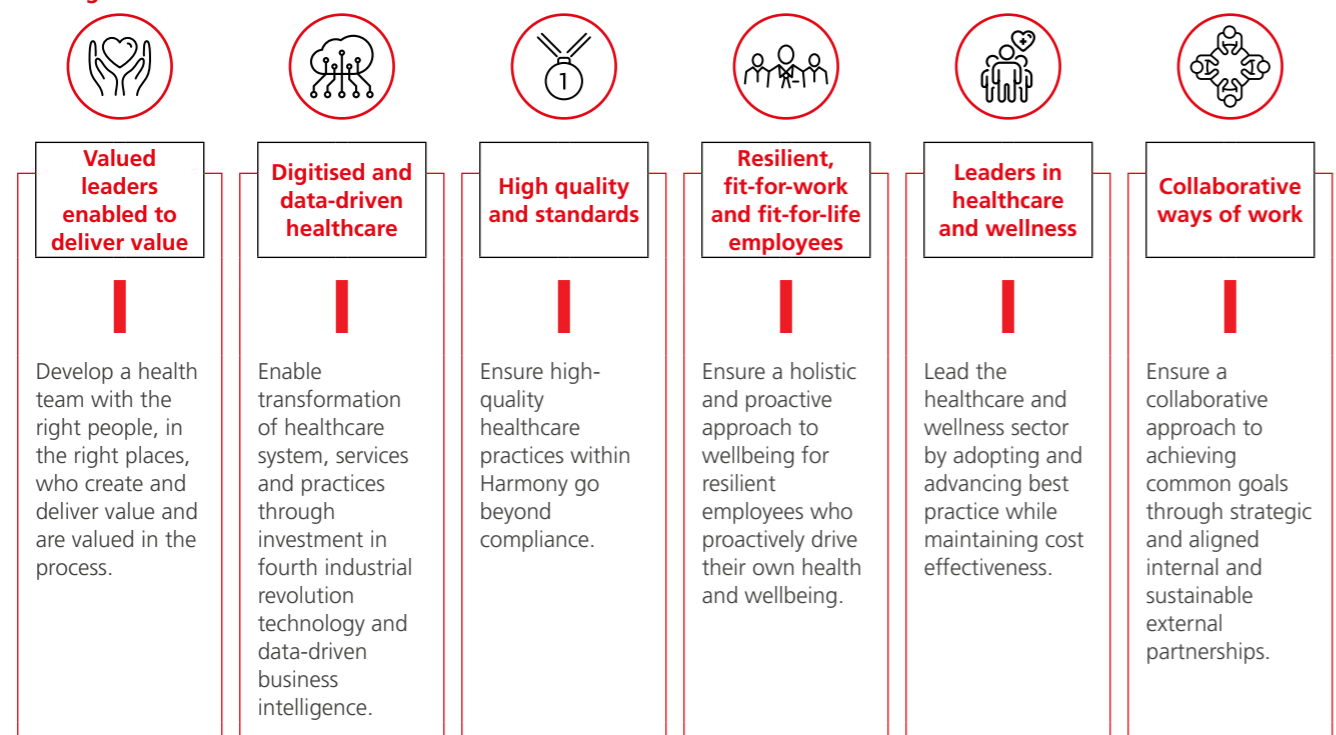
Our approach

Our pro-active, risk-based approach aims to ensure employees are fit for work, life and the physiological age appropriate for retirement. Our robust medical surveillance promotes active case finding, early detection and treatment of disease as integral aspects of our healthcare strategy, based on four pillars:

1. Education, awareness and promotion of good health
2. Disease prevention and risk management
3. Clinical intervention (treatment programmes)
4. Continuous risk profiling.

The intention is to have resilient employees who proactively drive their own health and wellbeing.

Strategic focus areas for 2022 to 2026



In South Africa, medical scheme membership is compulsory for officials and management, and voluntary for category 4 to 8 employees who can use free comprehensive on-site healthcare services. We refer employees to external specialist service providers, and private hospitals for secondary and tertiary healthcare needs.

In Papua New Guinea, employees and contractors also have access to fully equipped medical centres at our operations.

An electronic integrated health management system provides a holistic view of an employee's health status to on-mine medical professionals. The system eliminates inefficient and costly manual processing by incorporating occupational and primary healthcare, injuries on duty and chronic disease cases on the same platform, allowing clinicians to make timeous fitness decisions. It is the foundation of the digital transformation of our health strategy for 2022 to 2026 (page 96).

In Papua New Guinea, online medical registers track employees' progress from diagnosis to treatment of occupational and unrelated injuries and illnesses. Employees and contractors also receive primary healthcare and occupational health surveillance services in medical centres with full-time doctors and nurses. Privately owned companies supply medication, consumables and clinical advice.

Our focus areas and performance in FY22

Dedicated medical hubs at our operations care for employees' health needs – occupational (health and wellness in the workplace) and non-occupational (lifestyle-related diseases).

We continue to reduce costs at the newest medical hub in our portfolio, Mponeng, by insourcing health services aligned with Harmony's health strategy. This intervention saved more than R60 million during the year by reducing overheads from R2 400 per person to R1 527, which is more than the budgeted R1 633. Optimisation of health programmes will continue in the coming financial year and we expect further cost reductions.

In FY22, we spent R1.1 billion (US\$70.8 million) (FY21: R1 billion/US\$65.3 million) on health initiatives across South Africa. Of that, R204 million (US\$13.3 million) (FY21: R291.6 million/US\$18.9 million) funded Covid-19 management in South Africa and R237.8 million (PGK55.0 million) (FY21: R290 million/PGK66.3 million) in Papua New Guinea.

Papua New Guinea: Healthcare expenditure (Rm)	FY22	FY21	FY20
Total excluding Covid-19	16	13	19
Covid-19-related management	238	290	Not reported

Papua New Guinea: Health statistics	FY22	FY21	FY20	FY19	FY18
Health examinations conducted	15 539	11 489	20 452	17 601	15 198
Employees treated for respiratory ailments	1 545	707	1 905	2 191	2 581

In South Africa, a further R560 million (US\$36.4 million) (FY21: R465 million/US\$30.2 million) provided free health benefits for 27 707 employees and contractors. The main drivers were inflationary increases in medical goods and services, particularly personal protective equipment (PPE), and a higher hospitalisation rate due to Covid-19-related referrals. The full impact of pandemic-related health costs was evident in the review period. Having brought Mponeng operations medical hub into the portfolio resulted in a higher medical cost base.

Our on-site healthcare hubs conducted 66 862 (FY21: 68 651) medical examinations. The decrease is due to the electronic integrated health management system roll-out, and lifting of Covid-19 restrictions and screening requirements. Medical examinations at the Hidden Valley clinic in Papua New Guinea increased in the third and fourth waves of Covid-19, which also increased health-related absenteeism (details on page 102).

In South Africa, 9 823 (FY21: 9 793) employees participated in medical schemes in FY22. Harmony's monthly subsidy of related costs was R27.2 million (US\$1.8 million) (FY21: R25.7 million/US\$1.7 million).

We spent R15.6 million (PGK3.6 million) (FY21: R12.68 million/PGK2.9 million) on healthcare in Papua New Guinea in FY22 when our in-house team successfully delivered Covid-19 services, and we replaced former doctors and nurses as well as a supplier of consumables affected by the pandemic.

At PNG medical centre 15 539 (FY21: 11 489) health examinations were conducted in FY22 – 29% (FY21: 31%) were random drug and alcohol tests.

Health continued

Occupational healthcare

Prevention and management of occupational diseases avoid serious health implications for employees, and financial liability and reputational damage to Harmony.

South Africa

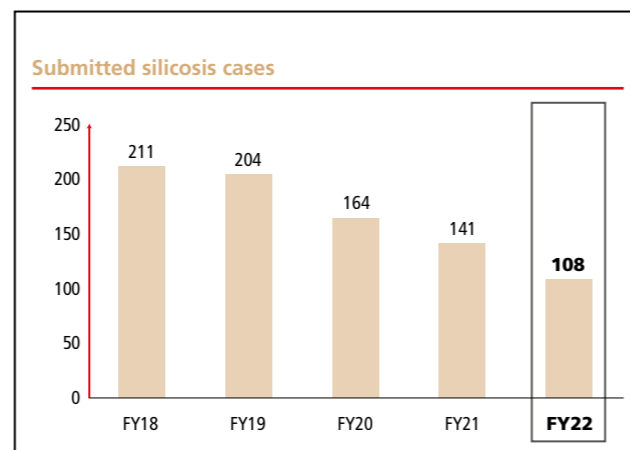
Our key concerns are occupational lung diseases, particularly silicosis, noise-induced hearing loss (NIHL) and heat-related illness.

Silicosis

Silicosis is an occupational lung disease caused by inhaling free respirable crystalline silica dust over a long period. Given the severe risk presented by this disease, which can increase susceptibility to tuberculosis (TB), particularly among HIV/Aids patients, Harmony has an integrated silicosis, TB and HIV/Aids policy and programme for proactive prevention and management.

To eliminate silicosis in our South African operations, we aim for the local gold mining industry milestone: 95% of personal silica dust samples must be below 0.05mg/m³ by 2024. We set annual dust load reduction targets to achieve this goal – our FY22 target was 93% (FY21: 92%). Our milestone achievement in FY22 was 88.2% (FY21: 86.3%) with most metallurgical plants and a third of the mines above the aspirational target of 93%.

In FY22, we submitted 108 (FY21: 141) silicosis cases (20% former Harmony employees) to the Medical Bureau for Occupational Diseases for certification and possible compensation. A total of 184 (FY21: 54) silicosis and silico-TB cases were certified. In FY22, no new cases were noted among previously unexposed individuals who entered the mining industry since 2009. To date, there are two certified cases of silicosis among previously unexposed employees.



As silicosis is caused by inhaling silica dust over time, we aim to eliminate dust discharged during rock breaking at the source, in stoping, development and trackless mining. Engineering controls in our underground operations also minimise employees' exposure to silica dust, based on Mining Industry Occupational Safety and Health (MOSH) leading practice.

In FY22, we reduced dust at the following rates with sustainable engineering controls at our operations:

- Main tips – foggers (97.6%), covers (98%) and filters (96.1%)
- Main intake haulages – airway sprays (94.9%), spray cars (92.3%) and footwall treatment (78.5%)
- Stopes – winch covers (98.4%) and in-stope atomisers (99.1%)
- Continuous real-time monitors (95.7%).

Settling occupational lung disease claims

Tshiamiso (Setswana for "to make good" or "to correct") describes our motivation to settle occupational lung disease claims

Harmony continues to assist government's Ku-Riha project addressing challenges in administering occupational lung disease compensation through our ReConnect initiative.

With the mining industry's support, Harmony ReConnect was the driving force in the development of a paperless compensation claims management system (CCMS) to help government's Medical Bureau for Occupational Diseases and Compensation Commissioner for Occupational Diseases, as well as the Tshiamiso Trust, efficiently settle claims and pay unclaimed benefits. The CCMS reduced the average claim processing time from 500 to 90 days.

During FY22, the Compensation Commissioner for Occupational Diseases paid compensation of R5.5 million to 434 current Harmony employees and R36 million to 1 001 former employees. Another 616 current and 20 881 former employees lodged claims with the Tshiamiso Trust, which has already paid benefits of R221 million to 2 605 former Harmony employees.

We were involved in establishing the Tshiamiso Trust after the High Court approved the R5.2 billion settlement of the silicosis and TB class action suit between the Occupational Lung Disease Working Group – representing Harmony, Gold Fields, African Rainbow Minerals, Anglo American South Africa, AngloGold Ashanti and Sibanye-Stillwater – and lawyers for affected mine employees in 2019.

Noise management

We aim to eliminate NIHL by ensuring that no employee's standard threshold shift exceeds 25dB from the baseline when averaged at 2 000Hz, 3 000Hz and 4 000Hz in one or both ears. The standard threshold shift, a sensitivity marker used to identify early deterioration in hearing, guides modification and enhancement of occupational noise controls to prevent progressive hearing loss.

Employees exposed to high noise levels, receive personalised hearing protection devices, which reduce noise levels by 25dB.

In FY22, there was an increase in employees compensated for NIHL – 106 (FY21: 71) cases were compensated. Moab Khotson, Mponeng, Tshepong and Masimong recorded the most cases.

A notable achievement was adopting the tyre-deflation noise reduction simple leading practice. The MOSH adoption team trained each of our occupational hygienists and equipped them with the knowledge and resources to drive implementation of this practice at our South African operations.

Managing underground temperatures

For employees exposed to excessive heat in the workplace and ventilation in our operations manage temperatures exceeding normal working ranges. In addition, we provide heat tolerance testing, acclimatisation programmes, and adequate hydration and support.

In FY22, we conducted 17 868 (FY21: 15 364) heat tolerance tests and recorded 211 (FY21: 126) cases of heat-related illness. Mponeng, Moab Khotson and Tshepong accounted for 70% of cases.

Tests are conducted with each mine's risk assessments, allowing less risky occupations to use natural acclimatisation to minimise the threat, including alcohol testing to avoid dehydration. Environmental working conditions are also monitored continuously.

Radiation protection

Monitoring radiation levels and exposure at our South African operations

Our operations comply with the dose limits of 50 millisieverts a year and 100 millisieverts over five years. Controls ensure that elevated monitoring results are investigated and corrected.

Radiological clearances at decommissioned sites ensure future declassification of these areas.

Papua New Guinea

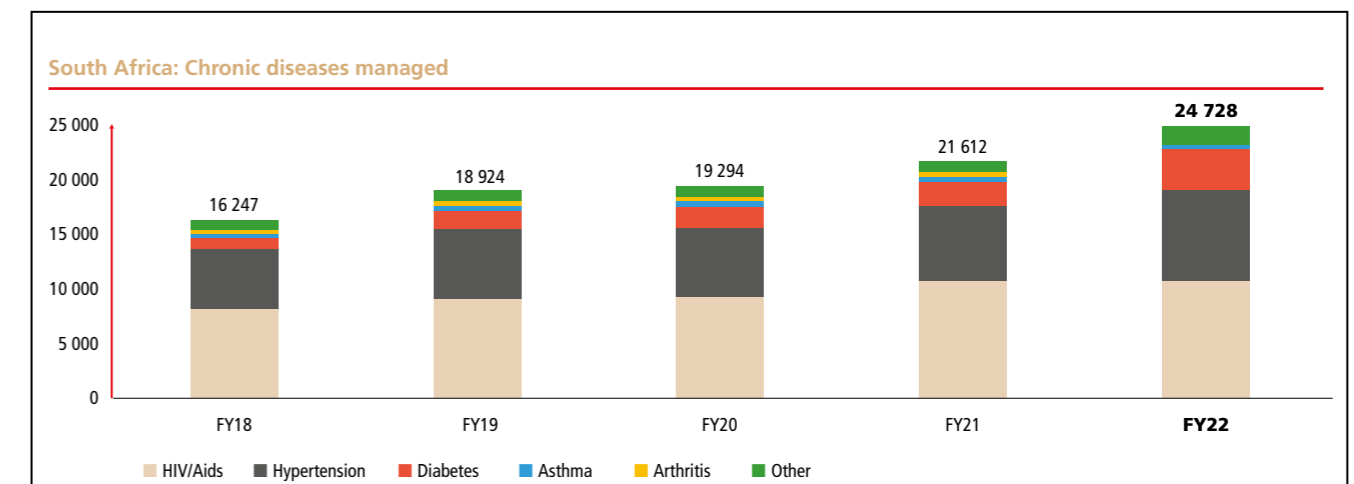
NIHL is a significant focus area at Hidden Valley as the open-pit operation uses large mining vehicles and earthmoving equipment. Our robust noise monitoring programme addresses this by ensuring employees constantly wear appropriate hearing protection devices.

In FY22, we contracted consultants (GCG) to conduct risk assessments of our NIHL, silicosis and hygiene monitoring programmes, although we did not record any cases.

Non-occupational healthcare

Using our electronic health management system, which enables follow-ups, Harmony's integrated lifestyle programme addresses communicable diseases such as HIV/Aids, TB and Covid-19, and non-communicable lifestyle diseases, including increasing mental-health-related conditions.

In FY22, 2 494 (FY21: 2 006) employees participated in this programme.



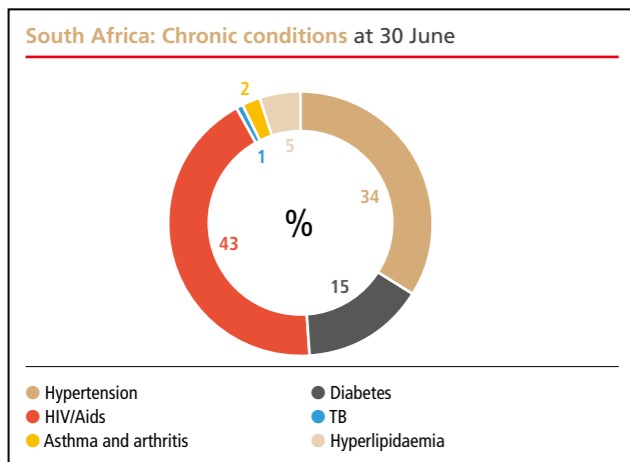
Note: If an employee has more than one chronic disease, this is counted against each condition.

Health continued

South Africa

Non-communicable chronic lifestyle diseases, such as hypertension, heart disease and diabetes, remain significant challenges for our employees. At the same time, we manage challenging communicable lifestyle conditions such as HIV/Aids and TB.

The percentages of our employees diagnosed with these conditions are illustrated below.



HIV/Aids

The scourge of HIV/Aids in South Africa continues to impact our employees and their dependants despite progress in raising awareness and prevention as well as the availability of antiretroviral therapy (ART). Harmony is concerned that this disease, and opportunistic infections, including Covid-19, contribute negatively to absenteeism (refer to page 102) while reducing productivity and our skill set, which translates into heavier economic burdens.

Motivating employees to disclose their HIV status remains challenging, worsened by the stigma and confidentiality. We therefore focus on encouraging positive behaviour.

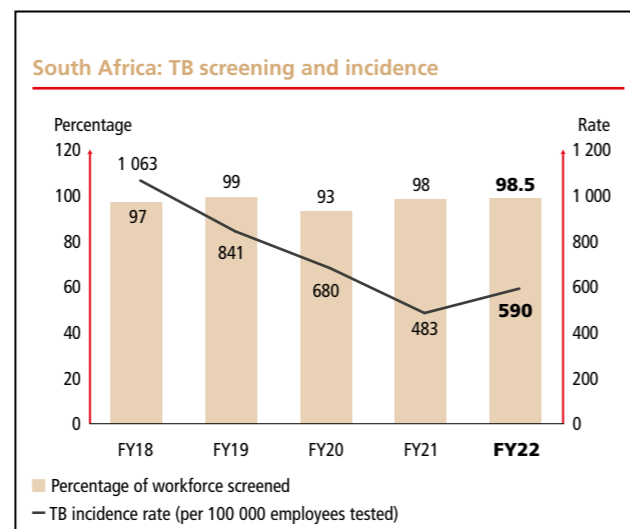
At our South African operations in FY22, 29% of our permanent workforce was HIV-positive with 9 595 (FY21: 9 328) in the HIV/Aids programme and receiving ART. The estimated national HIV prevalence rate for adults aged between 15 to 49 is 19.5%.

We continue to distribute Dolutegravir, as part of first-line treatment, which accelerated viral suppression conveniently and with fewer side effects for 78% (FY21: 78%) of employees in FY22. This drug supports South Africa's achievement of the United Nations Programme on HIV/Aids (UNAids) 90-90-90 targets (refer to the table below). Harmony's HIV/Aids programme is aligned with this global campaign. Four of our operations achieved the first target and six reached the second during the year.

Target	South Africa: Harmony's HIV status (%)			
		FY22	FY21	FY20
90%	of people living with HIV will know their status	85	76	83
	of people with diagnosed HIV infection to receive sustained ART	89	86	85
	of people receiving ART to have viral suppression	78	78	71

To meet the UNAids 2030 targets to identify at least 95% of people living with HIV, initiate at least 95% living with HIV onto effective ART and ensure that at least 95% on treatment remain virologically suppressed, Harmony participated in World Aids Day on 1 December 2021 with build-up campaigns from 8 November across our operations. The theme was "Working together to end inequalities, Aids, TB and Covid-19". The campaign ran concurrently with the Covid-19 vaccination programme. We thus raised awareness of the importance of vaccination and HIV status knowledge. During the campaign, 5 970 employees were offered voluntary counselling, and testing and screening for TB – 5 083 were tested for HIV, and 16 new positive cases were identified and began treatment. Five TB suspects were found negative. Another 458 community members were screened for TB and counselled for HIV.

Employees continue to receive pre-test counselling and voluntary testing through ongoing initiatives at our healthcare hubs. In FY22, 67 035 (FY21: 50 949) employees received voluntary counselling and testing, and 61 565 (FY21: 48 308) confirmed their status. We returned to pre-pandemic levels during the year.



Responding to Covid-19 and other virus outbreaks

Despite relaxing national Covid-19 regulations, we remain vigilant in our awareness and precautionary approach. This includes precautionary measures to prevent the spread of Covid-19, promoting education and awareness, and improving hygiene and infection control.

The significant reduction in the number of employees needing isolation or hospitalisation during the year validates the arguments for vaccination, which we provide at shafts in terms of best practice guidance from the WHO, National Institute for Communicable Diseases, South African Department of Health and Minerals Council South Africa. Our protocols are also informed by engagement with union representatives.

We encourage employees at our operations, including 85% who voluntarily received a double Covid-19 vaccination, to receive

booster and influenza (flu) injections, particularly high-risk people.

Harmony's seasonal flu vaccination programme began in April 2022 with permission from the Department of Health to administer Covid-19 vaccinations simultaneously. A total of 4 519 employees, 11% (FY21: 23%) of our South African workforce, received the flu vaccination. We attribute the decrease to employees' reluctance to receive both vaccinations, although vulnerable employees received booster vaccinations and we achieved over 84% herd immunity by the final Covid-19 wave of the year.

Of 101 employees infected during the fifth wave of Covid, seven were admitted to hospital with moderate disease symptoms and recovered. There were no related deaths during this wave.

South Africa: Covid-19 management at 11 July 2022

Deaths (including contractors) 79	Active cases 1	Recovery rate 98%
Vaccinations 38 096 (84%)	First dose 87%	Second dose 84%
Booster 34%	Community members vaccinated in partnership with district health departments from 15 March 2022 (aligned to the provincial community mobilisation campaign with capacity to vaccinate 200 000 citizens over the coming 12 months) West Rand: 2 952 Matlosana: 1 812	

Since the beginning of May 2022, we are also monitoring the global rise in monkeypox infections, and we are prepared to respond to the disease, guided by the WHO, which recorded two confirmed cases in South Africa during the year.

Mental health

Emerging from Covid-19, we are actively addressing increased mental health and psychosocial wellbeing issues by raising employee awareness, empowering our stakeholders including managers, and providing easy access to psychosocial services. Our social workers reached employees in engagements related mainly to grief, adjustment disorder, stress and relationships during the year.

Harmony's health and wellness team work closely with the South African National Council on Alcoholism and Drug Dependence (SANCA) Sanpark substance abuse clinic providing in-hospital and outpatient services and social worker training. We also offer on-site and telephonic or virtual psychosocial support to employees and their families through our partnership with Reality Wellness Group.

Papua New Guinea

TB and comorbid HIV/Aids receive the full attention of our medical team while Covid-19 continues to impact our planned activities as we replace infected employees who leave the site.

In addition, lifestyle diseases, such as hypertension and diabetes, are increasing in Papua New Guinea as more people adapt to unhealthy developed world habits and diets. These diseases are the main reasons for off-site referral for further checks as well as failed pre-employment medicals.

HIV/Aids and TB

Given the humid climate, upper respiratory tract infections and TB are our main medical concerns in Papua New Guinea. To effectively manage TB, we have digital X-ray, GeneXpert and other medical laboratory equipment to accurately diagnose this chronic disease as well as tropical diseases.

In FY22, we treated 1 545 (FY21: 707) employees for respiratory ailments. Emphasis on hygiene (regular hand washing, sanitising and wearing masks) to address Covid-19 helped decrease these and other infections.

At Hidden Valley, 332 (FY21: 323) employees voluntarily tested for HIV/Aids and received counselling. This 3% increase was due to incentives, such as free shirts, to encourage employees to ignore discrimination in testing for HIV and Covid-19.

Health continued

Covid-19

Papua New Guinea has one of the lowest Covid-19 vaccination rates in the world. Most off-site families are not vaccinated or have only received the first dose.

We did not reach Harmony's target to vaccinate 85% of mine employees in FY22. We vaccinated 40% of employees and continue to offer vaccinations to employees and contractors on site, although Covid-19 restrictions have lifted. Our clinic also provides booster shots and vulnerable employees are sent off site for active management.

Malaria

Although rampant in Papua New Guinea, malaria does not affect our Hidden Valley operation as it is located at a high altitude. Employees, contractors and communities in lower valleys, and at Wafi-Golpu, are at risk of contracting this disease.

In FY22, our malaria cases decreased by 25% to 306 (FY21: 406). We attribute this to Permethrin foggers and spraying rooms with alcohol to prevent the spread of Covid-19.

Our malaria management programmes for Wafi-Golpu communities include awareness and education campaigns, and distributing mosquito nets to households with young children.

Mental health

Increasing mental health issues are more challenging to assess as most patients do not disclose necessary information. Our on-site medical team addresses this issue with continuous health promotion activities, including a topic of the month and campaigns that encourage regular health checks. As exercise is among the recommended treatments for mental health conditions, we also have a gym and undercover sports facilities for employees at our Hidden Valley operation.

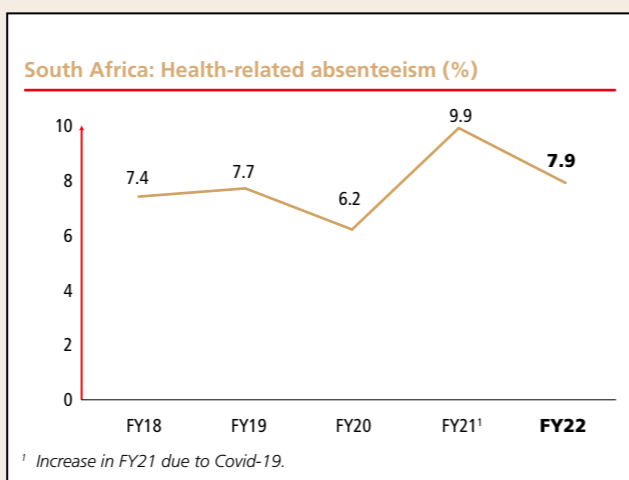
Managing health-related absenteeism

We address health-related absenteeism with early identification and management of chronic illness or debilitating diseases that may render employees medically incapacitated

Our At Work programme continues to identify employees with extended sick leave, monitoring their medical conditions and ensuring appropriate treatment and early return to work with health and productivity as goals.

In South Africa, Covid-19 was not a major contributing factor in the latter part of FY22. It was replaced mainly by respiratory, musculoskeletal and psychological conditions.

In Papua New Guinea, respiratory tract infections commonly caused health-related absenteeism in FY22 at the peak of the Covid-19 pandemic when the virus and cold night-time temperatures at our high altitude aggravated infections. Employees who did not improve within two days of treatment were transported to private hospitals.



Our focus areas in FY23

The group will include Covid-19 protocols in integrated health management as the norm while we continue early detection and treatment of TB-infected employees to minimise its spread (particularly considering the prevalence of Covid-19). In addition, we will invest in health digitisation opportunities that integrate individual risk profiles (personalised care using predictive analysis for safer production), human resource capacity (shift, fitness and productivity information), safety (injuries and hygiene data), occupational health (vision, hearing and physical assessments), disease management (laboratory, X-ray, hospital, primary healthcare and medical incapacity data), psychosocial (safety and health psychology), missing person locator (personal health and environment monitoring) and environmental (Covid-19 screening, physical activity and nutrition) factors.

In Papua New Guinea, we will improve clinical governance systems with Aspen Pharmacare to provide best practice on-site medical services. We will also develop a health and hygiene monitoring programme with standards recommended by consultants (GCG).

Caring for our employees

Employees are our most valuable asset in mining with purpose. Our employee relations are based on mutual respect and trust, reflecting our firm belief that each person is critical to our business strategy.

Duty of care

Our duty of care is our moral and legal obligation to ensure the safety and wellbeing of our people. This starts with our employees and extends to our communities, and aims to go beyond compliance in providing uplifting support and meeting the employment needs of the countries in which we operate.

Legislated targets

In South Africa, we go beyond compliance with the Mining Charter III in creating and maintaining an employee profile that addresses the country's needs. In Papua New Guinea, we are required to deliver local employment in a tiered approach and thus exceed our memorandum of agreement targets, which are evolving with increasing obligations to share the value we create on the people's land we mine.

South Africa	Papua New Guinea
Human resources development (ring-fenced) <ul style="list-style-type: none"> 5% (percentage of the leviable amount excluding mandatory skills development levy) <ul style="list-style-type: none"> Mining Transformation and Development Agency: 2% Essential skills development: 2% South African historically black academic institutions: 1% (70% of the budget must be spent in South Africa – half of this budget on research and development at these institutions). 	Tiers 1 and 2: Local landowners and impacted districts 40% Tiers 3 and 4: Morobe province and the rest of Papua New Guinea 57%
Employment equity <ul style="list-style-type: none"> Historically disadvantaged people (including black women, people with core and critical skills, and disabled people) representation in board and management Career progression plans aligned with social and labour plans (SLPs). 	Tier 5: Expatriates Less than 3%
Housing and living conditions <ul style="list-style-type: none"> Decent housing, home ownership, integrated human settlements and measures to address demand Affordable, equitable and sustainable healthcare services with proper nutrition. 	Women 16%

GRI Standards

Prepared in accordance with 3-3, 401-1, 401-2, 401-3, 402-1, 404-1, 404-2, 404-3, 405-1, 405-2, 406-1 and 407-1.

Related SDGs



Caring for our employees continued

Related material matters

Maintaining sound labour relations
Our South African deep-level gold mines are labour-intensive and unionised. As such, the company must be able to navigate the challenges of multi-stakeholder labour relations to reduce the risk of labour-related stoppages or strike action. We recognise the value organised labour brings to improving our business, our employees and contractors, and respect freedom of association.
Driving equity, inclusion and diversity
The company aims to redress historical imbalances, particularly at managerial levels, experienced by certain population groups and women. In the South African context, we believe our workforce must represent the diversity of South Africa so that we are and remain to be seen as a good corporate citizen, and ensure compliance with the Mining Charter's employment equity targets. In Papua New Guinea, we focus on attracting and retaining locally recruited employees, particularly landowners and citizens, in alignment with the prime minister's aim to increase employment of Papua New Guineans, particularly in the mining sector.
Instilling an enabling culture and empowered workforce
An unmotivated and ineffective workforce could translate to efficiency challenges and affect profitability. We strive to establish a high-performance culture by ensuring an organisational structure that is fit for purpose, and empower employees by equipping them with the necessary skills to deliver on our strategy.
Fair and responsible remuneration
Fair and responsible pay embodies our initiatives to enhance the lives of our employees by enabling them to improve their living conditions, and to have better access to social services, healthcare, education and training. Fair and responsible remuneration ensures we are able to attract and retain key talent.

Our approach

The tenets of our human relations approach include:

- Upholding the principle of fairness and enacting our employment equity policy through personalised development and training to empower individuals to contribute to the company and broader society
- Recognising and capitalising on the rich diversity of our people while ensuring local communities have preferential recruitment opportunities
- Generating benefits through our employee shareholder schemes in South Africa
- Where we are expanding our geographic footprint, ensuring we respect the customs, traditions and needs of local people
- Ensuring freedom of association for employees and recognising the value of organised labour in business improvement.

📄 Employee safety and wellbeing are central to our approach to ensuring positive employee relations. For more information, see [Safety](#) (page 86) and [Health](#) (page 96).

Our focus areas and performance in FY22

Key metrics	South Africa	Papua New Guinea
Total permanent workforce	35 989	1 555
Historically disadvantaged persons (HDPs)¹ (South Africa)/local (Papua New Guinea)		
Total workforce (%)	73	97
Total management (%)	67	29
Female employees (%)	19	16
Employee remuneration		
Wages and benefits (Rm)	16 144	829
Total training spend (R/US\$)	657	4

¹ Includes women.

📄 See [ESG data tables](#) for details.

Age profile

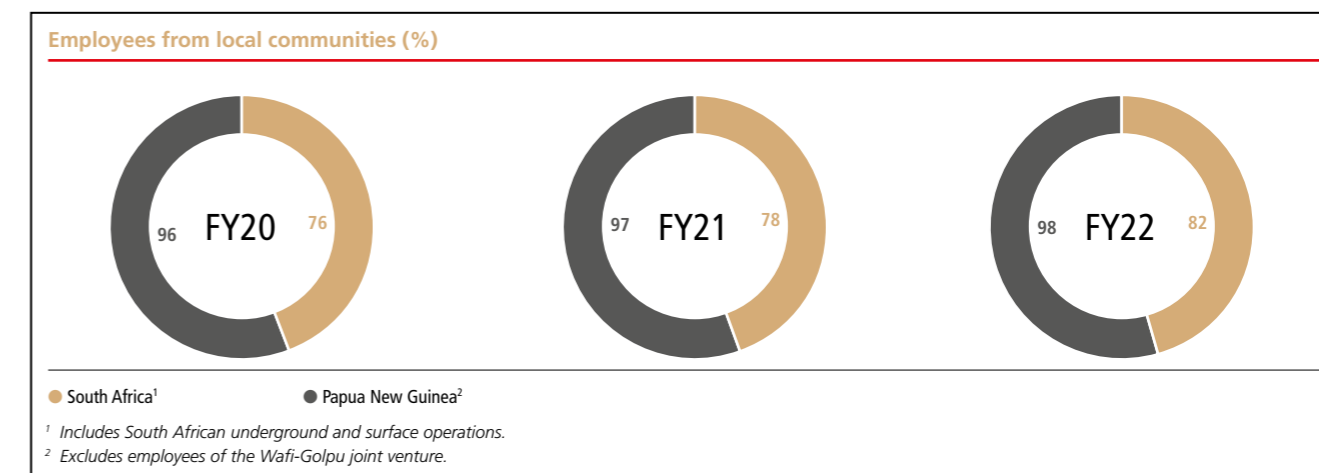
Our employee age profile is 57% (FY21: 58%) younger than 45 in South Africa and 74% (FY21: 70%) younger than 45 in Papua New Guinea. We attribute this to recruiting young people who graduate from our South African community training programme, launched in February 2018.

Workforce profile

Region	Permanent employees			Contractors			Employees from local communities (%)		
	FY22	FY21	FY20	FY22	FY21	FY20	FY22	FY21	FY20
South Africa ¹	35 989	36 873	31 502	9 013	8 860	5 841	82	78	76
Papua New Guinea ²	1 487	1 599	1 589	792	780	782	98	97	96
Harmony total	37 476	38 472	33 091	9 805	9 640	6 623			

¹ Includes South African underground and surface operations.

² Excludes employees of the Wafi-Golpu joint venture.

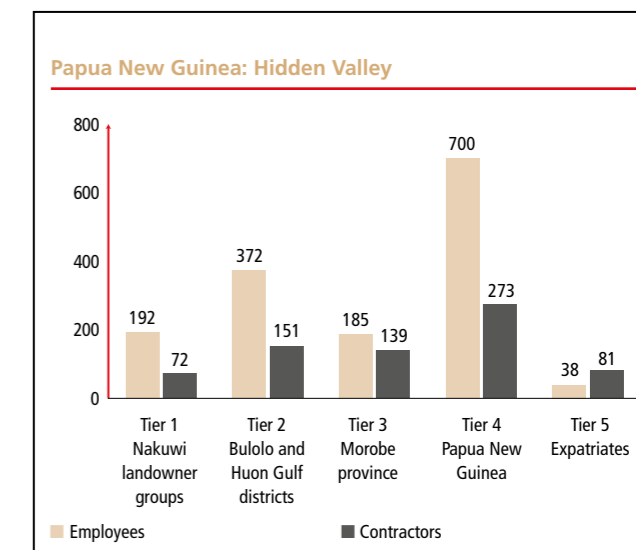


South Africa

South Africa remains our largest labour sourcing area, contributing 29 472 (FY21: 29 950) people to the group's workforce – 81.9% South African nationals, and others from neighbouring countries, primarily Lesotho and Mozambique.

Papua New Guinea

The total number of employees in Papua New Guinea increased to 2 371 (FY21: 2 228) in FY22. Currently, 38.2% at Hidden Valley are local, drawn from host communities, and others are foreign nationals.



Caring for our employees continued

Employment equity and gender diversity

Harmony's commitment to gender equality is internationally recognised with our third inclusion in the Bloomberg Gender-Equality Index, which tracks the performance of public companies committed to supporting gender equality through policy development, representation and transparency.

South Africa

Our efforts to create and maintain a workforce that represents the diversity of the South African population place us among exemplary corporate citizens in redressing historical imbalances, particularly at managerial levels, for specific groups and women.

To meet employment equity targets and improve gender diversity in our business, we accelerate the representation of HDPs in managerial positions. In FY22, HDP representation in management increased to 67% (FY21: 65%).

Mining Charter III: Employment equity performance by category at 30 June 2022

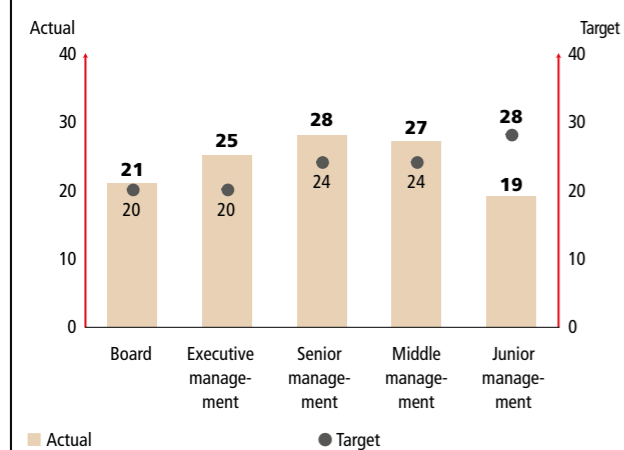
Occupation category	Target %	HDPs ¹		Female HDPs		
		Actual FY22	Actual FY21	Target %	Actual FY22	Actual FY21
Board	50	57	67	20	21	27
Executive management	50	55	47	20	25	24
Senior management	59	59	55	24	28	27
Middle management	59	57	54	24	27	25
Junior management	69	68	66	28	19	18
Core and critical skills	60	72	71	n/a	n/a	n/a
Persons with disabilities	1.5	0.14	0.3	n/a	n/a	n/a

¹ HDPs include women, and exclude white males and foreign nationals.

While exceeding HDP managerial targets, we have not yet achieved our gender diversity objectives at junior management level. By the end of FY22, 19% (FY21: 16%) of our permanent employees, excluding contractors, were women.

In FY22, employees with disabilities accounted for 0.14% of our workforce versus the 1.5% target. The nature of our operations and the challenging work environments add complexity to achieving this target but it is a focus area of our transformation office.

South Africa: Women in workforce (%)

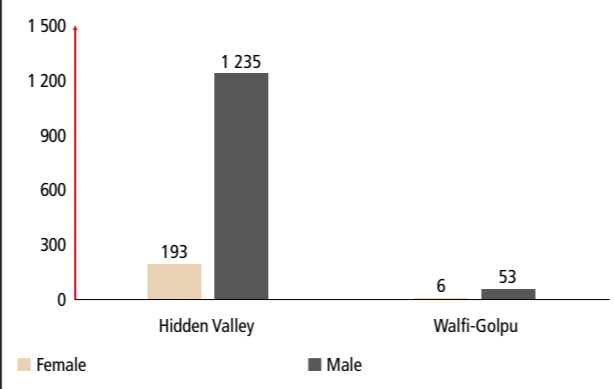


Papua New Guinea

The proportion of female employees remained steady at 15% (FY21: 14%) in FY22. At management level, 11% are women. To accommodate more female employees, we provide additional, gender-specific accommodation, and run awareness campaigns to promote gender equality and combat gender-based violence.

We aim to employ equal numbers of men and women, encouraged by our progress in increasing the number of female truck operators despite entrenched patriarchy in Papua New Guinean culture. We see signs of incremental change and growing acceptance of female colleagues at Hidden Valley.

Papua New Guinea: Employees by gender



Skills development and training

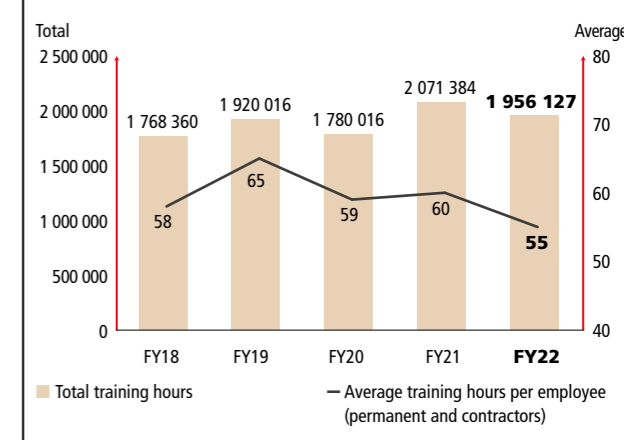
Our skills development, training and talent management initiatives provide opportunities for employees to achieve their full potential. Individual development is a social and business imperative to address dire skills shortages, and the historical inequality in education and training of citizens.

Employee training and skills development programmes align with our strategic and operational needs – designed to enable employees to acquire the skills, resources and motivation needed to ensure optimum performance and productivity.

South Africa

In FY22, 93% (FY21: 94%) of our South African workforce attended training and skills development, totalling R657 million or US\$30 million (FY21: R468 million/US\$30 million). We attribute this increase in skills development spend to the impact of Covid-19 on initiatives in the previous financial year. This included South African-based research and development in exploration, mining, processing, technology efficiency, beneficiation and environmental conservation. A total of 96 (FY21: 83) employees in critical positions attended 170 training interventions in FY22.

South Africa: Training hours



The graph above reflects training across occupation levels. This includes initial and refresher training, skills programmes, learnerships and short courses.

Training and skills development programmes at our South Africa operations are summarised below.

Leadership development

Since 2018, our leadership development programme has improved organisational efficiency and innovation.

In FY22, 653 (FY21: 367) employees enrolled in courses from team leadership and supervisory to senior management and executive levels:

- 13 (FY21: 0) senior and executive
- 51 (FY21: 38) middle and senior
- 400 (FY21: 196) emerging and junior
- 189 (FY21: 133) team leadership and supervisory.

Engineering training

Of the 357 (FY21: 388) engineering-focused learners, with strong HDP representation, in our training development pipeline, 290 (FY21: 326) remained in the programme at the end of FY22 as well as 9 (FY21: 6) junior engineers and one (FY21: 1) certificated engineer at various phases of the development pipeline.

Mining training

In FY22, 49 (FY21: 37) learner miners passed the blasting board exams, with 12 (FY21: 0) assigned to production roles, and 58 (FY21: 48) new learner miners enrolled in the programme.

Adult education and training

Registrations for 24/7 digitised own-time and part-time learning increased to 166 (FY21: 105) and 151 (FY21: 36) for full-time classes in FY22. The average pass rate for both programmes was 63% (FY21: 91% and 75% respectively).

Bursary programme

Harmony awarded bursaries to 126 (FY21: 119) students from local communities and our labour-sending areas at institutions of higher learning in South Africa as part of our SLP commitments. The total cost of bursaries in FY22 was R15 million (FY21: R17 million).

After completing their studies, bursars can apply to be included in Harmony's graduate development programme.

<p>Mathematics, science and language enhancement project</p> <p>Since 2010, we have helped grade 10 to 12 learners and teachers achieve excellent maths, science and English results at Matlosana and Moqhaka schools. A total of 150 (FY21: 80) grade 12 learners (an equal number in both areas) enrolled in FY22. Despite challenges, the class of 2021 achieved an overall pass rate of 99% (FY21: 97%) compared to a national rate of 76.4% (FY21: 75%).</p> <p>A similar project in the Free State, introduced in 2020, funded by Harmony in partnership with the Department of Education, continued in 2021 at a cost to the company of R4.5 million (2020: R3.8 million) for the 2020 and 2021 academic years.</p> <p>Harmony committed R7.2 million to this project for the 2022 to 2024 academic years. A total of 620 (2021: 400) grade 10, 11 and 12 learners enrolled in the 2022 academic year.</p>
<p>Graduate development programme</p> <p>To align current talent development plans with future leadership needs, Harmony invests in a graduate development programme for sponsored bursars in core disciplines. In FY22, 20 (FY21: 15) graduates – 12 mining and eight ore reserve management (FY21: 10 mining and five ore reserve management) – graduated from the programme (three newly enrolled).</p>
<p>Study assistance programme</p> <p>Harmony invested R3.6 million (FY21: R3.8 million) in supporting 117 (FY21: 121) employees in various diploma and degree courses as part of our talent development programme.</p> <p>This Harmony study assistance scheme augments our people development strategy, which gives employees access to formal education and training.</p>
<p>Social plan programme</p> <p>We continue to provide alternative skills training to current and retrenched employees through our social plan programme, facilitated by the framework agreement between Harmony and NUM in 2003.</p> <p>This training enables people to remain economically active beyond mining by cushioning the impact of unavoidable retrenchment or loss of employment when mines reach the end of their lives. In FY22, 74 (FY21: 74) employees and proxies received portable skills training. Around 68% (FY21: 68%) were proxies (dependants of mine employees).</p> <p>Skills acquired include end-user computing, basic electrical competence and appliance repairs, plumbing, furniture making, clothing manufacture and farming (livestock, vegetables and mixed production).</p>
<p>Financial literacy programme</p> <p>Our financial literacy programme, launched in 2013, provides relief to semi-skilled and skilled employees by teaching them to manage their finances.</p> <p>Further details of this programme and how we address employee over-indebtedness are on page 109.</p>
<p>Training modernisation</p> <p>Keeping pace with modern employees' needs for learning driven by the fourth industrial revolution, and the enhancements taking place in the fields of artificial intelligence, gamification and virtual reality, Harmony embarked on a project to transition from conventional, structured training methods with semi-predictable assessment processes to online, technology-driven and in-time learning.</p> <p>The aim of the project is to enhance training delivery to focus on a blended approach to learning that will have the benefit of providing the operations with a more engaged learner after attending any initial training. Focus will also be to implement self-paced learning through an enhanced Learner Management System and Learner Experience Platform.</p>

Generally Intakes are driven by SLP commitments and requirements for a particular financial year. In other instances, learners continue into the next year due to the duration of programmes. The increase in AET programmes is due to our enrolment and marketing campaigns.

Papua New Guinea

Historical underinvestment in Papua New Guinea's technical training facilities resulted in a shortage of adequate technical skills, particularly in the mining sector. Our workforce training initiatives therefore focus on providing the skills local recruits need for our Hidden Valley operation and career training to advance their skill sets.

Our training initiatives include career path and professional development, production, safety compliance, National Training Accreditation Council compliance, and computer software and supervisor skills.

In FY22, 23 260 (FY21: 14 596) employees attended online training and skills development at a cost of R4 million (US\$0.26 million) (FY21: R20 million/US\$1.3 million).

Our women empowerment initiatives include training female haul truck operators at Hidden Valley where 28% (FY21: 25%) of employees are women and 20% (FY21: 46%) of small haul truck operators are women.

Addressing employee over-indebtedness

Impact of the pandemic on remuneration

The pandemic has extraordinarily affected our society and economy in South Africa and Papua New Guinea. For the past 18 months, we have faced the challenge of sustaining our business in a severely disrupted environment but remained resolute about being transparent with employees, particularly on remuneration.

Since March 2020, organised labour has negotiated different pay arrangements in South Africa and agreed to by organised labour for the initial lockdown period. At all times, we endeavoured to balance the financial needs of our business with those of our employees.

South Africa

Financial over-indebtedness remains a burden for many employees in South Africa with impacts on mental health and productivity. Our financial literacy programme teaches our semi-skilled and skilled employees how to better manage their finances.

In FY22, 709 (FY21: 1 014) employees completed this programme. This brings the total to 25712 (FY21: 25 003) employees or 73% (FY21: 68%) of the workforce receiving financial counselling since the programme's inception. Harmony spent around R3.2 million (FY21: R3.5 million) on this programme in FY22.

Employees also benefit from our verification of new emolument attachment (garnishee) orders before payroll processing. In FY22, we assessed 33 (FY21: 225) orders and restructured 127 (FY21: 225) employees' accounts, resulting in monthly instalment reductions of R415 326 (FY21: R211 728). This also helped facilitate R142 817 (FY21: R405 926) worth of prescribed debt write-off by creditors and removed negative listings from credit bureaus, totalling R206 666 (FY21: R102 220). It also improved employees' credit ratings and allowed them to qualify for mortgages and vehicle finance. The total number of employees with garnishee orders declined to 928 (FY21: 1 386) in FY22.

Papua New Guinea Freedom of association, labour disputes and strikes

Recognising the value of organised labour, our employees and contractors have the right to freedom of association.

We experienced a partial stoppage at Hidden Valley in December 2021 following removal of Covid-19 allowances and return to normal rosters without pre-site Covid-19 isolation and testing.

South Africa

We strive for honest and open communication with a policy framework formalising union recognition rights at each operation in South Africa. A multi-union environment promotes coexistence, inclusion and collaboration.

To mitigate the risk of labour disputes, we frequently engage with unions at mine and management levels in addition to direct engagement with employees. We proactively address employee and union queries through established structures and processes. We hold regional meetings with unions every quarter, encouraging proactive and robust engagement on specific issues. Our general managers and human resources leaders meet daily with full-time stewards who interact at union branch level and with shaft committees. Our regional managers meet regularly with regional union structures.

Caring for our employees continued

Harmony recognised five unions in FY22 (listed below).

Recognised unions (%)	FY22	FY21	FY20	FY19	FY18
NUM	53	52	58	58	59
AMCU	28	28	23	24	24
UASA	5	5	5	6	6
Solidarity	2	3	2	3	3
NUMSA	6	6	5	4	2
No union	6	6	6	5	6

Our current three-year wage agreement, in respect of wages and conditions of service, is for the period 1 July 2021 to 30 June 2024, signed by AMCU, the Coalition (NUM, UASA and Solidarity) and NUMSA. It allows for the following:

- Category 4 to 8 employees receive a wage increase of R1 000 for each year of the wage agreement, which translates to an average increase of 8.4% for these employees
- Miners, artisans and officials receive an increase of 6% of their basic wage for each year of the agreement
- The average wage increase negotiated is 7.8% in the first year, 7.4% in the second year and 7.0% in the third year
- 98% of Harmony employees are part of the bargaining unit covered by this wage agreement.

In addition to the basic wage increases above, the parties agreed to the following benefits:

- To promote home ownership, a housing allowance of R2 750 in the first year, increasing incrementally every year to a maximum of R3 240 in the third year, for employees who choose to purchase a residence or have existing bond agreements
- Employees not eligible for the housing allowance can receive a living-out allowance of R2 500 in the first year, which will increase by R100 in the second and third years
- Several non-wage-related and process benefits, including maternity and paternal leave, medical incapacity and medical aid.


Papua New Guinea

Hidden Valley does not have union representation but we continuously engage with employees, contractors and government (national, provincial and local), landowners and regulators.

The employee representative committee oversees industrial relations and engages with employees about wage increases with a joint management forum.

Employee benefits

We have a range of employee benefits in South Africa.

 For details, see our **Remuneration report** in the **Report to shareholders 2022**.

Employee share ownership plan

We launched our third employee share ownership plan (ESOP), Sisonke (isiXhosa for “We are together”), in FY19. It applies to 30 700 non-managerial employees with 6.7 million ordinary shares issued to the Sisonke ESOP Trust and 225 participation units to each eligible employee. The units were converted into shares in FY22, and then sold and paid out to each beneficiary with dividends accumulated since allocation.

Based on Harmony’s fluctuating share price, payouts can vary significantly. In FY22, participating employees received R11 186 each.

Promoting home ownership

We promote home ownership through our housing and living conditions strategy. Employees can buy Harmony-owned properties at prices below market value. In FY22, employees purchased 367 (FY21: 118) company properties and registered 220 (FY21: 73) at the deeds office. Harmony also identified empty stands in proclaimed municipal areas. Of 278 (FY21: 558) empty stands, 66 (FY21: 27) were sold to employees and 212 (FY21: 140) awaited purchase applications. In addition, we participate in the pension-backed home loan scheme negotiated for the mining industry by the Minerals Council – 26 (FY21: 39) employees participated in the scheme in FY22.

Access to adequate housing as a universal human right

Managing Harmony’s portfolio of land and properties by reducing running costs and associated liabilities while improving stakeholders’ access to adequate, affordable housing and commercial properties

Supporting South Africa’s land redistribution, sustainable housing and socio-economic development policies, we sell our land and non-residential properties to black-owned companies at preferential rates. We also donate unused land to the South African government.

In addition, our employee home ownership scheme offers a once-off discount of up to 45%, refurbishment, recognition of long service, and a discount on voluntary termination or retrenchment.

Accommodation and living conditions

Adequate housing and decent living conditions is a constitutional right that upholds human dignity. The Mining Charter also requires mining right holders to improve housing and living conditions for employees, ensuring the accommodation is in line with the industry standard.

None of our employees resides in hostels as we have converted this accommodation into single rooms. In FY22, 8 057 (FY21: 8 547) employees and 33 (FY21: 19) contractors lived in Harmony accommodation while 6 214 (FY21: 6 022) resided in company-owned houses with their families. We paid R745 million (FY21: R669 million) as a living-out allowance to employees who chose alternative accommodation.

Human rights

We uphold the ILO principles with a highly unionised workforce (94.5%) participating in collective bargaining, and our employment policy and established practices prohibit any forms of indirect or direct compulsory, forced or child labour (we do not employ people under the age of 18 years).

In addition, we subscribe to the Minerals Council’s membership compact, a mandatory code of ethical business conduct with guiding principles, and we have policies to prevent sexual harassment and workplace bullying.

We will provide human rights training to security personnel, as enshrined in our code of conduct and human rights policy, from FY23.

Our focus areas in FY23

To ensure that we meet regional plans as it relates to housing.

In South Africa, we will establish a joint task team to evaluate future shift systems in terms of the wage agreement.

In Papua New Guinea, we continue to develop our human resources systems and capacity to ensure we deliver employee training and development together with productivity improvement programmes.

Empowering communities

We aim to contribute to the resilience and prosperity of our host communities now and into the future – supporting employees, local businesses, municipalities and other national socio-economic development goals through our programmes and local economic development initiatives.

In South Africa, social and labour plans (SLPs) are attached to our mining rights so that we implement legislated local economic development initiatives. In many instances, Harmony's impact and investment exceed compliance.

In Papua New Guinea, many of our local economic development commitments are set out in our Hidden Valley memorandum of agreement (MoA) between government, landowners and Harmony. For the Wafi-Golpu project, which is in permitting stage, we support a range of voluntary local economic development initiatives, with particular focus on health and agribusiness.

With respect for human rights entrenched in our code of conduct, we acknowledge the constitutions of the countries where we operate and comply with legislation in those territories. In Papua New Guinea, this includes the rights of indigenous people.

GRI Standards
Prepared in accordance with 3-3, 203-1, 203-2, 204-1, 411-1, 413-1, 413-2, 414-1 and 414-2.

Related SDGs

Related material matters

Engagement and partnership for sustainable communities
Economically unsustainable, disengaged and discontent communities could challenge our licence to operate, cause disruptions and jeopardise production. As such, we recognise that partnering with communities, local municipalities, small businesses and various levels of government contributes to our sustainable development.
Supply chain transformation and preferential procurement
Strategic procurement facilitates job creation and entrepreneurial development. This supports the sustainable socio-economic development of the communities and the regions where we operate – pillars supporting and maintaining healthy and robust social capital. Positive social capital reinforces a thriving ecosystem in which our business and stakeholders can thrive.

Our approach

We strategically focus our socio-economic development endeavours to align to national imperatives of job creation and poverty alleviation. We promote and support community empowerment, sustainable development initiatives and community resilience.

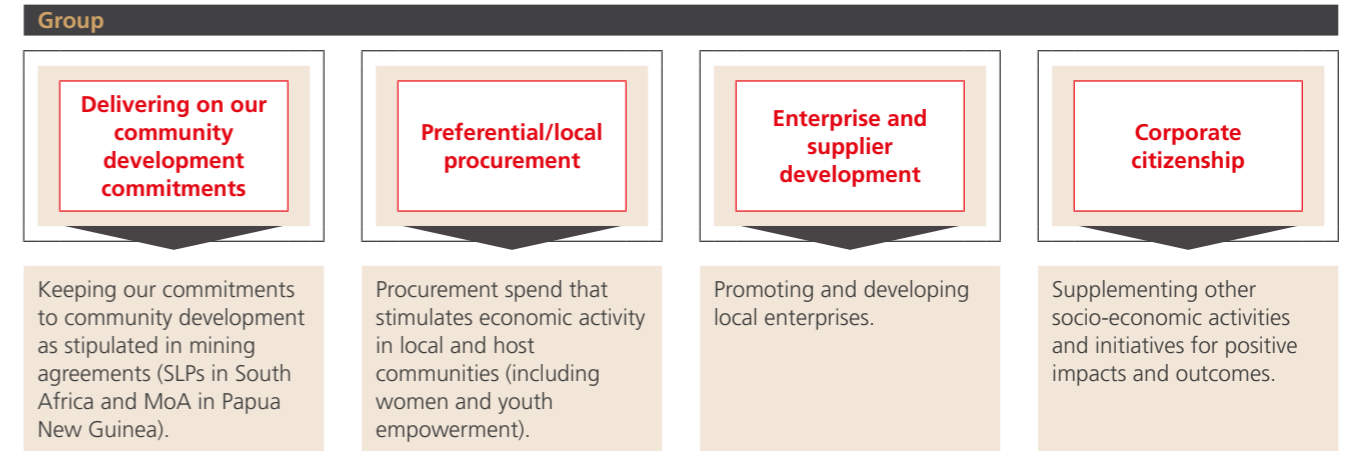
Our approach aims to:

- Contribute to areas with the most meaningful impact: critical infrastructure, education and skills development, job creation and entrepreneurial development
- Enhance broad-based local and community economic empowerment and enterprise development initiatives
- Facilitate socio-economic development through SLPs in South Africa, the MoA in Papua New Guinea, and other corporate citizenship programmes
- Build relationships of trust through transparent dialogue and delivering on our commitments.



Papua New Guinea community gathering.

Harmony's community development approach



South Africa

To varying degrees, national legislative requirements and needs communicated by host communities influence the implementation of our socio-economic development strategy. It is primarily dictated by compliance with regulation 42 of the Mineral and Petroleum Resources Development Act (MPRDA), which stipulates that a mining right is only granted if an SLP is submitted to the Department of Mineral Resources and Energy.

SLPs are five-year programmes intended to implement local economic development in terms of the Mining Charter, MPRDA and codes of good practice for the minerals industry.

Papua New Guinea	
Hidden Valley	Wafi-Golpu
<p>1. MoA</p> <ul style="list-style-type: none"> • Physical and social infrastructure undertaking Harmony funds education, training, health (including alcohol, drug and HIV/Aids awareness), agriculture, water supply and identified sustainable development programmes and projects every year • Royalty payments (see page 122) Various parties receive royalty payments according to the percentage distribution set out in the MoA: <ul style="list-style-type: none"> – Landowners and local governments – Future Generations Trust – Settlers Fund • Employment and training plan undertaking • Business development plan undertaking. <p>2. Hidden Valley Mine Trust A benefit-sharing agreement established the Hidden Valley Mine Trust in return for the Hidden Valley landowners and provincial government forgoing equity interest in the mine as per an entitlement under the MoA. The trust receives quarterly fixed and variable payments for community-initiated and endorsed projects. Harmony is the trustee.</p> <p>3. Primary and Secondary School Fees Programme Contribution to school fees for Hidden Valley employees' dependants.</p> <p>4. Settlers Fund Project Facilitation Project management of social projects as agreed by State authorities and funded by the Settlers Fund.</p> <p>5. Donations Harmony's ad hoc assistance includes, for example, medical emergency transport and food for bereaved families and community events.</p>	<p>1. Community development programme Harmony supports local economic development initiatives (agribusiness, health, education, water and sanitation).</p> <p>2. Donations Harmony's ad hoc assistance includes, for example, emergency medical transportation, and food for bereaved families and community events.</p> <p>At such time that a special mining lease is granted, an MoA for the Wafi-Golpu project, and workforce development, supply and procurement plans and related commitments will come into effect.</p>

Empowering communities continued

Our focus areas and performance in FY22

Total group spend on community development commitments, preferential/local procurement, enterprise development and corporate citizenship was R14.1 billion (FY21: R8.0 billion).

🇿🇦 **South Africa**

<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Delivering on our community development commitments 📄 page 117 </div>	<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Preferential/local procurement 📄 page 124 </div>	<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Corporate citizenship – Going beyond compliance 📄 page 129 </div>
<ul style="list-style-type: none"> Local economic development projects Community human resource development initiatives. <p>Spend: R93 million</p>	<p>Investment in companies which are greater than 25% black owned and that have a BBBEE Level of 4 and above.</p> <p>Spend: R11.2 billion</p>	<p>Donations and Social trust investment to:</p> <ul style="list-style-type: none"> Education Socio-economic advancement Healthcare Arts, culture, sports and recreation. <p>Spend: R10.5 million</p>
<p>Total spend: R11.3 billion</p>		

🇵🇬 **Papua New Guinea**

<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Delivering on our community development commitments 📄 page 121 </div>	<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Preferential/local procurement and enterprise and supplier development 📄 page 128 </div>	<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Corporate citizenship 📄 page 138 </div>
<ul style="list-style-type: none"> Physical and social infrastructure undertaking Royalty payments Employment and training plan undertaking Business development plan undertaking Hidden Valley Mine Trust. <p>Spend: R453 million</p>	<p>Localised procurement in Morobe Province and In country consistent with the terms of the MoA.</p> <p>Spend: R2 324 million</p>	<p>Activities and donations supporting our social licence to operate.</p> <p>Spend: R1.5 million</p>
<p>Total spend: R2.78 billion</p>		

We comply with laws, and go beyond compliance by establishing partnerships with our suppliers and government for meaningful social upliftment while creating and sharing value with our stakeholders. We thus collaborate in directing transformative funding to projects that address the real needs of communities.

South Africa

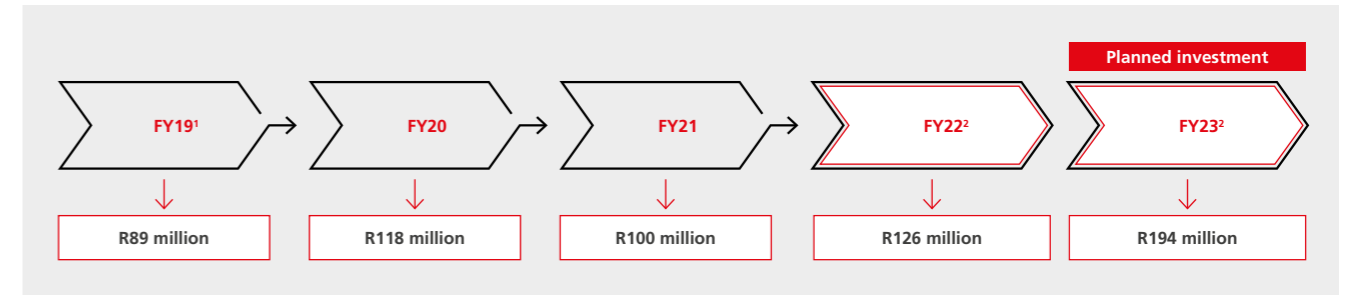
We are approaching the end of our third-generation (FY18 to FY23) SLPs with a total financial spend thus far of R433 million of which a total of R235 million was invested in socio-economic upliftment through our mine community development programmes. Following the acquisition of Mponeng its commitments are reflected in FY21 and FY22 mine community investments. We ought to have spent R309 million to date on mine community development but are running slightly off schedule but are intent on expediting implementation to meet our five year timeline.

The current SLP commitments will run to the end of December 2022, while mine community development runs until June 2023.

We are designing and developing fourth-generation SLPs, which involve public consultation to meet communities' needs.

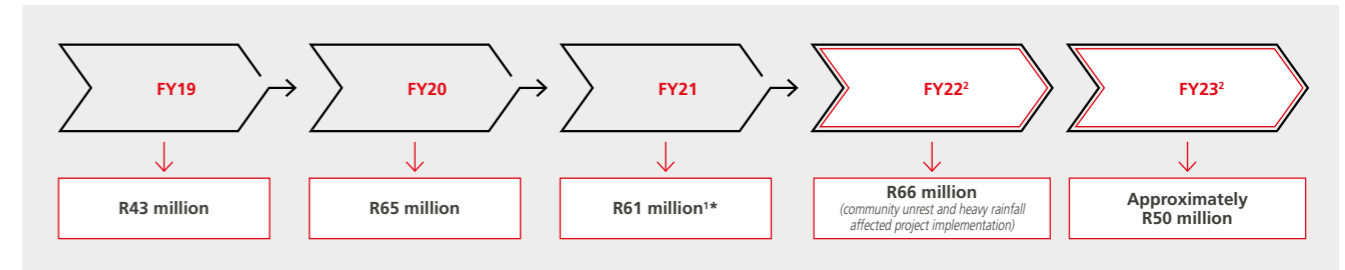
The diagram below summarises annual investment since FY19 and planned investment into the next financial year.

Total actual investment for third generation SLPs



Our SLPs end on 31 December 2022 except for MCD, which will end on 30 June 2023.

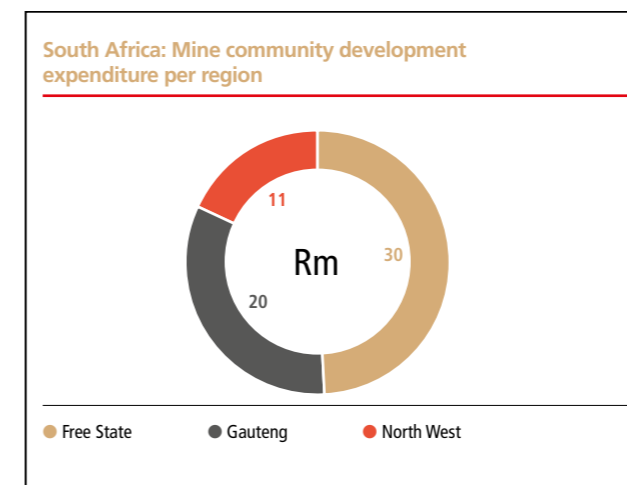
Actual and planned annual investment in mine community development through third generation SLPs



¹ Includes Mponeng from FY21.

² Planned investment in FY22 and FY23 is expected to decline as several mines reach the end of their operating lives.

* Includes Mponeng.



Empowering communities *continued*

Training and development

Investing in community skills is a key aspect of our socio-economic development approach and goal to leave a positive and lasting legacy in our communities


We identify community members who could benefit from bursaries, work experience, internships and learnerships, prioritising students living in our host communities. Our skills development, education and training programmes for unemployed youth prepare and equip them for the world of work and other economic opportunities.

In FY18, we finalised a memorandum of understanding with Matjhabeng municipality and the Unemployment Youth Forum in Welkom, Free State, to train young people in core mining skills. Between FY19 and FY20, we trained 207 youths (97% absorbed into permanent mining positions at our Free State operations).

We expanded to other regions (North West and Gauteng), supported by grant allocations from the MQA, so that another 239 unemployed youth could enrol for mining skills training in FY20.

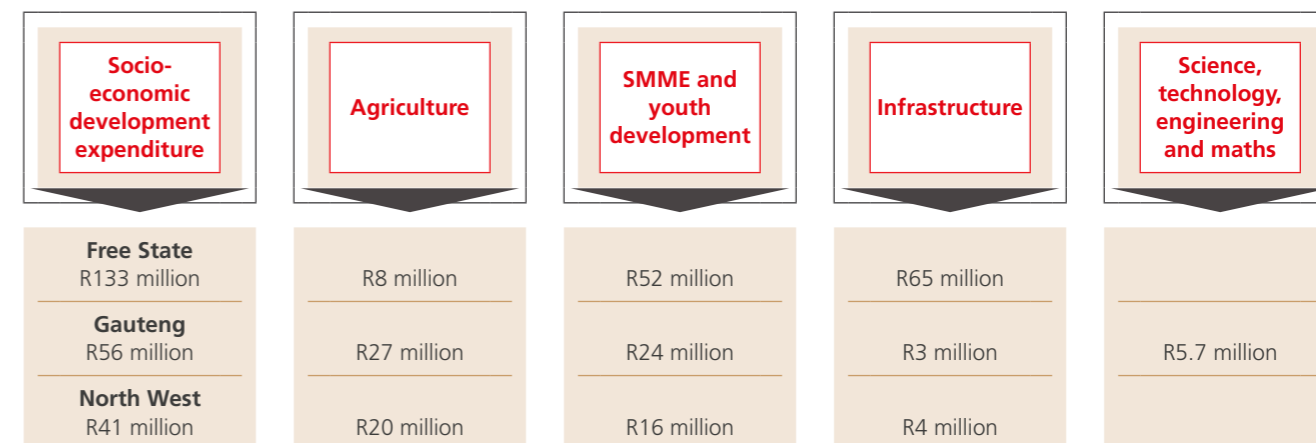
Mine community development focus areas

The mine community development focused on the areas below, which we believe will lead to our communities' most significant and sustainable social upliftment.

Rationale for third-generation SLP focus areas	Expenditure in FY22
Agriculture For our poorest communities, obtaining fresh, nutritious food is not always possible, particularly from a cost perspective. To help alleviate this hardship, the second pillar of our mine community development strategy focuses on promoting agricultural initiatives (broad-based livelihoods and commercial ventures). This improves access to life-giving food and the sale of excess produce generates income.  See details in the broad-based livelihoods case study on page 132.	R18.2 million
Youth and small, medium and micro enterprise (SMME) development We facilitate meaningful, lasting socio-economic development by empowering individuals and communities with the appropriate skills and resources. Upskilling youth and nurturing SMMEs is the priority of our mine community development plan. Initiatives range from incubation hubs, supporting youth and female entrepreneurs, to workshops and commercial spaces where these companies can trade.	R21 million
Infrastructure Infrastructure development is essential to uplift communities while generating employment opportunities. We therefore focus on road infrastructure to enable movement of goods and people for economic benefit. Our road improvement projects in the Free State are connecting host communities with larger towns. At the same time, we pay attention to water management as this is a threatened resource in South Africa.	R21.4 million
Science, technology, engineering and maths Investment in science, technology, engineering and maths to upskill the youth in our host communities so that they can be equipped with stem capabilities when they finish matric.	R5.7 million

Expenditure by province and focus areas

Our socio-economic development projects in over a five year period focused on water infrastructure development for municipalities to improve quality and secure supply, developing economic hubs for youth and advancing township economies. We also ran outreach programmes in our labour-sending areas (Lesotho and the Eastern Cape). This summarises our investment over the five years.



South Africa		
Community development commitments in FY22	Beneficiaries	Impact
Free State		
Witpan wastewater-treatment plant: Refurbish, operate and maintain to avoid raw sewage discharge into Witpan	Matjhabeng municipality's communities	We improved the quality of water flowing into the Witpan, Mostert Canal and the Sand River, and eliminated sewage overflow into communities downstream of the Sand River.
Broad-based livelihoods programme: Training in small-scale food production to establish subsistence and micro entrepreneurs	1 345 women and youth in 20 townships	We improved crop production and income diversification in local markets by installing 219 crop production greenhouse tunnels with capacity to generate R2.2 million within the local economy.
Youth business corners: Construction and establishment of youth-owned business hubs (hairdressers, butcheries, telephone booths etc)	72 youth and entrepreneurs in Matjhabeng and Masilonyana communities	We are creating sustainable businesses and employment (70% existing home-based and 30% new businesses without premises). In addition, we formalised businesses, and provided training, mentoring and coaching.
Virginia Sports Academy: Identifying and developing rugby and soccer talent since 2003	20 jobs, approximately 62 family members and 50 students of Matjhabeng and Masilonyana municipalities as well as local, provincial and national rugby and soccer clubs	We created direct employment and income-generating opportunities, and continue to provide sports scholarships and internship programmes for school leavers.



Witpan wastewater-treatment plant.



Empowering communities *continued*

South Africa		
Community development commitments in FY22	Beneficiaries	Impact
Gauteng		
Vegetable project in Mogale City (Swaneville): 15 plastic tunnels and 1 hectare shade nets for intensive vegetable production	13 agri entrepreneurs (women and youth-headed households) and over 20 casual workers	We provided agricultural skills and personal development as well as business tools for beneficiaries to produce and sell vegetables. We will continue this entrepreneurship development initiative over three years. It has also created seasonal local employment.
Broad-based livelihoods programme in wards 50 and 127: Training in small-scale food production	Women and youth-headed households in host communities	Households and small-scale farmers grow income-generating, nourishing crops, and benefit from diversification of sustainable livelihoods, business tools for profitability and personal development.
Small business centres in Fochville: Development of business hubs	Over 42 hawkers, six SMMEs and 12 jobs	We improved income-generating opportunities, and access to goods and services, and created jobs during construction.
Youth centre in Carletonville: Renovation for local municipality (90% complete)	70 youth daily and 10 SMMEs	Through sustainable youth empowerment (including training in sports codes) as required by the local municipality, 30% of the community provided materials and labour during construction.
North West		
Itireleng workshop for disabled people: Refurbishment of Morolong centre for self-help group	Nine people in Madibogo village (Ratlou community)	We developed entrepreneurial skills and a sustainable business model for job creation and income generation to alleviate poverty.
Khuma business hub: Small enterprise development and support	10 youth-owned businesses	Job creation and income generation, through training, coaching and mentoring, and assistance in acquiring equipment are ongoing benefits.
Science laboratory for Thabang Secondary School: Enabling quality scientific education	500 learners in Moqhaka local municipality, eight contractor employees and four subcontracting companies	We facilitated retention of scientific knowledge, and improved effective learning for grades 10 to 12, with laboratory equipment that enables direct interaction and first-hand experience. We thus inspired future scientists and created local employment opportunities during construction.
Kokosi Market Square: Shipping containers converted for businesses (site clearing and containers delivered)	10 SMMEs direct jobs to be created, with 33 in-direct (ie three indirect jobs per unit)	We uplifted local women and youth while stimulating and developing entrepreneurial skills with training in competitive business principles.



Thabang science lab.



South Africa		
Community development commitments in FY22	Beneficiaries	Impact
Labour-sending areas		
Eastern Cape		
Tsolo Agri (Mthlontlo)	Five agricultural cooperatives (15 women and youth) within Tsolo and Qumbu communities of OR Tambo district municipality	We uplifted women and youth by establishing infrastructure (vegetable nursery) and upgrading existing infrastructure (irrigation system) for vegetable producers of Mhlontlo Local Municipality. 25 jobs were created for local community around Tsolo and Qumbu and subcontractor provided 6 skilled labour. A of total 31 jobs were created.
Mavubeza Junior Secondary School: New school in Ngqeleni with administration and ablution facilities and eight classrooms	371 learners and 24 construction workers in OR Tambo district municipality communities	We employed local SMMEs during construction and continue to facilitate basic education in various grades every year.
Honey processing plant: Ngqushwa Beekeeping Association project	Nine co-operatives and 38 permanent jobs	We stimulated local economic activity with opportunities for local construction and equipment suppliers.
Trees in Pots: Acquisition of a share in the Institute for Technology and Society's Elevare Initiative	30 black youth and women in Cradock	We enabled skills development in agriculture, agri-processing and confectionery, and presented opportunities for downstream entrepreneurs over three years.
Lesotho		
Mohale's Hoek Primary School: Construction of five additional classrooms	1 504 learners in 14 villages	We reduced overcrowding in classrooms and created an environment for effective learning and teaching.

Note: Implementation of Mponeng's local economic development projects was delayed by eight months while we aligned commitments with our governance processes and systems. We honoured these commitments in FY22.



Potted tree project in Cradock.



Empowering communities continued

Socio-economic closure planning

A key issue in planning for socio-economic development is mitigating the impact of mine closures on our communities, particularly in the Free State where several mines are nearing the end of their operating lives. Many of our initiatives consider establishing alternative economic activities and livelihoods that can be sustained post-mining. This includes stimulating SMME development and portable skills training to collectively empower employees and communities.

We also use our land rehabilitation strategy (refer to the **Environmental management and stewardship** section) to facilitate alternative economic development initiatives. Given the available land under our control, we support food security and poverty alleviation through agricultural and agri-processing initiatives.

Community engagement forums on SLP progress

We believe building trust and maintaining positive relationships with host communities, and other stakeholders, including the South African government is crucial. Our approach is inclusive through SLP update forums in communities where community members can engage directly with a company representative. Representatives of the municipalities, traditional authorities, communities and local business forums are also members of these structures, depending on the dynamics of each location.

These forums share information with communities on progress in project implementation, test their needs and expectations, and manage their perceptions of Harmony's capacity. This positively impacts our community stakeholder engagements and helps to better understand mutual issues and concerns. Since the forums began, this proactive and open communication approach has decreased disruptions and reports of discontent in communities each year.

Papua New Guinea

Every year under our Hidden Valley MoA, Harmony funds a selection of physical and social infrastructure projects. In FY22, these ranged from road, district office and local airport improvements, through to agribusiness support and the distribution of solar lighting kits and biomass stoves to our landowner villages. Through the Hidden Valley Mine Trust, we also supported water supply, road and village facilities improvements and maintenance.

Papua New Guinea – Hidden Valley		
Community development commitments in FY22	Beneficiaries	Impact
MoA projects		
Solar lighting distribution	Kuembu, Nauti and Winima villages	We provided solar lighting kits to 305 families, without electricity connection, for evening activities (studying, household chores and income generation).
Biomass stoves distribution		We supplied biomass stoves to 305 families to reduce time and effort in firewood collection and exposure to wood smoke when cooking.
Saksak road improvements	Bulolo township and surrounding communities	We upgraded and sealed a 1km road that provides access from the Lae-Bulolo Highway to Bulolo town, providing direct road safety, amenity and flood-risk reduction benefits to residential homes and community services (church and school) along the road, and broader road-safety benefits for the district's approximately 20 000 people.
Bulolo district office renovation		We improved key district office infrastructure, from which local services to approximately 20 000 people are delivered. The office renovations included water tanks and spoon drainage extension as well as airconditioning, toilet and shower repairs.
Medical supplies for Morobe Province health centres	Bulolo, Finschafen and Kabwum townships	We assisted Bulolo health centre employees with medical supplies and masks for Covid-19 and, in collaboration with hospitals in Australia, supplied surgical equipment to Lutheran Health Services for rural facilities.
Bulolo airport perimeter fencing supply and installation	Bulolo township and airport users	We collaborated with PNG Forestry Products in the installation of a new barrier fence to comply with Civil Aviation Safety Authority requirements, which improved airport safety and security.
Coffee programme	Kuembu, Nauti and Winima villages	Since 2018, we have continuously provided support to the coffee programme. In FY22, this included provision of solar dryers and assisting farmers to identify new markets.
Poultry pilot programme		Supply of day-old chicks and training for nine people commenced in intensive poultry farming as smallholder broiler growers. New skills and experience are enabling growers to expand their capacities in broiler meat bird enterprises. The businesses aim to increase cash flow and establish alternative village income streams prior to mine closure.
Potato pilot programme	Nauti and Winima villages	Supply of seeds, equipment and training for 10 people commenced in potato farming. New skills and experience are enabling farmers to expand their potato production capacity. The pilot programme aims to increase cash flow and establish alternative village income streams prior to mine closure.
Tertiary scholarships programme	University students from Morobe province	Four university students were supported in their mining-related studies.
Law and order support	Bulolo and Wau police (including mobile squad)	We provided diesel and vehicle maintenance assistance to police.
Hidden Valley Mine Trust projects		
Water supply maintenance works	Kuembu, Nauti and Winima villages	We assisted to maintain infrastructure that supplies clean water for cooking and washing for 1 350 people.
Kuembu village road upgrade	Kuembu villages	Road access was improved to Kuembu villages for 400 people.
Kuembu community hall fencing installation		We supported village efforts to reduce vandalism of the community hall and provide a secure meeting place for 400 people.

Empowering communities *continued*

In terms of our Hidden Valley Memorandum of Agreement (MoA) (page 103), the state of Papua New Guinea undertakes, under the Mining Act 1992 and in line with current sustainable development planning goals, to pay royalties from our operation to the provincial government (42% split 50:50 between the Morobe provincial and Bulolo district governments), affected communities (2.5%), mining lease landowners (39%), immediate impact local level government (14%) and others (2.5%).

Royalty distribution	%	Amount (US\$ million)
Morobe provincial government	18.00	0.92
Bulolo district treasury	18.00	0.92
Mumeng LLG	3.00	0.15
Waria LLG	2.00	0.10
Buang LLG	1.00	0.05
Wau/Rural LLG	5.00	0.25
Watut LLG	5.00	0.25
Wau/Bulolo Urban LLG	4.00	0.20
Highway communities	0.50	0.03
River communities	0.50	0.03
Subsidiary landowner communities	1.50	0.08
Settlers Fund	2.00	0.10
Wafi Landowner Association	0.50	0.03
Nakuwi Landowner Association	2.00	0.10
Future Generations Trust	2.00	0.10
Hidden Valley landowners – Winima recipients	8.75	0.45
Hidden Valley landowners – Kuembu recipients	8.75	0.45
Hidden Valley landowners – Nauti recipients	17.50	0.89
Total	100.00	5.10



Papua New Guinea coffee project.

Preferential/local procurement

Strategic procurement and enterprise development facilitate the creation of sustainable businesses and entrepreneurs while reducing inequalities and supporting job creation for sustainable socio-economic development of communities and regions in which we operate.

Preferential procurement strategy

Approved by the board in 2019, this strategy is implemented with variations (colour-coded below) for each selected supplier.

We use our annual procurement plan to identify development and procurement opportunities for SMEs to participate through our enterprise and supplier (ESD) incubation programme. In addition, we use our extensive SME databases to identify and match SMEs to our supplier value chain and subcontracting opportunities.

Enablement ensures preferential procurement is embedded in procurement processes and procedures – tender committees ensure cost containment while promoting transformation, policy and procedures are implemented, and supplier audits are conducted to confirm Harmony is engaging with compliant, and not merely politically connected, suppliers.

Red flag (one to two-year contract)	Blue ocean (two to three-year contract)	Greenfield (three to five-year contract)	Brownfield (five-year contract)
<ul style="list-style-type: none"> Increase black ownership of non-black generic entities Fewer trusts and more technical black ownership. 	<ul style="list-style-type: none"> Partnerships with generic large entities Skills transfer Value chain integration Subcontracting. 	<ul style="list-style-type: none"> Find black-owned qualifying small/exempt micro enterprises (QSE/EME) already in business Combine QSE/EME to increase black ownership Capacity and capability Create new suppliers. 	<ul style="list-style-type: none"> Shift spend to local QSE/EME Prioritise shifting to Harmony's current black-owned suppliers.
<ul style="list-style-type: none"> High risk Few benefits Should be voluntary Status quo remains. 	<ul style="list-style-type: none"> Medium to high risk Force long-term commitments Target technical skills Less financial impact on Harmony Contract-dependent. 	<ul style="list-style-type: none"> Low to medium risk Medium to high impact High inclusive growth. 	<ul style="list-style-type: none"> Low risk High impact on localisation Increased sustainability.

Source: Harmony and Bayajula Services Analysis.

Empowering communities continued

South Africa

Our preferential procurement as well as enterprise and supplier development strategy prioritise on transformation and spending in local and host communities by focusing on:

- Supporting existing non-compliant suppliers to meet the minimum black ownership targets as required by Mining Charter III or to shift procurement spend to compliant suppliers
- Enhancing Harmony's current supply-chain model and ensuring preferential procurement is embedded in the sourcing process
- Promoting partnerships and joint ventures to encourage skills transfer and development of local partners
- Working with generic and original equipment manufacturers to invest in local enterprises, especially local manufacturing units
- Incubation that creates a pipeline of small and medium enterprises to take up procurement opportunities in core mining and engineering services, particularly women and youth.

Harmony supports the South African government's imperative to facilitate sustainable socio-economic development and broader participation in the economy, mainly through procurement and enterprise and supplier development. Full compliance to the Mining Charter III targets is currently challenging for the mining industry largely due to dependency on multinationals and original equipment manufacturers as well as limited availability of registered and approved companies producing locally manufactured goods to the required standard.

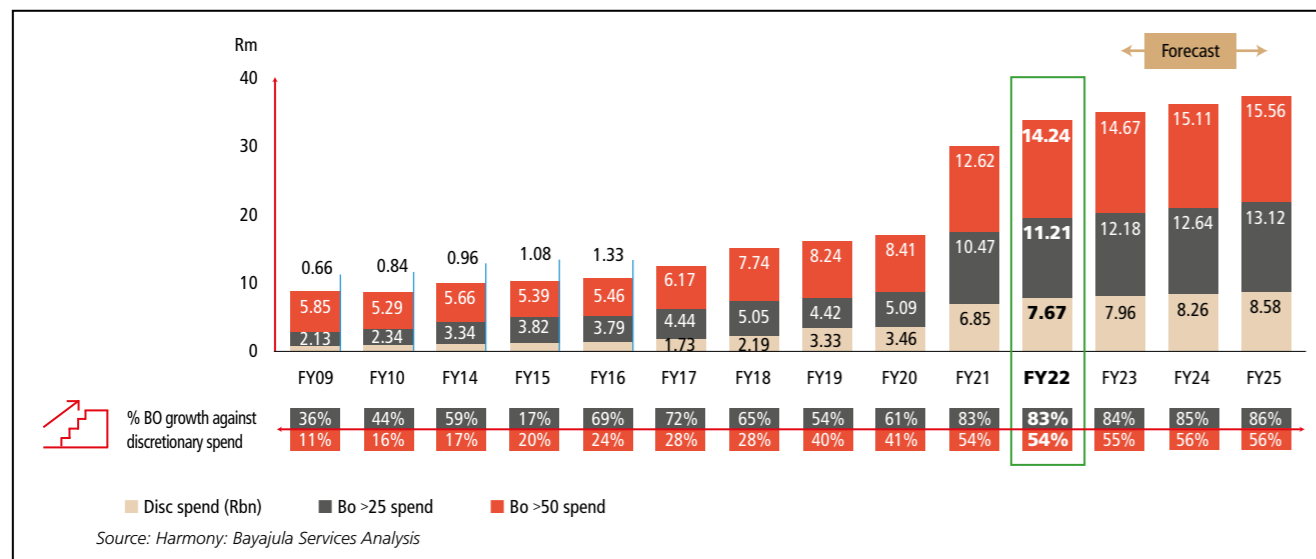
In support of the Preferential Procurement and Enterprise and Supplier Development strategy an annual procurement plan is provided to identify procurement opportunities for SME participation. Harmony's extensive SME databases identify and match companies to supply value chains and subcontracting opportunities. New tender committees were established to oversee the process of promoting and embedding inclusive procurement in accordance with the approved policy and procedures. Appropriate measures have been established to ensure that genuine transformation is achieved for host communities and previously disadvantaged groups.

While Covid-19 restrictions and challenges last year disrupted delivery against this strategy, good transformation progress was made in the review period. This includes, inter alia, shifting procurement spend from non-compliant suppliers. Harmony has encouraged large entities and multi-nationals to support SMEs by transferring skills and intellectual property, thereby creating new capabilities in the local communities.

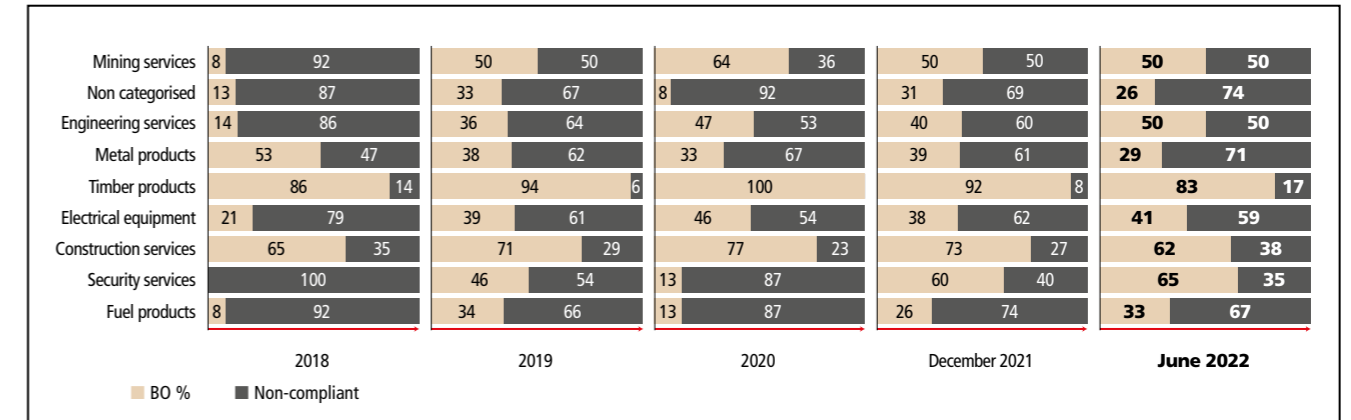
The Preferential Procurement (PP) and Enterprise and Supplier Development (ESD) strategy is being implemented in four phases of which two have been completed. The first phase which was initiated in FY20 and comprised 68 suppliers achieved about 97% compliance to the mining charter requirements. The second phase, comprising of 85 suppliers achieved 84% compliance to the mining charter requirements. Currently phase three of the implementation is underway with a total of 130 suppliers and expected to be completed by the end of 2022.

The programme tracked the implementation impact on an annual basis focusing on the actual and forecast discretionary spend attributed to suppliers that are more than 25% + 1 and more than 50% + 1 black ownership (BO) as shown in the diagram below. By the end of FY21 the spend to suppliers that are more than 25% + 1 BO was 79% of the total discretionary spend and those with 50% + 1 BO the discretionary spend was 54%.

The focus is on ensuring new entrants to our supply chain, particularly black women and youth-owned enterprises, shifting spend, increase geographical reach and entering into longer-term contracts with compliant suppliers.



We have seen a 27% improvement in compliance since implementing this strategy and framework. The PP and ESD strategy also tracked annual spend impact on key categories as shown in the diagram below, for example 50% + 1 BO spend for the Mining Service category increased from 8% of the discretionary spend in 2018 to 50% in 2022. The year-to-year movement for major categories is shown below.

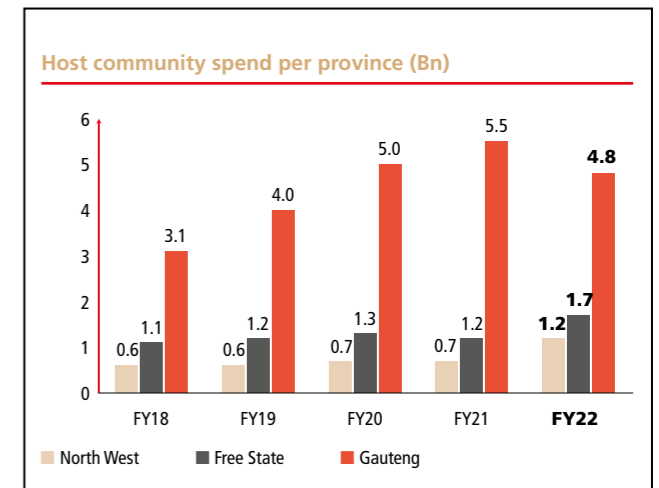


Although there has been a year-on-year improvement for designated groups, this has been marginal for black women and youth-owned suppliers. Our emphasis in the next two years will be on women and youth-owned businesses. It remains the priority for our ESD programme. In FY22 the total discretionary spend was R14.27 billion of which 23% (FY21: 27%) was spent with black-owned SMMEs and 10% (FY21: 8%) with black women-owned enterprises.

Host community spend

Our preferential procurement strategy aims to accelerate the transformation of our business while facilitating meaningful transformation in our communities and the broader economy. We are morally and ethically obligated to build capacity and capability that supports livelihoods in our host communities. This secures our social licence to operate and develops our social and relationship capital.

We focus on creating opportunities in the supply chain for our host communities. In FY22, this translated into contracts for black-owned host community vendors with a combined value of R7.7 billion (FY21: R7.4 billion).



Supplier days

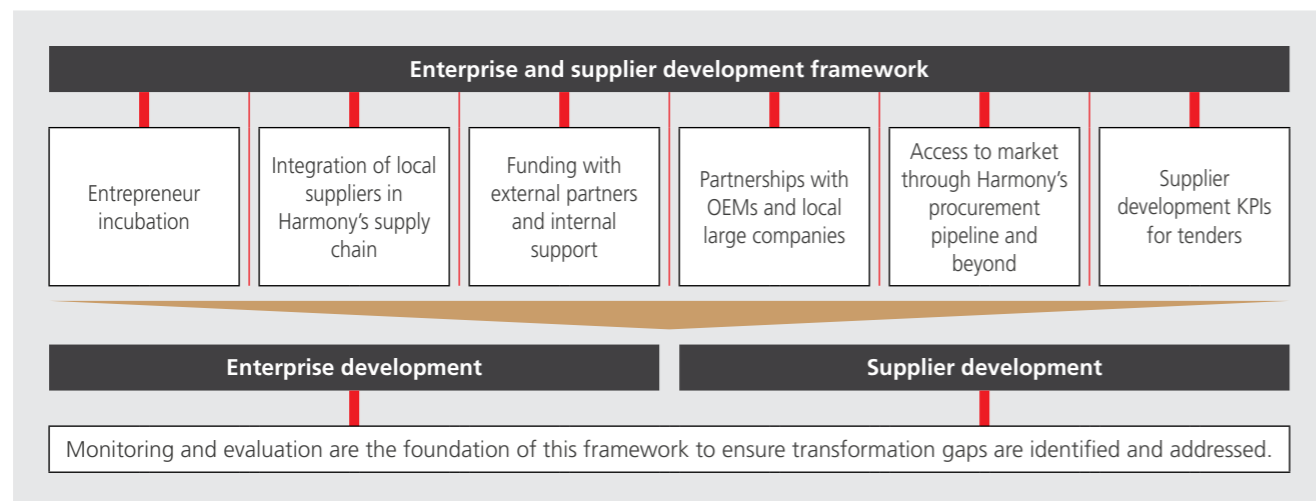
We facilitate supplier days through webinars and forums in our host communities. We use these engagements to introduce our preferential procurement strategy, and enterprise and supplier development framework, to local businesses. The sessions expose SMEs to procurement opportunities and tendering processes. This is also a platform to discuss partnerships, contracting opportunities and, most importantly, how women and youth-owned companies could participate.

Through this initiative, we spent R50 million (FY21: R170 million) on new black-owned and controlled (>51%) enterprises and R26 million (FY21: R38 million) on 45 (FY21: 41) new 100% black-owned SMEs.

Empowering communities continued

Enterprise and supplier development

The enterprise and supplier development framework below supports our preferential procurement strategy.



South Africa

Our development framework focuses on two areas:

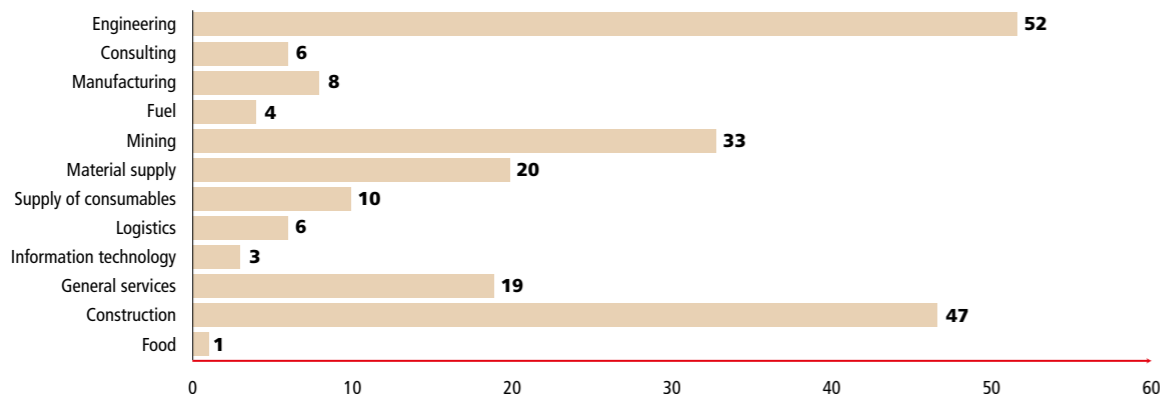
- **Enterprise development:** potential suppliers mainly drawn from local communities where we operate with incubation centres in key areas and satellite centres supporting other host communities.
 - 209 enterprises are incubated
 - Over 122 enterprises are assisted with business development
 - Over 187 enterprises are supported through funding and other business support initiatives
- **Supplier development:** procurement opportunities for enterprises graduating from incubation and other qualifying small and medium enterprises. We spent R33 million with small and medium enterprises that registered as new companies on the Harmony vendor database in FY22.
 - Direct procurement opportunities and contracting
 - Partnering with OEMs as subcontractor or strategic partners across the value chain
 - Creating partnerships with funding institutions to support preferential procurement, buying shares in non-compliant companies and creating black industrialists.

Our entrepreneur incubation programme, launched in FY20, aims to assist 100% black, women and youth-owned enterprises to transition to suppliers of key mining and manufacturing commodities and services. Enterprises operating in the following areas are encouraged to apply:

- Mining and related value chain
- Fuel and chemicals
- Metal commodities
- Engineering products and services
- Manufacturers of mining-related products.

At the beginning of the programme, 63 women and youth-owned companies were approved to participate. In addition, we awarded procurement contracts to several enterprises in the incubation programme while others were matched with OEMs for joint ventures and downstream opportunities. As these companies graduate, they are integrated into our supply chain where opportunities arise.

Suppliers in entrepreneur incubation programme



Leano funding initiative

We launched this initiative six years ago to assist local host community suppliers raise start-up finance and access technical assistance. The fund has disbursed loans to the value of R38 million since inception – 26 (FY21: 26) loans worth R5.3 million (FY21: R4.8 million) were approved in FY22. To date, the initiative has created 1 807 jobs.

An example of the initiative's impact is Success Paint Proprietary Limited, a 100% black and youth-owned company founded by Leaf Vincent Mathe, and registered in 2016 as a paint manufacturer, operating at the Harmony business development centre in Welkom. After graduating from the Harmony incubation programme, we provided workshop space at the centre. Accredited by the South African Bureau of Standards (SABS), the company was awarded a R3.6 million contract in 2021 to manufacture and supply paint to Harmony business units as part of its growth and development plan. To date, Success Paints has created four permanent and two temporary jobs.

Partnering for industry-specific skills transfer

During the year, Harmony awarded a five-year contract to the Maponya 911/ER24 partnership to provide on-site emergency medical services, initially at our Doornkop operation. Maponya 911 is a black-owned and run subsidiary of the Maponya Emergency Services group, an established company with a footprint in six provinces. Maponya 911 is a member of the South African Private Ambulance and Emergency Services Association, a non-profit organisation focused on constantly improving the standards of pre-hospital emergency medical care in South Africa. While Maponya 911 is accredited and capable as a healthcare and emergency services provider, it lacks experience in the mining sector, which has unique health and safety challenges. ER24 is an established and reputable emergency services company in South Africa.

Given that safety and health are business imperatives for Harmony, we viewed the creation of this partnership as, firstly, removing a barrier to entry and, secondly, an opportunity for shared benefit and skills transfer. Contractually, ER24 will partner with Maponya 911 on site to provide a skills-transfer plan that enables a local company to enter and build a presence in the mining sector.

Building skills for quality products

Harmony has partnered with supplier Timrite, a mining supply and services company, to construct a manufacturing plant in Masilonyana, Free State, with an estimated revenue of R4.8 million. This has created an opportunity for local entrepreneurs who will manage the plant. It also demonstrates that our localisation strategy invests in national and local industrial capacity. Having local manufacturing capacity makes economic sense for Harmony because we can build the community that hosts us while meeting the needs of our operations at the required standards.

In addition to manufacturing essential elements in the mining process, such as charging sticks for blasting, the entrepreneurs will collect pallets from underground and mine stores, refurbishing and reclaiming slabs, gum planks and wedges. Timber reclamation is a key part of the timber yard that will benefit members of the Masilonyana community. Products from the new plant will be sent to Harmony operations first and then supplied to other mines in the area.

Our investment in Masilonyana is a sustained commitment to skills transfer and empowering community members by training local entrepreneurs to manufacture high-quality technical products. We will continue to develop local businesses and partner with funders for the necessary capital injections as these small businesses grow. This collaborative approach ensures entrepreneurs can access the Harmony value chain and develop new markets beyond our company.

Enhancing local manufacturing capabilities

Sandvik, a company based in Sweden, operating in South Africa for more than 70 years, has invested over R6 million in a new plant to support local manufacturing in Welkom. It also aims to transfer skills to local entrepreneurs and local community. DRS will manufacture new and refurbish used drill rods, and produce other essential parts for mining drills.

Start-up assets donated by Sandvik include high-tech equipment to ensure in-house metallurgical testing and failure analysis of rock-drilling tools in the metallurgical laboratory with state-of-the-art equipment. This will enable DRS to deliver a high-quality product and service from inception.

New suppliers will receive premises, equipment, skills and access to markets. This is in line with Harmony's approach to enterprise and supplier development programmes – we believe these need to be more than courses for aspiring entrepreneurs; they need to be multi-layered with capital investment, training and market access. The knock-on effect creates a quality supplier for Harmony as well as jobs and security for the community.

Women and youth empowerment

Harmony continues to create procurement opportunities for black women and youth-owned companies from host communities, supporting more than 295 (FY21: 150) black women and youth-owned companies in FY22 with a spend of R1.7 billion (FY21: R734 million).

Harmony identified the supply of Personal Protective Equipment as an opportunity to shift spend to black women-owned company. As a mining company, Harmony views safety as one of its core operational pillars and all its employees are obliged to adopt the best safety practices as injury-free shifts are the largest indicator of a successful mining operation. PPE, therefore, supports the safe operation and is a large part of minimising risks and preventing hazards.

Identifying the supply of personal protective equipment (PPE) as an opportunity for black women-owned companies to transfer skills to local communities, we appointed Hamisa Engineering and Mining Proprietary Limited, established in 2010 by Bongile Tsotetsi and Stephen Phalatshe in the Free State. The company employs 48 people and has contracts with mines in South Africa. After successfully implementing our ESD framework, we awarded Hamisa a five-year contract to supply PPE to selected Harmony operations.

Empowering communities continued

Mining Charter procurement requirements in South Africa

The Mining Charter III emphasises the need to increase inclusion of historically disadvantaged persons (HDPs), women and youth in procurement opportunities in addition to spending on BEE-compliant businesses.

It emphasises the creation of South African manufacturing capability by including local content requirements in procurement targets for mining goods and services. Accordingly, mining companies should purchase mining goods with local content of at least 60% and, after a two-year grace period, goods provided in the mining supply chain should have a local content certificate, issued by accredited service providers or the South African Bureau of Standards. Expenditure on fuel is no longer included in these calculations, which significantly impacts the scores of large mines and opencast operations.

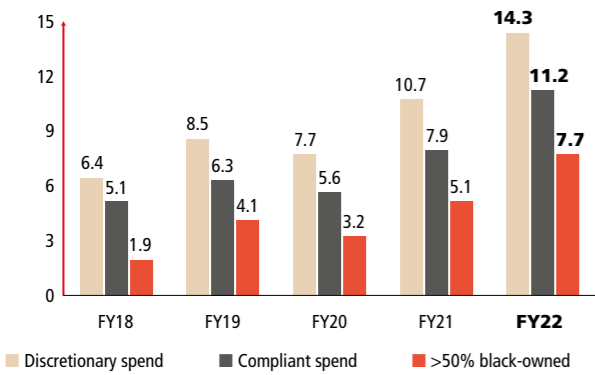
Our performance improved in FY22:

- Of discretionary spend totalling R14.27 billion, 79% was preferential procurement
- Total procurement expenditure with BEE entities was R11.2 billion of which R1.4 billion was spent with black women-owned businesses and R7.7 billion with black-owned businesses
- Compliant spend increased by 42%.

We expect to reach compliance levels for women and youth-owned businesses by 2025.

For details, see [Mining Charter III – compliance scorecard](#).

Transforming supply chain spend/BEE



Papua New Guinea

Requirements for the Hidden Valley Operation to maintain business development and procurement and supply plans are embedded in our MoA. We continue to target major contracts and procurement activities that will have a significant effect on communities' involvement, ownership and improved development, and to procure goods from local companies wherever possible.

Procurement expenditure by our Papua New Guinea assets in FY22 totalled R2.3 billion/US\$153 million (FY21: R3.9 billion/US\$253 million), of which R1.1 billion/US\$72 million (FY21: R2.3 billion/US\$150 million) was spent in Papua New Guinea. Of this, R582 million/US\$38 million (FY21: R493 million/US\$32 million) was spent in Morobe Province. Harmony holds contracts with local landowner companies for a range of goods and services including drilling works, earthmoving equipment hire, catering and accommodation, security services, bus transport and labour hire.

Corporate citizenship

Our corporate social investment (CSI) goes beyond compliance. This is an additional commitment we make to uplift and improve the livelihoods of our host communities and labour-sending areas. The following strategic pillars guide our focus areas for social investments in our South Africa and Papua New Guinea operations.

- Education and training
- Health
- Sports recreation, arts and culture
- Social entrepreneurship and farmer development
- Social infrastructure.

In South Africa, to identify initiatives for a financial year, we conduct due diligence on potential projects in consultation with communities and engage with local government. In FY22, we invested R17.9 million/US\$1.7 million (FY21: R10.8 million/US\$0.8 million) in CSI projects impacting at least 10 000 individuals and families. These included social and welfare donations through the Harmony Community Trust.

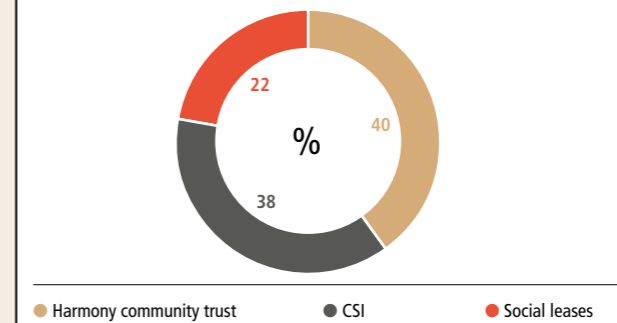
Harmony also supports specific strategic initiatives through non-profit organisations totalling R4 million annually:

- Enactus South Africa promotes the development of entrepreneurial skills at tertiary level. This initiative is a constructive way to assist in combating unemployment, poverty and inequality
- Harmony has been the main sponsor of the national Science Olympiad programme of the South African Agency for Science and Technology Advancement (SAASTA) for the last 13 years.

In Papua New Guinea, we have established programmes in place for Wafi-Golpu project host communities. While the majority of our activities at Hidden Valley are delivered under our MoA, we also maintain select additional programmes. For example, in FY22, Harmony agreed with the Papua New Guinea government to facilitate the delivery of a range of social projects predominately funded by the Settlers Fund, which receives royalties under our MoA. State authorities oversee the use of these funds and Harmony provides project management expertise, eg, sourcing and procuring project materials and labour, and overseeing the execution of the works. Harmony funds these projects upfront and State authorities release the project cost back to Harmony after handover.

South Africa

Beyond compliance spend (%)



Spend on community development initiatives with direct benefits

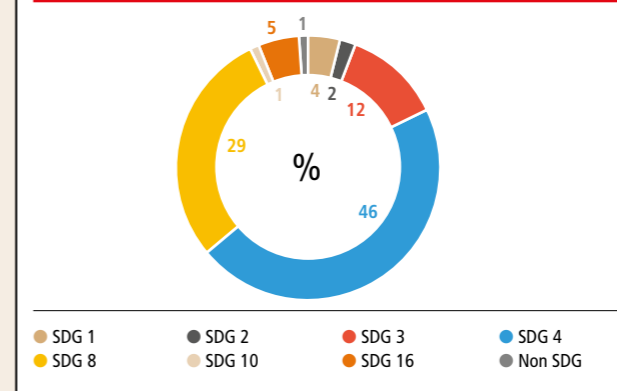
	Harmony Community Trust ¹	Corporate social investment ²	Social leases ³	Total
Amount spent (Rm)	2.3	8.2	7.4	17.9
Lives positively impacted	60 691	49 305	29	110 025

¹ The CEO's Special Financial Assistance for Studies programme has been in effect with funding of R3 million for each of the past two academic years (2021 and 2022). The fund assists 30 students to access tertiary education every academic year by funding their first year of studies at a cost of R100 000 per student.

² CSI spend includes donations of R600 000 for flood relief in KwaZulu-Natal.

³ Rental of Harmony's commercial properties to qualifying community development entities in host communities at nominal rental rates. In FY22, 29 properties were leased mostly for education-related purposes (early childhood development centres, schools and libraries, among others). The variance between the market-related rental rates and the nominal social lease rental values was R7.3 million.

Non-mandatory (CSI) spend to achieve SDGs (%)



Education and training

- Donations and improvements for basic education programmes and facilities.

Health

- Improvement of centres for people living with disabilities
- Donations and improvements for healthcare and alcohol/drug rehabilitation facilities.

Sports recreation, arts and culture

- Sports, arts, culture and tradition programmes.

Social entrepreneurship and farmer development

- Agri-processing project support
- Support for Enactus international non-profit organisation inspiring students to pursue entrepreneurship
- Promotion of South African Agency for Science and Technology Advancement.

Social infrastructure

- Access to commercial properties (social leases)
- Flood relief donations
- Sponsorship of waste recycling for cash generation.

Empowering communities *continued*

South Africa: Flagship projects			
Area	Project	Impact	Expected outcome
Free State, North West and Eastern Cape provinces	Back-to-school: Distributing school shoes, solar backpacks and reusable sanitary towels	7 500 beneficiaries	Restore dignity among learners
Gauteng, North West and Free State provinces	Annual matric (grade 12) excellence awards	63 matric top performers received laptops	Enable students to work remotely
Gauteng	Science laboratory upgrade at Raymond Mhlaba Secondary School	1 375 learners have access to a refurbished laboratory	Improve mastery of science
North West	Eye tests and spectacles	Early detection of visual shortcomings in 45 of 1 560 tested	Improve learners' performance
Gauteng	Donating soccer kits and equipment to Merafong City Local Football Association	209 beneficiaries	Improve wellness of participating youth while keeping them off the streets

Papua New Guinea	
<p>Hidden Valley Education and training</p> <ul style="list-style-type: none"> Primary and secondary school education assistance programme for dependents of Hidden Valley operation employees. <p>Supporting local institutions</p> <ul style="list-style-type: none"> Police reservist training programme Bulolo police vehicle maintenance (parts) assistance Food, toiletries and diesel donations to Wau and Bulolo police Justice sector vehicle purchase facilitation Wau police station cells maintenance facilitation. <p>Donations</p> <ul style="list-style-type: none"> Haus Pikinini orphanage support Mattress donations to Grace Memorial Secondary School and Baiyune High School Diesel donation for various community services Haus Krai (mourning house) support Christmas food. <p>Wafi-Golpu Education and training</p> <ul style="list-style-type: none"> Biodiversity e-library and training for schools. <p>Health</p> <ul style="list-style-type: none"> Water, sanitation and hygiene (WaSH) project at Zimake and Levilivan (Fly Camp) villages Support to distribute supplies from the Morobe Provincial Health Authority to five community clinics including Malahang Health Center, Timini Aid Post, Zindaga Clinic, Wafi Clinic and Wonkins Clinic Electricity supply to Wafi Clinic Medical emergency transportation for two patients from the Wafi area to Lae. <p>Social entrepreneurship and farmer development</p> <ul style="list-style-type: none"> Ongoing Cocoa Partnership Programme. <p>Donations</p> <ul style="list-style-type: none"> Community Christmas sports carnival sports ball donations Emergency medical assistance. 	

Papua New Guinea: Flagship projects			
Area	Project	Impact	Expected outcome
Hidden Valley mine employee dependents - all provinces	Primary and secondary school education assistance	1 175 children received school fees support, with funding paid directly to schools, and 580 employees were assisted through this programme	Improved educational outcomes including primary and secondary school completion rates
Bulolo and Wau townships, Morobe Province	Justice sector vehicles (via Settlers Fund)	Five new vehicles were provided to the justice sector and Bulolo district administration. A sixth vehicle was arranged for the Nakuwi Association	Improved access and communication between police, local and district courts, Bulolo district administration, landowners and settlers
Bulolo and Wau townships, Morobe Province	Wau police station and cells maintenance (via Settlers Fund)	Condemned police cells were restored, including water supply and toilet facilities, supporting a township of around 10 000 people	Supports effective local law enforcement and provides improved conditions for detainees
Wampar, Mumeng, Salamaua and Labuta local level government areas, Morobe Province	Cocoa Partnership Programme	We helped 2 000 families across the Wafi-Golpu project footprint area to generate income through farming and sales of cocoa in collaboration with the Cocoa Board of Papua New Guinea	Expanded income streams for families
Zimake and Levilivan villages, Morobe Province	Water, Sanitation and Hygiene projects	We provided new water supply system for 250 residents in Zimake and 100 residents in Levilivan village	Improved access to clean drinking water, washing and sanitation facilities

Public safety

There were no major incidents or serious concerns raised during the year on road transport and radiation exposure. Together with dust, these are the primary public and community safety risks associated with our operations. We accelerated our plans to contain dust from tailings storage facilities at certain Free State operations after they exceeded permissible limits during the year. We continue to raise awareness in our host communities on potential risks to the public that might emanate from activities.

Our focus areas in FY23

In South Africa, we will revitalise and reposition our CSI programme in line with our corporate affairs strategy, strategically leveraging stakeholder engagements through high-impact community projects. Additionally, work is underway to quantify our initiatives' impact and establish partnerships with major companies in our operating regions to optimise that impact through key partnerships, specifically local and preferential procurement, and SLPs. This will include restarting the health outreach programme for mine-impacted communities in collaboration with our community affairs department.

In Papua New Guinea, our FY23 programme will continue along established themes. For Hidden Valley, this includes our school fees assistance program for employees' dependents and further support to strengthen local law and order institutions in Wau and Bulolo. For the Wafi-Golpu project, this includes ongoing support for our Cocoa Partnership Programme and completion of water, sanitation and hygiene projects at a further three villages and three schools.

CASE STUDY

Local economic development: Broad-based Livelihoods Programme

An initiative with meaningful and sustainable socio-economic outputs and outcomes enabling achievement of the SDGs and our SLP commitments

Since early 2019, Harmony has supported the Broad-Based Livelihoods Programme, designed and implemented by partners Umsizi Sustainable Social Solutions and Socio-Technical Interfacing, according to a set of principles aimed at widespread socio-economic development.

The programme's core objective is to mobilise people at the bottom of the socio-economic pyramid to become economically active as self-employed forces for local economic growth. It is inclusive as hundreds of households participate in the ongoing initiative that is easily scalable and implemented over a large geographic area.

The programme also has an 11-year track record of impact and self-sustainability, which helps Harmony meet compliance requirements and reach various communities across South Africa.

Initially, we funded the continuation of a Broad-Based Livelihoods Programme in one of our Moab Khotsong host communities within the Matlosana local municipality. We then launched the programme at our Free State operations within the local municipalities of Matjhabeng and Masilonyana. In spite of Covid-19, favourable outcomes encouraged us to spread the programme to the Eastern Cape, a key labour-sending area, for the benefit of villages near Tsolo. In the past year, we brought the programme back to Johannesburg and Mogale City for the benefit of our Doornkop host communities.

The programme delivers livelihood skills development, knowledge transfer, ongoing mentorship, practical application, and monitoring and evaluation of results. Several sub-programmes enable diversified local economic impact, expansion and social change that empower communities to reduce their dependence on mining companies.

Complementary components of the programme spread economic activity and bring hope to impoverished communities:

MyFood	Horticulture training for nutrition and micro enterprises
MyBusiness	Development of sustainable businesses with principles not limited to horticulture and food processing
MyFuture	Empowering people to set goals and pursue their dreams
BBL Infrastructure	Provision of greenhouse tunnels, drip irrigation kits and other infrastructure to participants as performance incentives
MyPoultry	Enabling households to start or improve poultry rearing with broilers for meat or layers for eggs
MyLivestock	Livestock farmers with grazing animals (sheep, goats and cattle) learn to increase profitability, minimise losses and strengthen resilience against drought and other challenges

Harmony's programme has reached more than **80** township areas and at least **5 200** people with nearly **700** vegetable tunnels to date.

The impacts of illegal mining

Illegal mining significantly impacts the environment, economy, communities and broader society.

Our internal and contracted security services teams are under severe pressure to address increasing illegal mining activities that threaten the sustainability of our business and licence to operate.

Across our operations in South Africa, illegal mining is increasing exponentially with deteriorating socio-economic conditions in the southern African region and the associated breakdown in the rule of law without adequate public enforcement resources.

Statistics show that 70% of illegal miners, known colloquially as "zama zamas" (derived from the Nguni word "ukuzama" meaning "to try"), are undocumented immigrants assisted by local communities, mine employees and contractors who receive lucrative payments in return.

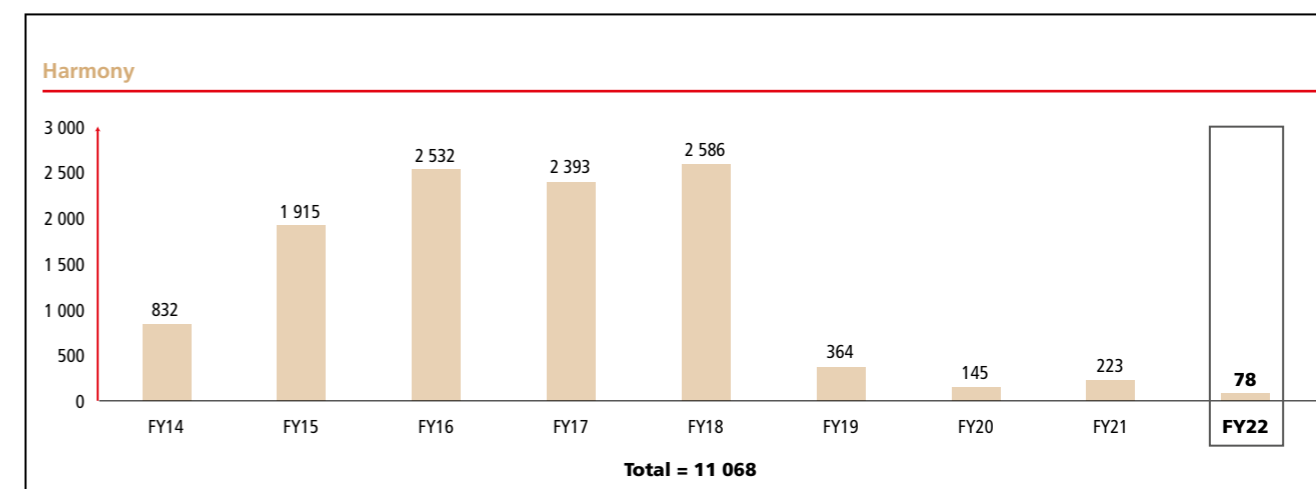
- The cost of illegal mining:
- Loss of life and injuries among illegal miners and mine employees
 - Production stoppages due to safety incidents and infrastructure damage
 - Soil instability and water pollution
 - Security expenses
 - Waning investor appetite threatening jobs and community development.

Illegal mining is difficult to police as it is highly organised and linked to human trafficking, forced labour, illegal weapons and explosives, tax evasion, money laundering, corruption, gang-related activities, intimidation, murder and other violent crimes.

In response, Harmony invests significantly in protecting employees, communities, the environment and assets by sealing abandoned mines and implementing state-of-the-art security measures.

Supported by the Mineral and Petroleum Resources Development Act prohibiting mining without required statutory authorisation, we work with the South African Police Service and a multi-disciplinary national task team comprising mining houses, the Department of Mineral Resources and Energy, the South African Revenue Service, the Directorate for Priority Crime Investigation, the Department of Home Affairs and the National Prosecuting Authority to combat illegal mining.

In FY22, year on year, our efforts decreased criminal activity by 285% with 78 arrests of illegal miners and 25 colluders. We seized 316 157kg of gold-bearing material worth almost R1.45 million compared to 194 288kg valued at R0.19 million in FY21.



The impacts of illegal mining *continued*

Surface illegal mining	Underground illegal mining	Artisanal mining
<ul style="list-style-type: none"> • Mostly illegal immigrants from Lesotho, Zimbabwe and Mozambique trespassing on mine premises for personal gain • Targets are disused plant and shaft areas • Identify or sample suitable mining land through James Tables (extracting gold using carpets, water and gravity) • Illegal miners sell amalgam (liberated by mixing gold ore with mercury) to syndicate boss runners • Groups from Marashian tribe-controlled areas of Lesotho provide armed protection on surface against other criminal gangs. 	<ul style="list-style-type: none"> • Activities differ at operating and redundant shafts • Highly organised in the Free State • Structured and profitable reporting, gold sales, food supply and logistics chain. 	<ul style="list-style-type: none"> • Mining companies around the world work alongside artisanal miners • In Papua New Guinea, government encourages alluvial mining downstream of Harmony's Hidden Valley operation • Legal artisanal mining outside of formal mining lease areas sustains communities • Private and public law enforcement on mining leases protects employees and assets • South African government plans to legalise artisanal mining but this is not viable until illicit gold trading, corruption and territorial battles are addressed.

Respect for human rights

Despite exposure to dangerous criminals, we avoid using force in our encounters with illegal miners. As outlined in our human rights policy at <https://www.harmony.co.za/policy/human-rights-policy/>, we respect the fundamental and universal human rights and freedoms of everyone.

Harmony's security department and suppliers comply with our code of conduct at <https://www.harmony.co.za/policy/code-of-conduct/>, and we provide annual training reinforcing the Voluntary Principles on Security and Human Rights as well as prevailing legislation.

We also regularly engage with peers, government and civil society about our policies on ethical conduct and human rights in providing security services to local communities.



Doornkop shaft and training centre.

Governance

The board adheres to sound corporate governance principles to build strong and experienced management teams and promote a culture of shared value for all stakeholders. This further entrenches and drives mining with purpose throughout the business.

Guided by King IV, our board is committed to ethical leadership and upholds our duty to be a responsible corporate citizen, ensuring the sustainability of the business and advancing the highest standards of corporate governance.

Good governance is at the heart of our performance and reporting.



Agri-project Doornkop.

Corporate governance

Our board of directors, committed to ethical leadership, upholds our duty to be a responsible corporate citizen.



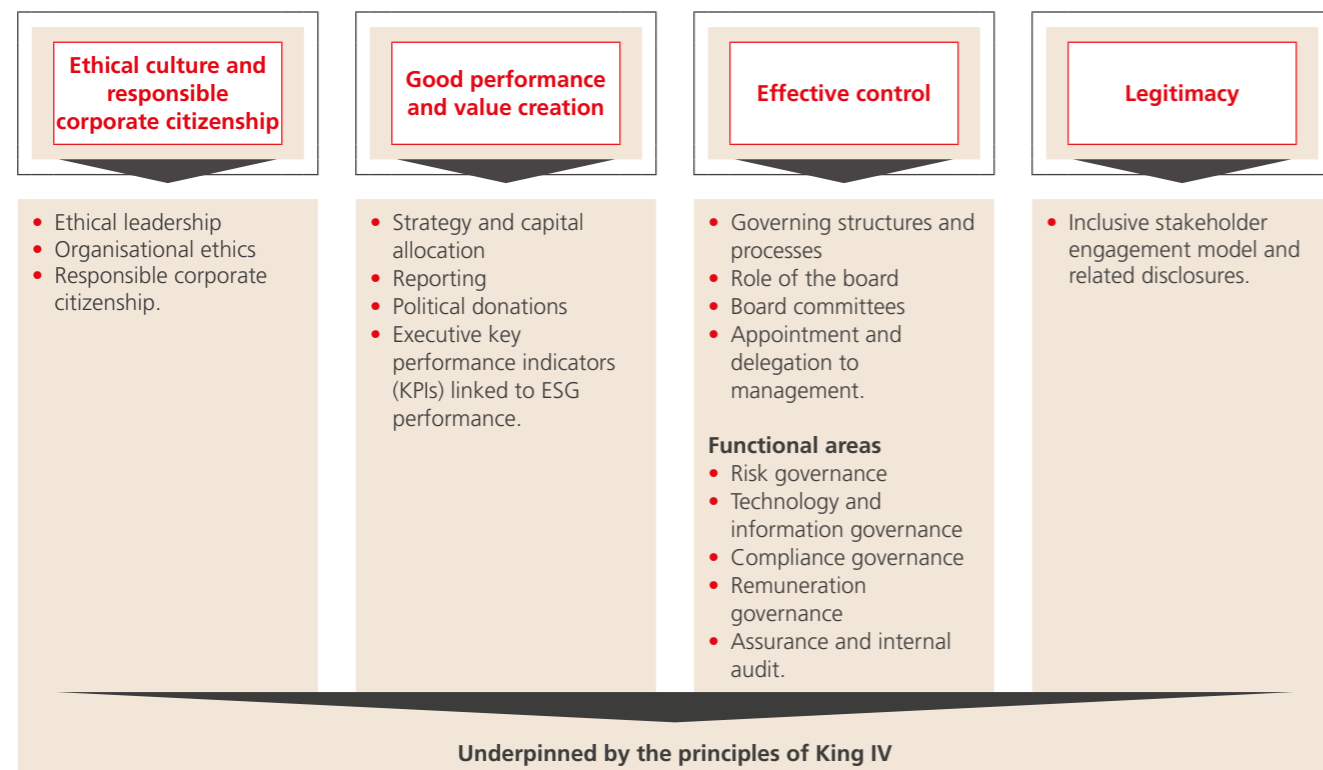
Related material themes and material matters

Material themes
Ethical and accountable leadership
Governance excellence
Good governance is the core of our performance and reporting. Guided by our policies and codes, we aim to do the right thing and disclose honest, transparent and comparable information to the market. The board's philosophy is to adhere to sound corporate governance principles to enable strong, experienced management teams and promote a culture of shared value for all stakeholders.
Ethical mining
Upholding human rights
As a responsible employer, providing decent work includes respecting human rights.* We adhere to corporate policies, comply with applicable laws and regulations, have regular dialogue and engagement with our stakeholders and contribute, directly or indirectly, to the general wellbeing of communities where we operate.
* <i>Human rights policy can be found on website.</i>
Ensuring legal, regulatory and compliance excellence
Changing regulatory landscapes in our operating territories create uncertainty, delay key decisions, and may affect investor sentiment towards our group. In South Africa, we face increasing regulatory compliance costs such as carbon tax, uncertainty on land expropriation, rising social demands and an inhibiting regulatory environment. In Papua New Guinea, growing regulatory uncertainty may jeopardise our existing operation and decision to proceed with future projects. As such, we aim to operate beyond compliance, ensuring we deliver on our commitments and retain our licence to operate.

Corporate governance *continued*

Responsible, ethical governance

The board subscribes to the principles of good corporate governance. Accordingly, it supports the definition of corporate governance as being the exercise of ethical and effective leadership to achieve specific governance outcomes, summarised below:



Corporate governance – an overview

The Harmony board's philosophy is to adhere to sound corporate governance principles to enable strong, experienced management teams and promote a culture of shared value for all stakeholders.

The strong foundation of corporate governance principles continues to steer Harmony's board and management. The safety and wellbeing of our employees and communities remains the driving force in our approach.

Strategic risk management

The board has oversight of the group's risk governance process and progress in delivering on its strategy to produce safe, profitable ounces and increase margins. This includes a risk-based and proactive safety culture journey, now in its sixth year, and value-accretive acquisitions including the Hidden Valley reinvestment, Moab Khotsong operations and, most recently, Mponeng and Mine Waste Solutions.

For more, refer to [Our risks and opportunities](#) in the [Integrated annual report 2022](#).

Sustainable development

Harmony's sustainable development framework and associated policies consider the SDGs and the group's role in advancing our communities through preferential procurement, responsible environmental stewardship, employment equity and women-in-mining strategies, among others.

Refer to [ESG in practice](#), [Our material matters](#), [Stakeholder engagement](#), and the [Social and ethics committee chairperson's report](#).

Adding value

The role of the board is key in supporting Harmony's ability to create sustainable value. The interconnected pillars that drive value creation by the board are strategy, stakeholders, sustainability and ethical and responsible corporate citizenship. All four pillars correspond with the principles of King IV. By exercising ethical and effective leadership, oversight of solid risk and performance management practices as well as commitment to good corporate governance, the board drives the efficient use of resources and ensures sustainability. In addition, the diversity of the board supports a stakeholder-inclusive approach to addressing multi-stakeholder interests.

Transformation and broader diversity of the board

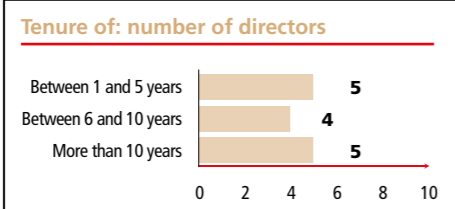
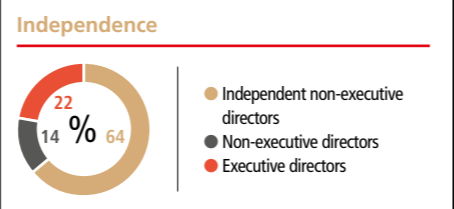
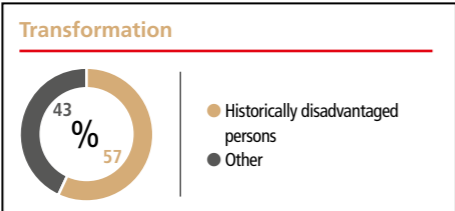
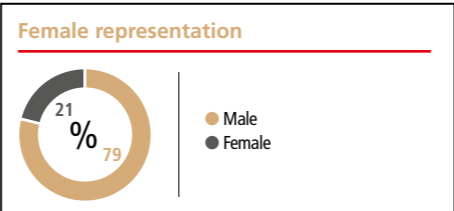
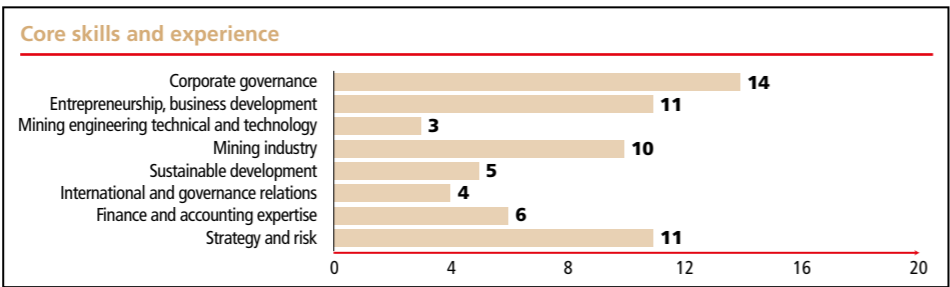
The board, through the nomination committee, has embarked on a board representation transitional plan to not only strengthen Harmony's commitment to the four key pillars of King IV for good corporate governance but to further demonstrate its commitment to transformation and the promotion of broader diversity in terms of gender, age, expertise, culture, race, field of knowledge, skills and experience.

The transformation and diversity of the composition of the board is paramount. As such, the board representation transitional plan includes an annual evaluation of key gaps on the board and plans to close and mitigate against those gaps are implemented. The review of the boards succession plans is an ongoing exercise to ensure that the board is consistently creating value for stakeholders through continuity, sustainability and transparency.

Corporate governance continued

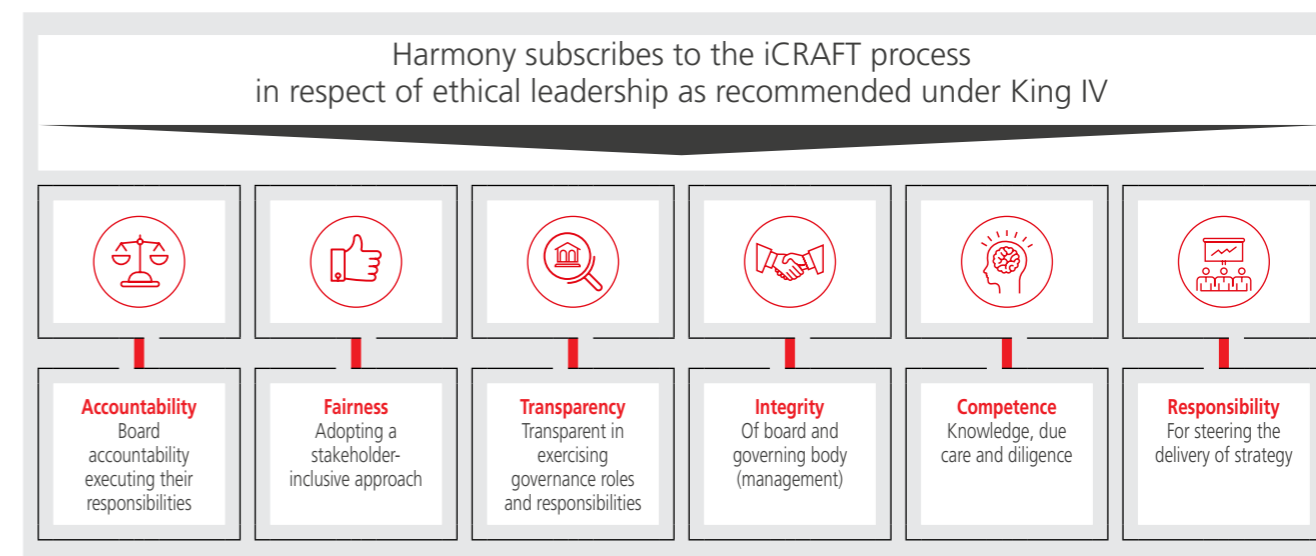
The board at a glance

Our duty to be a responsible corporate citizen is supported by our board of directors and their commitment to ethical leadership.

Composition and tenure	Independence
Overarching principle <ul style="list-style-type: none"> Responsible corporate citizenship and commitment to ethical leadership. 	
Board independence, broader diversity and experience (as at 30 June 2022)	Members: 14 Chairman and lead independent director: ✓ Average age (years): 62 Tenure (number of directors): 
Nine members of the board are independent non-executive directors 64% 	
Transformation	Representation
57% Eight members are historically disadvantaged persons 	21% Three members are women 
Core skills and experience	
Number of directors with skills in the following areas 	
Governance and compliance policies	<ul style="list-style-type: none"> Terms of reference for the board Terms of reference for board committees Board delegation of authority Code of conduct Behavioural code Corporate governance and compliance policy and framework.
Foundation of corporate governance compliance	<ul style="list-style-type: none"> Internal audit charter Disclosure required by section 303A.11 of the NYSE listed company manual Public Access to Information Act manual (PAIA) Whistleblower policy.
<ul style="list-style-type: none"> Companies Act, JSE Listings Requirements (primary), New York Stock Exchange requirements, memorandum of incorporation, King IV Voluntary compliance with the principles of the United Nations Global Compact, International Council on Mining and Metals, GRI Standards and the International Cyanide Management Code For the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code). 	

Compliance policy and framework

Harmony subscribes to the iCRAFT framework of ethical leadership as recommended by King IV.



With its long-standing commitment to good corporate governance, the Harmony board is satisfied that appropriate practices are in place to promote the company's reputation as an ethical, reputable and legitimate organisation and a responsible corporate citizen.

Acknowledging the significance of corporate governance and compliance, the board, through the audit and risk committee, has a formal corporate governance and compliance policy and framework that sets out the principles of good corporate governance for the board as well as employees at all operational levels (refer page 146).

In terms of the JSE Listings Requirements, Harmony is required to disclose its application of the principles of King IV. The board, to the best of its knowledge, believes Harmony has satisfactorily applied the principles of King IV.

For a more detailed review of Harmony's application of King IV, refer to the **King IV checklist 2022** on page 177.

Annual General Meeting (AGM)

The AGM of the company will be held on Tuesday, 29 November 2022 at 09:00 (SA time), to transact the business as stated in the **Notice of AGM** in the **Report to shareholders 2022**.

The issued share capital of Harmony comprises ordinary and preference shares that entitle the holder to vote on any matter to be decided by the shareholders of the company and to one vote in respect of each ordinary share held.

Ethical culture and responsible corporate citizenship Ethical leadership

The board leads by example. Each director is therefore expected to continually exhibit the characteristics of integrity, competence, responsibility, accountability, fairness and transparency in their conduct. Collectively, the board's conduct, activities and decisions are characterised by these attributes, which also form part of the regular assessment of the board and individual directors' performance. The board recognises that ethics is one of the pillars of sustainable business practice.

The board charter elaborates on the standard of conduct expected from members. In addition, the board policy on declaration of interests limits the potential for a conflict of interest and ensures that, in cases where conflict cannot be avoided, it is properly disclosed and proactively managed within the boundaries of the law and principles of good governance.

Organisational ethics

The board sets the group's approach to ethics. Oversight and monitoring of organisational ethics is the mandated responsibility of the social and ethics committee on behalf of the board.

Details of arrangements for governing and managing ethics, key focus areas in the reporting period, measures taken to monitor organisational ethics and planned areas of future focus appear in the **Social and ethics committee: chairperson's report** see page 32.

During FY19, the Ethics Institute of South Africa conducted an ethics opportunity and risk assessment at Harmony, reporting its findings to the social and ethics committee. Key action items identified included:

- Increase awareness of corruption and adopt zero tolerance
- Actions taken against transgressors
- Promote and emphasise the fair treatment of employees despite their status, age, gender or rank
- Communicate a clear process flow chart indicating how whistleblower concerns are addressed in the organisation, and ensure anonymity when using the whistleblowing line
- Implement additional training opportunities in the organisation on ethical topics
- Develop a process to monitor all disciplinary actions to ensure consistency and fair treatment of employees.

During FY21, the Ethics Institute of South Africa reviewed its findings from FY19 and provided further training and workshops to the social and ethics committee and key ethics champions in Harmony to further strengthen the governance of ethics and ethical leadership towards ethical cultures throughout the organisation. The implementation of the ethics strategy continued in FY22.

Ethics department and ethics management committee

To embed an ethical culture, Harmony has an ethics department that includes a permanent certified ethics officer who ensures the ethics management plan and programme are executed sufficiently and communicated throughout the organisation. Our ethics management committee monitors our ethical culture and integrity, assisted by the ethics officer and the white-collar crime committee. The following noteworthy processes were introduced and developed further in the review period:

- Enhanced declaration-of-interest management and reporting
- Enhanced gift-logging management and reporting
- Enhanced reporting format to the social and ethics committee
- Integrated electronic ethics management system
- Centralisation of all ethics management activities in the group.

The ethics management committee also assesses declarations of interest in terms of the code of conduct and provides feedback to the executive committee, which then reports to the board's social and ethics committee. As a result, ethics are discussed and examined at every level of management in the company. The Ethics Institute of South Africa is currently assisting management and the social and ethics committee to embed the governance of organisational ethics.

Illegal mining remains a challenge in South Africa and for Harmony.

See the **impacts of illegal mining** on page 133 for more detail.

Responsible corporate citizenship

The mining industry introduces a unique duty and opportunity to the group to be a responsible corporate citizen. Although the board sets the tone and direction for the way in which corporate citizenship should be approached and managed, ongoing oversight and monitoring of the group's performance against targets is part of the mandate of the social and ethics committee. Additionally, the social and ethics committee, remuneration committee and audit and risk committee are tasked with specific aspects of ESG oversight roles on behalf of the board to align Harmony's strategy with key ESG considerations.

Extensive detail on the consequences of the group's activities and outputs, which affect its status as a responsible corporate citizen, with relevant measures and targets are provided elsewhere in this report.

Good performance and value creation Strategy

The board is responsible for approving the group's short-, medium- and long-term strategy as developed by management. In doing so, it focuses on critical aspects of the strategy including the legitimate and reasonable needs, interests and expectations of material stakeholders as well as the impact of the group's activities and output on the various capitals employed in the business process. Risks and opportunities connected to the triple context (economy, society and the environment) in which the group operates are integral to the board's strategic reviews of the business.

Policies and operational plans supporting the approved strategy are submitted regularly by management for review and formal board approval. The board attends an annual strategy session to confirm and review the company's strategy.

Strategy is part of the ongoing conversation in the boardroom. Regular oversight of the implementation of Harmony's strategies and operational plans takes place against agreed performance measures and targets.

Given that the company's reputation as a responsible corporate citizen is an invaluable attribute and asset, the consequences of activities and outputs, in terms of the capitals employed, are continuously assessed by the board through its committees. This will ensure we are able to respond responsibly and limit any negative consequences of our activities, to the extent reasonably possible. In addition, the board continuously monitors the reliance of the group on these capital inputs – our natural capital (including Mineral Resources and Reserves), employees, financial capital, communities and society at large, our mining infrastructure and our intellectual and technological know-how – as well as the solvency, liquidity and going-concern status of Harmony.

Reporting

In protecting and enhancing the legitimacy and reputation of the group, the board ensures comprehensive reporting takes place on different platforms. The FY22 suite of reports appears on the inside front cover.

The board's intention is to meet and exceed legal requirements, as well as the legitimate and reasonable information needs of material stakeholders. The board is satisfied with management's basis for determining the materiality of information to be included in our external reports. The audit and risk committee, assisted by the social and ethics committee, is tasked with reviewing all external reports to verify the integrity of information.

Political donations

Harmony supports the democratic processes in South Africa and Papua New Guinea, and contributes to their political parties. A policy relating to political donations has been adopted by the company. Harmony had donated approximately R1.7 million towards the 2022 local authority elections of Papua New Guinea. The funds were divided proportionally to the support that the political parties had received during the previous national election.

Effective control – governing structures and processes Role of the board

The board exercises its leadership role by:

- Steering the group and setting its strategic direction
- Approving policy and planning that gives effect to the direction provided
- Overseeing and monitoring implementation and execution by management
- Ensuring accountability for the group's performance by means of reporting and disclosures.

The role and function of the board, including guidelines on its composition and procedures, are detailed in the board charter. This is reviewed annually (and when necessary) to ensure it remains relevant.

There is a protocol in place should any of the board members or committees need to obtain independent, external professional advice at the cost of the company on matters within the scope of their duties. Non-executive directors are also aware of the protocol for requisitioning documentation from, and setting meetings with, management. Board members have direct and unfettered access to the chief audit executive, group company secretary and members of executive management.

Based on its annual work plan, the board is satisfied that it fulfilled its responsibilities in the review period in line with its charter.

See **Board and committee attendance** on page 151.

Board committees

The board has delegated particular roles and responsibilities to standing committees, based on legal requirements, what is appropriate for the group and to achieve the objectives of delegation. The board recognises that duties and responsibilities can be delegated, but accountability cannot be abdicated. The board therefore remains ultimately accountable.

The following committees have been established:

- Audit and risk
- Social and ethics
- Remuneration
- Nomination
- Investment
- Technical.

Each committee has formal terms of reference, reviewed annually (and when necessary) to ensure the content remains appropriate. The terms of reference address the requirements of the JSE Listings Requirements, Companies Act, and the recommended items in King IV.

See **Board committees**.

Effective control – functional areas Risk governance

The board appreciates that risk is integral to the way it makes decisions and executes its duties. Risk governance encompasses both risks and opportunities as well as a consideration of the potential positive and negative effects of any risks on achieving Harmony's objectives. The group's risk appetite and tolerance levels, which support its strategic objectives, are considered annually. The board is supported in this area by the audit and risk committee.

Responsibility for implementing and executing effective risk management is delegated by the board to management. The board acknowledges the need to integrate and embed risk management in the business activities and culture of the group. The audit and risk committee is tasked with ensuring independent assurance on the effectiveness of risk management in the group, when deemed necessary and appropriate.

See **Our risks and opportunities** in the **Integrated annual report 2022**.

Technology and information governance

The board, assisted by the audit and risk committee, is responsible for governing technology and information to support the group in setting and achieving its strategic objectives.

A technology and information steering committee has a well-defined charter and is responsible for oversight of technology and information direction, investment and alignment with business strategy and priorities. It is chaired by the financial director and members include the head of information services and group executive committee.

Management adopted the Control Objectives for Information and Related Technologies (COBIT). COBIT provides recommended best practices for governance and control processes of information systems and technology to align IT with business. This high-level framework has been aligned with more detailed IT standards and good practices.

In addition, internal audit provides assurance to management and the audit and risk committee on the effectiveness of the governance of technology and information.

Harmony completed the first phase of the centralised human resource management system to improve human capital management efficiencies in FY21; the second and third phases were initiated in FY22. In addition, the upgrade of the enterprise resource planning (ERP) system was completed, with no material issues or risks realised.

Compliance governance

Being an ethical and responsible corporate citizen requires zero tolerance for any incidents of legislative non-compliance. In addition, compliance with adopted non-binding rules, codes and standards is essential in achieving strategic business objectives.

The foundation of our corporate governance complies with:

- The Companies Act
- Listings Requirements of the JSE, where we have our primary listing
- Listings Requirements of the New York Stock Exchange, where we have our secondary listing
- King IV and related principles and codes of good corporate governance.

Harmony also complies voluntarily with the principles of:

- United Nations Global Compact
- International Council on Mining and Metals
- GRI Standards
- Cyanide Code.

Code of conduct

Our behavioural code and code of conduct commits Harmony, our employees and our contractors to the highest moral standards, free from conflicts of interest. The board reviews the code at least every second year, while its application in Harmony is continually monitored by management. The code of conduct was reviewed and updated in FY21. Our ethics programme is also subject to independent assurance as part of the internal audit coverage plan. The code of conduct addresses critical issues including respect for human rights, anti-corruption, gifts and entertainment and declarations of interests. It encourages employees and other stakeholders to report any suspected irregularities. This can be done anonymously through a 24-hour hotline (managed independently) and other channels. All incidents reported are investigated and monitored by the white-collar crime committee, which comprises managers representing various disciplines in the company and reporting to the management ethics committee.

Whistleblowing policy

Our whistleblowing policy encourages shareholders, employees, service providers, contractors and members of the public to report practices at any of our workplaces that are in conflict with any law, regulation, legal obligation, ethical codes or governance policies. It also provides a mechanism for our stakeholders to report these practices internally, in confidence, independent of line management, and anonymously if they wish. The whistleblowing policy informs whistleblowers of their rights. Harmony is committed to protecting whistleblowers from any reprisals or victimisation.

The identity of any employee or stakeholder who reports non-compliance with the code of conduct and other irregularities is protected. Our anonymous ethics hotline numbers are widely advertised throughout the organisation:

- South Africa: +27 (0) 800 204 256
- Papua New Guinea: +675 (0) 00 478 5280
- Australia: +61 (1) 800 940 949.

Human rights

At Harmony, we conduct our activities in a way that respects human rights as set out in the laws and constitutions of the countries in which we operate in line with the Human Rights Policy adopted in FY22. Our approach to respecting human rights includes adhering to corporate policies, complying with applicable laws and regulations, regular dialogue and engagement with our stakeholders and contributing, directly or indirectly, to the general wellbeing of communities within which we operate.

Legislative compliance

The compliance function ensures compliance with laws, codes, rules and standards applicable to the company. Compliance information and reports on the status of legislative compliance are presented at audit and risk committee meetings.

The Protection of Personal Information Act 4 2013 (POPIA) came into effect on 1 July 2021. Harmony has effected the necessary measures to adhere to the requirements of this act in support of good governance. Implementation of POPIA compliance, including promoting POPIA awareness in the organisation is ongoing.

In line with POPIA, Harmony's appointed information officer is registered at the information regulator. This officer is responsible for managing all personal information and ensures compliance with this act.

For more, see: www.harmony.co.za/sustainability/governance#policies.

Broad-based Black Economic Empowerment Act

The annual compliance report in line with section 13G(2) of this act appears on pages 175 and 176.

Dealing in Harmony shares

During price-sensitive periods, our employees and directors are prohibited from dealing in Harmony shares. Written notice of these restricted periods is communicated to them by the group company secretary. In terms of regulatory and governance standards, directors, prescribed officers and the group company secretary are required to disclose any dealings in Harmony shares in line with the JSE Listings Requirements. The clearance procedure for directors, prescribed officers and the group company secretary to deal in Harmony shares is regulated by the company's policy on trading in shares and insider trading. This policy is reviewed every second year, and was updated in FY21.

Significant fines

Harmony paid no significant fines in any of its areas of operation. No actions were brought against it for anti-competitive behaviour or anti-trust or monopoly practices in FY22.

Foreign private issuers

New York Stock Exchange foreign private issuers, such as Harmony, must highlight any significant ways in which their corporate governance practices differ from those followed by United States domestic companies subject to the listing standards of the New York Stock Exchange.

A summary of these differences appears in our 2022 Form 20-F filed with the United States Securities and Exchange Commission on our website at: <https://www.harmony.co.za/invest/annual-reports>.

Remuneration governance

Attracting and retaining the required skills depends largely on the remuneration levels and practices in any business. It is therefore vital to ensure the group remunerates fairly, responsibly and transparently to support the achievement of strategic objectives and positive outcomes in the short, medium and long term. The board is supported in this area by the remuneration committee.

Extensive detail on group remuneration is provided in the **Remuneration report** in the **Report to shareholders 2022**.

Provision has been made in the notice of the 2022 annual general meeting for a non-binding advisory vote of shareholders on the remuneration policy and remuneration implementation report.

See the **Notice of AGM** in the **Report to shareholders 2022**.

Assurance and internal audit

The audit and risk committee oversees arrangements for assurance services and functions on behalf of the board to ensure these are effective in achieving the objectives of an enabling control environment and supporting the integrity of information for internal decisions and external reporting.

A combined assurance framework effectively covers the group's significant risks and material matters through a combination of internal functions and external service providers.

More information appears in the **Audit and risk committee: chairperson's report** in the **Report to shareholders 2022**.

Despite the output of the combined assurance framework, board members are expected to apply an enquiring mind, form their own opinion on the integrity of information and reports, and the degree to which an effective control environment has been achieved.

Internal audit plays an important part in the overall assurance approach and effectiveness of the assurance framework. The audit and risk committee oversees the internal audit function on behalf of the board.

External independent quality assessment

In FY19, the internal audit function underwent an independent quality review conducted by the Institute of Internal Auditors South Africa. The function was found to generally conform with international standards for the professional practice of internal auditing. No material findings were noted. The external quality assessment is performed every five years.

Legitimacy

Inclusive stakeholder engagement model

The board sets the direction for the group's approach to stakeholder relationships. An inclusive stakeholder engagement approach considers whether the legitimate needs, interests and expectations of all material stakeholders have been adopted.

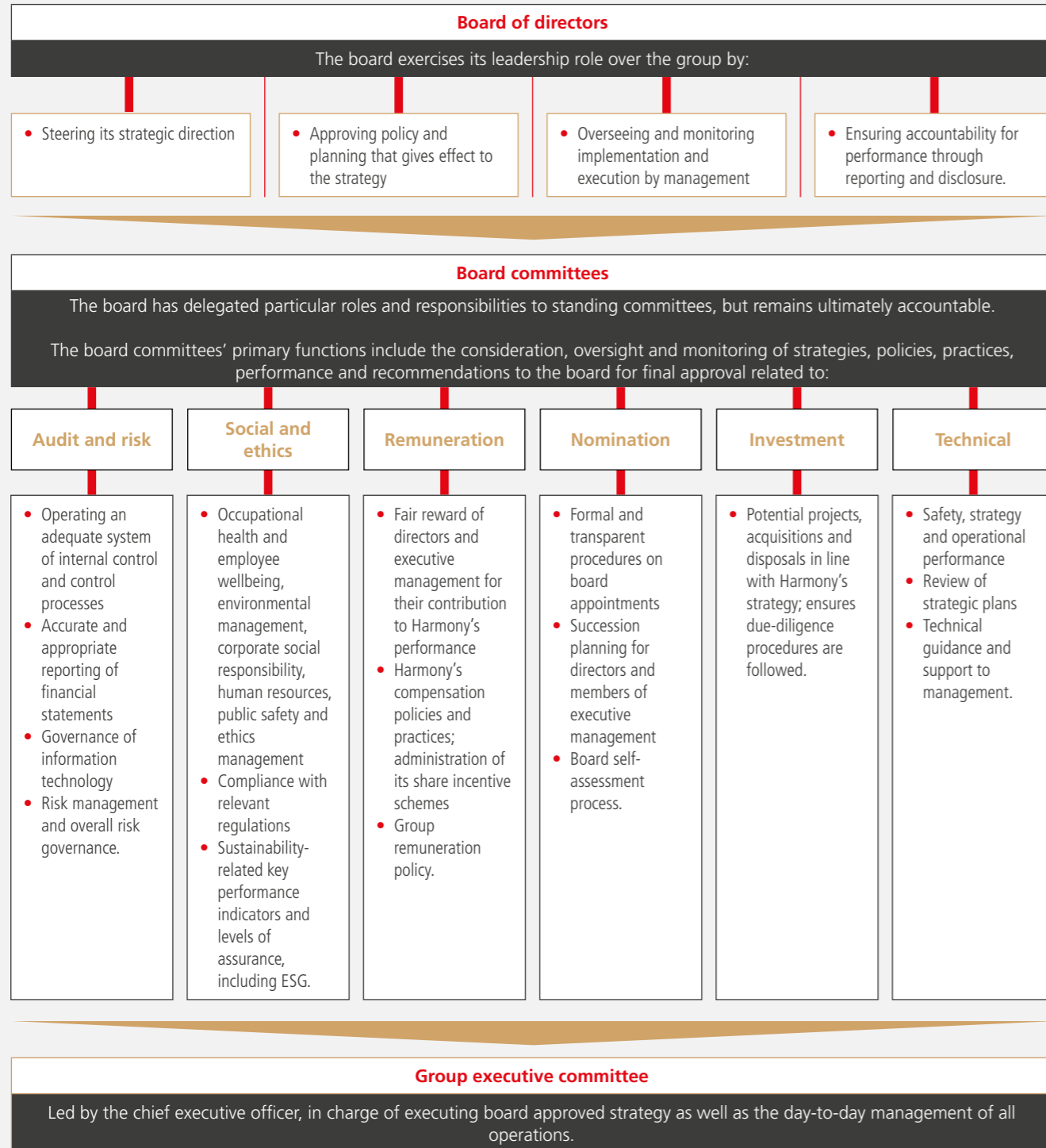
Information on material stakeholders and the manner in which relationships with stakeholders are managed, governed and monitored appears in **Stakeholder engagement**.

Shareholders are encouraged to attend the Harmony annual general meeting. The issued share capital of Harmony comprises ordinary and preference shares that have one vote per share. Details of the annual general meeting is set out in the **Notice of the 2022 annual general meeting** in the **Report to shareholders 2022**.

Corporate governance continued

Group organisational structure

The group is led and directed by a unitary board of directors that is guided by ethical leadership practices, supported by board and committee charters that are reviewed regularly. The group executive management team, headed by the chief executive officer, is responsible for leading implementation and execution of the board-approved strategy, policy and operational planning and governed appropriately in line with a formal delegation of authority framework.



See [Our leadership](#) section in the [Integrated annual report 2022](#) for more information on the board and executive management team.

Board composition, chairman, independence and meeting attendance

Board broader diversity

Diversity and transformation are key focus areas for the board. Harmony has adopted a promotion of broader diversity policy at board level, specifically focused on promoting the diversity attributes of gender, race, culture, age, field of knowledge, skills and experience.

The board is satisfied that its composition reflects the appropriate mix of knowledge, skills, gender, race, culture, age, experience and independence. In addition, the composition of the board and its leadership structure ensures there is a balance of power in the boardroom and that no one director has unfettered authority of decision making.

Board composition

The board has 14 highly experienced and reputable members: 11 are non-executive directors of whom nine are independent; three are executive directors; three are female and nine are historically disadvantaged persons.

The role and function of the board, including guidelines on its composition and procedures, are detailed in the board charter. This is reviewed regularly to ensure it remains relevant.

Brief profiles of board members appear in the [Our leadership](#) section in the [Integrated annual report 2022](#), with detailed résumés online.

Role of chairman

The chairman of the board, Dr Patrice Motsepe is a non-executive director but is not classified as independent. The board is satisfied that, following an assessment that was undertaken during the year under review, that the lead independent director, Dr Mavuso Msimang, meets the requirements for an independent director under the Companies Act, JSE Listings Requirements, King IV, and any other criteria evidencing objectivity and independence established by the board.

The duties of the chairman and lead independent director have been included in the board charter and are based on the recommendations of King IV. The roles of the chief executive officer and chairman are separate. In addition to the chairman and lead independent director, the board also has an independent non-executive deputy chairman, Ms Karabo Nondumo who was appointed on 18 August 2022 following the resignation of Mr Modise Motloba on 27 June 2022.

These appointments are reviewed annually and form part of the board's succession plan for the position of chairman, deputy chairman and lead independent director.

Guidance provided by King IV on the chairman's membership of board committees has been applied. The board chairman is only a member of the nomination committee, which is chaired by the lead independent director.

Assessing independence of directors with tenure of over nine years

The majority of non-executive directors are classified as independent and their independence has been reviewed by the nomination committee. The board appreciates that independence is primarily a state of mind and all board members, despite their categorisation, are expected to act independently and with unfettered discretion at all times. This expectation is confirmed in the board charter.

Following an assessment of Mr Joaquim Chissano who has served on the board for 17 years, Dr Mavuso Msimang (11 years) and Mr John Wetton (11 years) undertaken by the nomination committee during the year under review.

The committee is satisfied that these individuals do not have any relationships that may impair, or appear to impair, their ability to apply independent judgement. In addition, there are no interests, positions, associations or relationships which, from the perspective of a reasonable and informed third party, are likely to influence the members unduly or cause bias in their decision making.

The board thus concluded that the members demonstrated they were independent of mind and judgement, and had objectively fulfilled their roles as independent non-executive directors, despite their tenure on the board. The wealth of experience of these members, in addition to their standing as reputable individuals of integrity and character, makes their ongoing input and contribution an invaluable asset to the board and the group.

In line with the board composition transitional plan, the board (with the assistance of its nomination committee) continued to consider its composition, structure, size and independence, to align with best practice and with the board's broader diversity policy. Two of our longest serving board members, Ms Fikile De Buck and Dr Simo Lushaba, retired by rotation and did not seek re-election (although eligible) as of the conclusion of the 2021 annual general meeting. Mr Modise Motloba, having served on the board for since 2004, resigned effective 27 June 2022.

In addition, Mr Joaquim Chissano and Mr Andre Wilkens, who retire by rotation this year, although eligible, will not be seeking re-election to the board effective as of the conclusion of the 2022 annual general meeting.

For further detail refer to [Report to shareholders 2022](#).

Nomination, election and appointment

The nomination committee is tasked with identifying potential candidates for appointment to the board, while actual appointment is a matter for the board as a whole. The collective knowledge, skills and experience required by the board, as well as broader diversity, are all aspects considered by the board before appropriate candidates are identified for nomination. The nomination committee conducts the necessary independence checks and investigations on potential candidates, as recommended by King IV.

All new board members receive formal letters of appointment. In addition, they participate in an extensive induction programme to enable them to make the maximum contribution in the shortest possible time, and further receive, from Harmony's appointed JSE Sponsor, a formal explanation on the nature of their responsibilities and obligations arising from the JSE Listings Requirements. Ongoing mentorship is provided to members with no or limited governance experience and they are encouraged to undergo appropriate training. Provision has also been made in the board's annual work plan for regular briefings on legal and corporate governance developments, as well as risks and changes in the external environment of the group.

As required by the provisions of Harmony's memorandum of incorporation, a third of the non-executive directors are expected to retire by rotation at each annual general meeting of the company. The names and a brief profile of each of the directors standing for election/re-election members have been included in the **Notice of the 2022 annual general meeting** in the **Report to shareholders 2022**. The board is comfortable in recommending their reappointment to shareholders.

The role and function of the board, including guidelines on its composition and procedures, are detailed in the board charter, which is reviewed regularly to ensure it remains relevant and applicable.

Board performance evaluations

The board fully supports the thinking that an appropriate evaluation of the board and its structures is a strategic value-adding exercise that facilitates continual improvement of its performance and effectiveness. An independent formal self-evaluation process was undertaken in FY22. This included an assessment of the performance of the board, its chairman and individual members as well as committees, chief executive officer and group company secretary.

Overall, the self-evaluation reconfirmed that the board and its committees were considered:

- Highly effective
- Appropriately positioned to discharge their governance responsibilities
- Well supported by its committees
- Working as a cohesive unit and that the highest ethical standards are applied in deliberations and decision making, enabling the board to provide effective leadership from an ethical foundation.

The consensus among board members is that the chief executive officer:

- Communicates consistently and effectively with all Harmony's stakeholders
- Created and implemented an effective strategy, supported by management
- Demonstrates ethical and transparent leadership by living the company's culture and reinforcing its values.

Considering the outcome of the evaluation process, the board is satisfied that the process is improving its performance and effectiveness.

Conflicts of interest

Each member of the board is required to submit a general declaration of financial, economic and other relevant interests and to update these declarations as necessary. In addition, the declaration of interests in any matter on the agenda of a board or committee meeting is a standard item at the start of every meeting. In the event of a potential conflict being declared, the board proactively manages this conflict within the boundaries of the law.

Appointment and delegation to management

The board is responsible for appointing the chief executive officer on recommendation by the nomination committee. Harmony's chief executive officer, Mr Peter Steenkamp, is responsible for leading implementation and execution of the board-approved strategy, policy and operational planning, and serves as a link between the board and management.

He is accountable and reports to the board. He is not a member of the remuneration, audit or nomination committees. He does attend meetings of these committees as required to contribute insights and information.

Succession planning for this position forms part of the executive succession plan that is monitored on behalf of the board by the nomination committee. An emergency succession plan is also in place and reviewed annually.

A formal delegation-of-authority framework is in place and reviewed regularly by the board to ensure its appropriateness to the business. The delegation-of-authority addresses the authority to appoint executives who may serve as ex officio executive members of the board and to make other executive appointments.

Group company secretary

The group company secretary, Ms Shela Mohatla, is a full-time employee of Harmony who was appointed by the board on 14 August 2020. She is a chartered secretary by profession.

Her résumé appears on www.harmony.co.za/about/executive.

The board has direct access to the group company secretary who provides professional and independent guidance to the board as a whole and to members individually on corporate governance and legal duties. She also supports the board in coordinating the effective and efficient functioning of the board and its committees.

The group company secretary has unrestricted access to the board and, at all times, retains an arm's-length relationship to enhance the independence of the position. She is not a member of the board but, being accountable to the board, reports to the board via the chairman on all statutory duties and related functions.

To facilitate and enhance the independence and effectiveness of the group company secretary, the board ensures the office of the group company secretary is empowered and the position carries the necessary authority. The remuneration committee considers and approves the remuneration of the group company secretary on behalf of the board.

Following the assessment of the group company secretary by the board in August 2022, the board is satisfied that the group company secretary has the necessary competence, qualifications, experience, gravitas and objectivity to provide independent guidance and support at the highest level of decision making in the group.

The board is therefore satisfied that arrangements in place for accessing professional corporate governance services are effective.

Discharge of responsibilities

The board is satisfied that the committees properly discharged their responsibilities over the past year.

Furthermore, the board complies, to the best of its knowledge, with the Companies Act and its memorandum of incorporation, monitors such compliance on an ongoing basis and operates in conformity with its memorandum of incorporation.

Board and committee attendance

Name	Age	Appointed director	Independent	Attendance at committee meetings						Attendance at board meetings		
				Audit and risk [*]	Social and ethics [*]	Technical [*]	Investment [*]	Remuneration [*]	Nomination			
Non-executive directors												
Dr Patrice Motsepe (chairman)	60	2003**								3/4	4/4	100%
Ms Karabo Nondumo (deputy chairman)	44	2013		6/6	3/3(b)	6/7	6/7			2/2(c)	4/4	100%
Dr Mavuso Msimang (lead independent)	81	2011	✓		7/7					4/4	4/4	100%
Mr John Wetton	73	2011	✓	6/6	7/7		7/7	4/4			4/4	100%
Mr Vishnu Pillay	65	2013	✓			7/7	7/7	4/4	4/4		4/4	100%
Mr Joaquim Chissano	83	2005	✓		6/7		5/7				4/4	100%
Mr André Wilkens	73	2007				6/7	6/7	4/4			4/4	100%
Ms Given Sibiyi	53	2019	✓	6/6	3/3(b)						4/4	100%
Mr Peter Turner	66	2021	✓			7/7	7/7				4/4	100%
Mr Bongani Nqwababa	56	2022	✓	1/1(a)			n/a	n/a			n/a	n/a
Mr Martin Prinsloo	53	2022	✓	1/1(a)		n/a	n/a				n/a	n/a
Ms Fikile De Buck	62	2004	✓	3/3(d)	3/4(d)			2/2(d)	2/2(d)	2/2(d)	2/2(d)	100%
Dr Simo Lushaba	56	2002	✓	3/3(d)	4/4(d)		2/2(d)	2/2(d)		2/2(d)	2/2(d)	100%
Mr Modise Motloba	56	2004			5/7(e)	3/7(e)	4/7(e)			2/2(e)	3/4(e)	75%
Executive directors												
Mr Peter Steenkamp	62	2016									4/4	100%
Ms Boipelo Lekubo	39	2020									4/4	100%
Mr Harry Mashego	58	2010									4/4	100%

as at 30 June 2022

* Includes ad-hoc meetings for the year.

** Appointed chairman in 2004.

- Appointed as board members and members of audit and risk committee on 18 May 2022.
- Ms Karabo Nondumo was appointed as chairperson of the social and ethics committee and Ms Given Sibiyi was appointed as member of the social and ethics committee from 15 December 2021.
- Appointed member of the nomination committee on 15 December 2021.
- On 7 December 2021, Harmony announced the retirement of Dr Simo Lushaba and Ms Fikile De Buck as independent non-executive directors from 7 December 2021.
- On 28 June 2022, Harmony announced the resignation of Mr Modise Motloba as independent non-executive director from 27 June 2022.

Subsequent to 30 June 2022, Mr Bongani Nqwababa was appointed as chairperson of the investment committee and member of the remuneration committee. Mr Martin Prinsloo was appointed member of the technical and investment committees.

Board committees

The board has delegated particular roles and responsibilities to standing committees based on relevant legal requirements and what is appropriate for the group to achieve the objectives of delegation. The board recognises that duties and responsibilities can be delegated but accountability cannot be abdicated. The board, therefore, remains ultimately accountable.

The following committees have been established:

- Audit and risk
- Social and ethics
- Remuneration
- Nomination
- Investment
- Technical.

A brief description of each committee, its functions and key activities and actions in FY22 appears on the following pages.

The qualifications and experience of each committee member are included under **Our leadership** section in the **Integrated annual report 2022** and in the document **Board and management resumes** that is available online.

Terms of reference

Formal terms of reference have been adopted for each board committee and are reviewed annually (and when necessary) to ensure the content remains relevant. The terms of reference address, as a minimum, the recommended items in King IV.

The respective terms of reference appear on <https://www.harmony.co.za/policy/board-terms-of-reference/>.

Committee membership

In considering committee membership, the board, assisted by the nomination committee, is mindful of the need for effective collaboration through cross-membership between committees, where required. The timing of committee meetings is coordinated to facilitate and enhance the effective functioning and contribution of each committee. Duties and responsibilities are documented to clearly define the specific role and positioning of each committee on topics that may be within the mandate of more than one committee. Committee membership has also been addressed to ensure a balanced distribution of power across committees so that no person has the ability to dominate decision making and no undue reliance is placed on any one person.

The board is satisfied that each committee, as a whole, has the necessary knowledge, skills, experience and capacity to execute its duties effectively and with reasonable care and diligence. Each committee has a minimum of three members. Members of executive and senior management are invited to attend committee meetings as deemed appropriate and necessary for the effective functioning of the committee.

In FY22, the majority of members of all board committees remained independent non-executive directors. All board committees were chaired by an independent non-executive director, except for the technical committee, chaired by André Wilkens, and the investment committee (prior to 27 June 2022), chaired by Modise Motloba, both non-independent and non-executive directors. The board remains confident that their leadership as chairs of the technical and investment committees respectively is in the best interests of the company, based on their extensive knowledge of the specific areas of responsibilities of those committees.

Committee meetings

Any director who is not a member of a specific committee is entitled to attend meetings as an observer, but not entitled to participate without the consent of the committee chairperson. Such directors have no vote in meetings and will not be entitled to fees for attendance, unless specifically agreed by the board and provided for in the board fee structure as approved by shareholders. As part of the board induction process, Mr Bongani Nqwababa and Mr Martin Prinsloo attended various ad hoc committee meetings to further acclimate them to the Harmony board.

The board considers recommendations from its committees in matters requiring its approval, but remains responsible for applying its collective mind to the information, opinions, recommendations, reports and statements presented by the committees

The meeting attendance of each committee member is included under **Board and committee attendance** on page 151.

Audit and risk committee

Member	Committee tenure
J Wetton (chairperson)*	11 years
Karabo Nondumo	9 years
Given Sibiya	3 years
Dr Simo Lushaba**	19 years
Fikile De Buck***	2 years
Bongani Nqwababa^	<1 year
Martin Prinsloo^	<1 year

- * Appointed as chairperson on 15 December 2021.
- ** Retired as member and director on 7 December 2021.
- *** Retired as chairperson of committee and director on 7 December 2021.
- ^ Appointed as member on 18 May 2022.

Primary functions

- Monitors operation of an adequate system of internal control and control processes
- Monitors preparation of accurate financial reporting and statements in compliance with all applicable legal and corporate governance requirements and accounting standards
- Monitors risk management, ensures significant risks identified are appropriately addressed and supports the board in overall governance of risk.

Key activities and actions in FY22

For detail on actions in FY22, refer to the **Audit and risk committee: chairperson's report** in the **Report to shareholders 2022**.

Social and ethics committee

Member	Committee tenure
Karabo Nondumo (chairperson)*	<1 year
John Wetton	11 years
Mavuso Msimang	11 years
Joaquim Chissano	16 years
Given Sibiya^	<1 year
Fikile De Buck**	15 years
Dr Simo Lushaba***	3 years
Modise Motloba*	16 years

- * Appointed as chairperson on 15 December 2021.
- ** Retired as member and director on 7 December 2021.
- *** Retired as chairperson of committee and director on 7 December 2021.
- ^ Appointed as member on 15 December 2021.
- + Resigned as member and director on 27 June 2022.

Primary functions

- Oversees policy and strategies on occupational health and employee wellbeing, environmental management, corporate social responsibility, human resources, public safety and ethics management
- Monitors implementation of policies and strategies by executives and their management teams for each discipline noted above
- Assesses Harmony's compliance against relevant regulations
- Reviews material issues in each of the above disciplines to evaluate their relevance in the reporting period, and to identify additional material issues that warrant reporting, including sustainability-related key performance indicators and levels of assurance.

Key activities and actions in FY22

- Reviewed and recommended the social and ethics committee report to be included in the integrated annual report
- Reviewed and considered the social, economic, human capital, environmental, health and safety issues affecting the company's business and stakeholders
- Reviewed and considered the effect of the company's operations on the economic, social and environmental wellbeing of communities, as well as significant risks within the ambit of its responsibilities
- Considered its oversight role in terms of ESG and monitored ESG risks and opportunities
- Approved material elements of sustainability reporting and key performance indicators that were externally assured
- Considered and monitored the company's internal and external stakeholder relations
- Considered and approved Harmony's sustainable development framework and policy
- Considered and approved the company's preferential procurement strategy and policy
- Considered and approved the group stakeholder management policy
- Considered and approved its ethics management strategy and plan
- Considered the governance of ethics and ethical leadership
- Reviewed and recommended Harmony's decarbonisation strategy to the board for approval
- Reviewed and recommended the committee's terms of reference to the board for approval
- Considered its oversight role in terms of combatting corruption
- Attended a site visit at Mine Waste Solutions for a detailed update on the Kareerand tailings storage facility – focusing on environmental and social matters.

See **Social and ethics committee: chairperson's report**.

Remuneration committee

Member	Committee tenure
Vishnu Pillay (chairperson)*	5 years
Fikile De Buck**	11 years
John Wetton	11 years
Dr Simo Lushaba**	16 years
André Wilkens	14 years
Bongani Nqwababa^	<1 year

- * Appointed as chairperson on 11 May 2017.
- ** Retired as member and director on 7 December 2021.
- ^ Appointed as member on 17 August 2022.

Board committees continued

Primary functions

- Ensures directors and executive management are fairly rewarded for their contribution to Harmony's performance
- Assists the board in monitoring, reviewing and approving Harmony's compensation policies and practices, and administration of its share incentive schemes
- Operates as an independent overseer of the group remuneration policy and makes recommendations to the board for final approval.

Key activities and actions in FY22

For detail on actions in FY22, refer to the [Remuneration committee: chairperson's report](#) in the [Report to shareholders 2022](#).

- Reviewed benefits and remuneration principles for Harmony executive management
- Received and discussed a summary of the suite of Harmony executive management incentive schemes to obtain a holistic view
- Reviewed and recommended the committee's terms of reference to the board for approval
- Reviewed and recommended the company's incentive plan policy to the board for approval
- Reviewed and recommended the non-executive ad hoc fee policy to the board for approval
- Reviewed and recommended the non-executive travel policy to the board for approval
- Reviewed the company's overall retention strategy and policy based on global trends on staff retention
- Considered and recommended the remuneration policy and implementation report to the board for inclusion in the notice of annual general meeting for consideration by shareholders as non-binding advisory resolutions (see [Remuneration report](#) in our [Report to shareholders 2022](#))
- Reviewed executive directors and executive management's remuneration benchmarks and recommended their annual salary increases to the board for approval (see [Remuneration report](#) in our [Report to shareholders 2022](#))
- Reviewed the annual salary increases of the group company secretary and chief audit executive
- Reviewed non-executive director fees with the assistance of an independent service provider
- Considered and recommended the company's total incentive plan balanced scorecard for FY23 for board approval.

Nomination committee

Member	Committee tenure
Mavuso Msimang (chairperson)*	10 years
Dr Patrice Motsepe	19 years
Fikile De Buck**	11 years
Modise Motloba***	12 years
Vishnu Pillay	3 years
Karabo Nondumo^	<1 year

* Appointed as chairperson on 10 May 2018.

** Retired as member and director on 7 December 2021.

*** Resigned as member and director on 27 June 2022.

^ Appointed as member on 15 December 2021.

Primary functions

- Ensures procedures governing board appointments are formal and transparent
- Makes recommendations to the board on all new board appointments
- Reviews succession planning for directors and other members of the executive team and oversees the board's self-assessment process.

Key activities and actions in FY22

- Reviewed succession planning for directors and other members of the executive team and oversaw the board's self-assessment process
- Reviewed and recommended for re-election directors who retire by rotation in terms of the company's memorandum of incorporation
- Reviewed and made recommendations on the composition, structure and size of the board and its committees, in line with the board's policy on gender and race diversity
- Considered the positions of the chairman and deputy chairperson of the board and lead independent director and made recommendations to the board
- Reviewed and recommended the independence of non-executive directors (especially independent non-executives serving on the board for longer than nine years)
- Reviewed and recommended immediate and long-term succession plans for the board, chairman of the board, chief executive officer, executive management and the group company secretary
- Considered the programme in place for the professional development of directors and regular briefings on legal and corporate governance developments, risks and changes in the external operating environment of the organisation
- Considered and applied the policy on the promotion of broader diversity at board level, specifically focusing on the promotion attributes of gender, race, culture, age, field of knowledge, skills and experience on the appointment of Bongani Nqwababa and Martin Prinsloo. Their financial and investment expertise in the chemicals, mining and extractives industries, globally and nationally, adds value in executing on Harmony's strategic objectives and make a significant contribution to the development and growth of the company.

Investment committee

Member	Committee tenure
Bongani Nqwababa (chairperson)*	<1 year
Dr Simo Lushaba**	17 years
John Wetton	11 years
Karabo Nondumo	9 years
Modise Motloba***	3 years
Vishnu Pillay	9 years
André Wilkens	15 years
Joaquim Chissano	3 years
Peter Turner	2 years
Martin Prinsloo^	<1 year

* Appointed as chairperson on 17 August 2022.

** Retired as member and director on 7 December 2021.

*** Resigned as member and director on 27 June 2022.

^ Appointed as member on 17 August 2022.

Primary functions

- Considers projects, acquisitions and disposals in line with Harmony's strategy and ensures due diligence procedures are followed
- Conducts other investment-related functions designated by the board.

Key activities and actions in FY22

- Considered investments, proposals, projects and proposed acquisitions in line with the board's approved strategy and delegation of authority as well as the committee's terms of reference
- Considered the company's exploration expenditure
- Reviewed and recommended the budget and business plans for FY23
- Reviewed and recommended the committee's terms of reference to the board for approval
- Post-investment monitoring of recent acquisitions (Mponeng and Mine Waste Solutions)
- Attended a site visit for a detailed update on the safety interventions in the company
- Attended a site visit for a detailed update on the Target North exploration project.

Technical committee

Member	Committee tenure
André Wilkens (chairperson)*	14 years
Vishnu Pillay	9 years
Peter Turner	2 years
Modise Motloba**	3 years
Karabo Nondumo***	2 years
Martin Prinsloo^	<1 year

* Appointed as chairperson on 22 January 2008.

** Resigned as member and director on 27 June 2022.

*** Resigned as member on 15 December 2021.

^ Appointed as member on 17 August 2022.

Primary functions

- Provides a platform to discuss strategy, performance against targets, operational results, projects and safety
- Informs the board of key developments, progress against objectives and challenges facing operations
- Reviews strategic plans before recommending to the board for approval
- Provides technical guidance and support to management.

Key activities and actions in FY22

- Monitored safety across all operations
- Monitored exploration and Ore Reserves in South Africa and Papua New Guinea
- Monitored all South African and Papua New Guinean operations
- Considered and approved the company's health and safety policy
- Evaluated and considered Harmony's risks, and measures taken to mitigate those risks
- Reviewed and recommended to the board the company's annual budget and business plans for FY23
- Considered investments, proposals, projects and proposed acquisitions from a technical viewpoint
- Reviewed and recommended the committee's terms of reference to the board for approval
- Attended a site visit for a detailed update on the safety interventions in the company
- Attended a site visit for a detailed update on the Target North exploration project.

Supplementary information

We are committed to transparent and accurate reporting. We aim to go beyond compliance to continue building a profitable and sustainable company, guided by our purpose, that creates value for all stakeholders.



Mponeng Ice Plant.



Our reporting suite and supplementary information are available [online](#).

ESG data tables

For convenience, this section consolidates all data tables used elsewhere in this report.

Note: All figures for FY22 include a full year of data for Mponeng and Chemwes (Mine Waste Solutions) operations from October 2020 (only nine months reporting in FY21).

Environment

	FY22	FY21	FY20	FY19	FY18
Expenditure – environmental management (Rm)					
South Africa	301	247	126	169	157
Papua New Guinea	27	34	32	30	24
Group	328	281	158	199	181
Environmental incidents					
South Africa	4	6	1	2	3
Papua New Guinea	—	—	—	2	—
Group	4	6	1	4	3
Land rehabilitation liabilities (Rm)					
South Africa	5 752	5 559	3 038	2 884	2 919
Papua New Guinea	1 374	1 306	1 378	1 039	1 336
Group	7 126	6 865	4 416	3 923	4 255
Electricity purchased (000MWh)^{1,2,3}					
South Africa	4 190	4 020	3 051	3 209	2 458
Papua New Guinea ⁴	63	103	120	117	59
Group	4 253	4 123	3 171	3 326	2 517
Electricity purchased intensity (MWh/t treated)	0.08	0.08	0.12	0.13	0.11

¹ Increase in energy consumption driven by Harmony's acquisition of Moab Khotsong in FY19.

² Acquisition of Mponeng and Mine Waste Solutions operations from October 2020 (only nine months reporting in FY21).

³ Operational excellence programme started in May 2016.

⁴ PNG values updated to only reflect electricity purchase from bulk supplier.

	FY22	FY21	FY20	FY19	FY18
Energy consumption (000GJ)^{1,3}					
Electricity					
South Africa	15 085	14 472	10 985	11 554	8 850
Papua New Guinea	228	372	431	422	214
Group	15 313	14 844	11 416	11 976	9 064
Diesel⁴					
South Africa	470	449	351	416	332
Papua New Guinea	1 705	1 165	1 312	1 342	1 416
Group	2 175	1 614	1 663	1 758	1 748
Other sources (petrol and heating oil²)					
South Africa	239	215	16	17	12
Papua New Guinea	0.07	0.01	0.04	0.08	0.05
Group	239	215	16	17	12
Total group	17 727	16 673	13 095	13 751	10 824

¹ Annual DEFRA conversion factors used for Papua New Guinea and Technical guidelines for Monitoring, Reporting and Verification of GHG emissions by Industry for SA.

² Heating oil reported from FY21.

³ Acquisition of Mponeng and Mine Waste Solutions operations from October 2020 (only nine months reporting in FY21).

⁴ PNG internal energy consumption is accounted for under diesel.

	FY22	FY21	FY20	FY19	FY18
Energy consumption (000GJ)					
Regions					
Free State	5 384	5 420	5 358	5 740	5 902
Gauteng	6 324	5 528	2 904	3 020	2 853
North West	4 086	4 187	3 090	3 227	441
Papua New Guinea	1 933	1 537	1 743	1 764	1 630
Total	17 727	16 672	13 095	13 751	10 826
Electricity					
Free State	5 165	5 190	5 239	5 591	5 817
Gauteng	6 242	5 498	2 894	3 010	2 842
North West	3 678	3 784	2 852	2 953	191
Papua New Guinea	228	372	431	422	214
Total	15 313	14 844	11 416	11 976	9 064
Diesel¹					
Free State	107	118	108	137	73
Gauteng	78	27	9	9	10
North West	286	304	234	270	250
Papua New Guinea	1 705	1 165	1 312	1 342	1 416
Total	2 176	1 614	1 663	1 758	1 749
Other sources (petrol and heating oil)¹					
Free State	112	112	11	12	12
Gauteng	4	3	1	1	1
North West	122	99	4	4	—
Papua New Guinea	0.07	0.01	0.04	0.08	0.04
Total	238	214	16	17	13

	FY22	FY21	FY20	FY19	FY18
Energy consumption (000MWh)					
Electricity					
South Africa	4 190	4 020	3 051	3 209	2 457
Papua New Guinea	63	103	120	117	59 ⁴
Group	4 253	4 123	3 171	3 326	2 518
Total energy saved from energy efficiency and renewable	269	274	241	205	174
Total hydrocarbon consumption (Mlitres)					
Diesel	60	44	46	48	48
Petrol	0.5	0.6	0.5	0.5	0.4
Heating oil	5	5	n/a	n/a	n/a
Total	65	50	46	48	48
Diesel¹					
South Africa	131	125	97	116	92
Papua New Guinea	474	324	365	373	393
Group	605	449	462	489	485
Other sources (petrol and heating oil)¹					
South Africa	66.30	59.71	4.53	4.69	3.47
Papua New Guinea	0.020	0.004	0.011	0.022	0.013
Group	66.30	59.71	4.54	4.71	3.48
Total group	4 925	4 632	3 638	3 820	3 006
Energy consumption intensity (MWh/t treated)	0.08	0.09	0.14	0.15	0.13

¹ See footnotes under Energy Consumption (000GJ) above.

ESG data tables continued

Energy consumption (000MWh)	FY22	FY21	FY20	FY19	FY18
Electricity					
Free State	1 435	1 442	1 455	1 553	1 616
Gauteng	1 734	1 527	804	836	789
North West	1 022	1 051	792	820	53
Papua New Guinea	63	103	120	117	59
Total	4 254	4 123	3 171	3 326	2 517

Group carbon emissions (CO ₂ e tonnes) ¹	FY22	FY21	FY20	FY19 ²	FY18
Scope 1 breakdown by source					
Diesel	161 081	118 710	122 683	129 675	128 505
Explosives	2 862	2 731	2 412	2 294	2 135
Petrol	1 151	1 312	1 108	1 143	844
Heating oil	14 929	13 376	—	—	—
Total	180 023	136 129	126 203	133 112	131 484

% breakdown	FY22	FY21	FY20	FY19	FY18
Diesel	89	87	97	97	97
Explosives	2	2	2	2	2
Petrol	1	1	1	1	1
Heating oil	8	10	—	—	—
Total	100	100	100	100	100

Total emissions – scope 1, 2 and 3 (CO ₂ e tonnes)	FY22	FY21	FY20	FY19	FY18
Scope 1	180 022	136 129	126 203	133 112	131 484
Scope 2	4 568 246	4 251 053	3 315 672	3 192 750	2 442 256
Scope 3	1 065 167	870 851	570 235	532 704	439 551
Total	5 813 435	5 258 033	4 012 110	3 858 566	3 013 291

Accumulative scope 2 and scope 3 savings due to energy efficiency savings (tCO ₂ e)	FY22	FY21	FY20	FY19	FY18
Total	1 486 323	1 162 563	860 689	585 159	354 224

% breakdown	FY22	FY21	FY20	FY19	FY18
Scope 1	3	3	3	3	4
Scope 2	79	80	83	83	81
Scope 3 ³	18	17	14	14	15
Total	100	100	100	100	100

¹ Harmony has initiated a renewable roll-out plan which will include agreements like wheeling from IPPs. First phase roll-out planned FY23.

² The inclusion of Moab Khotsong for the full year – presents opportunities for operating efficiencies from FY19.

³ FY21 scope 3 value restated from 748 016 to 870 851 due to an update in calculation methodology in Chemwes (Mine Waste Solutions) sodium cyanide and caustic soda figures.

Group carbon emissions intensity (CO ₂ e tonnes/tonne treated)	FY22	FY21 ¹	FY20	FY19	FY18
Scope 1 intensity by source					
Diesel	0.003	0.0024	0.0050	0.0050	0.0057
Explosives	0.00005	0.0001	0.0001	0.0001	0.0001
Petrol	0.00002	0.00003	0.00004	0.00004	0.00004
Heating oil	0.00028	0.0003	n/a	n/a	n/a

Total scope 1, 2 and 3 emissions	FY22	FY21	FY20	FY19	FY18
Scope 1	0.0030	0.0030	0.0050	0.0051	0.0061
Scope 2	0.0800	0.0860	0.1304	0.1229	0.1090
Scope 3	0.0200	0.0150	0.0224	0.0205	0.0196
Total	0.1080	0.1070	0.1578	0.1485	0.1347

¹ A significant increase in tonnes treated with the inclusion of Chemwes (Mine Waste Solutions) has resulted in Harmony's carbon intensity improvement.

Emissions ¹	FY22	FY21	FY20	FY19	FY18
Oxides of nitrogen (NO _x)	25.10	47.34	13.42	7.58	4.10
Particular matter (TSP)	10.24	12.18	5.16	5.93	20.42
Sulphur dioxide (SO ₂)	14.61	1.97	0.31	0.31	0.38
Grand total	49.95	61.49	18.89	13.82	24.90

¹ Not all sites were sampled in FY21 as some samples were taken later in calendar year 2021. None of the samples in calendar 2021 detected SO₂.

Water use (000m ³) ⁴	FY22	FY21	FY20	FY19	FY18
Water used for primary activities	33 417	30 306	19 692	23 158 ¹	15 473
Potable water from external sources	21 190	19 468	14 576	15 933	12 646
Non-potable water from external sources	12 227	10 838	5 117	7 225	2 827
Surface water used	2 756	2 784	2 688	4 050	2 032
Groundwater used	9 470	8 054	2 429	3 175	795
Water recycled in process	88 599	83 392	60 325	48 512	40 435
Water discharge to surface sources ^{2,3}	3 839	3 618	3 164	2 677	3 004
Water used	29 577	27 526	16 607	20 904	12 973
Water consumption intensity (000m ³ /t treated)	0.62	0.62	0.77	0.89	0.69

¹ Increase in water use from FY19 due to the inclusion of Moab Khotsong.

² Due to operational issues and maintenance at Doornkop RO plant water is discharged into the Klipriver.

³ A Harmony-wide review of our water discharge streams was done and reporting control measures was updated.

⁴ Harmony's moisture in ore figures is part of our WDP reported figures.

Water use (000m ³)	FY22	FY21	FY20	FY19	FY18
Water for primary activities					
Free State	9 065	8 075	8 210	10 378	10 842
Gauteng	6 685	5 869	3 381	3 472	2 948
North West	15 736	14 379	6 281	7 481	324
Papua New Guinea	1 930	1 983	1 820	1 827	1 359
Total	33 416	30 306	19 692	23 158	15 473

Absolute potable	FY22	FY21	FY20	FY19	FY18
Free State	8 470	8 063	8 210	9 559	9 826
Gauteng	6 620	5 782	3 271	3 315	2 820
North West	6 100	5 622	3 095	3 060	—
Papua New Guinea	—	—	—	—	—
Total	21 190	19 467	14 576	15 934	12 646

Non-potable	FY22	FY21	FY20	FY19	FY18
Free State	595	12	—	819	1 016
Gauteng	65	87	110	157	128
North West	9 636	8 757	3 186	4 421	324
Papua New Guinea	1 930	1 983	1 820	1 827	1 359
Total	12 226	10 839	5 116	7 224	2 827

Materials used	FY22	FY21	FY20	FY19	FY18
Rock mined: ore and waste (000t) ¹	43 216	41 025	43 052	47 095	43 578
Tonnes treated (000t)	53 801	49 253	25 429	25 980	22 441
Waste rock recycled (000t)	7 683	10 405	6 383	6 575	3 690
Slimes recycled (000t)	36 891	29 568	10 247	9 992	9 772
Liquefied petroleum gas (t)	3	1	1	1	1
Grease (t)	524	552	424	426	121
Cyanide (000t) ²	64	49	23	23	23
Petrol and diesel (000l)	60 030	44 732	46 137	48 742	48 461
Lubricating and hydraulic oil (000l)	2 945	2 693	2 456	3 163	2 744

¹ FY21 rock mined value restated from 60 120 to 41 025 due to correction made by PNG operation for February 21 value reported, reporting control measures have been updated.

² Cyanide calculation was adjusted as Chemwes (Mine Waste Solutions) and Great Nologwa were reported differently.

ESG data tables continued

Waste generated ^{1,2}	FY22	FY21	FY20	FY19	FY18
Oils and grease					
Grease used (t) ³	524	552	424	506	426
Lubricating and hydraulic oil used (Ml)	3.0	3.0	2.5	3.2	2.7
Hydrocarbons recycled (000l)	698	527	813	978	n/a
Total general waste generated from operational salvage yards	20 470	12 485	8 241	10 621	7 098
Hazardous waste					
Tailings (Mt)	52	47	24	24	21
Waste rock deposited (Mt)	25	24	28	29	29
Hazardous waste to landfill (t)	803	524	250	399	344
Other waste (recycled, tonnes)					
Waste rock recycled (Mt)	7 683	10 405	6 383	6 575	3 690
Timber	2 727	3 121	1 868	2 377	1 085
Steel	8 889	8 739	5 863	7 765	5 699
Plastic	591	625	509	479	314
Certification and compliance					
Gold plants certified under Cyanide Code	7	6	6	7	6
% certified vs total gold plants	54	46	67	70	67
Operations with ISO certification	12	11	9	8	7
% with ISO certification	93	78	100	89	88

¹ Waste that have a significant waste-related impact.

² New Key Performance Indicator under GRI 306: Waste 2020.

³ FY19 and FY18 were changed to reflect the correct audited figures.

Cyanide management

Operation/plant	Cyanide-related incidents: Site level (no. incidents)	Release off-site requires response or remediation	Adverse effects on human health	Adverse effects to the environment	Required reporting under applicable regulations/code	Exceedances of applicable limits of Cyanide Code	Confirm if plant has ICMC certification (Yes or No)	Comments
Hidden Valley (Papua New Guinea) Kusasaletu plant	—	—	—	—	—	—	No	
Doornkop plant	—	—	—	—	Cyanide code	Exceedances were recorded and were as a result of higher Cyanide dosages to improve leach efficiency. Subsequent to the test Cyanide dosage was reduced to meet WAD Cyanide criteria	Yes	
Kalgold plant	—	—	—	—	—	—	No	
Noligwa Gold plant	—	—	—	—	Cyanide code	—	Yes	
Chemwes Mine Waste Solutions	—	—	—	—	—	—	No	
Kopanang plant	—	—	—	—	Cyanide code	—	Yes	
Mponeng Gold plant	—	—	—	—	—	—	No	
Savuka Gold plant	—	—	—	—	—	—	No	
Target plant	—	—	—	—	Cyanide code	None. Monthly samples are taken from the return water dams by the Environmental Department and weekly by the plant. Graphed results were reviewed and no values exceeding 50 mg/l WAD cyanide were noted. No wildlife mortalities have been recorded in the daily TSF reports since the last certification audit (this was further confirmed in the interview with the TSF supervisor) so it can be concluded that maintaining a WAD cyanide concentration of 50 mg/l or less is effective in preventing significant wildlife mortalities.	Yes	The information provided was obtained from the Sept 2020 ICMC recertification audit report which was posted on ICMC website.
Central plant	—	—	—	—	Cyanide code	Yes, the exceedances are noted and corrective actions are being investigated for restoration in WAD CN compliance levels.	Yes	Central Plant has opted to retain its ICMC registration, however, due to the non-conformance, Central Plant has not yet been recertified at this stage.
Saaiplaas plant	—	—	—	—	—	—	No	
Harmony One plant	—	—	—	—	Cyanide code	Yes, the exceedances were investigated, causes identified and corrective action implemented, resulting in restoration in WAD CN compliance levels.	Yes	
Joel plant (care and maintenance)	—	—	—	—	—	—	No	

ESG data tables continued

Employees

Safety and health

Safety	FY22	FY21	FY20	FY19	FY18
Loss of life					
Group	13	11	6	11	13
South Africa	13	11	6	11	13
Papua New Guinea	—	—	—	—	—
Fatal-injury frequency rate (per 1 million hours worked)					
Group	0.13	0.11	0.08	0.12	0.16
Lost-time injury frequency rate (per 1 million hours worked)					
Group	5.65	6.18	6.33	6.16	6.26
South Africa	5.90	6.46	6.69	6.48	6.67
Papua New Guinea	0.17	—	0.77	0.35	—

Health – South Africa

Health – South Africa	FY22	FY21	FY20	FY19	FY18
Absenteeism (total)	7.9	9.9	6.2	7.7	7.4
Health-related absenteeism (%)	7.9	8.0	6.2	7.7	7.4
Covid-19 impact	—	1.9	n/a	n/a	n/a

Tuberculosis

TB screening of employees and contractors	44 445	44 301	34 815	37 666	29 955
% of workforce	98.5	98	93	99	97
TB incidence rate (per 100 000 employees tested)	590	483	680	841	1 063
Number of TB cases confirmed	267	***	***	***	***

HIV/Aids

Employees identified as HIV-positive	10 582	10 593	9 125	8 947	8 108
Employees receiving antiretroviral therapy	9 595	9 328	7 980	8 024	6 938
Employees knowing their HIV status (including contractors) (%)	85	76	83	82	82
Employees receiving antiretroviral therapy (medically uninsured, excluding contractors) (%)	89	86	85	88	80
Employees receiving antiretroviral therapy will have viral suppression (medically uninsured) (%)	78	78	71	73	71
Employees on voluntary counselling and testing programmes (%)	92	***	***	***	***

Chronic diseases

Employees with a chronic condition*	24 728	21 612	19 294	18 924	16 247
Proportion of SA workforce (%)	69	61	61	61	59
Diabetes (%)	15	10	10	9	6
Hypertension (%)	34	32	33	34	34
HIV/Aids** (%)	43	49	47	47	50

Occupational health – South Africa

Heat					
Heat tolerance tests conducted	17 868	15 364	17 654	22 157	20 797
Heat-related cases reported	211	126	78	88	47

Noise

Early noise-induced hearing loss cases	226	217	230	272	446
Cases compensated	106	71	80	62	116
Employees with personalised hearing devices (%)	99.3	97.1	99.3	99.5	99.0
Contractor employees with personalised hearing devices (%)	86	74	88	86	84

Silicosis

Cases submitted	108	141	164	204	211
Cases certified	184	54	67	58	179

Health – Papua New Guinea

Health – Papua New Guinea	FY22	FY21	FY20	FY19	FY18
Health examinations conducted	15 539	11 489	20 452	17 601	15 198
Number of malaria cases	127	***	***	***	***
Employees treated for respiratory ailments	1 545	707	1 905	2 191	2 581

* Employees with more than one chronic disease are counted in each condition.

** From 2016, includes all HIV-positive people, not just those on treatment.

*** Data not measured for this period.

Employees

	FY22	FY21 ¹	FY20 ¹	FY19	FY18
Employee complement					
Harmony – total	47 373	48 112	39 582	39 773	40 686
Permanent	37 609	38 472	32 990	32 876	33 917
Contractors	9 764	9 640	6 592	6 897	6 769
South Africa – total	45 002	45 733	37 343	37 360	38 471
Permanent	35 989	36 873	31 502	31 201	32 520
Contractors	9 013	8 860	5 841	6 159	5 951
Papua New Guinea – total	2 306	2 314	2 182	2 413	2 215
Permanent	1 555	1 536	1 434	1 675	1 397
Contractors	751	778	748	738	818
Australia – total	65	65	57	—	—
Permanent	65	63	54	—	—
Contractors	—	2	3	—	—
Training and development					
People trained	65 238	49 346	31 533	29 345	30 395
South Africa	41 970	34 744	29 963	29 345	30 395
Permanent	33 410	***	***	***	***
Contractors	8 560	***	***	***	***
Papua New Guinea	23 260	14 596	1 570	***	***
Permanent	23 260	14 596	1 570	***	***
Contractors	—	—	—	***	***
Australia	8	6	—	***	***
Permanent	8	8	—	***	***
Contractors	—	—	—	***	***
Hours of training – total					
South Africa	2 299 336	2 071 384	1 780 056	1 920 016	1 768 360
Permanent	1 956 127	***	***	***	***
Contractors	343 209	***	***	***	***
Average training hours per employee	55	60	59	65	58
Expenditure on training (Rm)					
South Africa (includes permanent employees and contractors)	657	468	458	484	418
Papua New Guinea	4	20	24	—	—
Permanent	4	***	***	***	***
Contractors	—	***	***	***	***
Australia	0.14	0.09	—	—	—
Permanent	—	***	***	***	***
Contractors	—	***	***	***	***
Employees drawn from local communities (%)					
South Africa	82	78	76	79	75
Free State	82	***	***	***	***
Gauteng	83	***	***	***	***
North West	82	***	***	***	***
Papua New Guinea	98	97	96	96	96
Senior management drawn from local communities (%)					
South Africa	99	98	98	100	97
Papua New Guinea	22	1	—	—	—

¹ Total calculation errors on employee complement for FY21 and FY20.

*** Data not measured for this period.

ESG data tables continued

	FY22	FY21 ¹	FY20 ¹	FY19	FY18
Gender diversity					
South Africa					
% of workforce who are women	19	18	17	17	16
% of women in management	21	20	19	19	17
Australia					
% of workforce who are women	32	13	37	14	12
% of women in management	5	0.1	0.7	***	***
Papua New Guinea					
% of workforce who are women	17	14	14	***	***
% of women in management	11	10	7	***	***
Employees covered by collective bargaining					
South Africa	34 336	36 003	30 829	30 514	31 828
Papua New Guinea	—	—	—	—	—
Australia	—	—	—	—	—
South Africa only					
Employment equity					
Historically disadvantaged persons/South Africans in management (%)	67	65	64	62	60
Number attending critical skills training	96	83	81	109	106
Housing and accommodation					
Employees living in single rooms	8 057	8 547	8 008	8 019	6 739

¹ Total calculation errors on employee complement for FY21 and FY20.
 *** Data not available for this period.

Mining Charter III: Employment equity performance

	HDP (%)	Female HDP (%)
Board	57	21
Executive management	55	25
Senior management	59	28
Middle management	57	27
Junior management	68	19
Core and critical skills	72	n/a
People with disabilities	0.14	n/a

Communities

	FY22	FY21	FY20	FY19	FY18
Mine community development (Rm)					
South Africa	137.7	101.9	149.6	115.0	55.0
Free State					
SLP Mine Community Development Initiatives	29.8	34.9	60.7	31.4	14.8
Human resources development community initiatives	11.0	6.0	12.0	11.0	—
Corporate Social Investment (CSI)	1.0	2.9	0.2	1.0	1.4
Social Trusts Investment	4.3	—	—	—	—
Gauteng (West Rand)					
SLP Mine Community Development Initiatives	20.0	15.7	8.3	12.2	4.0
Human resources development community initiatives	24.3 ¹	8.0	4.0	7.4	—
Corporate Social Investment (CSI)	1.8	1.8	0.9	0.5	0.7
Social Trusts Investment	4.4	—	—	—	—
North West					
SLP Mine Community Development Initiatives	11.0	10.7	8.4	11.4	2.3
Human resources development community initiatives	9.0	1.0	16.0	13.3	—
Corporate Social Investment (CSI)	1.4	1.0	0.4	0.1	0.7
Social Trusts Investment	3.8	—	—	—	—
Investment in labour sending areas: (CSI and Social trust)	4.4	0.6	2.7	2.8	1.7
Leano Initiative	7.1	14.7	20.7	23.9	21.4
Other Corporate Social Investment – total (Rm)	4.6	4.6	27.5	12.1	9.4

¹ Includes R5.6 million for mine community development.

	FY22	FY21	FY20	FY19	FY18
Papua New Guinea					
Wafi-Golpu Project	1.5	4.4	11.0	12.7	1.7
Community Social Investment	1.5	4.4	11.0	12.7	1.7
Spend on Donations	—	—	—	—	—
Hidden Valley Mine (HVM)					
Mine Community Development initiatives	448.9	132.0	131.4	82.3	34.5
Royalties payments	—	29.8	38.0	—	—
HVM Trust	417.9	102.2	93.4	82.3	34.5
Donations	30.8	—	—	—	—
0.2	—	—	—	—	—
Procurement (Rbn)					
South Africa					
Total procurement spend	24.4	19.2	14.2	12.0	9.4
Total discretionary spend	14.3	10.7	7.7	8.5	6.4
Total spend in host communities	7.6	***	***	***	***
Preferential procurement (black-owned and BEE compliant spend)	11.2	7.9	5.6	6.3	5.1
Free State	1.5	1.2	0.8	1.1	1.0
Gauteng (West Rand)	7.6	5.5	3.8	4.0	3.1
North West	1.1	0.7	0.5	0.6	0.6
Other provinces	1.0	0.6	0.6	0.6	0.4
spend on >50% BO	5.4	5.1	3.3	2.7	1.9
spend on 100% BO	0.1	0.8	0.6	0.4	0.3
Papua New Guinea (Rm)					
Total spend	2 324	3 890	3 900	3 590	2 980
Local and Preferential Procurement: Hidden Valley					
Expenditure in country (rest of PNG)	2 273	2 958	3 300	3 300	2 700
Expenditure in Morobe Province	1 107	2 316	2 470	2 200	1 600
Expenditure with Landowner companies	558	489	697	1 100	1 100
Percentage spend in Morobe Province (%)	608	153	133	***	***
Local and Preferential Procurement: Wafi	51	11	13	***	***
Expenditure in country (rest of PNG)	51	6	7	***	***
Expenditure in Morobe Province	26	4	5	***	***
Expenditure with Landowner companies	24	1	1	***	***
Percentage spend in Morobe Province (%)	1	46	45	***	***
Impact on communities					
% of operations impacting local communities	100	100	100	100	100
% of operations with local community engagement programmes in place	90	90	100	100	100
Community complaints procedure/hotline in place (South Africa and Papua New Guinea)	Yes	Yes	Yes	Yes	Yes
Security					
Harmony personnel impacted in line of duty	—	—	—	—	—
Loss of life	—	—	—	—	—
Injuries	2	2	1	—	—
Number of employees trained on human rights policy	—	—	—	—	—
% of operations subjected to human rights assessments	10	10	10	10	10
Community members impacted by security interventions	—	—	—	—	—
Loss of life	—	—	—	—	—
Injuries	—	—	—	—	—
Number of sites where illegal and artisanal mining takes place	19	19	21	16	16
Number of strikes and lock-outs exceeding one month's notice	—	—	—	—	—
Number of incidences involving illegal mining (Arrest, deceased and sick illegal miners)	19	19	21	16	16
Number of loss of life resulting from illegal mining collusions	7 831	1 592	1 579	1 589	2 586
—	—	***	***	***	***

*** Data not measured for this period.

Governance

	FY22	FY21	FY20	FY19	FY18
Board of directors					
Number of members	14	15	18	17	15
Independent non-executives (%)	64	60	61	64	67
Non-executives (%)	14	20	17	18	13
Executive directors (%)	22	20	22	18	20
Independent board chairman	no	no	no	no	no
Lead independent director	yes	yes	yes	yes	yes
Board demographics					
HDP (%)	57	67	61	65	67
Women (%)	21	27	28	24	13
% of independent members by committee					
Audit and risk committee	100	100	100	100	100
Nomination committee	75	60	60	60	80
Shareholdings					
Controlling shareholder	no	no	no	no	no
CEO – total beneficial shareholding ²	772 589	746 085	512 000	512 000	512 000
Financial director – total beneficial shareholding ¹	15 988	3 581	—	1 142 010	747 817
Executive director – total beneficial shareholding	14 875	3 319	—	593	593
Auditors – tenure (years)					
PwC	72	71	70	69	68
Ngubane & Co	4	3	2	1	—
Executive director remuneration					
Linked to ESG	yes	yes	yes	yes ³	no
Proportion of remuneration linked to ESG performance (%) ⁴	20	20	20	20	—
Ethics					
Contribution to political parties (Rm) ⁵	1.7	10	*	*	*
Anti-corruption and complaints hotline in place	yes	yes	yes	yes	yes
Payments to government (Rm)					
South Africa					
Taxation and royalties paid	578	1 221	248	164	424
Paid on behalf of employees	2 956	2 214	1 800	2 100	1 260
Papua New Guinea					
Taxation and royalties paid	97	127	94	84	5
Paid on behalf of employees	173	198	175	207	210

¹ Mr Frank Abbott, resigned as financial director during March 2020 and Ms Boipelo Lekubo was appointed in his stead. The figures reflect the position of the Harmony financial directors' shareholding at 30 June.

² The number of shares have been restated for FY21 to include the minimum shareholding requirement.

³ New scheme in place since FY19.

⁴ FY22 is inclusive of 15% safety proportion of remuneration linked to ESG.

⁵ Refer to the governance section of this report for further information on political party contributions.

* Figures have been recorded and reported on from FY21.



Independent Auditor's Assurance Report on Selected Key Performance Indicators

To the Directors of Harmony Gold Mining Company Limited

Report on Selected Key Performance Indicators

We have undertaken an assurance engagement on the selected key performance indicators (KPIs), as described below, and presented in the Integrated Report of Harmony Gold Mining Company Limited ("Harmony") for the year ended 30 June 2022 (the Report). This engagement was conducted by a multidisciplinary team including assurance specialists with relevant experience in sustainability reporting.

Subject Matter

We have been engaged to provide a reasonable assurance opinion on the KPIs listed in table (a) and a limited assurance conclusion on the KPIs listed in table (b) below. The selected KPIs described below have been prepared in accordance with Harmony's reporting criteria that accompanies the sustainability information on the relevant pages of the Report (the accompanying Harmony reporting criteria).

(a) Reasonable assurance on the following KPIs:

Selected sustainability KPIs	Unit of measure	Scope of coverage
Environmental		
Electricity purchased	MWh	Corporate
Total Scope 2 Carbon Emissions	Tonnes	
Social		
Preferential Procurement	R million	Corporate
Local Economic Development	R million	
Human Capital		
Employment Equity	Percentage (%)	Corporate (SA only)
Health and Safety		
Lost time injury frequency rate	Rate	SA and PNG

(b) Limited assurance on the following KPIs:

Selected sustainability KPIs	Unit of measure	Scope of coverage
Environmental		
Total Scope 1 Carbon Emissions	Tonnes	Corporate
Total Scope 3 Carbon Emissions	Tonnes	
Water used for primary activities	m ³	
Absolute Potable water consumption (ML)	m ³	
Volumes of waste disposed	Tonnes	
Social		
Percentage of host community procurement spend	Percentage (%)	Corporate
Number of community grievances that are resolved	Number	
Corporate Social Investment (CSI) spend	R million	
Number of employees in single Harmony accommodation	Number	
Human Capital		
Critical skills training	Number	Corporate (SA only)
Health and Safety		
Number of silicosis cases confirmed	Rate	Corporate (SA only)
% people on voluntary testing and treatment	Percentage (%)	SA and PNG
Percentage close out of A hazard fatal risk controls findings	Percentage (%)	
Tailings dams >70% compliance on close-out of 3rd party audit findings	Percentage (%)	
World Gold Council Responsible Gold Mining Principles		
World Gold Council Principles Conformance -Year 2	Qualitative self-assessment	Corporate

Directors' Responsibilities

The Directors are responsible for the selection, preparation and presentation of the selected KPIs in accordance with the accompanying Harmony reporting criteria. This responsibility includes the identification of stakeholders and stakeholder requirements, material issues, commitments with respect to sustainability performance and design, implementation and maintenance of internal control relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error. The Directors are also responsible for determining the appropriateness of the measurement and reporting criteria in view of the intended users of the selected KPIs and for ensuring that those criteria are publicly available to the Report users.

Inherent Limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining, calculating, sampling and estimating such information. The absence of a significant body of established practice on which to draw allows for the selection of certain different but acceptable measurement techniques which can result in materially different measurements and can impact comparability.

Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgements. The precision thereof may change over time.

Where the information relies on the factors derived by independent third parties, our assurance work will not include examination of the derivation of those factors and other third-party information. It is important to understand our assurance conclusions in this context.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the *Code of Professional Conduct for Registered Auditors* issued by the Independent Regulatory Board for Auditors (IRBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)*.

Ngubane & Co (Jhb) Inc. applies the International Standard on Quality Control 1, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Auditor's Responsibility

Our responsibility is to express either a reasonable assurance opinion or limited assurance conclusion on the selected KPIs as set out in section (a) and (b) of the Subject Matter paragraph, based on the procedures we have performed and the evidence we have obtained.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised), *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board and the guidance

set out in the *Assurance Framework for the Responsible Gold Mining Principles* and the *Guidance on implementing and assuring the RGMPs: supplement to the Assurance Framework*. That Standard requires that we plan and perform our engagement to obtain the appropriate level of assurance about whether the selected KPIs are free from material misstatement.

The procedures performed in a limited assurance engagement vary in nature and timing and are less in extent than for a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

(a) Reasonable assurance

A reasonable assurance engagement in accordance with ISAE 3000 (Revised) involves performing procedures to obtain evidence about the measurement of the selected KPIs and related disclosures in the Report. The nature, timing and extent of procedures selected depend on the auditor's professional judgement, including the assessment of the risks of material misstatement of the selected KPIs, whether due to fraud or error.

In making those risk assessments we have considered internal control relevant to Harmony's preparation of the selected KPIs. A reasonable assurance engagement also includes:

- Evaluating the appropriateness of quantification methods, reporting policies and internal guidelines used and the reasonableness of estimates made by Harmony;
- Assessing the suitability in the circumstances of Harmony's use of the applicable reporting criteria as a basis for preparing the selected information; and
- Evaluating the overall presentation of the selected sustainability performance information

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our reasonable assurance opinion.

(b) Limited assurance

A limited assurance engagement undertaken in accordance with ISAE 3000 (Revised) involves assessing the suitability in the circumstances of Harmony's use of its reporting criteria as the basis of preparation for the selected KPIs, assessing the risks of material misstatement of the selected KPIs whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the selected KPIs. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Accordingly, for the KPIs where limited assurance was obtained, we do not express a reasonable assurance opinion about whether Harmony's selected KPIs have been prepared, in all material respects, in accordance with the accompanying Harmony reporting criteria.

The procedures we performed were based on our professional judgement and included inquiries, observation of processes followed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- Interviewed management and senior executives to obtain an understanding of the internal control environment, risk assessment process and information systems relevant to the sustainability reporting process;
- Inspected documentation to corroborate the statements of management and senior executives in our interviews;
- Tested the processes and systems to generate, collate, aggregate, monitor and report the selected KPIs;
- Performed a controls walkthrough of identified key controls;
- Inspected supporting documentation on a sample basis and performed analytical procedures to evaluate the data generation and reporting processes against the reporting criteria;
- Evaluated the reasonableness and appropriateness of significant estimates and judgments made by the directors in the preparation of the selected KPIs; and
- Evaluated whether the selected KPIs presented in the Report are consistent with our overall knowledge and experience of sustainability management and performance at Harmony.
- Performed site visits to assess whether conditions at the sites are consistent with reported data.

Conclusions

(a) Reasonable assurance opinion

In our opinion and subject to the inherent limitations outlined elsewhere in this report, the selected KPIs set out in section (a) of the Subject Matter paragraph above for the year ended 30 June 2022 are prepared, in all material respects, in accordance with the accompanying Harmony reporting criteria.

(b) Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained and subject to the inherent limitations outlined elsewhere in this report, nothing has come to our attention that causes us to believe that the selected KPIs as set out in section (b) of the Subject Matter paragraph above for the year ended 30 June 2022 are not prepared, in all material respects, in accordance with the accompanying Harmony reporting criteria.

Other Matters

Our report includes the provision of limited assurance on the KPIs: Tailings dams >70% compliance on close-out of 3rd party audit findings and Absolute Potable water consumption (ML). We were previously not required to provide assurance on these selected KPIs.

The scope of our work has been limited to the aforementioned KPIs. Our conclusions above cover only these indicators and not all indicators presented, or any other information included in the Report.

The maintenance and integrity of the Harmony's website is the responsibility of Harmony management. Our procedures did not involve consideration of these matters and, accordingly, we accept no responsibility for any changes to either the information in the Report or our independent assurance report that may have occurred since the initial date of its presentation on Harmony website.

Restriction of Liability

Our work has been undertaken to enable us to express either a reasonable assurance opinion or a limited assurance conclusion on the selected KPIs to the Directors of Harmony in accordance with the terms of our engagement, and for no other purpose. We do not accept or assume liability to any party other than Harmony, for our work, for this report, or for the conclusion we have reached.

Ngubane & Co (Jhb) Inc.

Suzan Dolamo
Registered Auditor
Director

25 October 2022

We discuss our performance against the mining charter throughout this report. The charter is focused on transformation of the South African mining industry as a whole by promoting equal access to and ownership, expanding business opportunities for historically disadvantaged persons (HDPs), redressing the imbalances of historical injustices and enhancing the social and economic welfare of employees and mine communities.

The mining charter is not a static document – it has been debated and revised a number of times, and is now in its third iteration (effective 2018 and known as Mining Charter III), Harmony will continue to work towards transformation because we believe this supports our social licence to operate.

The table summarises our performance against targets for each pillar for the calendar year to 31 December 2021 (the regulatory reporting period). Harmony considers itself to be subject to the Mining Charter. Harmony's status under the applicable Mining Charter is determinative of the applications lodged by Harmony for mining rights. The Broad-Based Black Economic Empowerment Act requires the Department of Trade and Industry to issue the Code of Good Practice on Broad-Based Black Economic Empowerment or sector codes to measure an entities black economic empowerment initiatives. The BBBEE Act and code do not require the DMRE to apply the BBBEE code when determining the qualification criteria for the granting of mining rights or the renewal of existing rights. The codes will only apply to mining companies if they wish to be scored for purposes of contract with organs of state. This means that unless Harmony wishes to be scored for the purpose of contracting with organs of state it is not obliged to obtain a BBBEE certificate.

Mining Charter III scorecard for 2021 (January – December)

	Measure	Target	Progress	Score	
1 Reporting					
	Has the company reported its level of compliance with the mining charter for the calendar year?	Report annually	Yes	✓	
2 Ownership					
	Minimum target for effective ownership by historically disadvantaged South Africans	Meaningful economic participation; full shareholder rights	26%	>30%	✓
3 Employment equity					
Diversification of workplace to reflect the country's demographics and attain competitiveness	Representation of historically disadvantaged persons	Board: 50%	62%	✓	
		Executive committee: 50%	50%	✓	
		Senior management: 60%	60%	✓	
		Middle management: 60%	55%	✗	
		Junior management: 70%	67%	✗	
	Representation of women	Core and critical skills: 60%	72%	✓	
		Board: 20%	23%	✓	
		Executive committee: 20%	25%	✓	
		Senior management: 25%	29%	✓	
		Middle management: 25%	25%	✓	
	Junior management: 30%	19%	✗		
	Employees with disabilities	1.5%	0.2%	✗	
4 Human resource development					
	Development of the requisite skills, particularly in exploration, mining, processing, technology efficiency, beneficiation and environmental conservation	Human resource development expenditure as percentage of total annual leviable amount (excluding mandatory skills development levy)	Invest 5% of leviable amount as defined in human resource development element in proportion to applicable demographics (employees and non-employees)	5%	✓
5 Mine community development*					
	Meaningful contribution towards mine community development in keeping with the principles of the social licence to operate	Implementations of approved commitments in the social and labour plan	100%	85%	✗
* Mine community development is reported according to Harmony's financial year, as agreed with DMRE. This report covers mine community development for the period July 2021 to June 2022.					

Mining Charter III – Compliance scorecard continued

Measure	Target	Progress	Score	
6 Procurement and enterprise development				
Total procurement budget spend on goods and services	Mining goods A minimum of 70% of total mining goods procurement spend must be spent on South Africa-manufactured goods sourced from BEE-compliant manufacturing companies. Excludes spend on utilities (electricity and water), fuels, lubricants and land rates	21% of total mining goods budget must be spent on South African-manufactured goods produced by 50% + 1 vote HDP-owned and controlled companies	45%	✓
		5% of total mining goods budget must be spent on South Africa-manufactured goods produced by 50% + 1 women and/youth-owned and controlled companies	5%	✓
		44% of total mining goods budget must be spent on South Africa-manufactured goods produced by at least level 4 BEE 25% + 1 compliant companies	67%	✓
	Services A minimum of 80% of total spend on services must be sourced from South Africa-based companies	65% of total services budget must be spent on South African companies that are 50% + 1 vote HDP-owned and controlled companies	51%	✗
		15% of total services budget must be spent on South African companies that are 50% + 1 vote women-owned and controlled companies	9%	✗
		5% of total services budget must be spent on South African companies that are 50% + 1 vote youth-owned and controlled	4%	✗
		10% of total services budget must be spent on South African companies that are at least at level 4 BEE + 25% + 1 compliant companies	67%	✓
	Research and development	A minimum of 70% of total research and development budget to be spent on South Africa-based entities	100%	✓
	Sample analysis	Use South Africa-based facilities or companies for analysis of 100% of all mineral samples across mining value chain	100%	✓
	7 Housing and living conditions			
Improve standard of housing and living conditions of mine employees	Implement all commitments in the housing and living conditions standard	100%	✓	

King IV checklist

King IV principle	FY22 ESG report – page numbers
Principle 1: The governing body should lead ethically and effectively	143 – 144
Principle 2: The governing body should govern the ethics of the organisation in a way that supports the establishment of an ethical culture	143 – 144
Principle 3: The governing body should ensure that the organisation is and is seen to be a responsible corporate citizen	144
Principle 4: The governing body should appreciate that the organisation's core purpose, its risks and opportunities, strategy, business model, performance and sustainable development are all inseparable elements of the value creation process	144
Principle 5: The governing body should ensure that reports issued by the organisation enable stakeholders to make informed assessments of the organisation's performance, and its short, medium and long-term prospects	145
Principle 6: The governing body should serve as the focal point and custodian of corporate governance in the organisation	144 – 147
Principle 7: The governing body should comprise the appropriate balance of knowledge, skills, experience, diversity and independence for it to discharge its governance role and responsibilities objectively and effectively	142; 148 – 150
Principle 8: The governing body should ensure that its arrangements for delegation within its own structures promote independent judgement, and assist with balance of power and the effective discharge of its duties	152 – 155
Principle 9: The governing body should ensure that the evaluation of its own performance and that of its committees, its chair and its individual members, support continued improvement in its performance and effectiveness	150
Principle 10: The governing body should ensure that the appointment of, and delegation to, management contribute to role clarity and the effective exercise of authority and responsibilities	150
Principle 11: The governing body should govern risk in a way that supports the organisation in setting and achieving its strategic objectives	145 – 146
Principle 12: The governing body should govern technology and information in a way that supports the organisation setting and achieving its strategic objectives	145 – 146
Principle 13: The governing body should govern compliance with applicable laws and adopted, non-binding rules, codes and standards in a way that supports the organisation being ethical and a good corporate citizen	145 – 146
Principle 14: The governing body should ensure that the organisation remunerates fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long term	147; 153 – 154
Principle 15: The governing body should ensure that assurance services and functions enable an effective control environment, and that these support the integrity of information for internal decision making and of the organisation's external reports	147; 169
Principle 16: In the execution of its governance role and responsibilities, the governing body should adopt a stakeholder-inclusive approach that balances the needs, interests and expectations of material stakeholders in the best interests of the organisation over time	147
Principle 17: The governing body of an institutional investor organisation should ensure that responsible investment is practiced by the organisation to promote the good governance and the creation of value by the companies in which it invests.	147; 80

ESG glossary

Term	Definition
A\$	Australian dollar
ADRs	American depository receipts
Ag	Silver
AMCU	Association of Mineworkers and Construction Union
Au	Gold
BEE	Black economic empowerment
BBBEE	Broad-based black economic empowerment
bn	Billion
By-products	Any products emanating from the core process of producing gold, including silver and uranium in South Africa and copper, silver and molybdenum in Papua New Guinea
Cash costs	Total cash costs include site costs for all mining, processing and administration, reduced by contributions from by-products and include royalties and production taxes. Depreciation, rehabilitation, corporate administration, retrenchment, capital and exploration costs are excluded. Total cash costs per ounce are attributable total cash costs divided by attributable ounces of gold produced
CDP	Carbon Disclosure Project: a not-for-profit entity that operates a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts, particularly in relation to climate change, water and forests
CEO	Chief executive officer
CO₂	Carbon dioxide: total emissions calculated as direct emissions generated from petrol and diesel consumption and indirect emissions generated from electricity consumption (expressed in tonnes)
CO₂e	Carbon dioxide equivalent: measurement of the impact of greenhouse gases in terms of the equivalent amount of carbon dioxide that would create global warming
COPA	Community of Practice for Adoption: a Mining Industry Occupational Safety and Health (MOSH) initiative that brings a group of volunteers together to solve challenges in implementing a Triggered Action Response Plan (TARP) as well as continuous performance improvements
Critical skills training	<p>The following disciplines are defined as core skills:</p> <ul style="list-style-type: none"> • Mining • Engineering • Ore Reserves • Metallurgy. <p>The critical skills within these disciplines are:</p> <ul style="list-style-type: none"> • Mining – general manager, mine manager and mining manager • Engineering – engineers and junior engineers • Ore Reserves – Ore Reserve management; head of department – geology survey and planning; section geologist/senior geologist; section surveyor/mine surveyor/senior shaft surveyor; section geostatistician/senior geostatistician (geological technician); section planner/senior planner; surveyors/geotechs • Metallurgy – plant manager and senior metallurgist.

Term	Definition
Cu	Copper
Cyanide Code	International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold: aims to promote responsible management of cyanide used in gold mining, to protect human health and to reduce potential for environmental impacts
dB(A)	A-weighted decibel
Depletion	Decrease in quantity of ore in a deposit or property due to extraction or production
Development	Process of accessing an orebody through shafts or tunnelling in underground mining
Discontinued operation	A component of an entity that has been disposed of or abandoned or classified as held for sale until conditions precedent to the sale have been fulfilled
EBITDA	Earnings before interest, tax, depreciation and amortisation
E-learning	Education using technology (computers, cell phones and the internet)
Electricity purchased (kWh)	Electricity purchased from the supplier during the reporting period includes all electricity purchased by source (fossil fuel, nuclear, hydroelectric, wind and solar, among others, but excludes electricity generated by an operation as well as electricity supplied to third parties (such as mine hostels/accommodation where cost is recovered from employees, communities and businesses)
Employment equity	<p>Employment equity is reported as a number and percentage of the total number of historically disadvantaged South Africans employed per band. For historically disadvantaged South Africans we refer to black people (African and Indian males and females) and white women. White males and foreigners (including those naturalised after the Department of Trade and Industry code date on March 1994) are excluded.</p> <p>Employment equity is measured in the bands C, D, E and F where:</p> <ul style="list-style-type: none"> • Top management (F band) • Senior management (E band) • Professionally qualified and experienced specialists/middle management (D band) • Skilled technical and academic qualified/junior management/supervisors/foreman/superintendents (C band) • Core and critical (C-E management levels in core disciplines).
Energy consumption	Energy use calculated from electricity purchased and diesel and petrol consumed during the reporting period
Environmental incidents	Only category 3-5 environmental incidents are reported on in this integrated annual report. A level 3 incident may result in either mitigation costs of between R250 000 and R500 000 or serious medium-term environmental effects, breaches in legislation and serious adverse media attention. A level 4 incident has a mitigation cost of more than R1 million with the possibility of significant fines or prosecution. A level 5 incident carries mitigation costs exceeding R3 million and a very significant impact on highly valued species, habitat or ecosystem with potential for international condemnation and possible director liability
ESG	Environmental, social and governance
ESOP	Employee share ownership plan
FIFR	Fatal injury frequency rate: a work-related injury resulting in loss of life, calculated as actual fatal injuries x 1 million hours worked (calculation for hours throughout Harmony for consistency to assume every person works nine hours per shift: actual shifts worked x 9)
Form 20-F	Annual report filed with the United States Securities and Exchange Commission in compliance with the listing requirements of the New York Stock Exchange

Term	Definition
FTSE Russell	The FTSE and Russell indices joined to provide global benchmarking, analytics and data solutions needed for investment decisions
FY	Financial year
g	Gram
Gold produced	Refined gold derived from the mining process, measured in ounces or kilograms in saleable form
Grade	Quantity of gold contained in a unit weight of gold-bearing material, generally expressed in ounces per short ton of ore (oz/t) or gram per metric tonne (g/t)
GRI	Global Reporting Initiative
GSSA	Geological Society of South Africa
GWh	Gigawatt hour
ha	Hectare
HDPs	Historically disadvantaged persons: This refers to South African-born black people (African and Indian males and females) and white women. White males and foreigners (including those naturalised after the Department of Trade and Industry code date on March 1994) are excluded
HIV/Aids	Human immunodeficiency virus/Acquired immune deficiency syndrome
Housing and living conditions	<p>(a) Conversion of operational hostels from sharing to single occupancy rooms: The number of employees who share a room in Harmony's company accommodation at active mining operations, and the number of employees who have single rooms in Harmony's company accommodation at active mining operations is calculated by comparing the total physical hostel design capacity (room numbers) versus the total number of hostel occupants. This gives the total average occupancy rate per hostel – an average of greater than one person for an active mining operation confirms that the occupant is sharing accommodation.</p> <p>(b) Conversion of non-operational hostels from single-sex units to family units known as community rental units (CRU): The number of family units is determined by the architectural design of the new structure, designed to create community rental units for both Harmony employees and members of the public.</p> <p>(c) Promoting home ownership: Company houses are sold to individual employees at special prices and other housing development initiatives are promoted or facilitated by Harmony.</p>
Hz	Hertz, being the measurement of the frequency of sound waves
ICMM	International Council on Mining and Metals
Indicated Mineral Resource	Part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information using appropriate techniques from outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but close enough for continuity to be assumed
Inferred Mineral Resource	Part of a Mineral Resource for which tonnage, grade resource and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from outcrops, trenches, pits, workings and drill holes that may be limited or of uncertain quality and reliability

Term	Definition
Interest cover	Earnings before interest and tax divided by finance costs and unwinding of obligations
ISO	International Organisation for Standardisation
ISO 14001	International Organisation for Standardisation's environmental management system specification
ISO 27001	International Organisation for Standardisation's family of standards to help keep information assets secure
ISO 45001	International Organisation for Standardisation's standard for occupational health and safety management systems
ISO 9000	International Organisation for Standardisation's family of standards for quality management systems
JORC	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
JSE	Johannesburg Stock Exchange
kg	Kilogram
King IV	King Report on Governance for South Africa, 2016
Km²	Square kilometre
KPIs	Key performance indicators
Ku-Riha	Project Ku-Riha (Tsonga for compensation), launched by government in May 2015, is being rolled out by the Department of Health to improve compensation for mineworkers who have occupational lung disease and to ensure that valid claims are paid speedily and efficiently
Land disturbed and land available for rehabilitation	Total land footprint disturbed less the land footprint used for ongoing or future mining activities where the footprint of disturbed area includes all buildings, roads and mining area that needs to be rehabilitated according to the Environmental Management Programme Report (EMPR); the area rehabilitated meets the required standard of the EMPR, final land use plans and only maintenance and monitoring is needed; and the land available for rehabilitation is the area used for ongoing or future mining activities
LED spend/community spend (in South African rand)	Local economic development project spend linked to the licence of each mine categorised in terms of: <ul style="list-style-type: none"> • bursary students • bursary graduates • training bridging school • training mining • training engineering • costs related to: <ul style="list-style-type: none"> – mine community projects – labour-sending area, projects in community not for mine employees – conversion of hostel into family units • procurement spend related to: <ul style="list-style-type: none"> – contractor compliance – black economic empowerment (BEE) procurement • corporate social responsibility.

Term	Definition
Live longer	Harmony's safety campaign – implemented as part of its comprehensive integrated safety risk management system and developed in terms of an exercise to benchmark best practice in the industry and an external audit of the company's safety performance and practice (a risk-based approach to safeguarding lives and saving mines, encompassing safety, health, the environment, communities and social risks, legal and regulatory risks, among others)
LTIFR	Lost-time injury frequency rate: a lost-time injury is a work-related injury that calls for medication, treatment, medical checks, reviews and subsequent days off work when injured employees cannot perform their assigned duties on the next scheduled work day or shift – calculated as actual lost-time injuries x 1 000 000/hours worked (calculation for hours throughout Harmony for consistency to assume every person works nine hours: actual shifts worked x 9)
m³	Cubic metre
M/m	Million or metre
Masoyise iTB	Launched by the government departments of Health and Mineral Resources, the four primary mining unions – Association of Mineworkers and Construction Union (AMCU), the National Union of Mineworkers (NUM), Solidarity and UASA – as well as the Minerals Council South Africa (then the Chamber of Mines) in December 2015 as a major tuberculosis (TB) screening campaign within South Africa's mining sector
Measured Mineral Resource	Part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from outcrops, trenches, pits, workings and drill holes. Locations are spaced closely enough to confirm geological and grade continuity
MHSC	Mine Health and Safety Council
Mine call factor	The ratio, expressed as a percentage, of the total quantity of recovered and unrecovered mineral product after processing with the amount estimated in the ore based on sampling
Mineral Reserve	The economically mineable material derived from a Measured and/or Indicated Mineral Resource. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a prefeasibility study for a project, and a life-of-mine plan for an operation, must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed. A Probable Mineral Reserve is the economically mineable material derived from a Measured and/or Indicated Mineral Resource. A Proved Mineral Reserve is the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence
Mineral Resource	A concentration or occurrence of material of intrinsic economic interest in/on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories
Mining Charter	Broad-based socio-economic empowerment charter for the South African mining industry which aims to promote the creation of an industry that reflects the promise of a non-racial South Africa. Mining Charter III was gazetted on 27 September 2018
MI	Megalitre
Mo	Molybdenum
MOSH	Mining Industry Occupational Safety and Health
MOU	Memorandum of understanding

Term	Definition
MPRDA	Mineral and Petroleum Resources Development Act, 28 of 2002
Moz	Million ounces
Mt	Million tonnes
MW	Megawatt
MWh	Megawatt hour
NERSA	National Energy Regulator of South Africa
NGOs	Non-governmental organisations
NUM	National Union of Mineworkers
NYSE	New York Stock Exchange
OHSAS 18001	Occupational Health and Safety Assessment Series' internationally applied standard for occupational health and safety management systems
Operating margin	Revenue less production costs expressed as a percentage of revenue
oz	Ounces
Pay limit	The grade of a unit of ore at which revenue from the recovered mineral content of the ore is equal to the total cash cost, including ore reserve development and stay-in-business capital. This grade is expressed as an in-situ value in grams per tonne or ounces per short ton (before dilution and mineral losses)
PGK	Kina, currency of Papua New Guinea
PNG	Papua New Guinea
PoPI Act (or POPIA)	Protection of Personal Information Act (No 4 of 2013)
Preferential procurement – BEE total spend (rand)	Procurement spend collected from the Harmony enterprise resource planning system's payment register, which is only the discretionary spend value spent with suppliers that hold a valid black economic empowerment (BEE) certificate, and comply with the minimum historically disadvantaged South African (HDSA) ownership of 25% or more – the reporting period for this key performance indicator was the 2017 financial year, and includes spend throughout the reporting period regardless of invoice date, aligned with the requirement of the revised Mining Charter of September 2010
Probable Mineral Reserve	Economically mineable part of an Indicated, and in some cases, a Measured Mineral Resource. It includes diluting materials and allowances for losses that may occur when the material is mined. Appropriate assessments and studies have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified
Productivity	An expression of labour productivity based on the ratio of grams of gold produced per month to the total number of employees in underground mining operations
Project capital	Capital expenditure to either bring a new operation into production; to materially increase production capacity; or to materially extend the productive life of an asset

Term	Definition
Proved Mineral Reserve	Economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses that may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified
R	Rand, currency of South Africa
RCF	Revolving credit facility
Reclamation	In South Africa, reclamation describes the process of reclaiming slimes (tailings) dumps using high-pressure water cannons to form a slurry that is pumped back to metallurgical plants for processing
RECONNECT	An initiative, launched in collaboration with Teba and based on the Department of Health's Project Ku-Riha, to trace former employees and assist in addressing the backlog in claims for occupational lung disease at the Compensation Commission for Occupational Injuries and Diseases
Reef of gold	A gold-bearing sedimentary horizon, normally a conglomerate band, that may contain economic levels
SA	South Africa
SACNASP	South African Council for Natural Scientific Professions
SAIMM	South African Institute of Mining and Metallurgy
SAMREC	South African Code for Reporting Exploration Results, Mineral Resources and Mineral Reserves
SARs	Share appreciation rights
Scope 1 carbon emissions (tCO₂e)	Direct combustion of fuel by the Harmony group (explosives, diesel and petrol)
Scope 2 carbon emissions (tCO₂e)	Scope 2 emissions calculated from electricity purchased (from the power utility excluding use by third parties) multiplied by the appropriate factor as indicated by the electricity supplier
Scope 3 carbon emissions (tCO₂e)	Indirect combustion by the Harmony group in line with scope 3 emissions in the following categories as indicated by the Greenhouse Gas Protocol: <ul style="list-style-type: none"> • Purchased goods and services • Capital goods • Fuel and energy-related emissions not included in scopes 1 and 2 • Upstream transportation and distribution • Waste generated in operations • Business travel • Employee commuting • Upstream leased assets • Downstream transportation and distribution • Processing of solid products • Use of sold products • Downstream leased assets • Franchises • End-of-life treatment • Investments.

Term	Definition
SDGs	Sustainable Development Goals. Developed by the United Nations, there are 17 such goals. They came into effect in January 2016 in support of the United Nations' 2030 Agenda which aims to: <ul style="list-style-type: none"> • end poverty and inequality • protect the planet • ensure that all people enjoy peace and prosperity.
Silicosis	The number of cases of pure silicosis confirmed by the Medical Bureau of Occupational Diseases in FY15 includes all cases received by Harmony, as confirmed during FY15, regardless of the date of the Medical Bureau of Occupational Diseases letter (cases including other conditions, specifically tuberculosis, are not included in this number)
Social and labour plans (SLPs)	Social and labour plans aimed at promoting employment and advancing the social and economic welfare of all South Africans while ensuring economic growth and socio-economic development as stipulated in the MPRDA
SOP	Standard operating procedure
Tailings/TSF	Tailings are finely ground rock of low residual value from which valuable minerals have been extracted. Discarded tailings are deposited and stored in tailings storage facilities (TSF)
TB	Tuberculosis
TCFD	Task Force on Climate-related Financial Disclosures. The task force, established in 2015 by the Financial Stability Board (FSB), will develop voluntary, consistent climate-related financial risk disclosures for use by companies to provide information to investors, banks, lenders and insurers. Increasing the amount of reliable information on financial institutions' exposure to climate-related risks and opportunities will strengthen the stability of the financial system, contribute to greater understanding of climate-related risks and facilitate financing the transition to a more stable and sustainable economy
Tonne/ton (t)	Metric = 1 000 kilograms/Imperial = 2 000 pounds (1 016 kilograms)
UASA	Formerly the United Association of South Africa, now known as UASA
US	United States of America
US\$	United States dollar
Volume of mineral waste disposed (tonnes)	Mineral waste consists of waste rock and slimes/tailings: <ul style="list-style-type: none"> • Waste rock refers to the amount of waste rock produced and/or hoisted to surface and placed on a waste rock disposal site during the reporting year • Slimes/tailings refers to the total amount of slimes/tailings produced by the processing plant during the reporting month.
Waste	Material with insufficient mineralisation for future treatment and discarded
Water used for primary activity (kilolitres)	The total make-up or new water drawn into the boundaries of the operation from all sources (including surface water, groundwater and municipal water supply or water utilities) for use for mining and processing-related activities including use by contractors (excludes internally recycled water, affected fissure water, water discharged to receiving environment and supply to third parties such as communities and businesses)
Weighted average number of ordinary shares	Number of ordinary shares in issue at the beginning of the year, increased by shares issued during the year, weighted on a time basis for the period in which they have participated in the income of the company, and increased by share options that are virtually certain to be exercised
Yield	Amount of valuable mineral or metal recovered from each unit mass of ore expressed as ounces per short ton or grams per metric tonne

Forward-looking statements

This report contains forward-looking statements within the meaning of the safe harbour provided by section 21E of the Exchange Act and section 27A of the Securities Act of 1933, as amended (the Securities Act), with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters.

These forward-looking statements, including among others, those relating to our future business prospects, revenues, and the potential benefit of acquisitions (including statements regarding growth and cost savings) wherever they may occur in this report and the exhibits to this report, are necessarily estimates reflecting the best judgement of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this report. All statements, other than statements of historical fact included in this report may be forward-looking statements. Forward-looking statements also often use words such as “will”, “forecast”, “potential”, “estimate”, “expect” and words of similar meaning. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances and should be considered in light of various important factors, including those set forth in this disclaimer. Readers are cautioned not to place undue reliance on such statements.

Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation:

- Overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere
- The impact from, and measures taken to address, Covid-19 and other contagious diseases, such as HIV and tuberculosis
- Rising inflation, supply chain issues, volatile commodity costs and other inflationary pressures exacerbated by the Russian invasion of Ukraine and subsequent sanctions
- Estimates of future earnings, and the sensitivity of earnings to gold and other metals prices
- Estimates of future gold and other metals production and sales
- Estimates of future cash costs
- Estimates of future cash flows, and the sensitivity of cash flows to gold and other metals prices
- Estimates of provision for silicosis settlement
- Increasing regulation of environmental and sustainability matters such as greenhouse gas emission and climate change, and the impact of climate change on our operations
- Estimates of future tax liabilities under the Carbon Tax Act (South Africa)
- Statements regarding future debt repayments
- Estimates of future capital expenditures
- The success of our business strategy, exploration and development activities and other initiatives
- Future financial position, plans, strategies, objectives, capital expenditures, projected costs and anticipated cost savings and financing plans
- Estimates of reserves statements regarding future exploration results and the replacement of reserves
- The ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, as well as at existing operations
- Fluctuations in the market price of gold and other metals
- The occurrence of hazards associated with underground and surface gold mining
- The occurrence of labour disruptions related to industrial action or health and safety incidents
- Power cost increases as well as power stoppages, fluctuations and usage constraints
- Supply chain shortages and increases in the prices of production imports and the availability, terms and deployment of capital
- Our ability to hire and retain senior management, sufficiently technically skilled employees, as well as our ability to achieve sufficient representation of historically disadvantaged persons in management positions or sufficient gender diversity in management positions or at board level
- Our ability to comply with requirements that we operate in a sustainable manner and provide benefits to affected communities
- Potential liabilities related to occupational health diseases
- Changes in government regulation and the political environment, particularly tax and royalties, mining rights, health, safety, environmental regulation and business ownership including any interpretation thereof
- Court decisions affecting the mining industry, including the interpretation of mining rights
- Our ability to protect our information technology and communication systems and the personal data we retain
- Risks related to the failure of internal controls
- The outcome of pending or future litigation or regulatory proceedings
- Fluctuations in exchange rates and currency devaluations and other macro-economic monetary policies
- The adequacy of the group's insurance coverage
- Any further downgrade of South Africa's credit rating
- Socio-economic or political instability in South Africa, Papua New Guinea and other countries in which we operate.

For a more detailed discussion of such risks and other factors, see **Our risks and opportunities** in the **Integrated annual report** and the company's Form 20-F which is on file with the Securities and Exchange Commission, as well as the company's other Securities and Exchange Commission filings. The company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events, except as required by law. All subsequent written or oral forward-looking statements attributable to the company or any person acting on its behalf are qualified by the statements above. The foregoing factors and others described under “Risk Factors” should not be construed as exhaustive. The forward-looking financial information has not been reviewed and reported on by the company's auditors.

Administrative and contact details

Harmony Gold Mining Company Limited

Harmony was incorporated and registered as a public company in South Africa on 25 August 1950
Registration number: 1950/038232/06

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KT Nondumo*^ (deputy chairman)
Dr M Msimang*^ (lead independent director)
PW Steenkamp** (chief executive officer)
BP Lekubo** (financial director)
HE Mashego** (executive director)
JA Chissano**^
B Nqwababa*^
VP Pillay*^
M Prinsloo*^
GR Sibiya*^
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Trading symbols

JSE: HAR

NYSE: HMY

ISIN: ZAE 000015228

Competent person's statement

The information in this report that relates to Mineral Resources and Mineral Reserves has been extracted from our Reserves and Resources statement published on 30 August 2022. Harmony confirms that it is not aware of any new information or data that materially affects the information included in the statement, in the case of Mineral Resources or Mineral Reserves, that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed. Harmony confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original release.