



INTEGRATED ANNUAL REPORT

2019



ABOUT THIS REPORT

Harmony's 2019 annual integrated report is for the financial year ending 30 June 2019 (FY19), covering all of our operations and activities in South Africa and Papua New Guinea, their impacts and most material concerns during this period. Significant events occurring after year-end and before the date on which this report was approved are also reported.

This integrated report provides a holistic view of the company. It includes information on our business model which explains how we create value, our strategy, operating context, risks, opportunities and material issues; and our governance, financial, operational and sustainable development performance. Our overarching governance framework guides all that we do, which is critical to ensuring and protecting value creation and delivery on our strategic objectives.

In this report, we provide balanced, accurate and accessible information to enable the reader to assess our performance over the past year and our ability to create value over time.

The focus of our integrated report is:

- External factors, material issues, risks and opportunities
- Performance – operational, financial, social, environmental and governance

Reporting frameworks, guidelines and standards considered in compiling this report and the ESG Report 2019 include:

- International Integrated Reporting Framework
- King Report on Corporate Governance for South Africa, 2016 (King IV)
- Global Reporting Initiative (GRI) Standards for sustainability reporting
- United Nations Sustainable Development Goals (SDGs)
- International Council on Mining and Metals – 10 principals
- United Nations Global Compact
- Voluntary Principles on Security and Human Rights
- JSE Listings Requirements
- World Gold Council's Responsible Mining Principles



Materiality

This report addresses those material issues, risks and opportunities that we consider do have, and most likely will have, a material impact on our performance and ability to deliver on our strategy and its objectives, and ability to create value in the short, medium and long term. In identifying these, we take into account our operating context as well as feedback from stakeholders.

Engagement with stakeholders and their primary concerns are key in determining these matters. For a better understanding of these, see *Stakeholder engagement*, *Our material ESG issues* and *Managing our risks and opportunities*, which should be read in conjunction with each other. We describe the context for the material issues and risks identified and explain how these issues are being managed.

This year, we have produced a separate ESG Report which provides the detail on our environmental, social and governance performance.

This integrated report is primarily aimed at investors and the providers of capital. Our separate ESG Report 2019 will be valuable to other stakeholders as well.

ESG: Environmental, social and governance

Glossary of icons

These icons are used throughout the report to indicate the following:

Our strategic pillars

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

Capital inputs

- Human and intellectual capital
- Financial capital
- Manufactured capital
- Natural capital
- Social and relationship capital

OTHER REPORTS

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

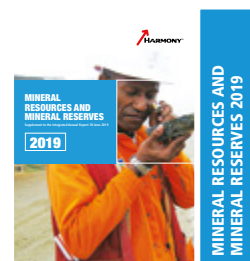
Global Reporting Initiative Scorecard

An index of the indicators reported in terms of the Global Reporting Initiative

Operations 2019

Detailed information on each operation

Our 2019 set of reports includes:



These reports together with other supporting documents are available online at www.har.co.za. Other additional information can be found at www.harmony.co.za.

DIRECTORS' RESPONSIBILITY for the Integrated Annual Report 2019

The Harmony board of directors has ultimate accountability for the integrity and accuracy of this integrated report. Having reviewed the report, the board, supported by the recommendations of the audit and risk committee and the social and ethics committee, confirms that this report addresses the most significant and material issues currently facing Harmony and that it presents a balanced, accurate and representative view of the company, its overall performance in the past financial year and of its future ability to create value.

The remuneration report was reviewed and approved by the remuneration committee.

The board approved this report on 24 October 2019.

Dr Patrice Motsepe
Chairman

Peter Steenkamp
Chief executive officer

Frank Abbott
Financial director

Fikile De Buck
Chairman: Audit and risk committee

Dr Simo Lushaba
Chairman: Social and ethics committee

Vishnu Pillay
Chairman: Remuneration committee



REFERENCE

A full glossary of terms is available on the website, www.har.co.za. Throughout this report, "\$" or "dollar" refers to US dollar, unless otherwise stated. "K" refers to kina, the currency of Papua New Guinea. "Moz" refers to million ounces and "Mt" refers to million tonnes. All production volumes are in metric tonnes (t), unless specifically stated as imperial tons.



OUR REPORTS ONLINE

Harmony's full set of 2019 reports and supporting documents are available at www.har.co.za.

The electronic reports are interactive pdfs, with links to sections within the document and to external websites. The interactive links are indicated by text in red italics.

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FEEDBACK

We welcome your feedback on these reports. Should you have any comments or suggestions on this report, contact our investor relations team at: HarmonyIR@harmony.co.za

CORPORATE PROFILE

WHO WE ARE

Harmony, a gold mining and exploration company, conducts its activities in South Africa and in Papua New Guinea, one of the world's premier new gold-copper regions. With 69 years of experience, Harmony is currently South Africa's largest gold producer.

Headquartered in Randfontein, South Africa, Harmony is listed on the Johannesburg Stock Exchange, our primary listing, and on the New York Stock Exchange, on which our shares are quoted as American Depositary Receipts. At 30 June 2019, our market capitalisation was R17.1 billion (US\$1.2 billion) (30 June 2018: R10.6 billion; US\$769 million).

OUR IMPACT

At Harmony, we understand the impact that our company has on the lives of the people we employ, the communities that surround our mines and the environment, as well as the economic contribution that we make to the countries in which we operate.

WHAT WE DO



Exploration and acquisitions

Exploring for and evaluating economically viable gold-bearing orebodies and/or value-accretive acquisitions



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



Sales and financial management

Generating revenue through the sale of gold produced and optimising efficiencies to maximise financial returns



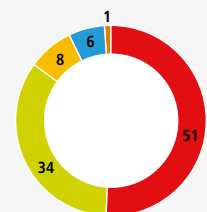
Stewardship and mine closure

Restoring mining impacted land for alternative economic use post-mining, having in place approved mine closure commitments and empowering communities and employees

SHAREHOLDERS

Our largest shareholder is African Rainbow Minerals Limited (ARM) which has a stake of 13.83% in the company. The remainder of our shareholders, which are geographically diverse, include some of the largest fund managers globally.

Geographic distribution of shareholders (%) as at 30 June 2019



- United States of America
- South Africa
- United Kingdom
- Europe
- Rest of the world

WHAT WE ACHIEVED IN FY19

- **17% increase** in production to **1.44Moz** of gold, contributed to a **23% increase** in production profit
- **2% increase** in underground recovered grade to 5.59g/t at South African mines
- **Operating free cash flow boosted** by Moab Khotsong and Hidden Valley
- **Hedging** strategy contributed to improved cash flow margins
- **19% increase** in headline earnings per share to 204 SA cents – 8% increase to 14 US cents
- **Included in** Bloomberg Gender-Equality Index 2019, and FTSE4Good Index
- **CDP Climate Change and Water** reports scored A- and B respectively

WHERE WE OPERATE

In South Africa, our nine underground operations are located within the world-renowned Witwatersrand Basin – one in the Klerksdorp goldfield, two in the West Rand and six in the Free State, in the southern portion of the Witwatersrand Basin.

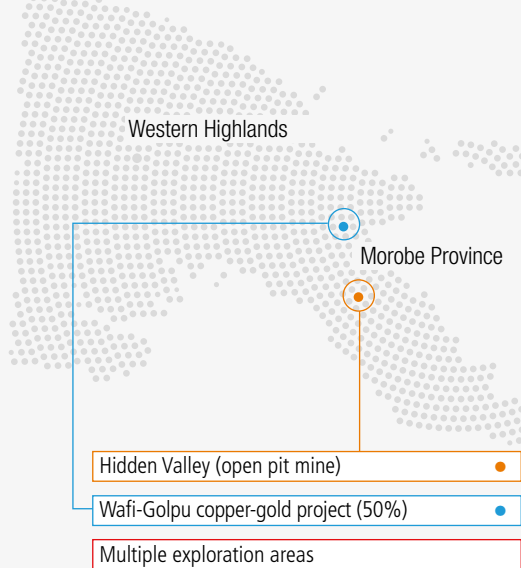
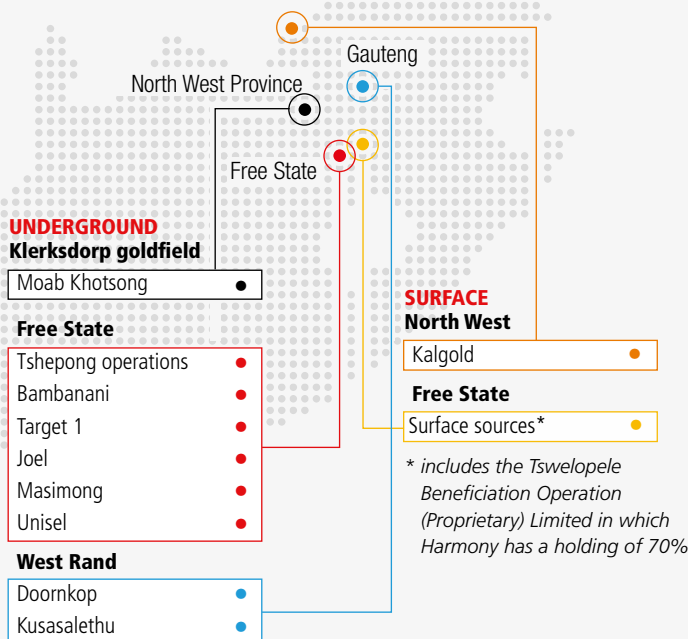
In addition, we have an open-pit mine on the Kraaipan Greenstone Belt as well as several surface treatment operations.

In Papua New Guinea, Hidden Valley is an open-pit gold and silver mine.

Our significant gold-copper portfolio includes a 50% stake in the Wafi-Golpu project in the Morobe Province, through a 50:50 joint venture with Newcrest Mining Limited (Newcrest).

SOUTH AFRICA

PAPUA NEW GUINEA



Harmony's equity interest 100% unless otherwise indicated

OUR VALUES



SAFETY
No matter the circumstances, safety is our main priority



ACCOUNTABLE
We are all accountable for delivering on our commitments



ACHIEVEMENT
Achievement is core to our success



CONNECTED
We are all connected as one team



HONESTY
We uphold honesty in all our business dealings and communicate openly with stakeholders

OUR BUSINESS MODEL

As a gold mining and exploration company, our activities in FY19 contributed to the production of 1.44Moz of gold. We are influenced by the external economic, political and social environment, both locally and globally. Our activities, in turn, have an impact on the economy, society and the environment in which we operate.

OUR VALUE PROPOSITION

Harmony aims to unlock, create and share value created by safely, cost effectively, profitably and sustainably extracting gold from our orebodies:



Investors

To deliver on our guidance and deliver consistently higher and sustained financial returns (share price appreciation) by ensuring responsible financial management and good governance



Employees

To provide employment and the opportunity to earn a living, develop skills and learn in a safe working environment



Communities

To share value created by investing in socio-economic projects and promoting preferential local procurement to stimulate growth and development in host communities, and by being environmentally responsible



Government

To contribute to the countries in which we operate by paying taxes and royalties



OUR STRATEGY

TO PRODUCE SAFE, PROFITABLE OUNCES AND INCREASE MARGINS

Our four strategic pillars are:



Operational excellence



Cash certainty



Effective capital allocation



Responsible stewardship

For further details see *Delivering on our strategy*



OUR BUSINESS ACTIVITIES AND PROCESSES

Exploration and acquisitions

Exploration, both greenfields and brownfields, together with acquisitions, are aimed at establishing a resource pipeline and asset portfolio to ensure Harmony's long-term sustainability.

Mining and processing

Gold-bearing ore is mined at our underground and open pit mining operations in South Africa and Papua New Guinea. Gold plants process the ore mined to extract the gold and produce doré. In South Africa, certain plants also retreat material from surface sources.

Sales and financial management

Revenue generated from the sale of the end products produced is efficiently managed and used to sustain operations, to fund organic growth, and is invested in long-term value creation.

Stewardship and mine closure

Our socio-economic and environmental stewardship responsibilities entail limiting, mitigating and managing the impacts of our activities, ensuring employee safety and responsible consumption, and having in place closure planning and rehabilitation that will enable sustained economic activity once mining has ceased.



OUR OPERATING ENVIRONMENT

FACTORS INFLUENCING DELIVERY ON OUR STRATEGY AND VALUE CREATION

What we can manage:

- Safety
- Grade and volumes mined
- Costs, efficiencies and productivity
- Stakeholder relations

What is beyond our control:

- Gold price
- Exchange rate volatility
- Regulatory, policy and political uncertainty
- Mounting community expectations and socio-economic challenges



SIGNIFICANT RESOURCES REQUIRED

Natural capital

- Essential inputs such as gold-bearing orebodies, land and water

Financial capital

- Provided by shareholders, investors and financiers

Human and intellectual capital

- Skilled, experienced and motivated employees, management and leadership
- Constructive employee relations
- Mining and processing technology employed
- Significant service providers and suppliers

Manufactured capital

- Exploration, mining and processing equipment and infrastructure
- Infrastructure and services, particularly power
- Mining rights, regulatory permits and licences – granted by national, provincial and local authorities

Social and relationship capital

- Social licence to operate – enabled by communities and non-governmental organisations
- Our reputation and relationships – particularly with key stakeholders (employees, communities, governments, and investors)



RISK MANAGEMENT

Identifying, understanding and managing our risks and opportunities are essential to delivery on our strategy and value creation.

Top 5 risks

- Safety
- Resource base depletion
- Gold price and foreign exchange fluctuations
- Rising costs and their impact on margins
- Maintaining licences to operate and cost of compliance

Top 5 opportunities

- Wafi-Golpu project permitting – moving up the value curve
- Gold price and foreign exchange fluctuations
- Productivity improvements
- New technology
- Mergers and acquisitions

Top 5 material ESG issues

- Ensuring safety and health of employees and communities
- Maintaining compliance despite political and regulatory uncertainty and ensuring ethical conduct
- Uplifting and enabling self-sustaining communities
- Maintaining our reputation and social licence to operate
- Managing our environmental exposures

OUR COMPETITIVE ADVANTAGE

- Positively geared to increases in gold price
- Uniquely skilled and experienced leadership teams, especially in sustaining and prolonging the operating lives of deep-level gold mines
- Extensive institutional knowledge of gold mining and related technology
- Partnerships with stakeholders

CREATING AND SHARING VALUE

Delivering on our strategic objectives and creating value depends firstly on our access to various resource inputs – the human, financial, natural, manufactured and social and relationship capitals – and on how we use and enhance them in the course of mining for and producing gold. The results of these activities, the **OUTPUTS**, determine the value created

GOLD PRODUCED

1.44Moz

(FY18: 1.22Moz)

WASTE* DEPOSITED

52.7Mt

(FY18: 50.8Mt)

* Tailings and waste rock

OUR OUTPUTS

TOTAL CO₂ EMISSIONS

3.9Mt

(FY18: 3.0Mt)

REVENUE GENERATED

R26.9bn

(FY18: R20.5bn)

Distribution of economic value created (%)



Total economic value distributed

R26.8bn

(FY18: R24.2bn)

■ Employees ■ Suppliers ■ Sustaining the business ■ Governments ■ Communities

HOW WE CREATED AND SHARED VALUE

	What we did FY19	Enhancing value created	Value created and economic value distributed FY19
ENVIRONMENT	<ul style="list-style-type: none"> Mined and processed 26Mt of gold-bearing ore, which generated waste of 53Mt Consumed 3.3 million MWh of electricity, resulting in 3.9Mt of CO₂e emissions Used 23 million m³ of water in primary activities 74 000ha of mining land under management <p>See <i>Environmental management and stewardship</i></p>	<ul style="list-style-type: none"> Actively working to minimise longer term environmental impacts and liabilities by: <ul style="list-style-type: none"> continuous ongoing rehabilitation (45 shafts rehabilitated in past eight years) initiatives to reduce and optimise energy consumed, especially that from non-renewable sources, and water consumption implementing targets to improve and monitor environmental performance 	<p>Responsible environmental stewardship</p> <ul style="list-style-type: none"> R199m spent on environmental activities Water, energy and emission intensities: <p>Energy intensity:</p> <ul style="list-style-type: none"> 0.13MWh/tonne treated <p>Total emissions intensity:</p> <ul style="list-style-type: none"> 0.1485 CO₂e tonnes/tonne treated <p>Water intensity:</p> <ul style="list-style-type: none"> 0.89 000m³/tonne treated
SOCIAL	<p>Employees</p> <ul style="list-style-type: none"> Employed 39 773 people, including contractors Invested in employee skills development and training (R484 million in South Africa) <p>See <i>Safety and health</i> and <i>Employee relations</i></p>	<ul style="list-style-type: none"> Roll-out of a proactive four-layered safety strategy – emphasis on preventing fatalities Ensuring employee safety and well-being, addressing occupational health diseases New employee relations policy and framework rolled out 	<p>Being a fair and responsible employer</p> <ul style="list-style-type: none"> R12.5bn paid in wages and salaries (FY18: R9.5bn and 40 686 respectively) <p>South Africa: R11.5bn (FY18: R9.4bn) Papua New Guinea: R1.1bn (FY18: R132m)</p>
	<p>Communities</p> <ul style="list-style-type: none"> Socio-economic development focused on uplifting communities – focus on infrastructure, agriculture, and educating, upskilling and enabling youth <p>Procurement:</p> <ul style="list-style-type: none"> In South Africa, total discretionary spend of R8.5bn with R3.2bn spent on electricity (FY18: R3.5bn and R2.3bn respectively) Contracts issued in Papua New Guinea to enhance localisation and local spend Began complying with Mining Charter III in South Africa <p>See <i>Socio-economic development</i></p>	<ul style="list-style-type: none"> Addressing mounting community expectations for economic participation through our socio-economic development projects Approved new preferential and enterprise and supplier development procurement strategy Promotion of preferential procurement Promoting enterprise development Third generation social and labour plans approved Community and employee trusts set up 	<p>Investing in self-sustaining communities</p> <ul style="list-style-type: none"> Invested R155m in social and economic projects and initiatives <p>South Africa: R139m (FY18: R70m) Papua New Guinea: R16m (FY18: R4m)</p> <p>Procurement:</p> <ul style="list-style-type: none"> In South Africa, 75% (R6.3bn) of total discretionary procurement was preferential procurement with black economic* empowerment entities
	<p>Governments</p> <ul style="list-style-type: none"> Ensured compliance with all regulations in the various jurisdictions in which we operate Delays in Wafi-Golpu permitting due to changes in the Papua New Guinean government <p>See <i>Exploration and projects</i></p>	<ul style="list-style-type: none"> Engaged with and maintained positive relationships with all levels of government in South Africa and Papua New Guinea 	<p>Payments to governments</p> <p>Paid taxes and royalties of R248m (FY18: R429m)</p> <p>South Africa: R164m (FY18: R424m) Papua New Guinea: R84m (FY18: R5m)</p> <p>Also paid personal income tax of R2.3bn on salaries and wages earned by employees (FY18: R1.5bn)</p> <p>South Africa: R2.1bn (FY18: R1.3bn) Papua New Guinea: R207m (FY18: R179m)</p>
GOVERNANCE	<p>Board oversaw delivery on our strategy – approved strategy and expenditure to sustain our business</p> <p>See <i>Chief executive's review, Financial director's report, Operating performance, Exploration and projects, and Corporate governance</i></p>		<p>Investing in sustaining our business and future growth</p> <p>Expenditure, as approved by the board, on future value creation and sustaining the business (that is total capital and exploration expenditure): R5.2bn (FY18: 4.7bn)</p> <p>South Africa: R3.2bn (FY18: R6.2bn) Papua New Guinea: R2.0bn (FY18: R1.9bn)</p>

* Black empowered entities defined as having a shareholding of 25% + 1 vote

CHAIRMAN'S LETTER

"The gold mining industry remains a key contributor to the South African economy."



Dr Patrice Motsepe – Chairman

Dear shareholders and stakeholders

I am pleased to report a 19% increase in headline earnings per share for the 2019 financial year (FY19).

Harmony delivered on its strategic growth objectives embarked on during the 2016 financial year, which were to:

- increase to an approximately 1.5 million ounce producer
- mine additional ounces at an all-in-sustaining cost of below 950 US\$/oz

The recently acquired Moab Khotsong operations and reinvestment in Hidden Valley increased gold production for the group by 33% since 2016, reduced all-in-sustaining costs and contributed significantly to our improved financial and operational performance.

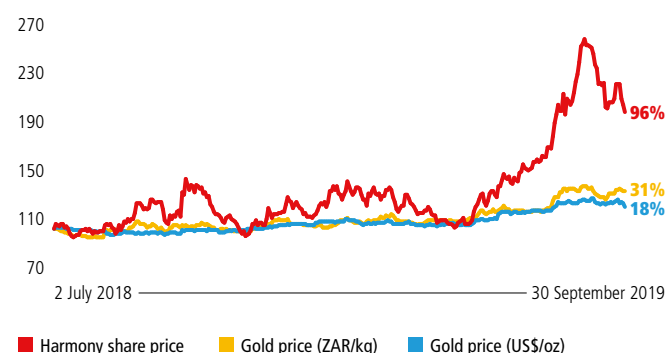
The growth we achieved in production volumes has positioned us well to benefit from a higher gold price, as reflected in the exceptional performance of our share price over the past 15 months.

Harmony's share price outperformed 80% of the major gold mining companies locally and abroad¹ as the share price increased from a low of R22.14 per share at the end of June 2018 to R43.30 per share at the end of September 2019. Harmony is a highly geared gold share and is well positioned to benefit from the uplift in the gold price.

We remain confident of gold's long-term fundamentals as a secure store of value.

¹ Peers include AngloGold Ashanti, Gold Fields, Sibanye-Stillwater, Centamin, Polyus, Newcrest, Kinross, Barrick, Newmont Goldcorp and B2Gold.
Source: Factset Research Systems Inc.

Price performance rebased to 100 as at 2 July 2018



Source: Factset Research Systems Inc.

The volatility in the gold price created the opportunity to hedge a portion of our gold production to increase our profit margin and strengthen our balance sheet. Our hedging programme contributed R477 million (US\$34 million) to the group's overall cash position during the 2019 financial year.

Further details of the company's operational and financial performance are provided in the *Chief executive's review* and the *Financial director's report*.

Maintaining a safe and healthy work environment

The safety and health of all our employees is our primary concern and our focus is to ensure that the work environment is safe. We are committed to ensuring that every employee goes home safe and healthy every day.

Harmony has the following strategic priorities to achieve a safe working place by focusing on:

- passionate and active leadership
- effective risk and critical control management
- effective safety management systems
- ongoing organisational learning
- proactive safety culture and an engaged workforce

Regrettably, 11 of our employees lost their lives at our mines during the year. I send my heartfelt condolences to their families, friends and colleagues.

We encourage employees to stop work when a workplace is considered unsafe. For further information in this regard, see the *Safety and health* section of this integrated annual report.

Silicosis and tuberculosis class action

In July 2019, the Johannesburg High Court approved an agreement settling the silicosis and tuberculosis class action lawsuit against gold mining companies². Harmony is party to establishing a trust that will assess and settle claims relating to silicosis and tuberculosis. We are proud to have played a part in finding a fair and just solution to the silicosis-related legacy challenges.

² Represented by Harmony, Gold Fields, African Rainbow Minerals, Anglo American SA, AngloGold Ashanti and Sibanye-Stillwater

Investing in our employees

Harmony provides work to approximately 37 400 employees in South Africa and 2 400 in Papua New Guinea. Our employees reside mainly in the communities neighbouring our mining operations.

We continue to build on the good relationships we have with our employees and contractors as well as the trade unions that represent them. In the financial year under review, Harmony invested R484 million (US\$34 million) in employee training and skills development in South Africa which included training in critical skills, hazard identification and risk assessment, mineral resource management, mining, technology efficiency, beneficiation and environmental conservation.

Harmony's commitment to host communities

We are committed to involve and to benefit the communities neighbouring our mines and to contribute to their development and growth. This is key to the long-term sustainability of our company.

In FY19, we invested R155 million on community development projects focused on infrastructure, enterprise development, agricultural job creation and participation by women and youth. We focused on the Welkom youth development centre and supported the development of small, medium and micro enterprises in informal communities.

Our community projects included rehabilitation of public roads in the Free State and implementing commercial agricultural programmes in South Africa and Papua New Guinea. For more information, we have included a detailed review on *Socio-economic development* in this integrated annual report and in our *ESG report 2019*.

Harmony paid R9.5 billion (US\$740 million) in salaries during the year, making a significant impact on the economic well-being of the host communities. We awarded 81 bursaries to deserving students studying at South African universities.

We also paid R248 million (US\$17 million) in taxes and royalties in South Africa and Papua New Guinea and spent R6.3 billion (US\$447 million) on local procurement.

Wafi-Golpu licensing update

Wafi-Golpu is a quality copper-gold ore body and tier one asset, which has the potential to contribute substantial benefits to all stakeholders. Licensing of the Wafi-Golpu project has been delayed due to a legal matter between the provincial and national governments of Papua New Guinea.

We are in contact with the provincial and national governments and are committed to finding a mutually beneficial solution. We will keep the market updated in this regard.

The South African gold mining industry

The gold mining industry remains a key contributor to the South African economy. It is a significant contributor to the country's economic growth and sustainable development.

In the 2018 calendar year, the gold mining sector contributed R48.1 billion to the South African Gross Domestic Product (GDP), and total gold sales amounted to R70 billion. The industry employs approximately 100 000 people and in 2018 paid R27.6 billion in employee wages, salaries and benefits³.

³ Statistics provided by the Minerals Council South Africa.

Harmony has successfully operated in South Africa for 70 years and will continue to invest in the country and its people. It is important that the South African mining industry continues to be globally competitive and attractive to domestic and international investment. We are a responsible and committed partner to our employees, host communities and all our other stakeholders.

Our commitment to the environment and its resources

Climate change poses one of the most serious threats to societies, economies and environments across the globe.

Our environmental initiatives focus on the responsible and efficient use of water and energy and on reducing carbon emissions. We continued with our rehabilitation processes, effected zero water discharge at many of our operations and linked our Papua New Guinea operation to hydropower.

See the *Environmental management and stewardship* section of this integrated report for more information.

Commitment to good governance

Our board, *inter alia*, approves our strategy and oversees its execution. The board also formulates and ensures that there are robust governance standards and that we conduct and operate our business ethically and in line with good global practice.

The range and depth of skills and expertise on our board has been invaluable as we navigate the current social, political, economic and environmental challenges and opportunities.

You can find more information in the *Corporate governance* section of this integrated annual report.

My gratitude

I wish to thank all our employees, our host communities and all other stakeholders for their support and cooperation during the past financial year.

I also extend my thanks to our chief executive officer, Peter Steenkamp and his management team for their leadership, hard work and contribution to the success and growth of Harmony.

Ms Grathel Motau and Ms Given Sibiyi were appointed to the board as non-executive directors during May 2019. Our board of directors remains committed to robust corporate governance and ethical conduct. I am grateful and value the guidance and advice provided by our directors.

I am confident that Harmony will build on the momentum achieved during this past year and will continue to create value for its shareholders and stakeholders.

Dr Patrice Motsepe
Chairman

24 October 2019

CHIEF EXECUTIVE'S REVIEW

"It is of paramount importance that every employee returns home each day – both safe and healthy."



Peter Steenkamp – Chief executive officer

The Harmony team delivered on our gold production market guidance for the fourth consecutive year.

Annual gold production and cash flows were boosted by the inclusion of a full year's production from Moab Khotsong and Hidden Valley. This is in line with our strategy to produce safe, profitable ounces and improve margins through operational excellence and value-accretive acquisitions.

The group achieved a 17% increase in gold production which totalled 44 734 kilograms (1.44Moz). Underground recovered grade increased by 2% to 5.59g/t, making this the seventh consecutive year of increasing grade.

SAFETY AND HEALTH

We tragically lost 11 employees during FY19. I wish to extend my heartfelt condolences to their families, colleagues and friends. Safety is my number one value and is also Harmony's. Our colleagues who lost their lives were – Tshelo Libate, Michael Plaatjies, Tsietsi Manoto, Mvuyisi Mayekiso, Mlamleli Mngqumeni, Mantlobo Phelane, Bernado Benedito Moiane, John Daniel Nell, Juan Frank Little, Andile Mqungquthu and Sennanyane Mashapha.

It is of paramount importance that every employee returns home each day – both safe and healthy. Together with each employee, I aim to ensure safe production, by preventing fatalities and embedding a robust safety and health culture in our organisation.

Harmony embarked on its safety improvement journey in FY16 to achieve global safety best practice and move towards a proactive and risk-based approach. We have adopted a four-layered risk management safety approach, rolled out the associated safety training, implemented new safety systems and put in place a secondary level safety assurance team. Our safety improvement journey will continue to entrench safe behaviour.

We have seen improvements in FY19. Harmony's group lost-time injury frequency rate improved to 6.12 per million hours worked (6.26 in FY18) and the group fatal injury frequency rate reduced to 0.12 (0.16 in FY18).

On 26 July 2019, the South Gauteng High Court approved the class action silicosis settlement agreement proposed between the Gold Working Group companies (including Harmony) and representatives of the claimants in the mineworkers' class action. We believe the settlement agreement is fair, and we remain committed to playing our part in its implementation.

For additional information, see [Safety and health](#).

OPERATIONAL REVIEW

South African operations

Harmony's South African operations achieved a 9% increase in gold production to 38 512 kilograms (1.24Moz), exceeding the previous year's production of 35 331 kilograms (1.14Moz). The underground recovered grade increased by 2% to 5.59g/t.

The first full financial year including Moab Khotsong in our portfolio resulted in 7 928 kilograms (254 891oz) of gold produced, contributing R745 million to our free cash flow and reducing the overall all-in-sustaining unit costs for the group.

Unfortunately, the performance of the Tshepong Operations was impacted negatively by a lack of flexibility because of the reduced availability of stoping panels to mine. As a result, gold production at the Tshepong Operations decreased by 1 427 kilograms (45 880oz) following a 10% decrease in recovered grade to 4.94g/t and a 6% decline in tonnes milled. Post year end we have already seen improvements in the mine's overall performance, following stoping development and improved overall mining and grade discipline.

Papua New Guinea

At Hidden Valley, commercial levels of production achieved in June 2018 were maintained during FY19. Safety, good operational momentum and disciplined cost management contributed to Hidden Valley achieving gold production of 6 222kg (200 042oz) and generating operational free cash flow of R573 million (US\$40 million) at a margin of 16%. Stripping of the cutbacks will continue for the next two and a half years, to deliver an average life of mine all-in-sustaining cost of below US\$950/oz.

The licence for the Wafi-Golpu project was delayed with the election of a new prime minister by the Papua New Guinea Parliament. The licensing delay compelled the Wafi-Golpu Joint Venture to defer and revise the planned work programme, which had previously been scheduled to begin this calendar year.

The Papua New Guinea Government continues to signal its support for the project, and the Wafi-Golpu Joint Venture is well placed to resume discussions with the Government given the constructive progress already made on the various agreements required to complete the licensing process and the grant of a special mining lease. It is difficult to estimate the duration of this delay and the market will be advised when discussions resume.

Harmony and Newcrest Mining Limited each currently own 50% of Wafi-Golpu through the Wafi-Golpu Joint Venture. The State of Papua New Guinea retains the right to purchase up to 30% equity interest in any mineral discovery at Wafi-Golpu, at any time before the start of mining.

OUR PEOPLE

Our employees are integral to Harmony achieving its business objectives. We provide training and development; promote fair labour practices for employees and contractors; and encourage local employment opportunities to ensure employees are motivated and productive. We aim to provide opportunities for each employee to develop to their full potential.

The employee relations environment was stable during this financial year. For more employee-related initiatives, refer to *Employee relations*.

MINING CHARTER

Harmony welcomes publication of Mining Charter III and broadly supports its intentions and content. This Charter provides a better balance between the mutually reinforcing concepts of promoting competitiveness and transformation. However, we remain concerned about some key issues, in particular, provisions regarding previous empowerment transactions, mining right renewals and transfers of these rights. As a member of the Minerals Council South Africa, we continue to participate in discussions to resolve these outstanding issues.

Harmony is fully compliant with the 2014 Mining Charter targets and we have exceeded the 26% ownership requirement. Refer to the *Mining Charter II – compliance scorecard*.

ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE

We have substantially reduced the size of our operating footprint, and its environmental impacts, by completing the closure of no fewer than 45 shafts in South Africa. In FY19, we turned more of our mining land over to farming and reduced our electricity and consumption of potable water – the latter, in part, through the construction of three water recycling plants. Testimony to our belief in the importance of “taking people along with us”, we increased our social spend in South Africa by 47%.

Harmony was recognised externally for its contribution to conserving the environment, embracing social projects and embedding strong governance (ESG) principles. Harmony is a component of the FTSE4Good Index and the Bloomberg Gender-Equality Index, and the Carbon Disclosure Project rated us A- for climate change and B for water.

LOOKING AHEAD

We continue to focus on margin improvement through organic growth, acquisitions, cost containment and an increase in production. In FY20, we plan to produce 1.46Moz of gold at an all-in sustaining cost of R579 000/kg.

Global economic risks, combined with an evolving worldwide gold mining industry, support higher gold prices. With most of our gold production being unhedged, the current gold price rally materially supports our cash flows.

CONCLUSION

Harmony's people work as a team in progressing our business. Everyone has played their part, and to all I extend my sincere thanks. I extend my sincere appreciation to our chairman, Dr Patrice Motsepe, and the board, for providing me with invaluable support during this past year.

Peter Steenkamp
Chief executive officer
24 October 2019

DELIVERING ON OUR STRATEGY

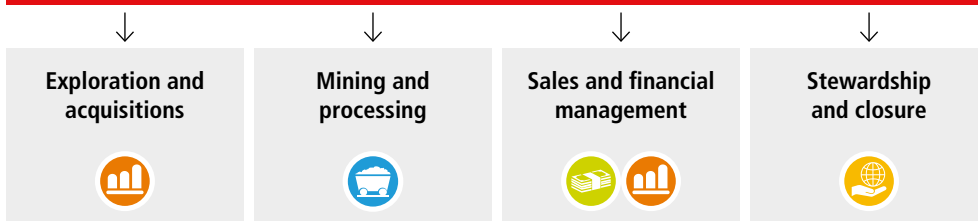


OUR STRATEGY

To produce safe, profitable ounces and increase our margins

DELIVERING ON OUR STRATEGIC PILLARS

OUR CORE ACTIVITIES AND STRATEGIC PILLARS AFFECTED:



STRATEGIC PILLARS AND RELATED RISKS AND OPPORTUNITIES:



PILLAR



Operational excellence



Cash certainty



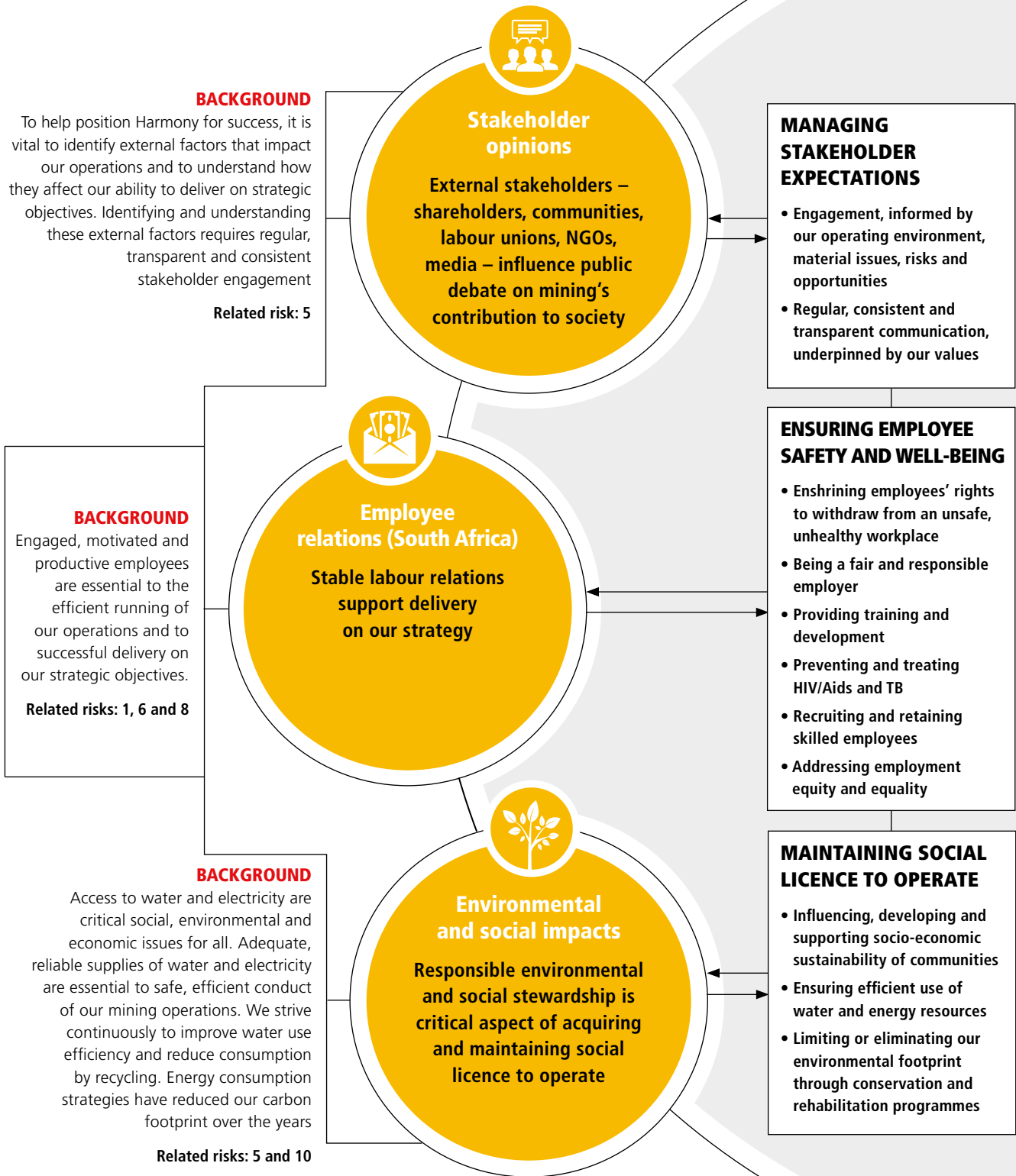
Effective capital allocation



Responsible stewardship

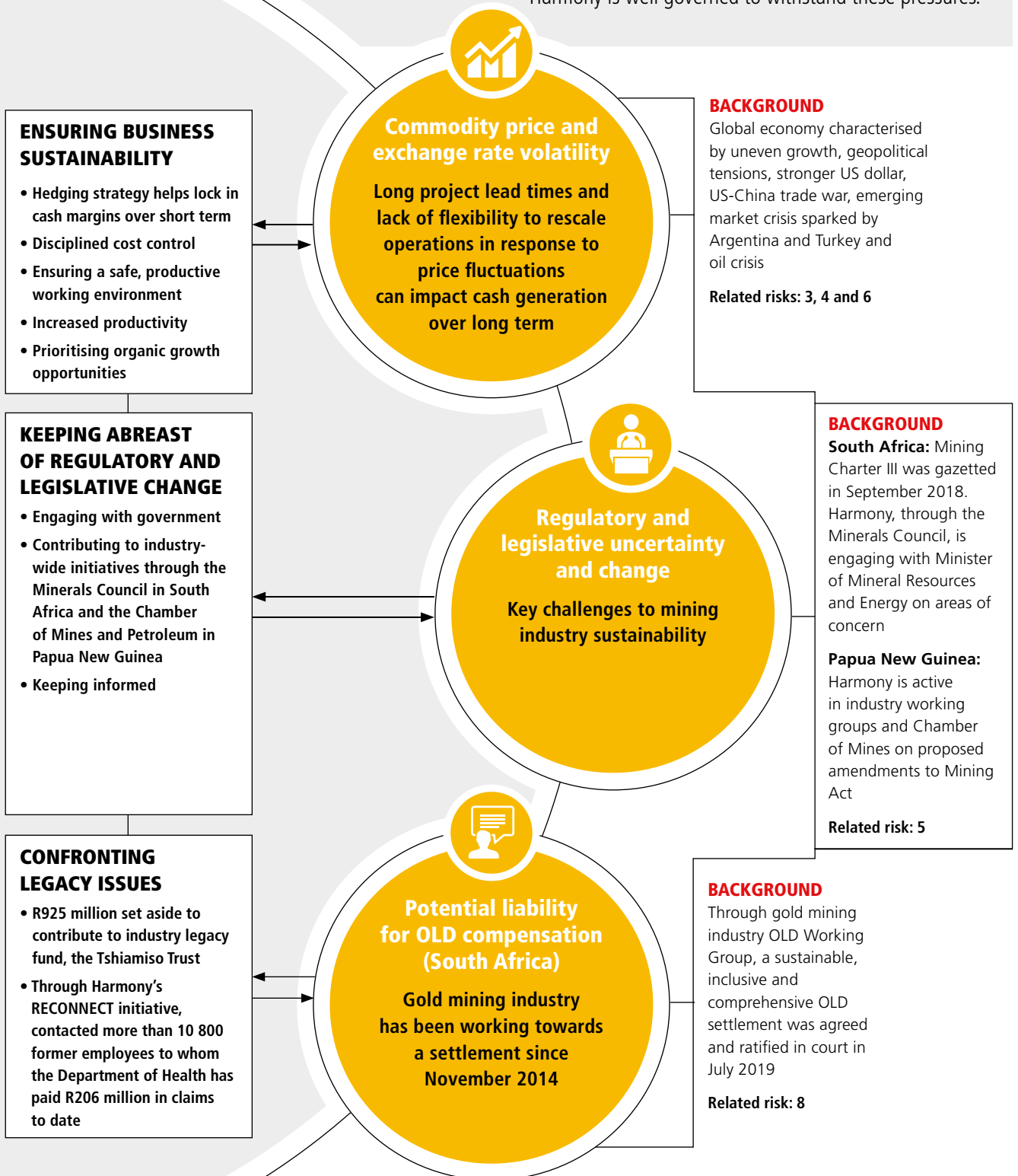
AIM	FY19 – WHAT WE DID	FY20 – WHAT WE PLAN
<p>To prioritise safety, strict cost control and management of grades mined, together with disciplined mining, to improve productivity and efficiencies</p>	<ul style="list-style-type: none"> • Our emphasis on safety performance contributed to an improved lost-time injury frequency rate. Despite this improvement, there were tragically 11 fatalities • Increased production and underground grade mined • Firm cost management contains increase in rand terms and improves costs in US dollars 	<ul style="list-style-type: none"> • To embed a proactive safety culture • To maintain our focus on safety performance and strive to eliminate workplace fatalities • To maintain our focus on operational excellence and drive productivity and efficiency improvements • To produce 1.46Moz at an all-in sustaining cost of R579 000/kg
<p>To achieve operational plans, supported by current hedging strategy, contributes to cash flow certainty</p>	<ul style="list-style-type: none"> • Moab Khotsong and Hidden Valley's increased contribution to operating cash flow (R1 375 million), together with the successful hedging strategy (R477 million), strengthened our cash flow • Loan facility increased to US\$400 million to fund future growth prospects (post year end) 	<ul style="list-style-type: none"> • To achieve operational guidance • To focus on further improving margins • To prioritise debt repayments • To continue hedging programme so as to manage short-term cash flow volatility
<p>To evaluate and prioritise organic growth opportunities and safe, value-accretive acquisitions to ensure positive stakeholder returns and increase margins</p>	<ul style="list-style-type: none"> • Performance by Moab Khotsong and Hidden Valley justifies their acquisition and re-investment respectively • Studies of several organic growth projects underway (from concept stage to development) • The new business team continued to assess acquisition opportunities 	<ul style="list-style-type: none"> • To continue to progress and secure the permitting, funding and development of Wafi-Golpu • To invest R4.7 billion (US\$334 million) in sustaining and growing our business – 66% of this at our South African operations and 34% on our activities in Papua New Guinea (excluding Wafi-Golpu)
<p>To be mindful of and to manage and limit the impacts of our activities on our employees, host communities and the environment</p> <p>This encompasses our environmental, social and governance (ESG) performance</p>	<ul style="list-style-type: none"> • Included in the FTSE4Good Index in their June 2019 review, in acknowledgment of our strong ESG practices and performance • Included in the Bloomberg Gender-Equality Index for 2019 • Scores for our CDP Climate Change and Water submissions of A- and B respectively • A constituent of the FTSE/JSE Responsible Investment Index 	<ul style="list-style-type: none"> • To maintain our focus on our ESG performance • To continue to engage and collaborate with stakeholders in support of strong, constructive relationships • To demonstrate responsible corporate citizenship, good governance and environmental management • To make progress in meeting our targets for energy and water consumption, waste management, land rehabilitation and the implementation of biodiversity action plans

OUR BUSINESS CONTEXT



- KEY**
- External factors
 - Internal strategies

Our external operating environment is influenced by continual social, political, economic and environmental pressures and changes in the short, medium and long terms. It is vital for Harmony's success that we identify and understands these external influences. Harmony is well governed to withstand these pressures.



OUR SUSTAINABLE DEVELOPMENT FRAMEWORK – RESPONSIBLE STEWARDSHIP

Prepared in accordance with the GRI Standards: 102-40, 102-41, 102-42, 102-43 and 102-44



Papua New Guinea

The principles of sustainable development are embedded in our business strategy and decision making. Sustainable development is covered by the fourth pillar of our strategy – responsible stewardship. This fourth pillar underpins our operating philosophy, which is profit with purpose, and hinges on maintaining strong relationships by engaging and collaborating with stakeholders. Our responsibilities as a corporate citizen, as environmental stewards and to live our values remain top of mind.



Guidelines

Although Harmony is not a signatory to the International Council on Minerals and Metals or the United Nations Global Compact, we are guided by and do adopt applicable principles which support our sustainable development framework. We are also guided by the targets set for 2030 by the United Nations' Sustainable Development Goals (SDGs). In addition, we will adopt the World Gold Council's recently launched Responsible Gold Mining Principles and have begun implementing the guidelines of the Task Force on Climate-related Financial Disclosures.

What we have done

Sustainable development is woven into our organisational business processes and practices. Over the past two years, we have focused on actively implementing key tenets of our sustainable development framework – from building our portfolio of assets for profitable ounces to managing and mitigating our water and climate risks as we embedded our proactive safety and healthcare strategies and built trust in the communities in which we operate.

We have implemented and developed the necessary standards and systems (based on the relevant ISO standards) for environment and safety. We have standardised processes and definitions, embedding these in our culture and values, and in our approach to leadership.

Environmentally, we have reduced our carbon emissions, initiated pioneering rehabilitation processes, effected zero water discharge at many of our operations and linked our Papua New Guinea operation to hydropower.

In FY19, we were recognised for our gender equality performance by being included in the 2019 Bloomberg Gender-Equality Index and for our strong environmental, social and governance (ESG) practices by once again being included in the FTSE4Good Index Series. We received scores of A- and B respectively for our CDP Climate Change and CDP Water submissions.



OUTLOOK

Over the next five years we aim to strengthen our delivery on key sustainable development indicators and the SDG targets, as they apply to our business. We have three years to comply with the Responsible Gold Mining Principles of the World Gold Council.

HARMONY'S ACTIVITIES IN RELATION TO EACH OF THE SUSTAINABLE DEVELOPMENT GOALS

Sustainable development governance framework

1. Corporate policy

- Overseen by the social and ethics committee
- Various policies, frameworks and programmes in place cover: safety and health, human resources, socio-economic development, environmental and material stewardship, climate change and energy efficiency

2. Guidelines and standards

Discipline-specific policies inform development of:

3. Site-specific operating management systems



- Major employer in host communities
- Socio-economic development initiatives



- Land rehabilitation and food security initiatives



- Proactive employee healthcare strategy
- Community healthcare initiatives



- Bursary programme for employees and local communities



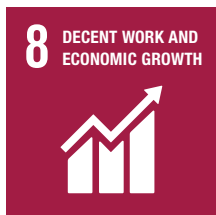
- Employment equity strategy and targets
- Women in mining programme
- Focus on women in our procurement programmes



- Water conservation programme



- Renewable energy procurement programme
- Bio-energy build programme



- Conditions of employment
- Financial literacy programme



- Supporting the Minerals Council's research and development initiatives
- Sponsorship of chair in rock engineering at the University of Pretoria



- Gender diversity policy and employment equity policy and strategy
- Employment opportunities for local communities in South Africa and Papua New Guinea



- Socio-economic development plans



- Water and energy conservation programme
- Cyanide management
- Land rehabilitation



- Energy conservation and renewable energy programme



- Zero discharge aspiration
- Careful risk management and in-depth scientific research in relation to the proposed deep sea tailings placement solution for the Wafi-Golpu project



- Environmental conservation
- Rehabilitation programme



- Partnerships with labour, regulators and host communities



- Partnerships with governmental institutions and communities in South Africa and Papua New Guinea that support our sustainable development imperatives

STAKEHOLDER ENGAGEMENT

Stakeholder engagement and our risk management process are essential in identifying our most material issues.

Prepared in accordance with the GRI Standards: 102-40, 102-41, 102-42, 102-43 and 102-44

WHY STAKEHOLDER ENGAGEMENT MATTERS

Understanding the needs, expectations and aspirations of our stakeholders enables us to shape our actions in determining strategy, addressing problems, and allocating resources. It underpins the value creation process. Effective stakeholder engagement helps us to better manage risks and opportunities. The board's social and ethics committee oversees stakeholder relations while the board itself monitors relations with stakeholders.

Our material issues are informed by, among others, stakeholder engagement and it is important to understand and meet our stakeholders' needs and expectations where possible. We engage with numerous stakeholders – individuals and organisations – on an ongoing basis. Mutually beneficial relationships with various stakeholders support the success of our business strategy, especially in protecting our social licence to operate.

IDENTIFYING MATERIAL ISSUES

In identifying those material issues likely to affect our ability to deliver on our strategic objectives, we are guided by the International Integrated Reporting Framework, the GRI Standards and King IV. The process to identify material issues also considers:

- Harmony's risk profile
- regulatory and policy
- feedback received from stakeholders
- any changes and emerging issues in the industry and in host countries
- national and international imperatives that could have a bearing on our business

STAKEHOLDER ENGAGEMENT

Our stakeholder engagement complies with relevant legislation and standards, including ISO 14001 and ISO 9000. We also take account of King IV and its recommendations on the importance of inclusive stakeholder engagement and their legitimate concerns. In engaging with stakeholders, we are guided by our values and our strategic intent:

- to support government by building relationships and partnerships for collaboration with stakeholders
- to find a balance between the expectations of shareholders and those of other stakeholders
- to build credibility and trust with all stakeholders

Stakeholder

INVESTORS AND FINANCIERS

(includes current and future shareholders, and providers of capital)

Regular communication with the broader investment community is aimed at managing expectations relating to our financial, operating and ESG performance and to delivery on our guidance and strategic objectives. This community is the most geographically diverse of all our stakeholders. While not directly affected by any material issue, investors monitor our performance and management of all material issues.

EMPLOYEES AND UNIONS

Maintaining stable, peaceful labour relations is essential. The benefits of a stable, engaged and committed workforce are many. Engagement emphasises the importance of safety, reducing risk and compliance with procedures, and also focuses on health and overall well-being, and on performance against our strategic objectives.

COMMUNITIES AND NGOs

Direct community engagement is vital in managing our socio-economic and environmental impacts as well as community expectations, and to ensuring public safety. Our aim is to establish partnerships with host communities, based on shared value. Subjects of community engagement include, among others, employment and procurement opportunities, enterprise development, mine community development and illegal mining.

GOVERNMENT AND REGULATORS

Positive relations with all levels of government help to better manage the uncertainty around regulatory changes and political risk. Engagement includes reporting on compliance and developments and/or changes at our operations and projects. The aim is to promote regulatory certainty and an environment conducive to investment for long-term growth. Engagement with government is undertaken at regional, provincial and national levels.

SUPPLIERS

Constructive relations and partnerships with business associates and suppliers assist with cost control and alignment with our policies on the environment and climate change, transformation and enterprise development, thus helping us to deliver on our strategic objectives and supporting our long-term viability. In South Africa, such engagement is essential in helping us meet procurement targets in relation to our mining rights.

MEDIA AND ACADEMIA

Engagement with the media complements and reinforces that with other stakeholders. It helps in managing stakeholder expectations and our reputation, in forming public opinion and in promoting an understanding of our activities. Media engagement can be used to communicate with other stakeholders on all aspects of our performance.

Form of engagement

Frequency of engagement

Main issues of concern

	<p>In person, via conference calls, by email, at one-on-one meetings, industry conferences, regulatory announcements, and reports</p>	<p>Engagement is regular throughout the year and includes regulatory quarterly and annual reporting</p>	<ul style="list-style-type: none"> • Safe workforce/workplace • Climate action • Profit share • Certainty of access to power supply (Eskom) • Regulatory uncertainty
	<p>Mass meetings, workplace meetings, structured meetings with organised labour</p>	<p>Engagement is regular including daily workplace meetings, monthly and quarterly meetings with organised labour, and regular mass meetings</p>	<ul style="list-style-type: none"> • Safety • Alignment of conditions within company
	<p>Meetings with community structures, regular issues-based meetings, one-on-one meetings, newspapers and radio</p>	<p>Regular engagements throughout the year, and we are now moving to formalise structured quarterly meetings with host communities</p>	<ul style="list-style-type: none"> • Enterprise opportunities • Jobs/employment • Availability of land for habitation • Bursaries and internships • Of the 13 grievances raised 10* have been resolved
	<p>Emails, one-on-one meetings, industry meetings and regular issues-based meetings</p>	<p>Regular engagements throughout the year, structured quarterly and annual meetings</p>	<ul style="list-style-type: none"> • Accelerated transformation • Land distribution • Issues of crime and poverty alleviation
	<p>Emails, industry meetings and issues-based meetings</p>	<p>Regular and on-going</p>	<ul style="list-style-type: none"> • Alignment with our values and policies on human rights, labour relations and practices, safety and the environment • Ethical behaviour and anti-corruption
	<p>In person, via conference calls, one-on-one meetings</p>	<p>Regular engagement throughout the year</p>	<ul style="list-style-type: none"> • Collaboration in addressing various challenges

OUR MATERIAL ISSUES ARE:

- Ensuring safe and healthy employees and communities
- Maintaining compliance despite political and regulatory uncertainty
- Uplifting and enabling self-sustaining communities
- Maintaining our social licence to operate and reputation
- Ensuring ethical conduct
- Instilling an enabling culture and empowered workforce
- Responsibly managing environmental and social impacts



Tshepong

OUR STAKEHOLDERS

Given our many stakeholders, priority is given to those who have the greatest potential to affect our ability to achieve our strategic objectives and our business performance. Our most significant stakeholders are:








- employees
- investors and financiers
- communities and NGOs
- government and regulators
- suppliers
- media and academia

* Assured by Ngubane and Co – see their *GRI Assurance Report*

OUR MATERIAL ESG ISSUES

OUR MATERIAL ESG ISSUES IDENTIFIED

Issues	
<p>Ensuring safe and healthy employees and communities</p> <ul style="list-style-type: none"> • Employee and community health and safety • Making the workplace safe and healthy – eliminating fatalities and preventing injuries in the workplace • Potential for tailings storage facility failure 	
<p>Maintaining regulatory compliance despite political and regulatory uncertainty</p> <ul style="list-style-type: none"> • New Mining Charter III and the increasing cost of compliance in South Africa • Possible expropriation of land policy in South Africa • The Carbon Tax and proposed Climate Change Bill in South Africa • Delays in Wafi-Golpu permitting following a change in government • Proposed regulations pertaining to financial provisions for rehabilitation 	
<p>Uplifting and enabling self-sustaining communities</p> <ul style="list-style-type: none"> • Planning for local economic activity and social sustainability, during and post life of mine. 	
<p>Maintaining our social licence to operate and reputation</p> <ul style="list-style-type: none"> • Delivery on our socio-economic development projects • Transformation, human rights and promoting diversity in the workplace • Local procurement and transformation (black economic empowerment), and enterprise and supplier development • Community engagement and development, and rising community discontent 	
<p>Ensuring ethical conduct</p> <ul style="list-style-type: none"> • Internal fraud and corruption • Fraud and corruption at national level 	
<p>Instilling an enabling culture and empowered workforce</p> <ul style="list-style-type: none"> • Gender equality and women in mining • Building a skills pool, talent management and succession planning • Quality education and training for employees and community • Decent work and economic growth for our people • Human rights and diversity in the workplace 	
<p>Responsibly managing environmental impacts</p> <ul style="list-style-type: none"> • Land management and biodiversity • Energy infrastructure, management and security of supply • Climate change and emissions management • Water infrastructure and management • Waste management • Integrated closure of operations • Remediation, obligations and provisions for liabilities 	

	Impact on Harmony	
	<p>Protecting the safety and health of employees and contractors is a fundamental human rights issue facing Harmony and the mining industry. While protecting our workforce from harm is a moral imperative, our focus on eliminating fatalities and preventing loss of life is also a direct investment in the productivity and sustainability of the business. A safe and healthy workforce is an engaged, motivated and productive workforce, which helps to prevent operational stoppages, and reduces the potential for legal liabilities. Safety is also considered our primary risk.</p>	<p>Related risks: 1, 8</p> <p>Strategic pillar affected:</p> 
	<p>Harmony operates or has projects in developing countries where there is political instability and where the regulatory environment for the mining industry is uncertain.</p>	<p>Related risk: 5</p> <p>Strategic pillar affected:</p> 
	<p>Given the finite nature of our key resource, Harmony must harness its social and environmental investments so that they can be used as a catalyst for development and to support government in creating self-sustaining communities beyond the life of our mines. This will require leveraging our skills and infrastructure, developing suppliers, and/or supporting delivery of alternative economies.</p>	<p>Related risk: 5</p> <p>Strategic pillar affected:</p> 
	<p>To expand local employment opportunities, increase tax revenues, and meet increasing community demands for improved infrastructure and greater environmental protection, government continues to put pressure on the mining industry. There is a growing need to achieve measurable social outcomes and build sound relationships around operations. This is key to implementing our business strategy. Failing to engage with communities could jeopardise our social licence to operate and reduce opportunities in the market.</p>	<p>Related risk: 5</p> <p>Strategic pillar affected:</p> 
	<p>Mining companies face regional and global scrutiny, and conforming to formal ethical standards of conduct is non-negotiable. Fraud and corruption can increase in an economic downturn, and the current societal spike in exposure to corrupt practices and unethical leadership heightens the risk to Harmony.</p>	<p>Related risk: 6</p> <p>Strategic pillar affected:</p> 
	<p>To deliver on our business objectives, we rely on a capable and engaged workforce that behaves in a manner that is consistent with our values and Code of Conduct. We aim to foster a high-performance culture, through an organisational structure that is fit for purpose, and by ensuring that we have the right skills and by empowering our people to deliver on our strategic objectives.</p>	<p>Related risk: 5</p> <p>Strategic pillar affected:</p> 
	<p>Responsible environmental management, including the management of water consumption and discharge, is a major factor in legal compliance and permitting, but also plays a significant role in improving the balance of value from mining for our local stakeholders. The goal is to support our long-term sustainability by effectively managing resources, reducing the impact of our activities on the environment and communities, and by complying with legal requirements.</p>	<p>Related risk: 5</p> <p>Strategic pillar affected:</p> 

MANAGING OUR RISKS AND OPPORTUNITIES

Harmony's business activities cover the entire gold mining value chain – from exploring for prospects, conducting feasibility studies and developing, buying and operating mines, through to closing and rehabilitating mines at the end of their productive lives. The nature of our operations and the environment within which we operate expose the business to internal and external risks and opportunities that can impact our ability to generate sustainable value for our shareholders and stakeholders. These risks and opportunities are carefully evaluated and managed.

The effective governance and active management of our risks and opportunities are fundamental to our ability to deliver on our strategic objectives, and on our ability to create sustainable value.

By understanding those variables in our internal and external operating environments that create uncertainty and risk, we are better able to alleviate the effects of such risks and to position Harmony to take advantage of any opportunities, future challenges and growth prospects.

We have expertise in operating in emerging economies and have the ability and experience to manage the socio-political circumstances in these countries. We have developed the skills to deal with the challenges of multi-stakeholder labour relations, the latter is especially

so at our deep-level gold mines in South Africa, which are labour intensive and unionised.

We strive to continuously improve the safety and health of our employees, have an appetite for change and continuous improvement, and are constantly looking for innovative and cost-effective ways to optimise our operational performance.

OUR RISK MANAGEMENT PROCESS

At Harmony, our approach to risk relies on the ongoing monitoring of risk and related mitigation procedures and, when appropriate, their revision. These activities are embedded in our day-to-day activities and processes at an operational level, in our governance structures and at policy level.

Risk management has, as its starting point, our business strategy and related strategic objectives. Understanding those factors that have the potential to limit our ability to deliver on our strategy is vital, as is identifying those opportunities that will enable us to achieve our goals.

We have experienced, values-driven teams committed to delivery on our strategic objectives.

Risk management process

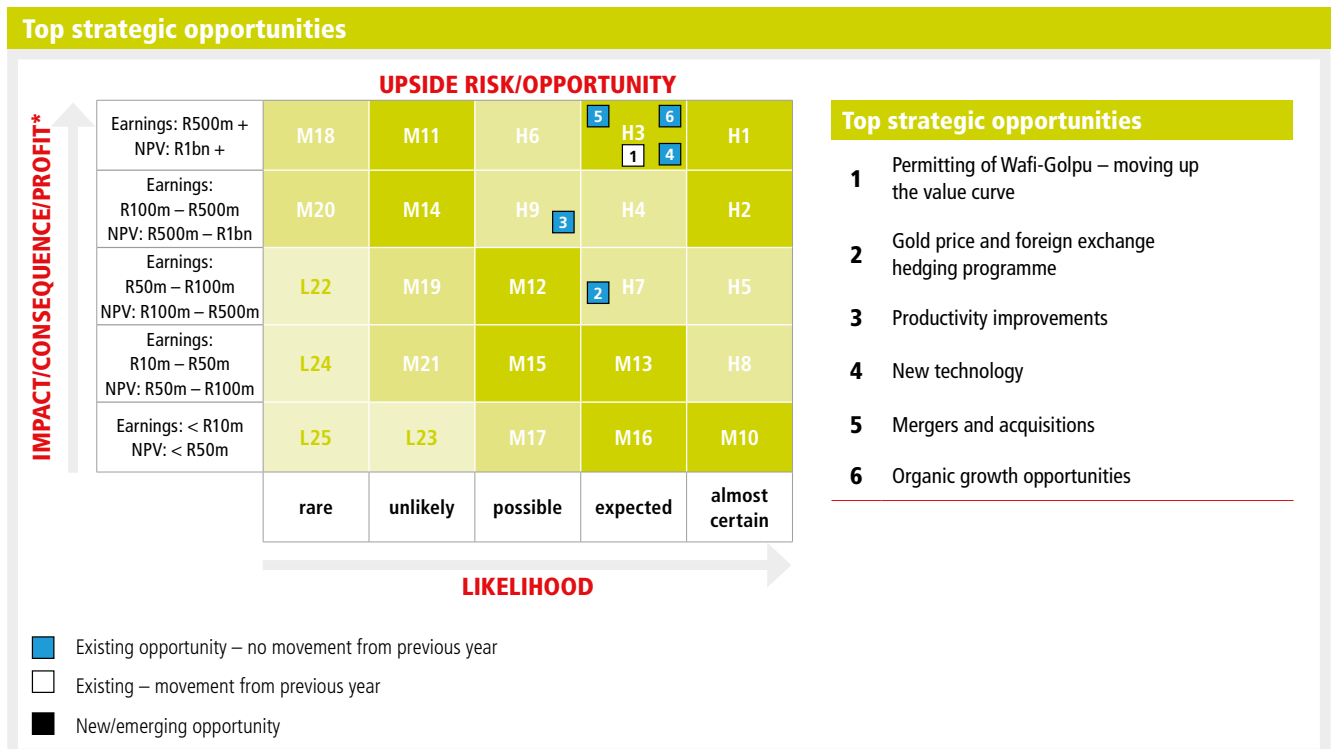
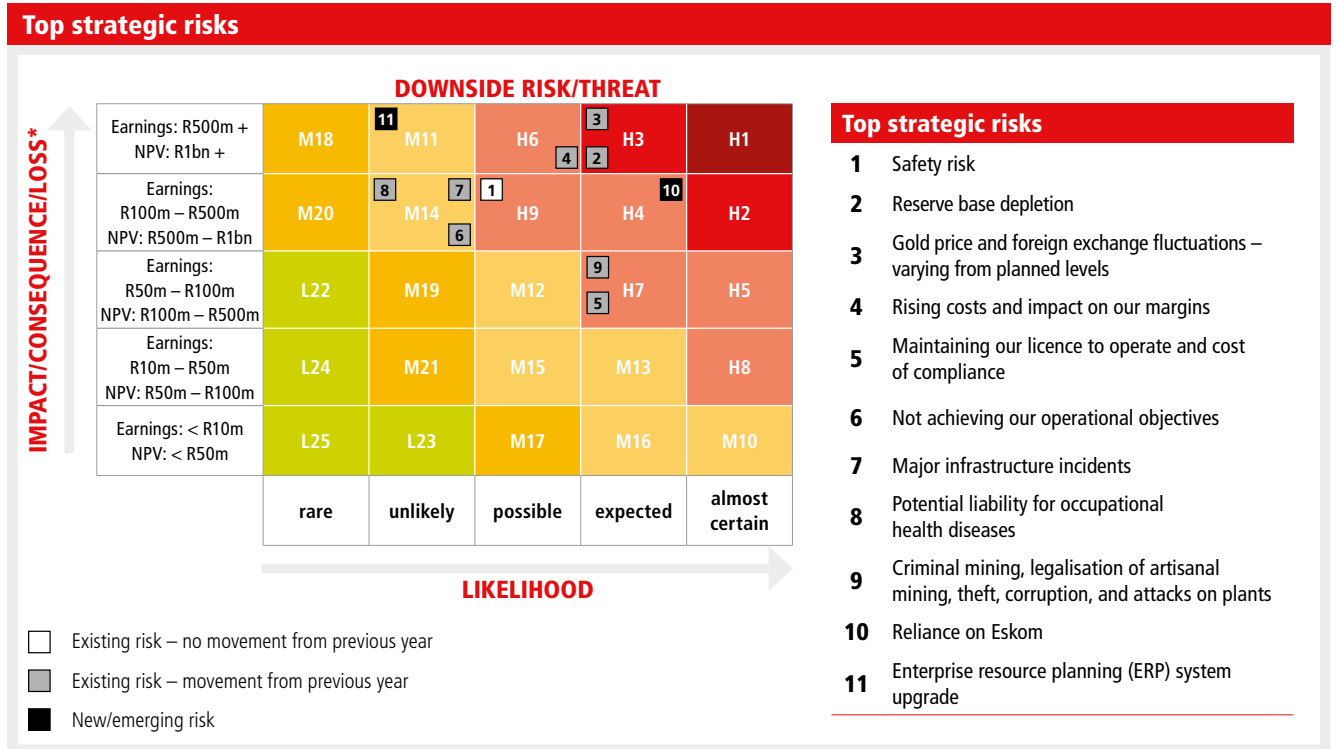
Oversight of risk governance process	Board	Committees submit their findings to the board. Top strategic, operational and safety-specific risks and mitigating factors are reported to the board on a quarterly basis
	Audit and risk committee	Responsible for oversight of risk governance and ensuring that strategic risks are appropriately addressed and managed. This committee spends considerable time reviewing and evaluating the policies, systems and processes in place to identify, monitor and manage risk, including our risk management policy, methodology and planning, formal risk assessment, internal controls and assurance processes, our risk appetite and tolerance, and our responses to the risks identified.
	Technical committee	Monitors safety and operational specific risks
	Other board committees	Various board committees review specific risks falling within the ambit of their responsibilities
Implementation and day to day management	Executive management championed by CEO	<p>Conducts quarterly reviews of Harmony's strategic risk profile to:</p> <ul style="list-style-type: none"> • assess completeness of the risk profile • consider those external and internal factors which could lead to any new/emerging risks and opportunities <ul style="list-style-type: none"> • revisit the likelihood and impact/consequence of existing risks and to similarly assess any new/emerging risks and opportunities to determine a residual rating • review the completeness, effectiveness and/or relevance of mitigating actions implemented and to evaluate the residual risk ranking
	Operational management teams	Implement and oversee day-to-day risk management
	Safety	A four-layered risk-based approach to actively manage safety adopted in both South Africa and Papua New Guinea
	Operations	Each operation maintains, updates and regularly reviews its risk register. These operational risk registers are formally reviewed weekly by the regional general managers together with country-based executive management teams

Determining our most significant risks and opportunities

Once we have determined our group-level risk appetite and tolerance levels, we continue to monitor our risks and to identify and manage those that are most material to the company. While our group-level risk appetite and tolerance levels are subject to formal annual reviews, they are continually monitored for relevance in terms of changing macro-environment factors. Our tolerance levels are further defined at lower tolerance limits per risk.

OUR TOP STRATEGIC RISKS AND OPPORTUNITIES

Our risk profile is based on potential events and/or factors that pose either a threat and/or an opportunity. These downside and upside risks and opportunities are duly taken into account in our day-to-day business activities and, having been identified, are integral to the formulation and management of our group strategy.





* As measured by the estimated likely impact on earnings and net present value

MANAGING OUR RISKS AND OPPORTUNITIES CONTINUED

Top strategic risks



Below are the top strategic risks by ranking:

Risk / Issue	Potential impact	Link to strategy	Mitigation
1 Safety risks	<p>We prioritise safety primarily to protect our people. While safety risks are inherent within deep-level mining, fatalities are unacceptable.</p> <p>Safety also has the potential to halt production, affect our reputation and stakeholder relations, lead to litigation and decrease Harmony's overall value.</p>	<p>Safety and health performance has a direct impact on our ability to deliver safe, profitable ounces.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • Safety and health, our first value, underpins all we do. Roll-out and implementation of a four-layered, risk-based approach to ensure safe production, prevent fatalities and embed a proactive safety and health culture • Apart from the everyday safety procedures in place, we engage with employees regularly on safety through training sessions, awareness campaigns and open discussions • We continually review and update our safety procedures and systems to ensure we have industry-leading safety practices in place • Our strategic safety priorities are: <ul style="list-style-type: none"> • Passionate and active leadership • Effective risk and critical control management • Effective safety management systems • Ongoing organisational learning • A proactive culture and an engaged workforce • Implementation of modernised safety systems • An enhanced second-level audit team reviews the qualitative work and actions taking place on mine and corrective measures implemented • Implementation of a fatality risk management programme • Dedicated safety days introduced, when the entire company participates in safety discussions, and no production takes place
2 Reserve base depletion	<p>Our current reserve base is forecast to decline sharply within five years.</p> <p>Maintaining the reserve and resource pipeline necessary to sustain future production is vital to our ability to fund and develop:</p> <ul style="list-style-type: none"> • the Wafi-Golpu project* • further exploration and/or expansion <p>A production base decline can potentially increase unit costs, reduce margins and impact our market rating.</p>	<p>Ensuring a future production pipeline of quality ore reserves will enable us to operate sustainably and profitably.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • Advancing the permitting for the Wafi-Golpu project • Assessing, ranking and advancing organic growth and exploration projects • Identifying further value-accretive acquisitions in South Africa, Papua New Guinea or elsewhere in Africa that meet our investment criteria • Acquisition of Moab Khotsonq (in FY18) and the remaining 50% of Hidden Valley (in FY17) have enhanced our reserve and resource base

* Wafi-Golpu permitting delayed


Permitting of the Wafi-Golpu project has been delayed. The Wafi-Golpu Joint Venture entered into a Memorandum of Understanding (MOU) with the Government of Papua New Guinea in December 2018, targeting a special mining lease grant by June 2019. Since the signing of the MOU in December 2018, a legal matter between the provincial and national government has interrupted the permitting process, and continues to do so. The Wafi-Golpu Joint Venture remains ready to engage with the Government of Papua New Guinea and the regulators. At this stage, the permitting timelines and roadmap are still to be redefined.

Top strategic risks continued



Risk / Issue	Potential impact	Link to strategy	Mitigation
<p>3 Gold price and foreign exchange fluctuations – varying from planned levels</p>	<p>Harmony is a price-taker. The price received for the gold we produce and sell is determined in US dollars on global markets and, as a mainly South African-based company by the rand-US dollar exchange rate.</p> <p>Commodity prices and exchange rates are affected by global factors over which Harmony has no control.</p> <p>Should the US dollar gold price decline, this could affect revenue and reduce our margins. Similarly, a stronger rand reduces rand revenue earned. Exchange rate movements can also adversely impact costs.</p>	<p>Operational excellence is key to maximising cash flows. Hedging contracts provide short-term cash certainty.</p> <p>Strategic pillar:</p> 	<ul style="list-style-type: none"> • Our commodity price and exchange rate hedging strategy and programme implemented for a limited portion of production counters the strengthening rand/US dollar exchange rate and lower commodity prices. Management continues to top up these programmes as and when opportunities arise to lock-in attractive margins for the business • Applying conservative long-term price assumptions in our planning • Appropriate capital allocation and re-scheduling of capital expenditure • Restructuring underperforming assets • Ensuring that sufficient funding facilities are available
<p>4 Rising costs impact our margins</p>	<p>Harmony has a mixed portfolio of assets, ranging from operations with growth opportunities, high grades but short lives to operations that have low margins and that are nearing the end of their operating lives.</p> <p>This may impact Harmony's ability to increase margins and fund growth, and may result in increased debt.</p>	<p>Operational excellence will ensure that our operations are profitable and enhance cash certainty.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • A plan emphasising operational excellence has been implemented. Its ultimate aim is to enhance our margins and ensure we achieve our strategic objective by focusing on employee safety and health, improving grades and productivity and cost control • Loss-making operations are closely managed and turnaround plans implemented. If unsuccessful, these operations will be closed • We will pursue organic growth and acquisition opportunities that will produce better quality ounces at a lower all-in sustaining cost

MANAGING OUR RISKS AND OPPORTUNITIES CONTINUED

Top strategic risks continued


Risk / Issue	Potential impact	Link to strategy	Mitigation
<p>5 Maintaining our licence to operate and cost of compliance</p>	<p>Community activism, related disruptions and rising expectations from communities may result in production losses and increase the costs of maintaining our social licence to operate.</p> <p>Changes to the regulatory environment and related uncertainty (proposed and/ or application) may impact our licence to operate and increase the cost of compliance, which may lead to the loss of investor confidence.</p> <p>The Papua New Guinea government has commissioned a review of the mining regime. Any change to the Papua New Guinea mining regime may result in the imposition of additional restrictions, obligations, operational costs, taxes or royalty payments and could have a material adverse effect on Harmony's business, operating results and financial condition.</p>	<p>Impact on the overall sustainability of our business.</p> <p>Strategic pillar:</p> 	<ul style="list-style-type: none"> • Ongoing stakeholder engagement with communities, regulators and government • Participation in industry working groups on proposed legislative changes • Aligning social and labour plans with municipal economic development plans in South Africa and delivering on our landowner and provincial commitments in Papua New Guinea • The Wafi-Golpu joint venture remains ready to engage with the Government of Papua New Guinea and the regulators • The Chamber of Mines and Petroleum of Papua New Guinea, as the representative industry body, has been collating information from industry participants and engaging with the Papua New Guinea government as part of the industry's response to the mining review proposals.

Top strategic risks continued



Risk / Issue	Potential impact	Link to strategy	Mitigation
<p>6 Not achieving our operational objectives</p>	<p>Unplanned events, such as safety-related incidents and stoppages and illegal mining, as well as gold price fluctuations can all affect our operational results and cash flows.</p> <p>Not meeting our operational targets would impact our financial results and investor confidence, and could eventually lead to mine closures.</p>	<p>Achieving our operational objectives is core to delivering on our strategy of producing safe, profitable ounces and increasing margins.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • We continue to identify and implement initiatives to improve productivity. To help meet our objectives, we have enhanced our operational risk management and planning, and regional general managers have been given greater oversight and responsibility, supported by the engineering discipline • Strict cost and capital controls remain in place • Increased security intelligence is being used to combat illegal mining • In the medium to long term, our aspiration is to diversify away from high-cost mines in favour of gold and copper opportunities in South Africa, the rest of Africa and Papua New Guinea
<p>7 Major infrastructure incidents</p>	<p>As a mining company, we rely on large infrastructure and equipment to conduct our mining activities.</p> <p>Any breakdowns or infrastructure failures have the potential to threaten employee safety, cause damage to assets as well as to disrupt production.</p>	<p>By ensuring that infrastructure and equipment malfunctions are prevented or kept to a minimum, we are better able to achieve our operational targets and strategic objectives.</p> <p>Strategic pillar:</p> 	<ul style="list-style-type: none"> • We spend a considerable amount of capital and time on the maintenance of infrastructure to proactively address any potential problems • Operational risk management processes have been improved and senior engineering capacity strengthened to mitigate engineering risks. A holistic engineering strategy has been implemented to enhance infrastructure maintenance and performance • Expert reviews were conducted and tailings dam facilities are being monitored

MANAGING OUR RISKS AND OPPORTUNITIES CONTINUED

Top strategic risks continued

Risk / Issue	Potential impact	Link to strategy	Mitigation
<p>8 Potential liability for occupational health diseases</p>	<p>Work-related illness and the effect of exposure to high dust levels, changes to the Occupational Diseases in Mines and Works Act (ODMWA) and the backlog of tuberculosis and silicosis cases at the Compensation Commissioner for Occupational Diseases in Mines and Works may result in contingent liabilities, increased costs of litigation and reputational damage.</p>	<p>Impact on the overall sustainability of our business and our licence to operate.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • Preventing new cases of occupational health diseases by implementing: <ul style="list-style-type: none"> • a pro-active health strategy • our <i>At work</i> management programme • leading practice to eliminate dust underground • Silicosis class action litigation: <ul style="list-style-type: none"> • a lasting settlement solution with all stakeholders was concluded on 3 May 2018 with the High Court sanction obtained on 27 July 2019 • The Harmony Re-connect initiative which helped to resolve pending occupational lung disease cases as a result of which R200 million was paid out to around 10 000 Harmony beneficiaries • Collaboration with Minerals Council South Africa to achieve: <ul style="list-style-type: none"> • change in legislation • co-governance model between the Department of Health and the Minerals Council South Africa to further improve operations at the Medical Bureau for Occupational Diseases (MBOD) or Compensation Commissioner for Occupational Diseases (CCOD)

Top strategic risks continued

Risk / Issue	Potential impact	Link to strategy	Mitigation
<p>9 Criminal mining, legalisation of artisanal mining, theft, corruption, and attacks on plants</p>	<p>Certain mothballed shafts, ventilation shafts and unused haulages are used to access old workings and distribute food to criminal miners. Once these shafts have been closed, illegal miners turn their attention to gaining access to underground workings via operational shafts, and this may lead, ultimately, to the gold plants being targeted.</p> <p>The negative effects of criminal mining and possible attacks on our gold plants include, among others:</p> <ul style="list-style-type: none"> • the potential loss of life, of both illegal miners themselves and of Harmony employees • damage to mine assets • theft of gold bearing material and copper cables • production losses • employee collusion, fraud and corruption <p>In addition, there is the risk of damage to our reputation and stakeholder relations, and the possibility of litigation.</p>	<p>Impacts the overall sustainability of our business and our licence to operate.</p> <p>Strategic pillars:</p> 	<ul style="list-style-type: none"> • A number of redundant shafts have been demolished, filled and closed • Tactical security teams have been deployed underground at operational shafts and on surface to combat illegal miners • Security is being conducted in collaboration with South African Police Services • Employee and community anti-criminal mining awareness campaigns are being conducted • Stricter security measures are employed at underground access points
<p>10 Reliance on Eskom</p>	<p>In South Africa, our mining operations depend on electrical power generated by the South African state utility, Eskom. Electricity supply in South Africa has been constrained over the past decade and there have been multiple power disruptions. There is uncertainty as to whether Eskom will be able to meet demand for power supply in the future.</p> <p>Impact on our business:</p> <ul style="list-style-type: none"> • Prolonged electricity stoppages may lead to production losses • The cost of electricity could rise by double digits in the next few years – burdening the economics and viability of some of the marginal operations in the group 	<p>Impact on our ability to produce safe and profitable production influence the overall sustainability of our business.</p> <p>Strategic pillar:</p> 	<ul style="list-style-type: none"> • Re-prioritisation of the energy efficiency and demand management initiatives already underway at our operations • Additional third party resources were deployed in the last year have proposed a portfolio of energy saving projects for consideration and prioritisation • De-risk pricing through independent power producing (IPP) opportunities

MANAGING OUR RISKS AND OPPORTUNITIES CONTINUED

Top strategic risks continued

Risk / Issue	Potential impact	Link to strategy	Mitigation
11 Maintaining the enterprise resource planning (ERP) system	Oracle™, the software system which supports our financial reporting system, requires an update as the current version may not be sufficient to support our system.	Strategic pillars: 	<ul style="list-style-type: none"> An ERP upgrade is required to provide Harmony with full system support until 2030. The upgrade commenced on 2 July 2019 and it is anticipated to be completed towards the end of calendar year 2020. Our financial systems are fully functional and supported during this upgrade of our ERP system.

For more detailed information relating to risk factors and their potential impact, see the Form 20-F as filed with the United States' Securities Exchange Commission at www.harmony.co.za/invest/annual-reports.

Other risks

These risks no are longer among our top strategic risks:

- Community activism, instability and unrest:** Incorporated in risk 5, maintaining our licence to operate and cost of compliance. Community development and stakeholder engagement are ongoing and remain key activities in support of our strategy. Refer to *Stakeholder engagement and our material issues* and *Socio-economic development* for further details.
- Socio-economic, political and regulatory changes:** Incorporated in risk 5, maintaining our licence to operate and cost of compliance. In South Africa, Mining Charter III was gazetted by the Minister of Mineral Resources in September 2018. Harmony, through the Minerals Council South Africa, continues to engage with the Minister of Mineral Resources and Energy on some of the requirements. The Carbon Tax Act became effective in June 2019 and Harmony, through the Minerals Council South Africa and the Energy Intensive User Group, is engaging with various government departments to raise awareness of the potential significant cost implications on South African businesses and the potential impact on the economy as a whole. Harmony is also managing its electricity consumption and seeking further initiatives, including renewable sources, to manage its carbon footprint. Refer to *Mining Charter compliance, Environmental management and stewardship* and *Stakeholder engagement* and *Our material ESG issues* for further details.
- Labour disputes and unrest:** Incorporated in risk 5, maintaining our licence to operate and cost of compliance. Harmony successfully reached a three-year wage agreement in October 2018. The employee relations environment in South Africa and Papua New Guinea was stable in FY19. Strong employee and union relations remain a key focus area and employee and union engagement is ongoing. Refer to *Employee engagement* for further details.
- Successful optimisation of Moab Khostong:** Following its acquisition in March 2018, Moab Khostong has been successfully integrated within Harmony. We continue to identify cost saving and productivity initiatives and organic growth projects are being evaluated to enhance mine life and profitability. Refer to *Operational performance* and *Exploration and projects* for further details.

Top strategic opportunities

Corresponding with several of the risks facing our business, there are related opportunities. Our strategic opportunities are ranked as follows:

Opportunity	Potential impact on delivery of our strategy
<p>1 Permitting of Wafi-Golpu project (moving up the value curve)</p> <p>Related risks: 2 and 3</p>	<p>Wafi-Golpu is a tier one asset which has the potential to deliver substantial benefits to all stakeholders. Permitting will provide fiscal and regulatory certainty which will move Wafi-Golpu up the value curve. Targetted permitting timelines were not achieved in FY19. Harmony is committed to resuming constructive negotiations with the newly appointed Papua New Guinea government and stakeholders</p>
<p>2 Gold price and foreign exchange hedging programme</p> <p>Related risks: 3 and 4</p>	<p>The hedging of a percentage of our production to take advantage of volatile commodity and currency markets provides opportunities to lock-in attractive margins for the business</p>
<p>3 Productivity improvements</p> <p>Related risks: 4 and 6</p>	<p>Operational excellence is key to creating an enabling environment and delivering on our operational plans. Pro-actively managing safety and health, combined with incentives to improve the productivity of our workforce, increasing flexibility and reducing unplanned stoppages are key aspects of our operational excellence approach</p>
<p>4 New technology</p> <p>Related risks: 1, 4 and 6</p>	<p>New technology presents opportunities to improve safety and enhance our ability to improve cost and productivity efficiencies as well as overall financial management</p>
<p>5 Mergers/acquisitions</p> <p>Related risks: 2 and 4</p>	<p>Higher commodity prices, an evolving global gold mining landscape and Harmony's competitive advantage aid our ability to identify and evaluate potential value-accretive merger and acquisition opportunities</p> <p>Acquiring and merging operations that have synergies with our existing assets will enable us to take advantage of economies of scale, reduce costs and improve efficiencies</p>
<p>6 Organic growth opportunities</p> <p>Related risks: 2 and 4</p>	<p>As a mining company, maintaining a pipeline of resources and reserves is vital to ensuring sustained and profitable production in the future</p> <p>Quality reserve replacement and/or growth are imperative in achieving our strategic objectives</p> <p>Management continues to explore and study organic growth opportunities. Among other projects, this includes the Zaaipplaats study, the Hidden Valley extension opportunity, expansion of current tailings retreatment operations and the Kalgold expansion project. For further details, refer to <i>Exploration and projects</i></p>

OUR FOCUS FOR FY20

Our aim is to continue to enhance, define, achieve and integrate combined assurance. To do this and improve our level of risk maturity, we will focus on the following:

- Enterprise risk framework
- Enterprise risk policy
- Enterprise risk management standard
- Enterprise risk operating model
- Enterprise risk governance and reporting model
- Enterprise risk management plan
 - Leadership induction and refresher sessions
 - Board and executive committee risk workshops
- Assurance
- Quality reviews
- Benchmarks and maturity assessments
- Testing of business continuity management
- Training
- Harmony risk appetite and tolerance statement and profile
- Standard for business continuity management
- Disaster management plan

OUR LEADERSHIP

BOARD OF DIRECTORS

Chairman

Dr Patrice Motsepe (57)

BA, LLB, Doctorate of Commerce (Honouris Causa), Doctor of Management and Commerce (Honouris Causa)

Appointed non-independent non-executive chairman on 23 September 2003

Member of the nomination committee



Non-executive deputy chairman

Modise Motloba (53)

BSc, Diploma in Strategic Management

Appointed 30 July 2004

Chairman of the investment committee and member of the nomination committee and the social and ethics committee

Lead independent non-executive director

Mavuso Msimang (78)

MBA (Project Management), BSc

Appointed 26 March 2011

Chairman of the nomination committee and member of the social and ethics committee



Chief executive officer

Peter Steenkamp (59)

BEng (Mining), Mine Manager's Certificate Metal Mines, Mine Manager's Certificate Fierly Mines, CPIR, MDP, BLDP

Appointed 1 January 2016 as chief executive officer

Financial director

Frank Abbott (64)

BCom, CA(SA), MBL

First appointed non-executive director on 1 October 1994 and was financial director from 1997 until 2004

Re-appointed financial director in February 2012



Executive director: stakeholder relations and corporate affairs

Mashego Mashego (55)

BA (Education), BA (Hons) (Human Resources Management), Joint Management Development Programme, Global Executive Development Programme

Joined Harmony in 2005 and appointed an executive director on 24 February 2010

Board leadership

Executive directors

Joaquim Chissano (80)
PhD (Honoriis Causa)

Appointed 20 April 2005

Member of the nomination committee and the social and ethics committee



Ken Dicks (80)
**Mine Manager's
Certificates (Metalliferous
Mines and Fiery Coal Mines),
Management diplomas**

Appointed 13 February 2008

Member of the technical committee and the investment committee



Grathel Motau (45)
**BCompt, BCompt Hon, CA (SA),
MPhil (Development Finance)**

Appointed 13 May 2019

Member of the investment committee



Fikile De Buck (59)
BA (Economics), FCCA

Appointed 30 March 2006

Chairman of the audit and risk committee and member of the social and ethics committee, the remuneration committee and the nomination committee

Dr Simo Lushaba (53)
BSc (Hons), MBA, DBA, CD (SA)

Appointed 18 October 2002

Chairman of the social and ethics committee, member of the audit and risk committee, the remuneration committee and the investment committee

Karabo Nondumo (41)
BAcc, HDip (Acc), CA(SA)

Appointed 3 May 2013

Member of the audit and risk committee, the technical committee and the investment committee

Independent non-executive directors

OUR LEADERSHIP CONTINUED

BOARD OF DIRECTORS continued

Vishnu Pillay (62)

BSc (Hon), MSc

Appointed 8 May 2013

Chairman of the remuneration committee and member of the technical committee and the investment committee



Given Sibiyi (51)

BComm, BAcc, CA (SA)

Appointed 13 May 2019

Member of the audit and risk committee



Max Sisulu (74)

**MA (Political science),
MA (Political economy)**

Appointed 31 January 2018

Member of the social and ethics committee



John Wetton (70)

CA(SA), FCA

Appointed 1 July 2011

Member of the audit and risk committee, social and ethics committee, remuneration committee and investment committee



NON-EXECUTIVE DIRECTOR

André Wilkens (70)

**Mine Manager's Certificate of
Competency, MDPA, RMIIA,
Mini MBA Oil and Gas**

Appointed 7 August 2007

Chairman of the technical committee and member of the investment committee and the remuneration committee



Independent non-executive directors

Non-executive director

Full and detailed resumés of all members of Harmony's board of directors are available at <https://www.harmony.co.za/who-we-are/board>

OUR LEADERSHIP CONTINUED

EXECUTIVE MANAGEMENT

OFFICE OF THE GROUP CHIEF EXECUTIVE OFFICER



**Chief operating officer:
new business development,
corporate strategy and projects**

Phillip Tobias (49)
BSc (Mining Engineering),
International Executive Development
Programme, Advanced Management
Programme, Pr Eng and Mine
Manager's Certificate of Competence



**Chief operating officer:
South Africa**

Beyers Nel (42)
BEng (Mining Engineering),
MBA, Pr. Eng, Mine Manager's
Certificate of Competency



**Chief executive officer:
South-East Asia**

Johannes van Heerden (47)
BCompt (Hons), CA(SA)



**Company secretary
and legal**

Riana Bisschoff (42)
LLB, LLM



Ore reserve management

Jaco Boshoff (50)
BSc (Hons), MSc, MBA, Pr Sci Nat,
MSAIMM, MGSSA



Human resources

Anton Buthelezi (55)
National diploma (Human
Resources Management), BTech
(Labour Relations Management),
Advanced Dip. in Labour Law,
Cert. in Business Leadership



Chief financial officer

Boipelo Lekubo (36)
BCom (Hons), CA(SA)



Chief audit executive

Besky Maluleka-Ngunjiri (43)
BCompt (Hons), CTA, CIA, CCSA



Sustainable development

Melanie Naidoo-Vermaak (45)
BSc (Hons) (Industrial
Microbiology), MSc (Sustainable
Development), MBA

OUR LEADERSHIP CONTINUED

EXECUTIVE MANAGEMENT continued

OFFICE OF THE GROUP CHIEF EXECUTIVE OFFICER continued



Chief financial officer:
Treasury

Herman Perry (47)
BCom (Hons), CA(SA)



Investor relations

Marian van der Walt (46)
MBA; BCom (Law), LLB, Higher Diploma in Tax, Diplomas in Corporate Governance and Insolvency Law, Certificates in Business Leadership and Investor Relations (UK)

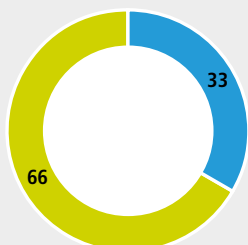


Special projects

Abré van Vuuren (59)
BCom, Development Programme in Labour Relations, Management Development Programme, Advanced Labour Law Programme, Board Leadership Programme

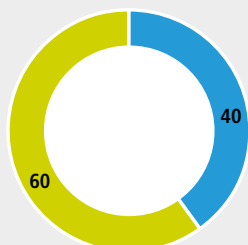
EXECUTIVE MANAGEMENT – DIVERSITY

Gender (%)



■ Female
■ Male

Transformation (%)



■ Historically disadvantaged persons
■ Other

Full and detailed resumés of all members of Harmony's executive management are available at <https://www.harmony.co.za/who-we-are/executive-management>

AUDIT AND RISK COMMITTEE: CHAIRMAN'S REPORT

"Harmony is committed to the highest standards of corporate governance and accountability"



Fikile De Buck – Chairman: Audit and risk committee

Harmony's audit and risk committee (the committee) is pleased to present its report for the financial year ended 30 June 2019 (FY19). This report addresses various material issues beyond compliance with the statutory requirements relating to an audit committee.

Introduction

The committee is an independent statutory committee appointed by Harmony's shareholders. In compliance with section 94 of the Companies Act of 2008 (the Act) and the principles of good governance, shareholders annually appoint certain independent directors as members of the audit committee to fulfil the statutory duties as prescribed by the Act.

In addition, Harmony's board of directors (the board) delegates specific oversight functions to the committee.

This report considers these statutory and delegated duties as well as the committee's responsibilities in terms of the JSE Listings Requirements. It also addresses some of the matters that the King IV Code on Corporate Governance, 2016 (King IV) advises should be considered by an audit committee.

Terms of reference

The committee has formal terms of reference, which are reviewed and updated annually as necessary (or more frequently if required) by both the committee and the board. The committee is satisfied that it has conducted its affairs in accordance with its terms of reference and has discharged its responsibilities.

The committee's terms of reference can be accessed at our corporate website, www.harmony.co.za.

Composition and function

The committee's diverse perspectives, independence, knowledge and experience increase the value of Harmony's governance structures. For details of the qualifications, expertise and experience of the members of the audit and risk committee, refer to *Board of directors*.

Recommendations for the appointment of members to the committee for the new financial year can be found in the notice of annual general meeting in the *Report to shareholders 2019* that accompanies the annual financial statements.

The group chief executive officer, the financial director, the executive: special projects, the executive: ore reserves, the group IT manager, the external auditors, the chief audit executive and other assurance providers attend meetings either by standing invitation or as and when required.

As at the date of this report, the committee comprised the following independent members:

Name	Status	Date appointed
Fikile De Buck (chairman)	Independent non-executive director	30 March 2006 (Chairman with effect from 10 May 2018)
John Wetton	Independent non-executive director	1 July 2011
Dr Simo Lushaba	Independent non-executive director	24 January 2003
Karabo Nondumo	Independent non-executive director	3 May 2013
Given Sibiyi	Independent non-executive director	15 August 2019

Roles and responsibilities

The committee is satisfied that it complied with its legal, regulatory and other responsibilities during the past financial year. The committee's primary objective is to assist the board with its responsibilities of ensuring the integrity of financial statements, the management of risk and cyber security, as well as the safeguarding of assets. Additionally, the committee is mandated to provide oversight of financial control and reporting on internal controls, shareholder reporting and corporate governance, particularly relating to legislative and regulatory compliance.

The committee's roles and responsibilities include statutory and regulatory duties as per the Act, the JSE Listings Requirements and those items recommended in the interest of good governance according to King IV. In addition, the board has assigned other ad hoc duties to the committee, embodied in its terms of reference.

The board conducts annual reviews of the committee's duties and terms of reference as well as annual assessments of its performance, in a manner determined by the board.

No major concerns were raised by any member of the committee in FY19.

For more on the committee and its activities during the year under review, see *Corporate governance*.

The integrated annual report

The committee is responsible for overseeing the group's integrated annual report and the reporting process. This integrated annual report, which has been reviewed by the committee, focuses not only

AUDIT AND RISK COMMITTEE: CHAIRMAN'S REPORT

CONTINUED

on the group's financial performance, but also its economic, social and environmental performance. This report sets out how the group has engaged with stakeholders, addressed its material issues and governed its business. The committee is satisfied with the quality and integrity of the information contained in the integrated annual report 2019 and recommended it to the board for approval.

Annual report filed on Form 20-F with the United States Securities and Exchange Commission

The committee has reviewed the annual report filed on Form 20-F for the year ended 30 June 2019 and recommended the report to the board for approval.

Annual financial statements and accounting practices

The committee reviewed the audited annual financial statements and summarised consolidated financial statements for the year ended 30 June 2019. The statements comply with International Financial Reporting Standards and no significant matters were identified by the committee in that regard. The committee submits that they present a balanced view of the group's performance for the period under review.

The committee considered the JSE's most recent report back on proactive monitoring of financial statements, and where necessary those of previous periods, and has taken appropriate action where necessary to respond to the findings as highlighted in the JSE report when preparing the annual financial statements.

The committee recommended the annual financial statements and summarised consolidated financial statements to the board for approval.

External auditor appointment and independence

The committee is satisfied that the external auditor, PricewaterhouseCoopers (PwC), is independent of the group, as set out in section 94(8) of the Act. This opinion is based on consideration of previous appointments of the auditor and the extent of other work the auditor has undertaken for the group. In a written statement addressed to the committee, PwC confirmed that their independence complies with criteria relating to independence or conflicts of interest as prescribed by the Independent Regulatory Board for Auditors, the Public Company Accounting Oversight Board and the Securities and Exchange Commission. Requisite assurance was sought and provided by the auditor that internal governance processes within the audit firm support and demonstrate its independence.

The committee ensured that the appointment of the auditor complies with the requirements of the Act and other applicable legislation relating to the appointment of auditors. The committee, in consultation with management, agreed to the engagement letter and terms, and to the audit plan as well as scope of work performed and budgeted audit fees for the 2019/20 year.

A formal procedure has been adopted to govern the process whereby the external auditor may be considered for non-audit services and the extent of these services is closely monitored by the committee.

Fees paid to the external auditor for the year were R37 million, of which R35 million was for audit related services, R1 million for non-audit services and R1 million for tax services.

Tenure of the audit firm

PwC has been the group's external auditor for 69 years. At the annual general meeting held on 7 December 2018, PwC was reappointed as the independent external auditor and undertook to hold office until the conclusion of the 2019 annual general meeting.

The committee considered the suitability of PwC and designated audit partner as required by paragraph 3.84(g) (iii) of the JSE Listings Requirements and found same to be adequate based on PwC's submission of the relevant information as required by paragraph 22.15 (h) of the JSE Listings Requirements.

The individual registered auditor responsible for the audit for the financial year ended 30 June 2019 was Mr HP Odendaal. As PwC is required to rotate the audit partner responsible for the group audit every five years, the current lead audit partner will be required to change from FY21 onwards.

As part of Harmony's commitment to transformation, PwC continued to partner with Ngubane & Co., a black audit firm, as part of the PwC engagement team. To facilitate the transfer of skills in the audit of mining companies and SEC registrants, Ngubane & Co., assisted PwC on the audit of Harmony's South African operations. PwC had overall responsibility for the audit and signed off the financial statements. Ngubane & Co. is a level 1, broad-based black economic empowerment company.

The committee has recommended to the board that PwC be re-appointed as the group's independent external auditor, to hold office until the conclusion of the 2020 annual general meeting.

The directors will propose the re-appointment of PwC at the annual general meeting to be held on 22 November 2019. Details can be found in the notice of the annual general meeting in the Report to shareholders 2019 that accompanies the annual financial statements.

Mandatory audit firm rotation is effective from financial years commencing on or after 1 April 2023 and is applicable to listed companies, as well as all public interest entities, to promote superior audit quality and audit independence. To ensure continuity during the company's growth phase and because audit firm rotation is not yet compulsory, the audit and risk committee is of the opinion that PwC should remain as the company's external auditor for the ensuing year.

Internal controls

The committee considers significant control deficiencies raised by management and by the internal and external auditors, and reports its findings to the board. Where weaknesses are identified, the committee ensures that management takes appropriate action.

Based on a review of the design, implementation and effectiveness of the group's system of internal financial controls conducted by the internal audit function during the year under review, and on reports made by the independent external auditors on the results of their audit and management reports, the committee is satisfied that the company's system of internal financial controls is effective and forms a basis for the preparation of reliable financial statements. No findings have come to the attention of the committee to indicate that any material breakdown in internal controls occurred during the past financial year.

Internal audit

In accordance with the requirements of King IV, the committee confirms that, having considered the effectiveness of the chief audit executive, Ms Besky Maluleka-Ngunjiri, it is satisfied that she has the appropriate expertise and experience to meet the responsibilities of this position. The committee is also satisfied that the internal audit function is adequately resourced with technically competent individuals and operates both effectively and efficiently.

The committee is responsible for:

- ensuring that the group's internal audit function is independent and has the necessary resources, standing and authority within the group to enable it to perform its duties
- oversees co-operation between the internal and external auditors, and serves as a link between the board of directors and these functions

The chief audit executive is responsible for regularly reporting the findings of the internal audit work against the agreed internal audit plan to the committee. She has direct access to the committee, primarily through its chairman.

During the year, the committee met with the external auditors and with the chief audit executive without management being present.

The committee is satisfied that the group internal audit follows an approved risk-based internal audit plan and regularly reviews the group's risk profile with necessary changes to the internal audit plan being proposed as and when deemed appropriate. Internal audit provides an overall statement as to the effectiveness of the group's governance, risk management and control processes.

External independent quality assessment

During FY19, the internal audit function underwent an independent quality review conducted by the Institute of Internal Auditors South Africa. The internal audit function was found to generally conform with the International Standards for the Professional Practice of Internal Auditing. No material findings were noted.

Combined assurance

The committee is satisfied that the group has optimised the assurance coverage obtained from management, and internal and external assurance providers, in accordance with an appropriate approved combined assurance model. The committee is also satisfied that the combined assurance model and related systems and procedures are effective in achieving the following objectives:

- Enabling an effective internal control environment
- Supporting the integrity of information used for internal decision-making by management, the board and its committees
- Supporting the integrity of external reports
- Minimising assurance fatigue

Going concern

The audit committee has reviewed a documented assessment, including key assumptions prepared by management, of the going-concern status of the group. The board's statement on the going-concern status of the group, as supported by the audit committee, appears in the directors' responsibility for financial reporting section of the integrated annual report.

Governance of risk

The audit committee fulfils a dual function, being both an audit committee and a risk committee. Internal audit conducts regular and full assessments of the risk management function and framework. The committee is satisfied with the effectiveness of its oversight of the governance of risk in the group. A detailed report on risk, as recommended in King IV, is contained in this integrated annual report. See *Managing our risks and opportunities*.

Technology and information governance

The board recognises that technology is now more than just an enabler, but that technology is both a source for future opportunities and platforms on which our organisation conducts its business.

The audit and risk committee has delegated responsibility to management for implementing the policy on enterprise-wide technology and information management, and for embedding it into the day-to-day, medium- and long-term decision-making activities and culture of the organisation.

During the period under review, inter alia, management introduced a hybrid sourcing model ensuring optimal placement of adequately skilled resources to support operational and project initiatives as per the approved strategy, adopted best-practice cyber-security policies and user awareness programmes enabling a secure and resilient environment, keeping ahead of evolving cyber threats with a revised methodology to governance, complemented by technology, allowing visibility and transparency, which improved compliance and reduced audit effort.

Events subsequent to June 2019

- On 26 July 2019, the Johannesburg High Court approved the R5.2bn settlement of the silicosis and tuberculosis 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 representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants
- On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US\$200 million and a term portion of up to US\$200 million. The tenor of the facility is three years with an option to extend by another one year. The interest rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US\$5 million (R76 million) being drawn on, resulting in an outstanding balance of US\$300 million (R4.6 billion) and an undrawn balance of US\$100 million (R1.4 billion)

Fikile De Buck

Chairman: Audit and risk committee

24 October 2019

SOCIAL AND ETHICS COMMITTEE: CHAIRMAN'S REPORT

“Sustainable development is a necessary and strategic aspect of value creation”



Dr Simo Lushaba – Chairman: Social and ethics committee

DEAR STAKEHOLDER

This year we are pleased to publish our ESG Report 2019, complementing our 2019 suite of annual reports. In addition to the integrated report, this report will provide further insight on environmental, social and governance performance. Being a responsible mining company and a good corporate citizen that exemplified ethical business is core to our values and intrinsic to our strategy and operational models. For us at Harmony, sustainable development implies the efficient use of resources to balance economic growth, care for the environment and social well-being to ensure the long-term sustainability of all. 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.

Sustainable development is thus a necessary and strategic aspect of value creation. 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.

Our framework also takes into account the United Nations Sustainable Development Goals (SDGs) and the role Harmony can play in advancing these within our sphere of influence. We contribute directly and indirectly, positively and negatively, to many of the SDGs. We have identified those goals with which our sustainable development activities are more directly and positively aligned. They are:



Closely allied to the social and ethics committee's role in supporting sustainable development is the monitoring and oversight of stakeholder engagement, in terms of which, the SDGs relating to Peace, justice and strong institutions (SDG 16) and to Partnerships for the goals (SDG 17) are especially relevant. They are linked to how we implement and practice corporate governance, and to our roles of ethical leadership and responsible corporate citizenship. We contribute more indirectly to many of the other SDGs. For further detail on this, see *Sustainable development framework – responsible stewardship*.

As part of ongoing interventions to create and share value, this committee continues to assess, review and approve the ethics policy, stakeholder engagement policy, environmental policy, employment equity and woman in mining strategy, the preferential procurement policy and strategy, and guided towards settlement on the silicosis matter.

For further information on the social and ethics committee and its activities during FY19, see *Corporate governance* in the Integrated Annual Report 2019.

Meaningful stakeholder engagement

As public expectations of mining companies grow, stakeholder engagement and its effective management are vital to maintaining our reputation and social licence to operate. Based on trust and transparency, meaningful stakeholder engagement should be frequent, inclusive, honest and fruitful. Establishing such relationships, takes time and effort. Given the prevailing political and socio-economic environments in the countries in which we operate, every effort is made to engage with stakeholders and to manage our relationships with care and consideration.

This past year, we influenced and informed our community grievance policy and procedure and have started assurance on the number of grievances resolved as well.

For more details on our stakeholders, our engagement with them and our most material issues, see *Stakeholder engagement* and *Our material ESG issues*.

A healthy, safe and engaged workforce

A healthy workforce and safe workplace correlates positively with improved productivity. Proactive healthcare remains key to our strategy – the first and fourth pillars – and in FY19 we continued to promote and raise awareness of the importance of health and well-being, prevention and treatment, and continuous health risk profiling. Tuberculosis, HIV/Aids, and occupational health concerns – dust, heat, noise and radiation – remain the focus.

While this committee does not have specific oversight of employee safety – this falls to the technical committee – it is nevertheless an important consideration in terms of ESG and during board discussions. For information on our approach and actions in relation to employee safety, see the *Chief executive's review* and the technical committee's report in *Corporate governance* in this integrated report, and *Safety and health* in our *ESG report 2019*.

In South Africa, much work has been done collectively to address the silicosis legacy in the gold mining industry and ensure a sustainable and comprehensive solution for the compensation of occupational lung diseases, as covered by the Occupational Diseases in Mines and Works Act. Settlement of the silicosis class action reached in FY18 was approved by the High Court in July 2019. Following an opt-out period, the Tshiamiso Trust will begin implementing the settlement. The six participating mining companies will together contribute an estimated R5 billion to this Trust. In addition, through Harmony's Ku-Riha and RECONNECT projects, we have assisted 10 800 former Harmony employees who received compensation from the Compensation Commissioner's fund to the value of R206 million.

In FY19, a gender diversity strategy to improve women representation in management which was approved by the board in FY18 was fully rolled out.

For further information on employees, see *Employee relations* in this report.

Empowering and transforming communities

Our responsibility to host communities extends far beyond the provision of direct employment. Our local economic development programmes, and our support for local procurement and business opportunities all contribute to sustainable development in host communities. In line with our commitment to local procurement spend in host communities, our preferential procurement strategy and enterprise and supplier development strategy were approved and implemented in FY19. This is also in line with the prescripts of the Mining Charter III which came into effect in South Africa in FY19.

Community development projects focus on infrastructure, enterprise development, agricultural job creation and participation by women and youth. In the past year, our major investments centred on roads rehabilitation in the Free State, implementation of commercial agricultural programmes in Papua New Guinea and South Africa, and youth business hubs to grow the small, medium and micro enterprise sector in informal communities. For detail on our activities in this sphere in the past year, see *Socio-economic development* in this report and in our *ESG report 2019*.

In terms of public health and safety, we monitor and manage our activities to limit community exposure to any potential health hazards so as to ensure the well-being of host communities.

Environmental stewardship and management

Responsible management of our environmental impact and consumption of finite resources are priorities. Reducing our rates of energy and water consumption and improving related efficiencies are vital in limiting our impact on climate change. Our electricity management strategies have seen us reduce the related intensity of use by 24% since 2013. Notwithstanding improvements, Harmony has also recognised the legal considerations relating to carbon tax and have included this in our impairment testing.

Water is a scarce and shared resource where we operate and access to clean water is a basic human right. To alleviate our dependency on potable supplies, Harmony established a third water recycling plant at its South African operations.

Our performance is reflected in our scoring on our CDP Climate Change and CDP Water submissions, reflecting our commitment to delivery. To enhance disclosure, this coming year we will also begin the transition to reporting in terms of the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD).

During the past year, Harmony conducted a review of our operational tailings management programme and related oversight capability and capacity. We are satisfied that our tailings storage facilities are being managed in line with industry good practice. This review included an independent assessment by technical experts in the field of the technical design for new facilities and expansions.

We completed the year with zero production impacts arising from our environmental performance.

Dr Simo Lushaba

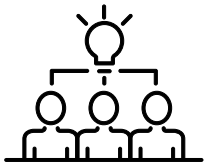
Chairman: Social and ethics committee

24 October 2019

CORPORATE GOVERNANCE

Our duty to be a responsible corporate citizen is supported by our board of directors and their commitment to ethical leadership. Our corporate governance at a glance:

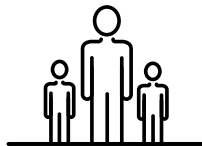
Prepared in accordance with the GRI Standards: 102-18, 102-19, 102-20, 102-21, 102-22, 102-23, 102-24, 102-25, 102-26, 102-27, 102-28, 102-29, 102-30, 102-31, 102-32, 102-33, 102-34, 102-35, 102-36, 102-37, 102-38 and 102-39



ETHICAL LEADERSHIP



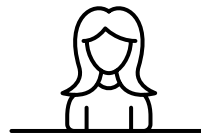
The board leads by example.
Page 43



DIVERSITY



65% of our board members are historically disadvantaged persons – exceeding the Mining Charter III target of 50%.
Page 46



WOMEN REPRESENTATION



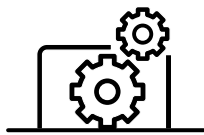
24% of our board members are women – exceeding the Mining Charter III target of 20%.
Page 46



POLICIES AND CHARTERS*



- Terms of reference for the board
- Terms of reference for board committees
- Internal audit charter
- Code of conduct
- Behavioural code
- Board delegation of authority
- Corporate governance and compliance policy and framework
- Disclosure Required by Section 303A.11 of the NYSE Listed Company Manual
- Public Access to Information Act manual
- Whistleblower policy



COMPLIANCE



We maintained zero tolerance for legislative non-compliance. No adverse findings for the year.
Page 55

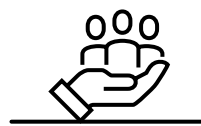


UNITARY BOARD



	Number	%
Total members	17	100
Independent directors	11	65
Women	4	24
Men	13	76
Historically disadvantaged persons	11	65
Average age of the board	62	

Page 46



BOARD INDEPENDENCE



65% of our board members are independent, non-executive directors.
Mavuso Msimang is our lead independent director.
Page 45

* Policies and charters are available online, on our website: www.harmony.co.za

INTRODUCTION

Harmony's board of directors (the board) subscribes to the principles of good corporate governance. The board supports the definition of corporate governance as being the exercise of ethical and effective leadership towards the achievement of the following governance outcomes:

- Ethical culture and responsible corporate citizenship
- Good performance and value creation
- Effective control
- Legitimacy

These objectives form the foundation and framework for the corporate governance report of the board.

Discussed below are the practices within Harmony that the board believes confirm Harmony's application of the King IV Report on Corporate Governance for South Africa, 2016 (King IV) principles. With the Harmony board's long-standing commitment to good corporate governance, the board is comfortable that sufficient practices are and have been in place to promote Harmony's reputation as an ethical, reputable and legitimate organisation and a responsible corporate citizen.

In an attempt to focus on high-level, material practices and detail, additional information supporting specific matters is cross-referenced and linked to relevant sections in the integrated report where appropriate.

ETHICAL CULTURE AND RESPONSIBLE CORPORATE CITIZENSHIP

Ethical leadership

The board fully appreciates that it has to lead by example. Each member of the board is therefore expected to at all times exhibit the characteristics of integrity, competence, responsibility, accountability, fairness and transparency in his or her conduct. Collectively, the board's conduct, activities and decision-making are characterised by these attributes, which also form part of the regular assessment of the board and individual directors' performance. The board recognizes that ethics is one of the pillars of sustainable business practice.

The board charter elaborates on the standard of conduct expected from board members. In addition, the board policy on the declaration of interests not only limits the potential for a conflict of interest but also 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 which fulfils this role on behalf of the board. Details of the arrangements for governing and managing ethics, key focus areas during the reporting period, measures taken to monitor organisational ethics and planned areas of future focus are contained in the *Social and ethics committee: chairman's report*.

The Ethics Institute of South Africa had conducted an ethics opportunity and risk assessment during the year under review and had reported its findings to the social and ethics committee of the board. The purpose of the assessment was to determine the current ethics opportunity and risk profile for Harmony. The outcome of the assessment will further inform the contents of our ethics management strategy and determine the scope and contents of ethics management interventions going forward. Key action items identified included:

- to increase awareness of: action and steps taken against transgressors, no tolerance towards corruption, anonymity when using the whistle blowing line and illegal mining
- to promote and emphasise the fair treatment of employees despite their status, age, gender or rank
- to communicate a clear process flow chart indicating how whistle blower concerns are addressed within the organisation
- to implement additional training opportunities within the organisation on ethical topics
- to develop a process to monitor all disciplinary actions taken to ensure consistency and fair treatment of employees

Responsible corporate citizenship

The mining industry introduces a unique responsibility and opportunity to the group to be a responsible corporate citizen. Although the board sets the tone and direction for the manner in which corporate citizenship should be approached and managed, ongoing oversight and monitoring of the group's performance against set targets again forms part of the mandate of the social and ethics committee. Extensive detail and information on the consequences of the group's activities and outputs that affect its status as a responsible corporate citizen with relevant measures and targets are given elsewhere in the integrated annual report relating to the following areas:

- **Workplace** – See *Employee relations, Socio-economic development, Remuneration report* and *Safety and health*
- **Economy** – See *Employee relations* and *Socio-economic development*
- **Society** – See *Employee relations* and *Socio-economic development* which includes reports on corporate social investment and human rights
- **Environment** – See *Environmental management and stewardship*

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. During the year under review, Harmony had donated R10 million towards the 2019 national elections of South Africa. The funds were divided proportionally to the support that the political parties had received during the previous national election.

GOOD PERFORMANCE AND VALUE CREATION

Strategy

The board is responsible for approving the group's short-, medium- and long-term strategy as formulated and developed by management. In doing so, the board focuses on numerous critical aspects of the strategy including, among others, 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 forms of capital employed as part of the business process. The risks and opportunities connected to the triple context (economy, society and the environment) within which the group operates are integral to the board's strategic reviews of the business.

Policies and operational plans that support the approved strategy are submitted regularly by management for review and formal board approval. The board attends an annual strategy session called a "bosberaad" – specifically dedicated to confirm and review the company's strategy.

Strategy is part of the ongoing conversation in the boardroom. Ongoing oversight of the implementation of strategy and operational plans takes place against agreed performance measures and targets.

As the company's reputation as a responsible corporate citizen is an invaluable attribute and asset, the consequences of activities and our outputs, in terms of the various capitals employed, are continuously assessed by the board through its subsidiary committees. This will ensure that 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 – employees, financial capital, the environment, our reserves and resources, communities and society at large, our mining infrastructure and our intellectual and technological know-how – as well as the solvency and liquidity and going concern status of Harmony.

Reporting

In protecting and enhancing the legitimacy and reputation of the group, the board ensures that comprehensive reporting is done on different platforms. In addition to this integrated annual report, a separate *Report to shareholders* as well as a *Financial report* and a *Mineral resources and mineral reserves report* are published. The group's sustainable development performance, as measured against the GRI Standards, is recorded in the *GRI Standards Scorecard*, which is available on the website www.har.co.za.

It is the board's intention to not only meet minimum legal requirements but also the legitimate and reasonable information needs of material stakeholders. The board is comfortable with management's bases for determining materiality for the purposes of deciding what information should be included in our external reports. The audit and risk committee, with the assistance of the social and ethics committee, has also been tasked with reviewing all external reports to verify the integrity of the information contained therein.

EFFECTIVE CONTROL: BOARD 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, among others, reporting and disclosures

The role and function of the board, including guidelines relating to the board's composition and procedures, are documented in detail in the board charter, which is reviewed regularly to ensure that it remains relevant and applicable.

A protocol is in place to be followed in the event of any of the board members or committees needing 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 to be followed for requisitioning documentation from, and setting up meetings with, management. Notwithstanding, board members have direct and unfettered access to the chief audit executive, the company secretary and members of executive management.

Based on its annual work plan, the board is satisfied that it fulfilled its responsibilities during the period under review in accordance with its charter.

Information on the number of board meetings held by the board and attendance can be found on [page 46](#).

Board composition, chairman and independence

The Harmony board remains committed to promoting diversity at all levels of the organisation, including at board level. The board increased its wealth of experience and diversity by appointing two black female independent non-executive directors, Ms Given Sibiyi and Ms Grathel Motau, effective 13 May 2019.

The board has 17 highly experienced and reputable members, three of whom are executive directors.

On 15 August 2019, the board appointed Ms Given Sibiyi and Ms Grathel Motau to the audit and risk committee and the investment committee respectively, to refresh the board and to enhance committee effectiveness and corporate governance. Both have been recommended for election by Harmony's shareholders at the 2019 annual general meeting. See the Notice of annual general meeting in the *Report to Shareholders 2019*.

The chairman of the board, Dr Patrice Motsepe, is a non-executive director but is not classified as independent. The board is satisfied that the lead independent director, Mr Mavuso Msimang, meets the requirements for an independent director under the Companies Act, Act 71 of 2008 (the Companies Act) and King IV, and any other criteria evidencing objectivity and independence established by the board. The duties of the chairman as well as the 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 a deputy chairman, Mr Modise Motloba. These appointments are all reviewed annually and form part of the board's succession plan for the position of chairman.

Guidance provided by King IV, as far as the board chairman's membership of board committees is concerned, has been applied and the board chairman is only a member of the nomination committee. The nomination committee is chaired by the lead independent director.

Brief profiles of all board members can be found in the Board of directors section in this report, with their detailed resumes available online at www.harmony.co.za.

The majority of the non-executive directors are classified as independent and the independence of these board members has been reviewed by the nomination committee. The board appreciates that independence is first and foremost a state of mind and all board members, notwithstanding their categorisation, are expected to act independently and with unfettered discretion at all times. This expectation is also confirmed in the board charter.

Several independent non-executive directors have served in this capacity for periods longer than nine years. They are:

- Ms Fikile De Buck – 13 years
- Mr Joaquim Chissano – 14 years
- Dr Simo Lushaba – 17 years
- Ken Dicks – 11 years

The nomination committee specifically assessed the independence of these individuals on behalf of the board. The committee also satisfied itself that the 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, when judged 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 committee thus concluded that the members exercise objective judgement at all times. The wealth of experience of these members, in addition to their being known as reputable individuals of integrity and great character, makes their ongoing input and contribution an invaluable asset to the board and the group.

Diversity and transformation are key focus areas for the board. A policy on gender and race diversity at board level has been formally adopted. Four board members are female and 12 members are black. Considering all aspects relating to the composition of the board, the board is satisfied that its composition reflects the appropriate mix of knowledge, skills, experience and independence. In addition, the composition of the board and its leadership structure ensures that there is a balance of power in the boardroom and that no one individual has unfettered authority of decision-making.

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 profiles of these members have been included in the notice of the 2019 annual general meeting in the *Report to Shareholders 2019*. The board is comfortable in recommending their re-appointment to shareholders.

See [page 46](#) for more information on the board, its composition and characteristics.

Nomination, election and appointment

The nomination committee is also tasked with identifying potential candidates for appointment to the board while the actual appointment is a matter for the board as a whole. The collective knowledge, skills and experience required by the board as well as diversity performance are all aspects considered by the board before appropriate candidates are identified for nomination. The nomination committee conducts the necessary independence checks and investigations, as recommended by King IV, in respect of potential candidates.

Formal letters of appointment are provided to all new board members. In addition, new board members participate in an extensive induction programme to enable them to make the maximum contribution within the shortest possible time. 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.

CORPORATE GOVERNANCE CONTINUED

Board composition, chairman, independence and meeting attendance

Name	Age (years)	Appointed director	Independent	Attendance by committee						Attendance at board meetings		
				*Audit and risk committee	** Social and ethics committee	** Technical committee	** Investment committee	Remuneration committee	Nomination committee			
Non-executive directors												
Dr Patrice Motsepe (Chairman)	57	***2003								3/3	5/5	100%
Mr Modise Motloba (Deputy chairman)	53	2004		# 4/6	7/7		5/6			3/3	5/5	100%
Mr Mavuso Msimang (lead independent)	78	2011	✓		5/7					3/3	5/5	100%
Dr Simo Lushaba	53	2002	✓	6/6	7/7		4/6	5/5			5/5	100%
Ms Fikile De Buck	59	2006	✓	6/6	5/7			5/5	3/3		4/5	80%
Ms Karabo Nondumo	41	2013	✓	5/6		6/6	5/6				5/5	100%
Mr Ken Dicks	80	2008	✓			5/6	5/6				5/5	100%
Mr John Wetton	70	2011	✓	6/6	6/7		6/6	5/5			5/5	100%
Mr Max Sisulu	74	2018	✓		4/7						4/5	80%
Mr Vishnu Pillay	62	2013	✓			6/6	6/6	5/5			5/5	100%
Pres. Joaquim Chissano	80	2005	✓		2/7				2/3		4/5	80%
Mr André Wilkens	70	2007				6/6	6/6	5/5			5/5	100%
Ms Grathel Motau##	45	2019	✓								1/5	20%
Ms Given Sibiyi##	51	2019	✓								1/5	20%
Executive directors												
Mr Peter Steenkamp	59	2016									5/5	100%
Mr Frank Abbott	64	2012									5/5	100%
Mr Harry Mashego	55	2010									4/5	80%

* Includes one ad hoc meeting for the year

** Includes site visits

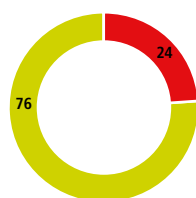
*** Appointed chairman in 2004

Appointed to the board on 13 May 2019

Resigned as a member of the audit and risk committee on 21 October 2019

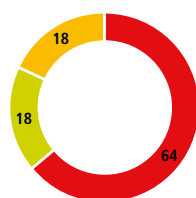
Board characteristics (%)

By gender



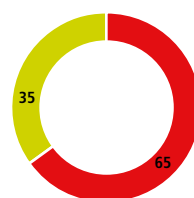
■ Female
■ Male

By director



■ Independent non-executive directors
■ Executive directors
■ Non-executive directors

By historically disadvantaged persons



■ Historically disadvantaged persons
■ Other

Tenure (number of directors)



■ Less than 5 years
■ Between 5 and 11 years
■ Longer than 12 years

Conflicts of interest

Each member of the board is required, among others, to submit a general declaration of financial, economic and other relevant interests and to update these general declarations as and when necessary as a result of significant changes. In addition, the declaration of interests in any matter on the agenda of a meeting of the board or a board committee is a standard item at the start of every meeting. In the event of a potential conflict being declared, the board proactively manages such conflict within the boundaries of the law.

Board performance evaluations

The board fully supports the notion that an appropriate evaluation of the board and its various structures is a strategic value adding exercise that facilitates the continued improvement of the board's performance and effectiveness. For this reason an independent formal self-evaluation process was again undertaken during the past year and included an assessment of the performance of the board, its chairman and individual members as well as the board committees, chief executive officer and company secretary.

Overall, the self-evaluation reconfirmed that the board and board committees were considered to be:

- highly effective
- appropriately positioned to discharge their governance responsibilities and that the board is well supported by its committees
- working as a cohesive unit and that the highest ethical standards are applied in deliberations and decision-making, thus enabling the board to provide effective leadership based on an ethical foundation

The general consensus among board members is that the chief executive officer:

- communicates effectively with all of 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.

The following matters were highlighted as further areas for improvement:

- Although the board recently appointed two additional black women to the board, the board acknowledges the need to further improve representation on the board from a gender perspective
- Harmony's retention plan should be formalised into a policy
- A formal benchmarking of non-executive director fees should again be done
- Although the audit and risk committee monitors cyber security on behalf of the board, more information should be presented to the board as a whole

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 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. The chief executive officer is not a member of the remuneration, audit or nomination committees. He does, however, attend meetings of these committees as and when required for him 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.

A formal delegation of authority framework is in place and is reviewed regularly by the board to ensure its appropriateness and relevance 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.

The board has identified key management functions and ensures that these functions are headed by individuals with the necessary competence and authority, and are adequately resourced. Executive succession planning includes plans for executive management succession and other key positions in order to provide continuity of leadership and business. These plans are reviewed periodically by the nomination committee on behalf of the board.

Company secretary

The board has direct access to the company secretary who provides professional and independent guidance to the board as a whole and to members individually on corporate governance and legal duties. The company secretary also supports the board in co-ordinating the effective and efficient functioning of the board and its committees.

The company secretary is a full-time employee of Harmony and also oversees the legal function in the group. She is a qualified attorney, conveyancer and notary and has been a company secretary for the past 15 years (12 years in a listed environment). Her summary resumé is included in the separate document, *Board and management resumé 2019*. In order to facilitate and enhance the independence and effectiveness of the company secretary, the board ensures that the office of the company secretary is empowered and that the position carries the necessary authority. The remuneration committee considers and approves the remuneration of the company secretary on behalf of the board.

The company secretary has unfettered access to the board and, at all times, retains an arms-length relationship with the board in order to enhance the independence of the position. The company secretary 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 functions performed in connection with the board.

CORPORATE GOVERNANCE CONTINUED

The board annually assesses the performance and independence of the company secretary and also confirms that the company secretary has the necessary competence, gravitas and objectivity to provide independent guidance and support at the highest level of decision-making in the group. The company secretary's performance and independence were assessed at the end of the year under review, and the board is satisfied with her competence, experience and qualifications.

The board is therefore comfortable that the arrangements in place for accessing professional corporate governance services are effective.

Board committees

The board has delegated particular roles and responsibilities to standing committees based on relevant legal requirements as well as on what is appropriate for the group and to achieve the objectives of delegation. The board recognises that duties and responsibilities can be delegated but that accountability cannot be abdicated. The board, therefore, remains ultimately accountable.

The following committees have been established:

- Audit and risk committee
- Investment committee
- Nomination committee
- Remuneration committee
- Social and ethics committee
- Technical committee

Disclosures in respect of each committee can be found from page 49 of this report.

Formal terms of reference have been adopted for each board committee and are reviewed annually (and when necessary) to ensure that the content remains appropriate and relevant. The terms of reference address, as a minimum, the recommended items in King IV.

In considering the membership of board committees, the board, with the assistance of the nomination committee, is mindful of the need for effective collaboration through cross-membership between committees, where required. The timing of committee meetings is co-ordinated so as to facilitate and enhance the effective functioning

of and contribution made by each of the committees. The duties and responsibilities of each committee have been documented so as to clearly define the specific role and positioning of each committee in relation to 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 comfortable 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, as a minimum, three members. Members of the executive and senior management are invited to attend committee meetings as deemed appropriate and necessary for the effective functioning of the committee.

Any board member who is not a member of a specific committee is entitled to attend meetings of a board committee as an observer but is not entitled to participate without the consent of the committee chairman. Such members 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.

The board considers the recommendations as provided by board committees in matters requiring board approval but remains responsible for applying its collective mind to the information, opinions, recommendations, reports and statements presented by the committees.

During FY19, the majority of the 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 chaired by Modise Motloba who are both non-independent, non-executive directors. The board remains confident that André and Modise's leadership as chairmen 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.

A brief description of each board committee, its functions and what each committee achieved during FY19, follows.

AUDIT AND RISK COMMITTEE

	Core expertise							
	Independent	Non-executive	Committee member tenure	Accounting and investment	Internal and external auditing	Treasury and fund management	Risk management	Mining, legal and financial industry
Fikile De Buck (Chairman)*	√	√	13 years	√	√	√	√	√
Modise Motloba**		√	15 years	√		√	√	√
John Wetton	√	√	8 years	√	√	√	√	√
Karabo Nondumo	√	√	6 years	√	√	√	√	√
Dr Simo Lushaba	√	√	16 years	√		√	√	√
Given Sibiya	√	√	Appointed 15 Aug 2019	√	√		√	√

Primary functions

- Monitors the operation of an adequate system of internal control and control processes
- Monitors the preparation of accurate financial reporting and statements in compliance with all applicable legal and corporate governance requirements and accounting standards
- Monitors risk management, ensures that significant risks identified are appropriately addressed and supports the board in the overall governance of risk

Key activities and actions in FY19

For the actions of the audit and risk committee in FY19 refer to the *Audit and risk committee: chairman's report*

- Reviewed the company's quarterly and annual financial results
- Evaluated and considered Harmony's risks, as well as measures taken to mitigate those risks
- Monitored the internal control environment in Harmony and found it to be effective
- Discussed the appropriateness of accounting principles, critical accounting policies, management judgments, estimates and impairments, all of which were found to be appropriate
- Considered the appointment of the external auditor, PricewaterhouseCoopers Inc, as the registered independent auditor for the ensuing year
- Satisfied itself that the external audit firm, PricewaterhouseCoopers Inc, was suitable and independent from the company
- Evaluated the independence and effectiveness of the internal audit function
- Evaluated and coordinated the internal audit, external audit and sustainability assurance processes
- Received and considered reports from the external and internal auditors
- Reviewed and approved internal and external audit plans, terms of engagement and fees, as well as the nature and extent of non-audit services rendered by the external auditors
- Considered the appropriateness and expertise of the financial director, Frank Abbott, as well as that of the finance function – both were found to be adequate and appropriate
- Considered whether information technology risks are adequately addressed and whether appropriate controls are in place to address these risks. The committee oversees and monitors the governance of information technology on behalf of the board, a task it views as a critical aspect of risk management. Additionally, the committee considered and approved the company's information technology strategy as well as the company's cyber security policy
- Considered and confirmed the company as a going concern
- Considered and approved the company's treasury policy
- Reviewed and recommended the company's dividend policy for board approval
- Considered and approved the company's internal audit charter
- Reviewed and recommended the company's delegation of authority policy for board approval
- Considered and approved the company's non-audit services policy

* Appointed as chairman on 10 May 2018

** Resigned as a member on 21 October 2019

CORPORATE GOVERNANCE CONTINUED

REMUNERATION COMMITTEE

	Independent	Non-executive	Committee member tenure	Core expertise	
				Accounting and financial management roles	Leadership and transformation
Vishnu Pillay (Chairman)*	✓	✓	4 years	✓	✓
Fikile De Buck	✓	✓	9 years	✓	✓
John Wetton	✓	✓	8 years	✓	✓
Dr Simo Lushaba	✓	✓	14 years	✓	✓
André Wilkens		✓	12 years	✓	✓

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 in the 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 FY19

- Reviewed the benefits and remuneration principles as applied to Harmony executive management
- Received and discussed a summary of the total suite of Harmony executive management incentive schemes in order to obtain a holistic view
- Reviewed and recommended the committee's terms of reference to the board for approval
- Considered and recommended the remuneration policy and implementation report to the board for inclusion in the notice of annual general meeting for consideration by the shareholders as non-binding advisory resolutions (see Remuneration report)
- Reviewed executive directors' and executive management's remuneration benchmarks and recommended their annual salary increases to the board for approval (see Remuneration report)
- Reviewed the annual salary increases of the company secretary and chief audit executive
- Considered and recommended the company's Total Incentive Plan Balanced Scorecard for FY20 for board approval

* Appointed as chairman on 11 May 2017

NOMINATION COMMITTEE

	Independent	Non-executive	Committee member tenure	Core expertise		
				Corporate governance	Leadership and transformation	General management
Mavuso Msimang (Chairman)*	✓	✓	7 years	✓	✓	✓
Patrice Motsepe		✓	16 years	✓	✓	✓
Joaquim Chissano	✓	✓	13 years	✓	✓	✓
Modise Motloba		✓	9 years	✓	✓	✓
Fikile De Buck	✓	✓	9 years	✓	✓	✓

Primary functions

- Ensures that 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 FY19

- 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 board committees, in line with the board's policy on gender and race diversity
- Considered the positions of the chairman and the deputy chairman of the board and the 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, the chairman of the board, the chief executive officer, executive management and the company secretary
- Considered the programme in place for the professional development and regular briefings on legal and corporate governance developments, risks and changes in the external environment of the organisation

* Appointed as chairman on 10 May 2018

SOCIAL AND ETHICS COMMITTEE

	Independent	Non-executive	Committee member tenure	Core expertise				
				Sustainable development	Stakeholder relations	International and government relations	Social development and transformation strategy	Environmental, Social and Governance
Dr Simo Lushaba (Chairman)*	✓	✓	1 year	✓	✓		✓	✓
Modise Motloba		✓	14 years	✓	✓		✓	✓
John Wetton	✓	✓	8 years	✓			✓	✓
Mavuso Msimang	✓	✓	8 years	✓	✓	✓	✓	✓
Joaquim Chissano	✓	✓	13 years	✓	✓	✓	✓	✓
Fikile De Buck	✓	✓	13 years	✓			✓	✓
Max Sisulu	✓	✓	1 year	✓	✓	✓	✓	✓

Primary functions

- Oversees policy and strategies pertaining to occupational health and employee well-being, 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 referred to 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 FY19

- 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 and environmental issues affecting the company's business and stakeholders
- Reviewed and considered the effect that the company's operations had on the economic, social and environmental well-being of communities, as well as significant risks within the ambit of the committee's responsibilities
- Approved material elements of sustainability reporting and the key performance indicators which were externally assured
- Considered and monitored the company's internal and external stakeholder relations
- Attended an occupational health site visit in Lesotho relating to Harmony's collaboration with TEBA to trace and stay in contact with former employees to ensure that claims for occupational lung disease are paid efficiently
- Reviewed and recommended changes to the committee's terms of reference to the board for approval
- Considered and approved the company's strategy on preferential procurement and the enterprise and supplier development framework
- Reviewed and recommended the company group behavioural code and code of conduct
- Reviewed and recommended the committee's terms of reference to the board for approval

See [Social and ethics committee: chairman's report](#)

* Appointed as chairman on 10 May 2018

CORPORATE GOVERNANCE CONTINUED

INVESTMENT COMMITTEE

	Independent	Non-executive	Committee member tenure	Core expertise				
				Investment/ Banking and Financial advisory	Entrepreneurship and business development	Mergers and acquisitions	General management	Governance and legal
Modise Motloba (Chairman)*		✓	1 year	✓	✓	✓	✓	✓
Dr Simo Lushaba	✓	✓	15 years	✓	✓	✓	✓	✓
John Wetton	✓	✓	8 years	✓	✓	✓	✓	✓
Karabo Nondumo	✓	✓	6 years	✓	✓	✓	✓	✓
Ken Dicks	✓	✓	11 years		✓	✓	✓	✓
Vishnu Pillay	✓	✓	6 years		✓	✓	✓	✓
André Wilkens		✓	12 years		✓	✓	✓	✓
Grathel Motau	✓	✓	Appointed 15 Aug 2019	✓	✓	✓	✓	✓

Primary functions

- Considers projects, acquisitions and disposals in line with Harmony's strategy and ensures that due diligence procedures are followed
- Conducts other investment-related functions designated by the board

Key activities and actions in FY19

- Considered investments, proposals, projects and proposed acquisitions in line with the board's approved delegation of authority and the committee's terms of reference
- Attended a site visit for a detailed update on the Kalgold optimisation study and exploration drilling
- Reviewed and recommended the budget and business plans for FY20
- Reviewed and recommended the committee's terms of reference to the board for approval

* Appointed as chairman on 10 May 2018

TECHNICAL COMMITTEE

	Independent	Non-executive	Committee member tenure	Core expertise				
				Overall gold mining experience	Mining engineering	Mining technology	Project management and general management	Risk management
André Wilkens (Chairman)*		✓	11 years	✓	✓	✓	✓	✓
Ken Dicks	✓	✓	11 years	✓	✓	✓	✓	
Karabo Nondumo	✓	✓	3 years				✓	✓
Vishnu Pillay	✓	✓	6 years	✓	✓	✓	✓	

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 the challenges facing operations
- Reviews strategic plans before recommending such to the board for approval
- Provides technical guidance and support to management

Key activities and actions in FY19

- 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
- Reviewed and recommended to the board the company's annual budget and business plans for FY20
- Attended a site visit for a detailed update on the Kalgold optimisation study and exploration drilling
- Considered investments, proposals, projects and proposed acquisitions from a technical point of view
- Reviewed and recommended the committee's terms of reference to the board for approval

* Appointed as chairman on 22 January 2008

EFFECTIVE CONTROL – GOVERNANCE FUNCTIONAL AREAS

Risk governance

The board appreciates that risk is integral to the way it makes decisions and executes its duties. Risk governance in the boardroom encompasses both risks and opportunities as well as a consideration of the potential positive and negative effects of any risks on the achievement of the group'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, and when deemed necessary and appropriate.

In the previous year, Internal audit conducted a gap analysis on corporate governance in the company. The outcome revealed that the company was materially compliant.

The results of the ongoing oversight of risk management as well as detail on the nature and extent of the risks and opportunities that the group is willing to take are disclosed in *Managing our risks and opportunities*. An overview of the arrangements for governing and managing risk, key areas of focus during the reporting period, actions taken to monitor the effectiveness of risk management and planned areas of future focus are also included.

Technology and information governance

The board accepts responsibility for governing technology and information in a way that supports the group in setting and achieving its strategic objectives. The board is supported in this area by the audit and risk committee.

A technology and information steering committee, chaired by the chief financial officer (Boipelo Lekubo) and with its membership covering the head of information services and members of the group executive committee, has a well-defined charter and is responsible for the oversight of technology and information direction, investment and alignment with business strategy and priorities.

Management adopted the Control Objectives for Information and Related Technologies (COBIT), a framework published by the Information Systems Audit and Control Association (ISACA) for IT management and IT governance. COBIT provides a set of recommended best practices for governance and control processes of information systems and technology with the goal of aligning IT with business. COBIT is positioned at a high level and has been aligned and harmonised with other, more detailed IT standards and good practices.

Internal audit provides assurance to management and the audit and risk committee on the effectiveness of the governance of technology and information.

Compliance governance

The foundation of our corporate governance is compliance with the Companies Act, the requirements of the JSE, where we have our primary listing, and of the New York Stock Exchange as well as with the King IV Report and related principles and codes of good corporate governance. Harmony also complies voluntarily with the principles of the United Nations Global Compact, International Council on Mining and Metals, the Global Reporting Initiative and the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code).

Being an ethical and responsible corporate citizen requires zero tolerance for any incidences of legislative non-compliance. In addition, compliance with adopted, non-binding rules, codes and standards is essential in supporting the achievement of strategic business objectives.

Corporate governance policy

Acknowledging the significance of compliance, the board, through the audit and risk committee, adopted a formal corporate governance and compliance policy which sets out the principles of good corporate governance for the board as well as all employees at all operational levels.

Code of conduct

Developed to respond to the challenge of ethical conduct in the business environment, our 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 of conduct at least every second year, while its application within Harmony is continually monitored by management. The code of conduct was reviewed and updated during FY18. 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 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 hot line (which is managed by an independent consulting firm), as well as 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 reports to the management ethics committee.

CORPORATE GOVERNANCE CONTINUED

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 so wish. The whistleblowing policy informs whistleblowers of their rights.

The identity of any employee or stakeholder who reports non-compliance with the code of conduct is protected. Our anonymous ethics hotline numbers, which are widely advertised throughout the organisation, are:

- South Africa: +27 (0) 800 204 256
- Papua New Guinea: +675 (0)00 861 239
- Australia: +61 (1) 800 940 949

Ethics officer and ethics management committee

Harmony has a permanent ethics officer who ensure that the ethics management plan and programme is executed sufficiently and is duly communicated throughout the organisation. Our management ethics committee monitors our ethical culture and integrity with the assistance of the ethics officer. The following were introduced and developed further during the past year:

- Verification processes to identify politically exposed persons
- Verification processes for purposes of doing business with international companies
- Effective reporting format to the social and ethics committee

The management ethics 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 within the company.

Protection of Personal Information Act

Although the Protection of Personal Information Act, 4 of 2013 (POPIA) is enacted but not in force as yet, Harmony stays committed to implement measures in adherence to requirements stipulated by POPIA in support of good governance. Creating POPIA awareness within the organisation remains ongoing.

In accordance with POPIA, the information and compliance officer manages the company's information, ensures compliance with POPIA, manages the company's records and archives and ensures compliance with the company's regulatory environment in general. The information and compliance officer compiles information and reports on the status of legislative compliance at the audit and risk committee meetings.

Promotion of Access to Information Act

Harmony complies with the Promotion of Access to Information Act, which protects the constitutional right to information that is required to exercise or protect a right. The purpose of this legislation is to foster a culture of transparency and accountability in public and private bodies, and to promote a society in which all South Africans are enabled to enjoy their rights. For more on this see our website: www.harmony.co.za/sustainability/governance#policies.

There has been a noticeable increase in requests for human resource and medical related information during FY19. The majority of these requests were related to the silicosis class action suit. Information was provided in accordance with PAIA regulations. The company received 194 requests for access to information in terms of this legislation during FY19.

Broad-Based Black Economic Empowerment Act

The annual compliance report in line with section 13G(2) of this Act can be found on [pages 148](#) and [149](#) of this report.

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 employees and directors by the company secretary. In terms of regulatory and governance standards, directors and employees are required to disclose any dealings in Harmony shares in accordance with the JSE Listings Requirements. The clearance procedure for directors and the company secretary to deal in Harmony shares is regulated by the company's policy on trading in shares and insider trading. The policy is reviewed every second year.

Significant fines

On 4 October 2018, Harmony reached a mutually acceptable settlement with the Financial Sector Conduct Authority of South Africa. The dispute related to incorrect financial results reported for the March 2007 quarter. Harmony informed shareholders and the authorities of the error in August 2007. Subsequently, Harmony reviewed all financial accounting procedures and systems to ensure that a similar bona fide error would not occur. Following various discussions with the authorities, an administrative penalty of R30 million (US\$2.2 million) was imposed and paid by Harmony.

Harmony paid no other significant fines in any of its areas of operation and had no other actions brought against it for anti-competitive behaviour or for anti-trust or monopoly practices during FY19.

Foreign private issuers

New York Stock Exchange foreign private issuers, such as Harmony, must briefly 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 brief summary of these differences can be found in our 2019 Form 20-F filed with the United States Securities and Exchange Commission on our website at: <https://www.harmony.co.za/investors/reporting/20f>.

Remuneration governance

Attracting and retaining the required skills depends, to a large extent, on the remuneration levels and practices in any business. It is therefore vital to ensure that the group remunerates fairly, responsibly and transparently so as to promote 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 addition, provision has been made in the notice of the 2019 annual general meeting for a non-binding advisory vote of shareholders on both the remuneration policy as well as on the remuneration implementation report see the *Report to Shareholders 2019*.

Assurance and internal audit

The audit and risk committee oversees the arrangements for assurance services and functions on behalf of the board to ensure that those arrangements are effective in achieving the objectives of an enabling control environment and supporting the integrity of information, for internal decision-making and external reporting purposes.

A combined assurance model is applied that effectively covers the group's significant risks and material matters through a combination of internal functions and external service providers. Additional detail on the combined assurance model is provided in the Assurance report.

Notwithstanding the output of the combined assurance model, board members are expected to apply an enquiring mind, form their own opinion on the integrity of the 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 model. The audit and risk committee oversees the internal audit function on behalf of the board. More information on the internal audit function is contained in the *Audit and risk committee: chairman's report*.

External independent quality assessment

During FY19, the internal audit function underwent an independent quality review conducted by the Institute of Internal Auditors South Africa. The internal audit function was found to generally conform with the International Standards for the Professional Practice of Internal Auditing. No material findings were noted.

Legitimacy

Stakeholder relationships

In the interests of Harmony's reputation and its legitimacy, the board sets the direction for the group's approach to stakeholder relationships. An inclusive stakeholder-engagement model that considers the legitimate needs, interests and expectations of all material stakeholders has been adopted.

Information on the material stakeholders and the manner in which relationships with stakeholders are managed is provided in *Stakeholder engagement* and *Our material ESG issues* which also addresses, among others, the arrangements for governing and managing stakeholder relationships, key areas of focus during the reporting period, actions taken to monitor the effectiveness of stakeholder management and future focus areas.

Shareholders are encouraged to attend the Harmony annual general meeting, details of which are contained in the notice of the 2019 annual general meeting in the *Report to shareholders 2019*.

REMUNERATION REPORT

“Our remuneration policy supports the company on its growth strategy as it delivers value to shareholders”



Vishnu Pillay – Chairman: Remuneration committee

DEAR SHAREHOLDER

I am pleased to submit the Remuneration Report as part of Harmony's Integrated Annual Report 2019. To ensure peak performance and that our business objectives are responsibly met, it is imperative that employees and directors of the company are fairly and responsibly rewarded.

The remuneration committee plays an important role in ensuring fair, equitable and responsible remuneration practices. The implementation of the new total incentive, overwhelmingly approved at the 2018 annual general meeting, is an important change to our management remuneration policy going forward. We also continue to make significant progress in reflecting company performance and the topical issues of a living wage, diversity and pay equality.

Safe production – our number one priority in everything we do

The remuneration committee mourns and acknowledges the tragic loss of 11 of our employees at our South African operations during the 2019 financial year.

Harmony's ongoing efforts to address safety in the workplace have resulted in fewer lost time injuries. We follow an integrated risk management approach, which includes safety training, awareness campaigns, safety days at each of our operations and equipping our employees with the necessary skills to identify hazards and act safely. Safe production is a responsibility that we, at Harmony, consider very seriously. Every person has the right to withdraw from an unsafe area and employees are encouraged to report unsafe working

conditions. With each fatality, a thorough investigation is conducted and lessons learnt are shared throughout the company. Employees are held accountable for not complying with safety regulations. Efforts to improve safety cannot, however, focus solely on discipline and training. Safety outcomes are therefore held in high regard and further re-inforced in our remuneration policy. For more information on what has been done to address our safety performance, see *Safety and Health*.

Although the company's lost-time injury frequency rate was excellent during the financial year, as recommended by the remuneration committee, the board decided not to acknowledge the lost-time injury frequency rate achievement due to the number of fatalities suffered during the year. See *Part 2* of this Remuneration report.

The new total incentive plan approved by our shareholders is applicable from 1 July 2019 and the lost-time injury frequency rate component carries a weighting of 15% of the total score on the balanced scorecard.

The industry and national context

The South African gold industry is maturing and shrinking with annual gold production declining from 137 tonnes in 2017 to 117 tonnes in 2018. Gold sales declined by 15% to R69.7 billion in 2018 (R82.9 billion in 2017)¹. With multiple challenges presented by increasing mining depth, rising costs and a volatile rand gold price, South African gold mines are under pressure to deliver a reasonable margin after all-in sustaining costs have been considered.

Despite this industry context, we remain committed to paying a “living wage” to our employees. For a detailed account of the overall remuneration packages of Harmony's entry-level employees (category 4-8 employees), please refer to page 63 of this Remuneration Report.

Harmony's social responsibility

Social equality remained a top priority with focus on paying “living wages” to entry-level workers. Managing the wage gap included finding innovative solutions that would address workers' most pressing basic financial concerns. This calls for innovative thinking at all levels and by all role players.

We are pleased to confirm that Harmony pays all category 4 employees at least three times the 2018 living wage of R6 570 per month, as determined by Trading Economics².

We continually strive to improve the lives of our employees by improving living conditions, access to social services, healthcare, and education and training. See *Employee relations* and page 63 of this Remuneration Report.

Fair and responsible pay

Remunerating executives fairly and holding them accountable for the success of the business is in the interests of all stakeholders, including employees, the community at large, and our business partners and suppliers.

¹ <https://www.mineralscouncil.org.za/sa-mining/gold>

² <https://tradingeconomics.com/south-africa/living-wage-individual>

We remunerate fairly and responsibly by ensuring that our remuneration is market-related and in line with the performance of the company. We also ensure that our minimum remuneration compares favourably with the South African living wage, and that the measurement of the pay gap between the lowest and highest employment levels is established and monitored as discussed below. In FY19, an average increase of 5% in guaranteed remuneration packages for non-unionised employees and 7.75% for unionised employees was approved. In order for the committee to track the income dispersion between high- and low-income earners more efficiently, the Palma ratio has been selected. This form of measurement is becoming emerging market best practice as it is easier to calculate and understand than the Gini co-efficient. The Palma ratio is calculated by comparing the average income of the top 10% earners compared to the average of the lowest 40% earners at Harmony South Africa. Harmony's Palma ratio in 2019 was 5.5 compared to 5.7 in 2018.

Financial and operational performance

In line with our strategy to produce safe, profitable ounces and increasing margins through operational excellence and value-accretive acquisitions, annual gold production and cash flows were boosted by the inclusion of a full year of production from Moab Khotsoang and Hidden Valley respectively. The group achieved a 17% increase in gold production at 1.44 million ounces in line with annual production guidance of 1.45 million ounces. Underground recovered grade increased by 2% to 5.59g/t – the seventh consecutive year of increasing grade.

Gender and racial equality

Harmony's remuneration policy is to remunerate based on an individual's ability, skills and knowledge. Men and women, irrespective of their race, are paid equally for equivalent roles. There is no differentiation in remuneration based on gender, race or any other arbitrary reason. The gender distribution for all employment categories is discussed more fully in *Part 2* of this Remuneration Report. The overall number of females represented in the organisation's workforce is small. Harmony is systematically addressing this discrepancy by employing a greater number of women at the underground operations. For details, refer to *Employee relations*.

New total incentive plan

We received overwhelming support at our annual general meeting in December 2018 for our new simplified, market-related total incentive plan, comprising a long-term Deferred Share Plan and a short-term annual cash payment (the total incentive plan). This plan has now been implemented with effect from 1 July 2019. Details are provided in *Part 1* of this report.

King IV principles

The remuneration committee continues to compare local and global remuneration trends with our remuneration strategy. At the 2018 annual general meeting, the non-binding advisory vote on the remuneration policy was supported by 99% of the votes exercised on the resolution. Considering that 81% of the total issued shares of the company were voted on the resolution, the remuneration committee is satisfied with shareholders' support of this very important aspect of the business.

We were particularly pleased that our new total incentive plan was well received. The committee is satisfied that the remuneration policy has achieved its stated objectives for the year. For more on the committee and its activities during the year under review, see the section on *Corporate governance* in this report.

More than 25% of the voting rights exercised at the 2018 annual general meeting voted against the implementation report. In terms of King IV and paragraph 3.84(k) of the JSE Listings Requirements, the remuneration committee, in good faith and with the best reasonable effort, engaged with its shareholders to ascertain the reasons for the dissenting votes. Shareholders raised concerns about the number of fatalities during the year under review, the company's share price performance, the absence of dividends as well as insufficient disclosure relating to personal performance indicators. The company responded to all the shareholders who participated in the engagement individually. Steps taken to address all the concerns raised are addressed in *Part 2* of this report.

No member of the committee has a personal interest in the outcome of decisions made during the period under review and four of its five members are independent non-executive directors. The chairman of the board is not a member of the committee.

Use of consultants and their independence

We employed the services of consultants PwC and the legal firm Bowmans during the year for independent and objective advice on remuneration trends and legal matters.

Statement on effectiveness of policy

We are comfortable that our policy has achieved its objectives and we are confident that the new total incentive plan will further enhance our company performance and support our growth objectives.

In closing

Our full remuneration policy can be found at www.harmony.co.za/remuneration-policy. We value our shareholder comments and, as always, invite our shareholders to engage with the company through the office of the company secretary (companysecretariat@harmony.co.za). I remain grateful to the Board, remuneration committee members and executive directors for their support and commitment during 2019.

Vishnu Pillay

Chairman: Remuneration committee

24 October 2019

REMUNERATION REPORT CONTINUED

PART 1: REMUNERATION POLICY

Harmony's reward strategy underpins our business strategy of safely producing profitable ounces, increasing our margins and expanding our production base through organic growth and acquisitions. In order to achieve this, we rely on experienced, skilled teams who live our values and maintain stakeholder relationships to grow profits safely and maintain a sustainable company.

Our remuneration policy has been designed with our business strategy in mind – to attract and retain these experienced, skilled teams, and to motivate them to deliver and achieve our key business goals. To ensure that this happens, we need to be certain that all elements of our remuneration and wider reward offerings are aligned, fair and market competitive. In determining remuneration, the remuneration committee takes into account shareholders' interests as well as the financial health and future of the company.

GENDER AND RACE EQUALITY

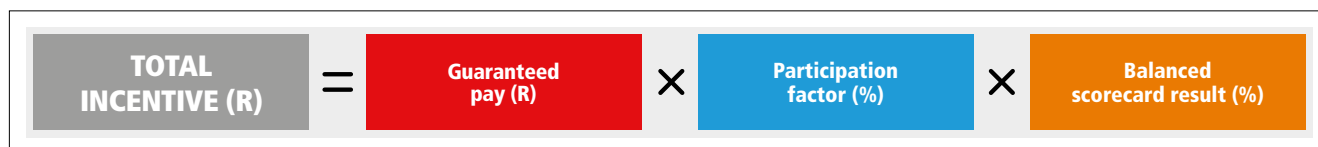
Harmony's remuneration policy is to remunerate based on an individual's ability, skills and knowledge. Men and women, irrespective of their race, are paid equally for equivalent roles. There is no differentiation in remuneration based on gender, race or any arbitrary factor.

FAIR AND RESPONSIBLE PAY

Harmony is committed to the concept of a "living wage", which is based on the philosophy of fair and responsible pay. It embodies our efforts to improve the lives of our employees by enabling them to improve their living conditions, and to have better access to social services, healthcare, and education and training. For more information, refer to *Employee relations* and *Socio-economic development*.

TOTAL INCENTIVE PLAN

The total incentive is determined every year on the following basis:



The balanced scorecard result includes a number of key short- and long-term company performance measures (to be measured over trailing three- and one-year periods). The measures are reviewed and defined annually with appropriate weightings. The scorecard for FY20 is detailed on *page 59* of this report.

A portion of the total incentive is paid immediately in cash and the balance is settled by means of deferred shares, which will vest at a rate of 20% per annum over the following five years for the executive directors and prescribed officers, and one-third per annum over the following three years for management.

Each element of the total incentive plan is described in the detail below.

Element		Description						
Guaranteed pay		Guaranteed pay, which is inclusive of contributions by the company to a retirement fund and a medical aid scheme, is aligned with similar roles in the market sector in which we operate and the contribution made by employees. Guaranteed pay excludes short- and long-term incentives. To compete effectively for skills in a challenging employment market, we identify the target market to use in benchmarking guaranteed pay. This target market includes organisations or companies that employ similar skills sets to those we require. Comparisons are made predominantly within the mining sector to ensure that Harmony remains competitive. The median of the target market is used as the basis of our pay ranges.						
Participation factor		<table border="1"> <thead> <tr> <th>Employee</th> <th>% guaranteed pay</th> </tr> </thead> <tbody> <tr> <td>Chief executive officer</td> <td>250%</td> </tr> <tr> <td>Chief financial officer, other executive directors and prescribed officers</td> <td>230%</td> </tr> </tbody> </table>	Employee	% guaranteed pay	Chief executive officer	250%	Chief financial officer, other executive directors and prescribed officers	230%
Employee	% guaranteed pay							
Chief executive officer	250%							
Chief financial officer, other executive directors and prescribed officers	230%							
Balanced scorecard result	Cash portion of the total incentive (40%)	A portion of the total incentive is settled in cash immediately when the balanced scorecard results for the financial year have been determined and approved by the board.						
		<table border="1"> <thead> <tr> <th>Cash portion (balance settled in deferred shares)</th> <th>% of incentive</th> </tr> </thead> <tbody> <tr> <td>Chief executive officer</td> <td>40%</td> </tr> <tr> <td>Chief financial officer, other executive directors and prescribed officers</td> <td>40%</td> </tr> </tbody> </table>	Cash portion (balance settled in deferred shares)	% of incentive	Chief executive officer	40%	Chief financial officer, other executive directors and prescribed officers	40%
	Cash portion (balance settled in deferred shares)	% of incentive						
	Chief executive officer	40%						
Chief financial officer, other executive directors and prescribed officers	40%							
Deferred share portion of the total incentive (60%)	The balance of the total incentive is settled in deferred shares vesting at a rate of 20% per annum over the next five years for the executive directors and prescribed officers, and one-third per annum over the following three years for management.							
	The deferred share plan was approved by our shareholders at the annual general meeting held in December 2018. A copy of the plan is available on our website at www.harmony.co.za .							

FY20 balanced scorecard

Scorecard component		Group (%)	South Africa operations (%)	South-East Asia operations (%)
Shareholder value	Total shareholder return (absolute)	8.34	6.67	6.67
	Total shareholder return (relative to JSE Gold Index)	8.33	6.67	6.67
	Total shareholder return (relative to FTSE Gold Mines Index)	8.33	6.66	6.66
Financial and operational	Production	20	35	35
	Total production cost (South Africa operations)	12	20	–
	All-in sustaining cost per kg (South-east Asia operations)	3	–	20
	Free cash flow	10	–	–
Growth	Development	–	10	10
	Additions to mineral reserves	10	–	–
	Project execution (for future measurement)	–	–	–
Sustainability	Safety performance: lost-time injury frequency rate	15	15	15
	Environment, social and governance (ESG)	5	–	–
Total		100	100	100

The balanced scorecard will be applied to eligible employees as follows.

- **Group:** Prescribed officers, executives in the office of the chief executive officer and all off-shaft services operational managers (South Africa)
- **South Africa operations:** Operational executive managers and all on-shaft operational managers
- **South-East Asia operations:** Operational executive managers and all operational managers

Details of the FY19 balanced scorecard for the total incentive and the actual performance outcomes are disclosed in the remuneration implementation section (*Part 2* of this report).

REMUNERATION REPORT CONTINUED

PART 1: REMUNERATION POLICY CONTINUED

Scorecard components:

Total shareholder return

Shareholder value is measured as total shareholder return over a trailing three-year period (measurements are generally taken at the end of August). It comprises two components:

- **absolute performance:** which takes into account:
 - the value of the growth in the company's share price; and
 - the value of dividends paidover the measurement period, compared to the company's cost of equity target.
- **relative performance** of the company compared to that of the JSE Gold Index and the FTSE Gold Mines Index over the measurement period.

Production

Means total gold production against the board approved business plan for the year.

Total production cost

Means total cash operating cost and total capital expenditure for the year.

All-in-sustaining cost per kilogram (South-East Asia)

Means all-in-sustaining costs. For purposes of calculating "all-in-sustaining costs", "operating cost" is used as a base and all costs related to sustaining production are incorporated. This includes all sustaining capital expenditure, deferred stripping, overhead costs associated with corporate office structures and services that support operations, local economic development cost and net rehabilitation costs. It excludes the non-cash share based payment charge. To arrive at the all-in-sustaining cost per unit, the sum of these cost metrics is divided by the kilograms of gold sold.

Free cash flow

Means cash flow generated by operations adjusted for exploration capital, dividends and the effect of commodity price and exchange rate changes in excess of 10% (higher or lower)

Development

Development is measured against the board-approved business plan of ongoing capital development - the development of reef and waste metres (South Africa) and waste tonnes (South-East Asia) for the financial year.

Addition to mineral reserves

Addition to mineral reserves through acquisitions and major capital projects is calculated for the financial year.

Safety performance: Lost-time injury frequency rate

The lost-time injury frequency rate will be measured against the board-approved plan.

Environment, social and governance (ESG)

ESG will be measured on the basis of continued inclusion in the FTSE4Good Index as verified by FTSE Russell.

MINIMUM SHAREHOLDING REQUIREMENT

We have encouraged prescribed officers to retain performance shares when they vest and a minimum shareholding requirement was again confirmed in the new total incentive plan to achieve this. The requirement provides that:

- 50% (fifty percent) of the shares which will vest to a prescribed officer shall, immediately prior to the applicable vesting date, be automatically locked up on the terms and in accordance with the minimum shareholding requirement
- the lock-up shall apply for as long as the relevant target minimum shareholding requirement applicable to the prescribed officer has not been met
- a prescribed officer may elect to voluntarily lock up shares that vest in terms of the 2006 share plan in order to meet his target minimum shareholding requirement
- once the relevant target minimum shareholding requirement has been met, any deferred shares which subsequently vest in and are settled to a prescribed officer shall vest and be settled in accordance with the terms of the deferred share plan
- a prescribed officer may elect to voluntarily lock up shares that vest in terms of the 2006 share plan or the deferred share plan even if it results in the lock-up of shares being in excess of the target minimum shareholding requirement – if the locked-up shares exceed the target minimum shareholding requirement, the excess shares will remain in lock-up until the next vesting date (in terms of any relevant Harmony share incentive plans applicable at the time) at which point the excess shares will be released from lock-up and settled in accordance with the terms of the deferred share plan
- a prescribed officer must communicate his election to voluntarily lock up his shares that vest in terms of the 2006 share plan or the deferred share plan before the relevant vesting date

Prescribed officers

The minimum shareholding requirement shall continue to apply to a prescribed officer as long as the prescribed officer remains a prescribed officer.

If a prescribed officer ceases to be employed by the group for any reason, his locked-up shares shall be released from the lock-up on the date of termination of employment.

Target minimum shareholding requirement

The target minimum shareholding requirement is the relevant target minimum shareholding value (expressed in South African rands), which is required to be held by a prescribed officer from time to time pursuant to this minimum shareholding requirement being a minimum of 100% (one hundred percent) of such prescribed officer's cost to company.

Measurement of target minimum shareholding requirement

Each tranche of locked-up shares shall be deemed to have a value for the purposes of determining whether the target minimum shareholding requirement has been met, equal to the one-day volume weighted average price of a share in ZAR as at the date of such lock-up, multiplied by the number of shares to be locked up in such tranche. The aforesaid value shall be increased yearly by the applicable CPI rate for the year.

Any locked-up shares in terms of the 2006 Harmony share plan minimum shareholding requirement shall remain locked up and shall be taken into account for purposes of determining whether the target minimum shareholding requirement has been met.

Trading restriction

Appropriate entries in the relevant register(s) shall be made to record that all of the prescribed officer's shares, which are subject to the lock up, shall be noted by the relevant central securities depository participant in terms of section 39 of the Financial Markets Act and the appropriate flag place on the relevant securities account pursuant to section 39 of the Financial Markets Act.

Voting and dividends

A prescribed officer shall, in respect of his vested shares, which are subject to the lock-up

- exercise all voting rights in respect of such shares
- receive all distributions payable in respect of such shares

Application to foreign prescribed officer

The target minimum shareholding requirement of the foreign prescribed officer shall be determined on the date on which this minimum shareholding requirement is adopted or first applies to the foreign prescribed officer (whichever occurs first in time). In calculating the target minimum shareholding requirement of the foreign prescribed officer, the company will use the cost to company (in ZAR) of the chief operating officer: South Africa operations.

The ZAR value of any shares that are to be locked up (in terms of this minimum shareholding requirement) shall be determined on the applicable vesting date with reference to

- the share price
- relevant currency exchange rate on the vesting date

In order to determine whether the target minimum shareholding requirement has been satisfied, the pre-tax value of the locked-up shares will be taken into account.

REMUNERATION REPORT CONTINUED

PART 1: REMUNERATION POLICY CONTINUED

DEFERRED SHARE PLAN LIMIT

The overall limit for deferred shares, issued under the 2018 deferred share plan is 5% of the shares in issue at the time the plan was approved, amounting to 25 000 000 shares. The individual limit is 0.6% amounting to 3 000 000 shares.

HARMONY 2006 SHARE PLAN LIMIT

The plan limit of 60 011 669 shares is only applicable to the 2006 Harmony share plan (the old plan). To date, 39 110 845 of these shares have been issued. No further awards will be made under the old plan (as the old plan is in the process of being "wound down"). It is anticipated that a large number of the unissued shares under the old plan will be used to settle the historic awards when they vest.

HARMONY ESOP TRUST (IT001237/2018(G))

At the special general meeting held on 1 February 2018, the shareholders approved the issue of 6.7 million authorised but unissued ordinary shares to the new Harmony ESOP Trust, more commonly referred to as the Sisonke Trust.

In terms of the allocation criteria in the trust deed, each eligible employee that qualified as an employee beneficiary upon the formation of the trust, or within six months thereafter, received 225 ESOP units which are directly attributable to 225 ESOP Trust shares. Thereafter, ESOP units are allocated on a pro-rata basis depending on the period such persons join/qualify as eligible employees.

The scheme will come to an end after the three-year lock-in period on 15 January 2022. Dividends distributed in respect of the ESOP Trust shares prior to the expiry of the three-year lock-in period, which are attributable to allocated ESOP units, shall immediately vest in the employee beneficiaries' hands. However, the dividends shall be held by the ESOP Trust trustees on behalf of the employee beneficiaries and thereafter be distributed (less any relevant taxes, including dividend withholding tax) to such employee beneficiaries either upon such employee beneficiary's termination of employment (if the employee beneficiary ceases to remain in the employ of Harmony prior to the expiry of the ESOP Trust lock-in period) or upon the expiry of the ESOP Trust lock-in period.

PAY MIX FOR PRESCRIBED OFFICERS

The tables below illustrate the pay mix for prescribed officers, based on achieving minimum, on-target and stretch performance. The composition of total remuneration outcomes for FY19 and FY20 is illustrated below.

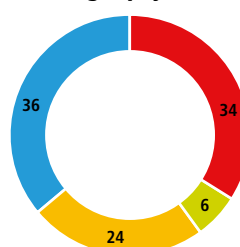
CHIEF EXECUTIVE OFFICER

FY19 and FY20 pay mix*

(R000)	Minimum (%)	On-target (%)	Stretch (%)
■ Salary benefits	85	85	85
■ Retirement savings and contributions	15	15	15
Guaranteed pay	100	100	100
■ Short-term incentive	0	60	100
■ Long-term incentive	0	90	150
Total remuneration	100	250	350

* This remained unchanged for both years.

On-target pay mix (%)

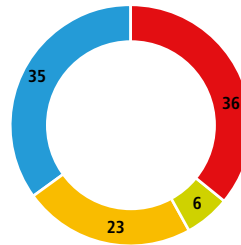


OTHER EXECUTIVES (FINANCIAL DIRECTOR, OTHER EXECUTIVE DIRECTOR AND PRESCRIBED OFFICERS)

FY19 and FY20 pay mix*

(R000)	Minimum (%)	On-target (%)	Stretch (%)
Salary benefits	85	85	85
Retirement savings and contributions	15	15	15
Guaranteed pay	100	100	100
Short-term incentive	0	55	92
Long-term incentive	0	83	138
Total remuneration	100	238	330

On-target pay mix (%)



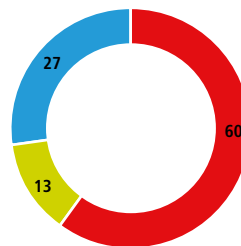
AVERAGE MONTHLY WAGES AND BENEFITS

CATEGORY 4-8 EMPLOYEES

FY19 and FY20 policy*

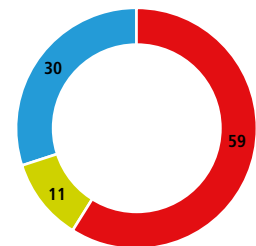
	Category 4 (%)	Category 8 (%)
Total remuneration		
Fixed earnings	60	59
Company benefits	13	11
Guaranteed pay	73	70
Variable income	27	30
Total remuneration	100	100

Category 4 (%)



Pay mix

Category 8 (%)



Each component includes the following:

Fixed earning: Basic pay, service increment, 13th cheque, living out allowance

Variable income: Average overtime, shift allowance, average bonus, meal allowance, Unemployment Insurance Fund/skills development levy, insurance benefit

Company benefits: Employer provident/pension fund and medical aid

* This remained unchanged for both years.

REMUNERATION REPORT CONTINUED

PART 1: REMUNERATION POLICY CONTINUED

NON-EXECUTIVE DIRECTOR FEES

Market comparisons, the fiduciary risks carried by non-executive directors, their workload, time commitments, expertise and preparation expected of each non-executive director are considered when reviewing our non-executive director fees. Harmony's philosophy regarding the remuneration of non-executive directors is to ensure that they are fairly rewarded for their contribution to the company's governance. Non-executive directors' fees are reviewed annually to ensure that they remain fair and competitive.

During September 2019, the remuneration committee considered an industry benchmark of non-executive directors' fees. It was evident that our non-executive director fees lag the market considerably in certain roles and, as recommended by the remuneration committee, the board has proposed increases in excess of inflation over a three year period for certain roles intended to bring the overall non-executive director fees for the company in line with the market median. The board is of the opinion that market-competitive fees are important to be able to retain directors with the skills and experience required.

In line with the recommendations of King IV, our non-executive directors are paid a retainer for board meetings and an attendance fee for every board meeting attended. Non-executive directors also receive a retainer for serving on a committee. In addition, a per-day ad hoc fee is paid for special meetings or attending to company business.

Non-executive directors do not receive share options or other incentive awards correlated with the share price or group performance as these may impair their ability to provide impartial oversight and advice. The proposed fees for FY20 are set out in the notice of annual general meeting in the *Report to shareholders 2019*.

Performance of management

The personal performance of employees will not be taken into account in the determination of the total incentive plan outcome. Harmony follows a team-based balanced scorecard approach in determining incentive awards. All management employees are assessed every year against set key performance indicators which are used to guide the development and promotion of such employees.

For more information on the assessment of the performance of the chief executive officer, please refer to *Corporate governance*.

Contracts, severance and termination

Executive directors and executive managers have employment contracts with Harmony, which include notice periods of up to 90 days. There are no balloon payments on termination, automatic entitlement to bonuses or automatic entitlement to share-based payments other than in terms of the company's approved share incentive plans.

Malus and clawback

Malus is the forfeiture of a variable pay award before it vests or is settled, and clawback refers to a requirement to repay some or all of an award after it has vested or is settled.

The remuneration committee has a discretion to determine that a prescribed officer's or executive manager's total share plan award is subject to reduction, forfeiture or clawback (in whole or in part) if:

- there is reasonable evidence of misbehaviour or material error by a prescribed officer or executive manager (as the case may be) or
- the financial performance of the group, the company, the employer company or the relevant business unit for any financial year, used to determine an award, have subsequently appeared to be materially inaccurate or
- the group, the company, the employer company or the relevant business unit suffers a material downturn in its financial performance for which the prescribed officer or executive manager (as the case may be) can be seen to have some liability or
- the group, the company, the employer company or the relevant business unit suffers a material failure of risk management for which the prescribed officer or executive manager (as the case may be) can be seen to have some liability or in any other circumstances if the remuneration committee determines that it is reasonable to subject the awards of one or more prescribed officers or executive managers (as the case may be) to reduction or forfeiture

Procedures to impose any malus or clawback provisions must be initiated within three years of the award. To eliminate doubt, the provisions of this malus and clawback policy do not detract from any other legal rights or measures the company has as recourse for acts of fraud, wrongdoing and/or negligence by its prescribed officers or executive management.

Non-binding advisory votes

Shareholders are requested to cast non-binding advisory votes required by King IV on *Part 1* and *Part 2* of this remuneration report. For more information, refer to the notice of the annual general meeting. In the event that either the remuneration policy or the implementation report or both are voted against by 25% or more of the voting rights exercised at the 2019 annual general meeting, the committee will in good faith and with the best reasonable effort engage with its shareholders to ascertain the reasons for the dissenting votes and appropriately address legitimate and reasonable objections and concerns raised, which may include amending the remuneration policy or clarifying or adjusting the company's remuneration governance and/or processes.

Shareholder feedback

We maintain open communication channels with our shareholders, listen to feedback and take action where this is deemed to be in the best interests of the company.

PART 2: REMUNERATION IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN FY19

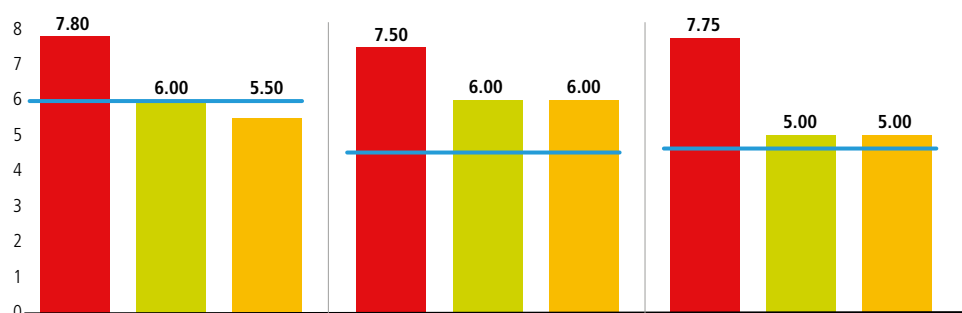
This section of the report includes details of the implementation and outcomes of the remuneration policy for FY19. We report on increase in guaranteed packages, the performance outcomes for the total incentive plan and for the 2015 performance shares vesting based on the three-year performance period ending this year.

We have also included the disclosure of the total single figure of remuneration, the schedule of unvested awards and cash flows for the executive directors and prescribed officers in line with the applicable King IV requirements, and with the guidance statement from the Institute of Directors and the South African Reward Association. The remuneration of the non-executive directors is disclosed as required by King IV and the Companies Act.

INCREASES TO GUARANTEED PACKAGES DURING THE YEAR

An assessment of executive remuneration was undertaken during the year. Taking into consideration the prevailing market conditions, affordability and shareholders' expectations, an average increase of 5% to guaranteed remuneration packages of management was made during the 2019 financial year. The average percentage increases awarded to executives, management and unionised staff during the 2017, 2018 and 2019 financial years are illustrated in the accompanying graph.

Annual increases (%)



	FY17	FY18	FY19
■ Unionised staff (July every year)	7.80	7.50	7.75
■ Management (January every year)	6.00	6.00	5.00
■ Executives (August every year)	5.50	6.00	5.00
■ Consumer price index	6.05	4.53	4.64

PAY FAIRNESS AND EQUALITY

In the 2019 financial year, an average increase of 5% in guaranteed remuneration packages for management and executives and 7.75% for unionised employees was approved. Unionised employees have consistently received above-inflation increases for the past six years. The average total monthly remuneration of our category 4-8 employees is tabulated in the accompanying table. We continue to focus on the remuneration of our employees at this level to address the challenges of inequality and poverty.

Grade	Fixed earnings (R)	Company benefits (R)	Variable income (R)	Total per month (R)
Category 4 underground employee (general worker)	12 441	2 592	5 614	20 647
Category 8 underground employee (team leader)	16 511	3 154	8 454	28 119

Refer to *Employee relations* for more information.

REMUNERATION REPORT CONTINUED

PART 2: REMUNERATION IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN FY19 CONTINUED

INCENTIVE PAYMENTS ATTRIBUTABLE TO FY19

Total incentive plan

The new total incentive plan was implemented with effect from 1 July 2019, based on the FY19 scorecard for the period 1 July 2018 to 30 June 2019. First awards under the new total incentive plan were made in September 2019.

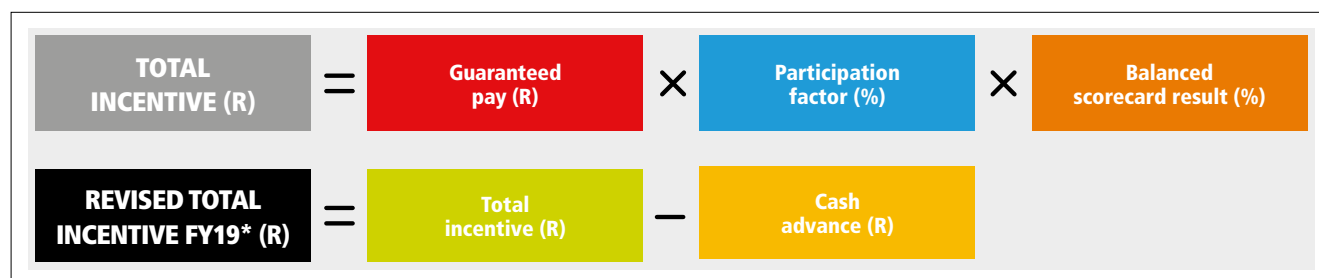
FY19 scorecard result for the group

Scorecard component		Group weighting (%)	% of plan achieved	Final outcome (%)
Shareholder value (measured over a trailing three-year period)	Total shareholder return (absolute)	8.34	0	0
	Total shareholder return (relative to the JSE Gold Index)	8.33	0	0
	Total shareholder return (relative to FTSE Gold Mines Index)	8.33	0	0
Financial and operational	Production	20	97	9.7
	Total production cost (South Africa operations)	12	96	5.2
	All-in sustaining cost (Southeast Asia operations)	3	103.7	2.7
	Free cash flow	10	84	4.9
Growth	Development (only applicable to South Africa operations and Southeast Asia operations)	–	–	–
	Additions to mineral reserves	10	100	10
	Project execution (for future measurement)	–	–	–
Sustainability	Safety performance: Lost-time injury frequency rate*	15	101	–
	Environment, social and governance (ESG) criteria	5	100	5
Total		100		37.5

* Improved but forfeited due to the number of fatal accidents during financial year

As part of the phasing-in process, the board agreed to make a cash advance for the six months ending December 2018. Employees are accustomed to a six-monthly, short-term incentive scheme and, by agreeing to the cash advance, the board ensured that employees received sufficient notice of the change to an annual total incentive plan. The FY19 total incentive award calculated in September 2019, in terms of the new total incentive plan's balanced scorecard, was reduced with the amount of the cash advance. The outcome of the award, under the FY19 scorecard, less the cash advance is calculated as follows:

FY19 total incentive award calculation



* Please refer to the table on total single figure remuneration on page 67.

Long-term incentive

No further long-term incentive award of performance shares was made in FY19 due to the phasing in of the new total share incentive scheme.

VESTING OF LONG-TERM INCENTIVES DURING THE YEAR UNDER REVIEW

During the year, the following awards, in terms of the long-term incentive plan, vested in November 2018.

Share appreciation rights allocated in November 2012

The performance condition determined that the headline earnings per share growth from the allocation date should exceed the consumer price index. The performance condition has not been met and all rights have been forfeited and lapsed.

Share appreciation rights allocated in November 2014

The 2014 allocation vested in November 2017 and can be exercised in equal thirds on the subsequent anniversaries of the vesting. The 2014 allocation will lapse on 15 November 2020. The value or reward that accrues is based on the positive appreciation of the share price over time.

Performance shares awarded in November 2015

The vesting percentage of performance shares was based on the total shareholder return of the company, comprising of two components: absolute and relative performance over the full three-year period. This resulted in a total vesting of 100% of performance shares awarded in November 2015.

REMUNERATION OF EXECUTIVE DIRECTORS AND PRESCRIBED OFFICERS

Total single figure remuneration

Executive director and prescribed officer remuneration, in terms of total single figure remuneration, as required by King IV and in line with the guideline note issued by the Institute of Directors South Africa and the South African Reward Association, is detailed below.

Remuneration paid for the year ended 30 June 2019 (R000)

	Salary and benefits	Retirement savings and contributions	**Total incentive cash portion accrued	Total incentive deferred share portion accrued	Total single figure of remuneration	Less: amount accrued not settled in FY19	Plus: amount of previous accruals settled in FY19	Total cash remuneration
Executive directors								
PW Steenkamp	8 023	1 373	5 154	3 649	18 199	(6 083)	3 811	15 927
F Abbott	5 688	620	3 257	2 157	11 722	(3 595)	2 547	10 674
HE Mashego	4 012	573	2 350	1 557	8 492	(2 594)	1 838	7 736
Prescribed officers								
Beyers Nel	4 532	748	2 562	1 546	9 388	(2 577)	2 144	8 955
Phillip Tobias	4 682	615	2 741	1 815	9 853	(3 026)	2 144	8 971
Johannes van Heerden*	6 566	254	3 825	2 885	13 530	(4 785)	2 693	11 438

* Salary is paid in AU\$ and is influenced by the movement in the exchange rate

** Total incentive cash portion includes the cash advance (see page 66) plus the 40% cash portion of the revised incentive total for FY19

Remuneration paid for the year ended 30 June 2018 (R000)

	Salary and benefits	Retirement savings and contributions	Total incentive cash portion accrued	Total incentive deferred share portion accrued	Total single figure of remuneration	Less: amount accrued not settled in FY19	Plus: amount of previous accruals settled in FY19	Total cash remuneration
Executive directors								
PW Steenkamp	7 656	1 291	8 463	0	17 410	(3 811)	1 317	14 916
F Abbott	5 404	571	5 643	3 886	15 504	(6 035)	880	10 349
HE Mashego	3 951	533	4 082	2 912	11 478	(1 838)	635	10 275
Prescribed officers								
Beyers Nel	4 741	696	4 257	1 421	11 115	(2 756)	741	9 100
Phillip Tobias	4 495	574	4 761	1 531	11 361	(2 909)	741	9 193
Johannes van Heerden*	6 104	249	5 322	2 894	14 569	(2 693)	910	12 786

* Salary is paid in AU\$ and is influenced by the movement in the exchange rate

The company changed its long-term incentive from performance share awards to deferred shares as part of the new total incentive plan. As a result, transitional arrangements have been applied for the total single figure of remuneration, as provided for in paragraph 1.9 of the King IV Guidance to the application of Remuneration Governance, published by the Institute of Directors and the South African Reward Association. In line with this guidance, the value of the 2015 performance shares which would normally be reflected as long-term incentive income in 2019 will be reflected as 'cash on settlement' in the table of unvested awards on page 68 to 70, and the value accrued for the 2019 deferred shares awarded in terms of the new total incentive plan will be reflected as long-term incentive income for 2019.

REMUNERATION REPORT CONTINUED

PART 2: REMUNERATION IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN FY19 CONTINUED

Schedule of unvested awards and cash flows

A schedule of the unvested awards and cash flows from long-term incentive awards of the executive directors and prescribed officers, as required by King IV and in line with the guideline note issued by the Institute of Directors South Africa and the South African Reward Association, is provided below.

Unvested awards and cash flows for FY19

Executive directors	Share award	Award Date	Vesting Date	Award Price (R)	Opening	Awarded	Number Forfeited	Settled	Closing	Cash on Settlement (R)	Year-end Fair Value (R)
Peter Steenkamp	Performance Shares										
	Feb 2016 Performance Shares*	Feb-16	Feb-19	35.52	512 000		–	512 000		–	–
	2016 Performance Shares	Nov-16	Nov-19	32.12	420 423		–	–	420 423	–	12 053 527
	2017 Performance Shares	Nov-17	Nov-20	24.00	596 427		–	–	596 427	–	17 099 562
	Vested Awards Pledged towards MSR										
	2016 Performance Shares Pledge*	Feb-19				512 000	–	–	512 000	–	14 679 040
	Total				1 528 850	512 000	0	512 000	1 528 850	0	43 832 130
Frank Abbott	Share appreciation rights (SARs)										
	2012 SARs	Nov-12	Nov-15	68.84	16 204		16 204	–	–	–	–
	2013 SARs tranche 1	Nov-13	Nov-16	33.18	17 650		–	–	17 650	–	0
	2013 SARs tranche 2	Nov-13	Nov-17	33.18	17 650		–	–	17 650	–	0
	2013 SARs tranche 3	Nov-13	Nov-18	33.18	17 651		–	–	17 651	–	0
	2014 SARs tranche 1	Nov-14	Nov-17	18.41	21 207		–	–	21 207	–	217 584
	2014 SARs tranche 2	Nov-14	Nov-18	18.41	21 207		–	–	21 207	–	217 584
	2014 SARs tranche 3	Nov-14	Nov-19	18.41	21 208		–	–	21 208	–	217 594
	Performance Shares										
	2015 Performance Shares	Nov-15	Nov-18	10.16	736 809		0	736 809	0	16 858 190	0
	2016 Performance Shares	Nov-16	Nov-19	32.12	330 833		–	–	330 833	–	9 484 982
	2017 Performance Shares	Nov-17	Nov-20	24.00	489 890		–	–	489 890	–	14 045 146
	Restricted Shares										
	2012 Restricted Shares (Further Restricted)	Nov-12	Nov-18	68.84	21 136		–	21 136	0	483 592	0
	2015 Matched Restricted Shares	Nov-15	Nov-18	10.16	63 408		–	63 408	0	1 450 775	0
Vested Awards Pledged towards MSR											
2013 Performance Shares Pledge				84 952				84 952		2 435 574	
2014 Performance Shares Pledge				141 075				141 075		4 044 620	
	Total				2 000 880	0	16 204	821 353	1 163 323	18 792 557	30 663 084

*The February 2016 award for Peter Steenkamp vested in February 2019 and was settled/pledged towards MSR with no cash settlement

Unvested awards and cash flows for FY19 continued

Executive directors continued	Share award	Award Date	Vesting Date	Award Price (R)	Opening	Awarded	Number Forfeited	Settled	Closing	Cash on Settlement (R)	Year-end Fair Value (R)
Mashego	Share appreciation rights (SARs)										
Mashego	2012 SARs	Nov-12	Nov-15	68.84	11 694		11 694	–	–	–	–
	2013 SARs tranche 1	Nov-13	Nov-16	33.18	12 737		–	–	12 737	–	–
	2013 SARs tranche 2	Nov-13	Nov-17	33.18	12 737		–	–	12 737	–	–
	2013 SARs tranche 3	Nov-13	Nov-18	33.18	12 738		–	–	12 738	–	–
	2014 SARs tranche 1	Nov-14	Nov-17	18.41	15 304		–	–	15 304	–	157 019
	2014 SARs tranche 2	Nov-14	Nov-18	18.41	15 304		–	–	15 304	–	157 019
	2014 SARs tranche 3	Nov-14	Nov-19	18.41	15 305		–	–	15 305	–	157 029
	Performance Shares										
	2015 Performance Shares	Nov-15	Nov-18	10.16	455 758		–	455 758	–	10 427 743	–
	2016 Performance Shares	Nov-16	Nov-19	32.12	152 091		–	–	152 091	–	4 360 449
	2017 Performance Shares	Nov-17	Nov-20	24.00	251 722		–	–	251 722	–	7 216 870
	Restricted Shares										
	2012 Restricted Shares (Further Restricted)	Nov-12	Nov-18	68.84	11 694		–	11 694	–	267 559	–
	2015 Matched Restricted Shares	Nov-15	Nov-18	10.16	35 082		–	35 082	–	802 676	–
	Total				1 002 166	0	11 694	502 534	487 938	11 497 978	12 048 386

Prescribed officers	Share award	Award Date	Vesting Date	Award Price (R)	Opening	Awarded	Number Forfeited	Settled	Closing	Cash on Settlement (R)	Year-end Fair Value (R)
Beiers Nel	Share appreciation rights (SARs)										
	2012 SARs	Nov-12	Nov-15	68.84	8 021		8 021	–	–	–	–
	2013 SARs tranche 1	Nov-13	Nov-16	33.18	8 820		–	–	8 820	–	–
	2013 SARs tranche 2	Nov-13	Nov-17	33.18	8 820		–	–	8 820	–	–
	2013 SARs tranche 3	Nov-13	Nov-18	33.18	8 819		–	–	8 819	–	–
	2014 SARs tranche 1	Nov-14	Nov-17	18.41	12 493		–	–	12 493	–	128 178
	2014 SARs tranche 2	Nov-14	Nov-18	18.41	12 493		–	–	12 493	–	128 178
	2014 SARs tranche 3	Nov-14	Nov-19	18.41	12 494		–	–	12 494	–	128 188
	Performance Shares										
	2015 Performance Shares	Nov-15	Nov-18	10.16	236 220		–	236 220	–	5 404 714	–
	2016 Performance Shares	Nov-16	Nov-19	32.12	177 366		–	–	177 366	–	5 085 083
	2017 Performance Shares	Nov-17	Nov-20	24.00	318 487		–	–	318 487	–	9 131 022
	Restricted Shares										
	2012 Restricted Shares (Further Restricted)	Nov-12	Nov-18	68.84	8 021		–	8 021	–	183 520	–
	2015 Matched Restricted Shares	Nov-15	Nov-18	10.16	24 063		–	24 063	–	550 561	–
	Vested Awards Pledged towards MSR										
	2014 Performance Shares Pledge				24 933		–	–	24 933	–	714 829
	Total				861 050	0	8 021	268 304	584 725	6 138 796	15 315 479

REMUNERATION REPORT CONTINUED

PART 2: REMUNERATION IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN FY19 CONTINUED

Unvested awards and cash flows for FY19 continued

Prescribed officers <small>continued</small>	Share award	Award Date	Vesting Date	Award Price (R)	Opening	Awarded	Number Forfeited	Settled	Closing	Cash on Settlement (R)	Year-end Fair Value (R)
Phillip Tobias	Share appreciation rights (SARs)										
	2013 SARs tranche 1	Nov-14	Nov-17	18.41	15 617		–	–	15 617	–	160 230
	2013 SARs tranche 2	Nov-14	Nov-18	18.41	15 617		–	–	15 617	–	160 230
	2013 SARs tranche 3	Nov-14	Nov-19	18.41	15 616		–	–	15 616	–	160 220
	Performance Shares										
	2015 Performance Shares	Nov-15	Nov-18	10.16	236 220		–	236 220	0	5 404 714	–
	2016 Performance Shares	Nov-16	Nov-19	32.12	177 366		–	–	177 366	–	5 085 083
	2017 Performance Shares	Nov-17	Nov-20	24.00	324 720		–	–	324 720	–	9 309 722
	Vested Awards Pledged towards MSR										
	2014 Performance Shares Pledge				31 166		–	–	31 166	–	893 529
Total				816 322	0	0	236 220	580 102	5 404 714	15 769 016	
Johannes van Heerden	Share appreciation rights (SARs)										
	2012 SARs	Nov-12	Nov-15	68.84	11 694		11 694	–	–	–	–
	2013 SARs tranche 1	Nov-13	Nov-16	33.18	12 737		–	–	12 737	–	–
	2013 SARs tranche 2	Nov-13	Nov-17	33.18	12 737		–	–	12 737	–	–
	2013 SARs tranche 3	Nov-13	Nov-18	33.18	12 738		–	–	12 738	–	–
	2014 SARs tranche 1	Nov-14	Nov-17	18.41	15 304		–	15 304	–	188 698	–
	2014 SARs tranche 2	Nov-14	Nov-18	18.41	15 304		–	15 304	–	183 036	–
	2014 SARs tranche 3	Nov-14	Nov-19	18.41	15 305		–	–	15 305	–	157 029
	Performance Shares										
	2015 Performance Shares	Nov-15	Nov-18	10.16	455 758		–	455 758	–	10 427 743	–
	2016 Performance Shares	Nov-16	Nov-19	32.12	152 091		–	–	152 091	–	4 360 449
	2017 Performance Shares	Nov-17	Nov-20	24.00	293 554		–	–	293 554	–	8 416 193
	Restricted Shares										
	2012 Restricted Shares (Further Restricted)	Nov-12	Nov-18	68.84	11 694		–	11 694	–	267 559	–
	2015 Matched Restricted Shares	Nov-15	Nov-18	10.16	35 082		–	35 082	–	802 676	–
Total				1 043 998	0	11 694	533 142	499 162	11 869 712	12 933 671	

NON-EXECUTIVE DIRECTORS' FEES

On the recommendation of the remuneration committee, the board proposed an increase in fees of 6% for all non-executive directors, which was approved at the annual general meeting held in November 2018. Non-executive director fees paid during FY19 are included in the table below:

Director (R000)	Note	2019 Fee (1)	2018 Fee (1)
Dr Patrice Motsepe		1 365	1 288
Joachim Chissano		570	489
Fikile De Buck		1 486	1 255
Ken Dicks		769	653
Dr Simo Lushaba		1 153	817
Grathel Motau	2	79	–
Modise Motloba		1 406	1 399
Mavuso Msimang		960	660
Karabo Nondumo		969	762
Vishnu Pillay		1 096	803
Given Sibiyi	3	79	–
Max Sisulu		508	125
John Wetton		1 031	1 053
André Wilkens		971	870
Total		R12 442	R10 174

Notes

1. Directors' remuneration excludes value-added tax
2. Appointed non- executive director on 13 May 2019
3. Appointed non-executive director on 13 May 2019

ENGAGEMENT WITH SHAREHOLDERS ON HARMONY'S FY18 IMPLEMENTATION REPORT

More than 25% of the voting rights exercised at the 2018 annual general meeting voted against the FY2018 implementation report. In terms of King IV and paragraph 3.84(k) of the JSE Listings Requirements, the remuneration committee, in good faith and with the best reasonable effort, engaged with its shareholders to ascertain the reasons for the dissenting votes.

A summary of the feedback and key concerns raised by shareholders is highlighted below.

Shareholder feedback	Harmony's response
Shareholders raised concerns about the number of fatalities during the year under review. This should have resulted in a reduced rather than increased bonus score in FY18.	Safety represents a key component of the new Harmony total incentive plan. A weighting of 15% has been attributed to the company's performance with regard to its lost-time injury frequency rate during the reporting period. A lost-time injury is defined as "any injury sustained by an employee while on the job that prevents them from being able to perform their job for at least one day/shift". Harmony includes the number of fatalities in its lost-time injury frequency rate calculation. We deem any fatality in the company as totally unacceptable hence we find it inappropriate to attribute a target specific to fatalities. The board, under guidance from the remuneration committee, will exercise discretion in this regard as is evident from the outcome of the FY19 scorecard result.
Information on personal performance is insufficient.	Included in the remuneration report <i>Part 1</i> .
Concerns were raised that management increases and bonuses were paid when the company stopped paying dividends and the share price performed poorly.	Harmony is pursuing a growth strategy which has resulted in our production having increased by approximately 30% over the past two years. This increase in production was predominantly financed through debt. Our priority is to reduce debt before we consider paying a dividend. Please refer to the Chairman's letter included elsewhere in the report for a discussion about the company's share price.

FINANCIAL DIRECTOR'S REPORT



Frank Abbott – Financial director

“We remain strongly levered to the gold price and exchange rates and we expect cash flow generation across the business to benefit from higher gold prices and current market conditions.”

CAPITAL ALLOCATION

Moab Khotsong and Hidden Valley generated combined operating free cash flows of R1.4 billion (US\$97 million) after operating for the full twelve-month period in FY19 and significantly boosting production levels for the group.

Capital expenditure for FY19 increased by 9% to R4.7 billion (decrease of 1% to US\$331 million). The increase is mainly due to the inclusion of Moab Khotsong for the full twelve-month period in FY19 (compared to the four months in FY18).

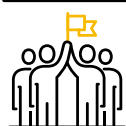
Borrowings as at 30 June 2019 include R4.1 billion (US\$295 million) utilised on the US\$ facility. The group's South East Asia operations have an outstanding loan of R283 million (US\$20 million) used to finance the acquisition of fleet equipment. R1.5 billion (US\$106 million) has been utilised of the group's R2 billion (US\$142 million) facility. Net debt remained stable at R4.9 billion at 30 June 2019 compared to a similar position at 30 June 2018 (in US\$ terms a decrease of US\$8 million from US\$356 million to US\$348 million).

FUNDING QUALITY GROWTH

Harmony conducted a placement of new ordinary shares to qualifying investors earlier in the financial year which resulted in R211 million (US\$16 million) of capital being raised in FY19. Combined with the placement completed late in the preceding year, left the group with an appropriate balance between debt and equity post the acquisition of Moab Khotsong.

During FY19 the R1 billion facility was refinanced and increased into a R2 billion facility, with a longer maturity of four years, to support the enlarged South African asset base.

Subsequent to year-end, a new syndicated facility of US\$400 million was entered into, replacing the existing US\$350 million facility. This facility was well received in the lending market and over-subscribed. The group was able to improve terms like the interest rates and covenants as well as including an option to extend the term to maturity from three to four years. This has resulted in a meaningful increase in the size and tenure of the financial headroom for the group.

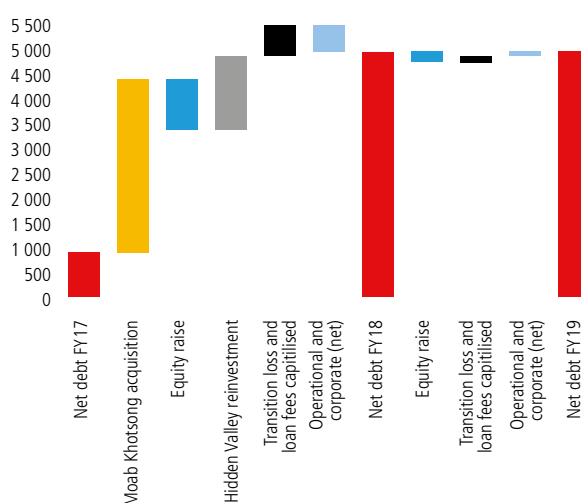


FINANCIAL HIGHLIGHTS OF THE YEAR UNDER REVIEW

- **Moab Khotsong and Hidden Valley boost cash flow – generated R1.4 billion (US\$97 million) in operating free cash flow**
- **Successful hedging strategy topped up – secured cash flow margins, contributing R477 million (US\$34 million) to cash flow**
- **90% increase in our share price** following a higher R/kg gold price
- **19% increase in headline earnings per share to 204 cents (8% increase to 14 US cents)**
- **Replaced existing US\$350 million facility with a US\$400 million facility, increasing the size and tenure of our financial headroom**

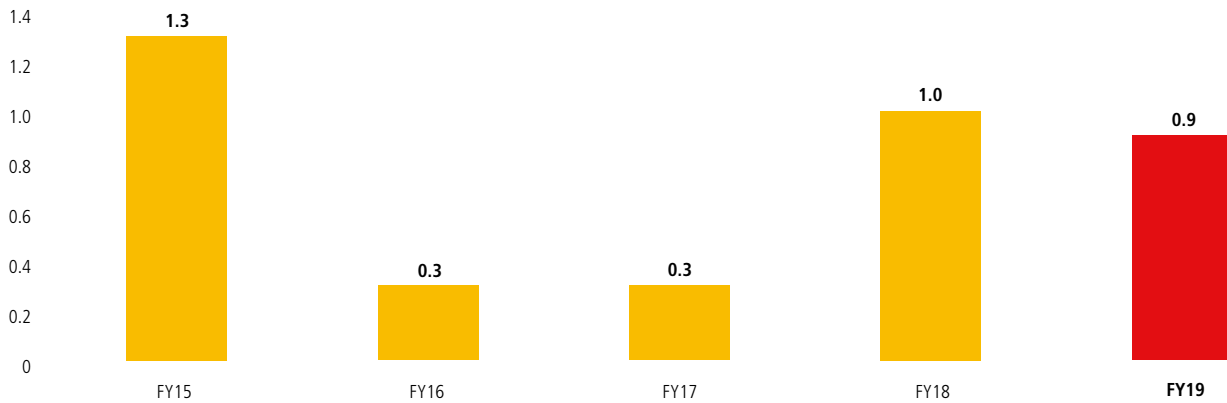
Post year-end

Net debt (R million)



At current gold prices the group's net debt to EBITDA ratio will reduce significantly in FY20, thereby improving balance sheet flexibility. Together with the new facilities, the group is well positioned to fund both organic growth, as well as value-accretive acquisitions.

Total net debt/EBITDA ratio

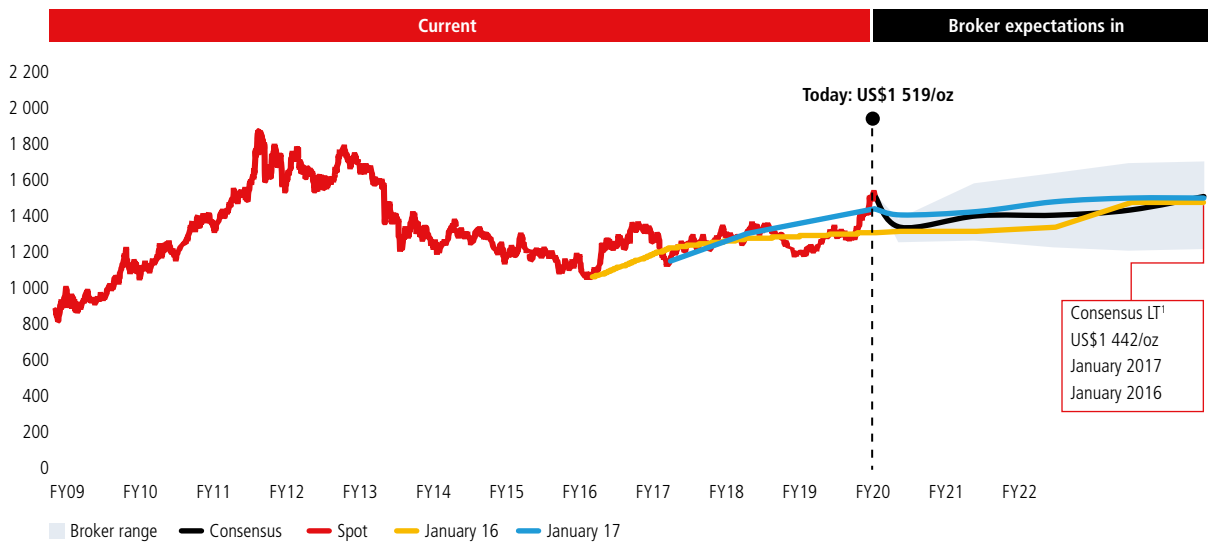


CASH CERTAINTY

The realised cash gain from commodity hedging programmes in FY19 was R511 million (US\$36 million) (2018: R1.1 billion (US\$87 million)), whereas a loss of R34 million (US\$2 million) from currency hedges was incurred in FY19.

The hedging programmes are topped up as and when opportunities arise to lock-in attractive margins for the business. A meaningful proportion of the group's expected production and foreign currency export proceeds have already been secured at beneficial margins.

Gold price consensus (US\$/oz)



Source: Broker reports, FactSet as of 30 August 2019

¹ Long-term prices are given in 2018 real terms, shown in graph inflated to 2024 nominal

FINANCIAL DIRECTOR'S REPORT CONTINUED

Open hedging contracts as at 30 June 2019

		FY20		FY21		Total
		H1	H2	H1	H2	
Currency hedges rand dollar						
Zero cost collars	\$m	140	126	97	51	414
	Floor (R/US\$)	14.53	14.88	15.29	15.42	14.92
	Cap (R/US\$)	15.27	15.66	16.19	16.41	15.74
Forward contracts	\$m	138	126	96	30	390
	R/US\$	14.86	15.35	15.86	16.01	15.35
Total rand dollar		278	252	193	81	804
Rand gold						
Forward contracts	000oz	189	190	142	106	627
	R000/kg	633	655	671	693	659
Dollar gold						
Forward contracts	000oz	24	24	14	4	66
	US\$/oz	1 357	1 364	1 381	1 407	1 368
Total gold contracts	000oz	213	214	156	110	693
Dollar silver						
Zero cost collars	000oz	90	–	–	–	90
	Floor (US\$/oz)	17.40	–	–	–	17.40
	Cap (US\$/oz)	18.40	–	–	–	18.40

IMPAIRMENT

An impairment of R3.9 billion (US\$276 million) was recognised during the year caused by expected increases in working costs and capital expenditure, the inclusion of carbon tax, as well as increased discount rates. Although there was an increase in the net present value of the group's life-of-mine models, the areas outside the life-of-mine models included in the resource base models were negatively impacted by lower recovery grades which negatively impacted on the cash flows and ultimately the recoverable amounts.

The FY19 impairment was made up as follows:

Operation	Impairment (R million)
Tshepong Operations	2 254
Target 1	312
Kusasaletu	690
Target 3	318
Joel	198
Bambanani	6
Other assets	120
Total impairment	3 898

- At Tshepong Operations and Kusasaletu, lower recovered grades and increases in expected costs to exploit the resource base resulted in a lower recoverable amount. The decrease in the recovered grade is a result of the change in the dilution factors applied to the outside life-of-mine resources.
- Target 1 and Joel were affected by the estimated impact of carbon tax and expected cost increases. The change in the method of valuation for Target 3, from a discounted cash flow model to a resource multiple approach, reduced its recoverable amount
- Bambanani's goodwill was impaired, resulting in a reduced carrying amount of intangible assets

Continuous evaluation of the group's orebodies and exclusion of lower-grade mining areas enabled the group to effectively allocate capital and resources in line with its strategy to produce safe, profitable ounces and to increase margins.

FINANCIAL PERFORMANCE

Our FY19 performance was substantially improved by the inclusion of Moab Khotsong and Hidden Valley's full year of production.

Key drivers of financial performance FY19

		FY19	FY18	Change %
Gold produced	kg	44 734	38 193	17
	oz	1 438 231	1 227 934	17
Underground grade recovered	g/t	5.59	5.48	2
Gold price received	R/kg	586 653	570 709	3
	US\$/oz	1 287	1 380	(7)
Production profit	Rm	6 588	5 356	23
	US\$m	465	416	12
All-in sustaining costs	R/kg	550 005	508 970	(8)
	US\$/oz	1 207	1 231	2
Net debt	Rm	4 922	4 908	0
	US\$m	348	356	2
Net debt/EBITDA ratio	times	0.9x	1.0x	
Average exchange rate	R/US\$	14.18	12.85	10

Income statement – extract

	FY19	FY18	Change %
Revenue	26 912	20 452	32
Production costs	(20 324)	(15 084)	(35)
Impairment of assets	(3 898)	(5 336)	27
Depreciation and amortisation	(4 054)	(2 570)	(58)
Gains on derivatives	484	99	389
Net loss for the year	(2 607)	(4 473)	42
Headline earnings per share (SA cents per share)	204	171	19

Revenue and production costs were impacted mostly by the inclusion of Moab Khotsong for the full year as well as continuing production at Hidden Valley for the full year.

Revenue increased by R6.5 billion or 32% (US\$307 million or 19%) mainly due to an 18% increase in gold sold and a R515 million (US\$36 million) increase in silver sales. The average gold price received increased by 3% to R586 653/kg (from R570 709/kg in FY18). Forward gold sale contracts of 6 998kg (or 225 000oz) with an average price of R638 007/kg matured during FY19.

Production costs increased by R5.2 billion or 35% (US\$259 million or 22%) during FY19 mainly due to the inclusion of Moab Khotsong for the full year as well as continuing production at Hidden Valley for the full year.

Amortisation and depreciation is R1.5 billion (US\$86 million) higher for FY19 owing mainly to a full year of production at Hidden Valley as well as Moab Khotsong included for the full year.

The net gain on derivatives was R484 million (US\$34 million) for FY19 (FY18: R99 million (US\$8 million)).

The gains relate primarily to foreign exchange derivatives entered into during the year when the spot US\$/rand exchange rate was weaker than the closing rate of US\$/R14.13.

The hedging programmes realised cash gains of R477 million (US\$34 million) for FY19.

The net loss for FY19 was R2 607 million (US\$185 million), compared to a loss of R4 473 million (US\$321 million) for FY18. Moab Khotsong and Hidden Valley's inclusion for a full financial year as well as lower impairments recorded in FY19 contributed to the improvement of the Headline earnings.

ACKNOWLEDGEMENT

I would like to express my appreciation to our committed and diligent finance team across the group. We continue to maintain a high standard of governance and compliance to internal controls across the organisation. The quality financial information prepared for our stakeholders is testament to the high calibre of our financial team whom I applaud. I look forward to another year - supported by the finance team - on meeting our strategic objectives aimed at improving shareholder returns on a sustainable basis.

Warm regards

Frank Abbott
Financial director

24 October 2019

HOW WE PERFORMED

Relevant GRI Standards indicator: 201-1

		FY19	FY18	FY17	FY16	FY15
Operating performance						
Ore milled	000t	25 976	22 441	19 401	18 373	18 063
Gold produced ¹	kg	44 734	38 193	33 836	33 655	33 513
	000oz	1 438	1 228	1 088	1 082	1 077
Operating costs	R/kg	439 722	421 260	436 917	392 026	369 203
	US\$/oz	965	1 018	1 000	841	1 003
All-in sustaining costs	R/kg	550 005	508 970	516 687	467 611	453 244
	US\$/oz	1 207	1 231	1 182	1 003	1 232
Underground grade	g/t	5.59	5.48	5.07	5.02	4.75
Financial performance						
Revenue ²	R million	26 912	20 452	19 494	18 667	15 643
Production costs ²	R million	20 324	15 084	15 042	13 583	12 840
Production profit	R million	6 588	5 368	4 452	5 084	2 803
Operating margin	%	24	26	23	28	18
Net profit/(loss) for the year	R million	(2 607)	(4 473)	362	949	(4 536)
Total headline earnings/(loss) per share	SA cents	204	171	298	221	(189)
Capital expenditure	R million	5 036	4 687	4 280	2 439	2 836
Exploration spend ^{3,4}	R million	148	135	241	191	263
Dividend paid	R million	–	154	439	–	–
Net debt	R million	(4 922)	(4 908)	(887)	(1 083)	(2 332)
Market performance						
Average gold price received	R/kg	586 653	570 709	570 164	544 984	449 570
	US\$/oz	1 287	1 380	1 304	1 169	1 222
Total market capitalisation	R billion	17.1	10.6	9.5	22.9	6.8
	US\$ billion	1.2	0.8	0.7	1.6	0.56
Average exchange rate	R/US\$	14.18	12.85	13.60	14.50	11.45
Reserves						
Gold and gold equivalents	Moz	36.5	36.9	36.7	36.9	42.6
Geographical distribution of gold reserves						
– South Africa	%	47	46	44	45	52
– Papua New Guinea	%	53	54	56	55	48
Safety						
Number of fatalities		11	13	5	10	9
Group FIFR – fatal injury frequency rate	per million hours worked	0.13	0.16	0.07	0.13	0.11
Group LTIFR – lost-time injuries frequency rate	per million hours worked	⁶ 6.16	⁵ 6.26	⁵ 7.21	⁵ 6.23	⁵ 9.24
Health (South Africa)						
– Shifts lost due to injury		25 388	23 769	24 026	22 416	24 514
– Silicosis cases certified ⁷		⁶ 58	⁵ 179	⁵ 108	⁵ 64	⁵ 197

¹ Gold production of 2 068kg (66 499oz) capitalised in FY18 (FY17: 364kg, 11 713oz). Zero gold production capitalised in FY19, FY16 and FY15

² FY15 to FY18 restated due to a change in accounting policy

³ As per income statement

⁴ Total exploration spend including capitalised amounts are R498 million (US\$35 million) (FY19), R423 million (US\$33 million) (FY18), R438 million (US\$32 million) (FY17), R433 million (US\$30 million) (FY16) and R385 million (US\$34 million) (FY15)

		FY19	FY18	FY17	FY16	FY15
People						
Total number of employees and contractors ⁸		39 773	40 686	33 201	30 547	31 114
South Africa: Employees		31 201	32 520	26 478	25 861	26 000
Contractors		6 159	5 951	4 512	4 580	5 012
Papua New Guinea: Employees ⁸		1 675	1 397	1 300	76	75
Contractors ⁸		738	818	911	30	27
Employment equity (historically disadvantaged South Africans in management) ⁹	%	6 62	⁵ 60	⁵ 61	⁵ 60	⁵ 58
Number of people in single rooms ¹⁰		8 019	⁵ 6 739	⁵ 7 266	⁵ 7 252	⁵ 7 436
Number of people sharing accommodation		0	⁵ 0	⁵ 0	⁵ 0	⁵ 0
Number of people in critical-skill positions trained		6 109	⁵ 106	⁵ 75	⁵ 68	⁵ 69
Community						
Group local economic development ¹¹	R million	56	⁵ 20	⁵ 27	⁵ 18	⁵ 64
Preferential procurement (BEE-compliant spend)	R million	6 340	⁵ 5 120	⁵ 4 461	⁵ 3 794	⁵ 3 849
Total discretionary spend	R million	8 470	6 436	5 685	4 978	5 565
Preferential procurement spend	%	75	80	78	76	69
Environment						
Mineral waste (volume disposed) ¹³	000t	^{6, 12} 52 691	⁵ 50 798	^{5, 12} 38 392	⁵ 26 170	⁵ 24 659
Total electricity use (purchased)	000MWh	^{6, 12} 3 326	⁵ 2 518	^{5, 12} 2 629	⁵ 2 597	⁵ 2 657
CO₂ emissions						
– Scope 1	000t CO ₂ e	⁶ 133	⁵ 131	⁵ 111	⁵ 56	⁵ 67
– Scope 2	000t CO ₂ e	^{6, 12} 3 193	⁵ 2 442	⁵ 2 513	⁵ 2 581	⁵ 2 686
– Scope 3	000t CO ₂ e	^{6, 12} 533	⁵ 440	⁵ 445	⁵ 615	⁵ 686
Water used for primary activities	000m ³	^{6, 12} 23 158	⁵ 15 473	18 125	15 083	15 752
Funding/guarantees for rehabilitation and closure	R million	3 752	3 717	3 072	2 933	2 796

⁵ Assured by independent auditors in prior years – refer to <https://www.harmony.co.za/invest/annual-reports>. All assured indicators exclude the results of Moab Khotsong from 1 March 2018 to 30 June 2018, except for the LTIFR safety indicator

⁶ Assured by independent auditors in the current year. Please refer to the *GRI Assurance Report* in this report and to the *Glossary of Terms* on the website, www.har.co.za

⁷ Since FY18, Harmony reports on the number of cases of silicosis confirmed by the South Africa's Medical Bureau of Occupational Diseases. Previously we assured silicosis cases submitted to the Medical Bureau of Occupational Diseases

⁸ FY18 includes employees from the Moab Khotsong operations. Excludes employees from the Wafi-Golpu Joint Venture. FY16 and FY15 exclude employees from the Morobe Mining Joint Venture, which are included from FY17, following Harmony acquiring full ownership of Hidden Valley

⁹ The increase in compliance indicators is due to alignment of Harmony's reporting with the Department of Labour's classification guidelines – (EEA9). For previous years, indicators were based on Patterson grade D-F only, whereas C band employees are now classified as Junior Management and have been included in the FY15 employment equity percentage

¹⁰ The number of single rooms only represent hostels which are 100% converted. At the end of FY15, all employees living in hostels were living in single rooms.

¹¹ In addition, capital of R1 million (US\$0.1 million) was spent in FY16 on the upgrading of hostel accommodation at various operations, (FY15: R89 million (US\$8 million))

¹² Increases recorded in FY17, a result of the acquisition in full of Hidden Valley following which it was included at 100% versus 50% in preceding years. FY19 increases are attributed to the inclusion of Moab Khotsong

¹³ The year-on-year increase in mineral waste in FY18 was due to waste stripping of the cutbacks at Hidden Valley

SAFETY AND HEALTH



HUMAN AND INTELLECTUAL CAPITAL

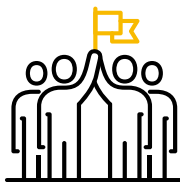


SOCIAL AND RELATIONSHIP CAPITAL



Harmony cares deeply for the safety and health of employees. We aim to prevent loss of life events and embed a proactive safety culture by driving critical control management, in line with the International Council on Mining and Metals' guidelines and principles. No product is as important as our employees, who should return home daily, safe and healthy.

WHAT WE ACHIEVED IN FY19



Prepared in accordance with the GRI Standards:

403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9 and 403-10

- Safety

- **Roll-out of phase 1 and related training on safety risk management approach** completed in FY19

- 11 colleagues lost their lives in mining-related accidents
- Proactive safety management measured through the close-out of A-hazard fatal risk findings – an average of 98.31% of these findings were closed out

- **Hidden Valley, one of the safest operations in Papua New Guinea**, fatality free for three years

- **4 million fatality-free shifts at Doornkop** – a first for a South African deep-level gold mine

Health

- **Improved safety performance at group level:** lost-time injury frequency rate improved by 2% to 6.16 per million hours worked

- **TB incidence rate continues to decline** – down a further 21% in FY19

- **Extensive community polio vaccination programme** conducted in mine and project areas in Papua New Guinea

OUR APPROACH TO SAFETY AND HEALTH

The safety and the health of employees is paramount. Ensuring a safe and healthy workplace is a moral responsibility and key operational focus area, which will ultimately contribute to delivery on our business objectives and the sustainability of our business.



Kusasaletu – health hub



At the beginning of FY17, Harmony embarked on a safety and health journey. With active leadership, a proactive culture and

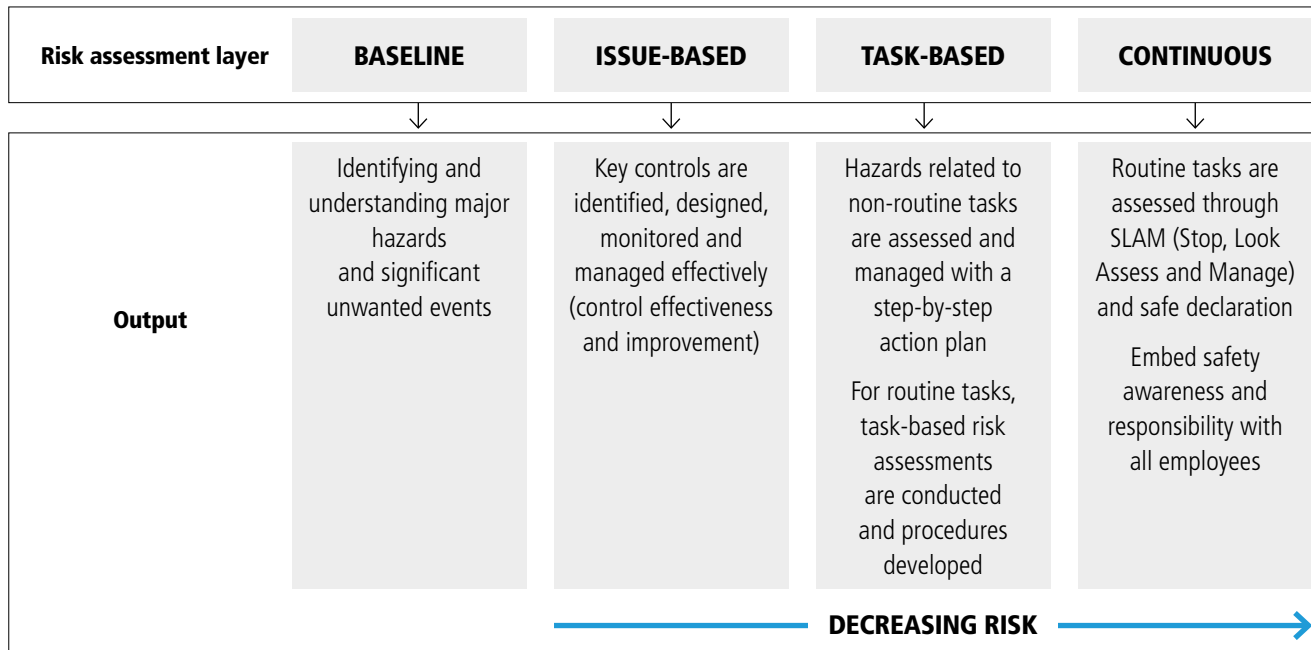
effective critical control management, we believe we can prevent significant unwanted events and fatal incidents – ensuring Harmony and our employees *Live Longer*. This journey has led to the implementation of a comprehensive integrated safety risk management system (the Harmony risk management approach), training, refresher training and several safety campaigns. This system was developed following an exercise to benchmark best practice in the industry, and an external audit of our safety performance and practice. Building on industry best practice, Harmony implemented a four-layered approach to risk management.

Our activities in relation to safety and health support the following Sustainable Development Goals:



Tshepong Operations

FOUR-LAYERED RISK MANAGEMENT APPROACH



Our risk-based approach is not limited to safety. It also encompasses health, the environment, communities and social risks, legal and regulatory risks, among others.

Our occupational safety and health policy and related management framework are aligned with the Mine Health and Safety Act in South Africa and with relevant legislation in Papua New Guinea, including the Mining (Safety) Act and associated regulations. We also apply best practices and guidelines as prescribed by the International Council on Mining and Metals. Our approach to safety encompasses critical control management, preparedness, prevention and the monitoring, review and analysis of relevant safety and health data indicators.

At board level, the technical committee is responsible for approving and monitoring compliance with our safety and health policy, and with legislation. Safety, a key performance indicator for management, is monitored to determine remuneration in terms of safety performance.

Representatives of management, unions and government participate in structures aimed at emphasising the importance of safety and achieving our goal to eliminate fatalities and prevent the loss of life.

At our South African operations, operational safety and health committees ensure that all employees are involved in managing and ensuring the safety of all.

There are 40 full-time safety and health stewards at our South African operations (FY18: 45). The decline in their number was a result of the restructuring of Unisel in FY18 and closure of the Joel plant in FY19. Safety and health feature as agenda items at all union and management engagements.

Harmony is involved in and contributes to external safety initiatives and leading practices in the mining industry for implementation through the Mining Industry Occupational Safety and Health (MOSH)

Community of Practice for Adoption (COPA) process. Champions are nominated for each aspect of occupational safety and health to attend industry meetings and ensure that relevant information is disseminated to all operations.

In Papua New Guinea, safety managers report regularly to the Southeast Asia executive committee by way of notifications, formal monthly reports and meetings. This committee in turn reports to Harmony's technical committee and the board.



Central Plant

SAFETY

Our values and the Harmony risk-management approach underpin our determination to eliminate the loss of life. A co-operative approach, involving all stakeholders, ensures that the necessary infrastructure and systems are in place – including relevant planning, communication and training. Safe behaviour is constantly reinforced. Employees are instructed and authorised to stop working when they consider a workplace to be unsafe as well as to prevent unsafe actions.

Harmony has set out the following strategic priorities in order to achieve a safe working place by focusing on leadership, risk management and people:

- passionate and active leadership
- effective risk and critical control management (risk assessment as a way of life)
- effective safety management systems (modernisation of systems and processes)
- ongoing organisational learning (learning from incidents)
- a proactive culture and an engaged workforce

Harmony is on a journey to embed risk management as a way of life in Harmony, thus enabling our people to be proactive in order to *Live Longer*.



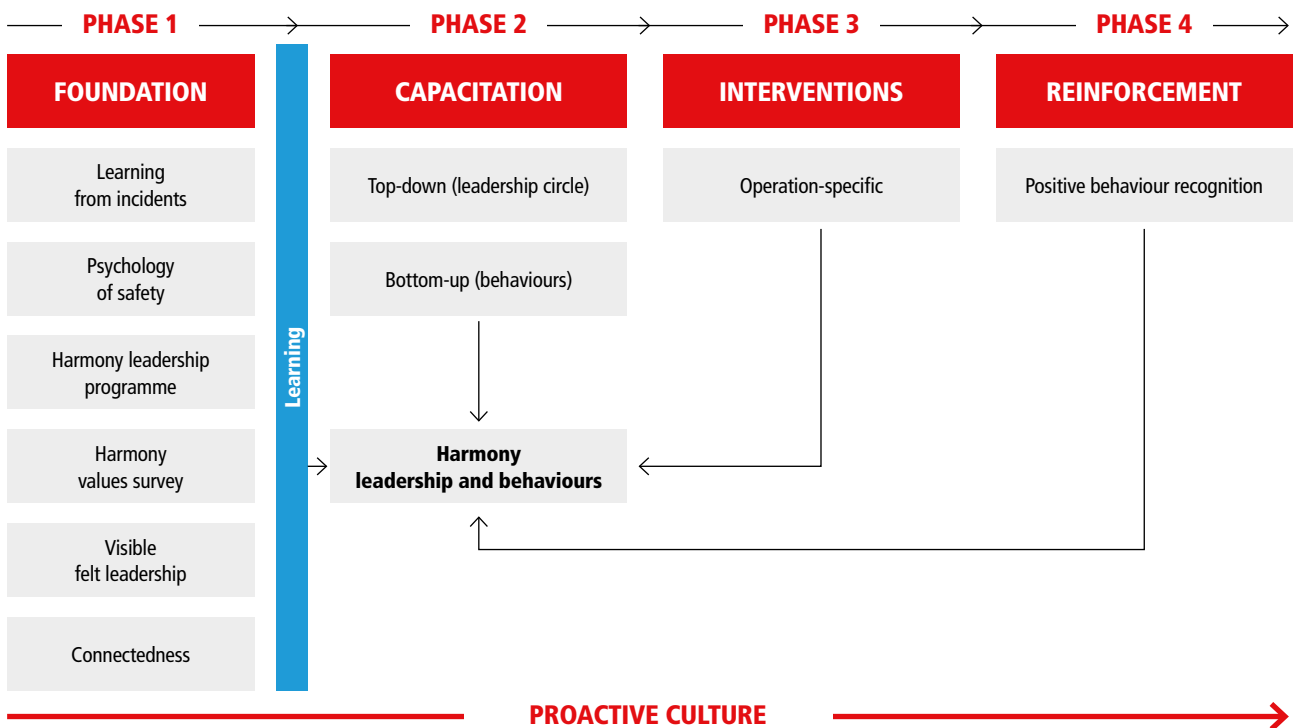
Tshepong Operations

RISK MANAGEMENT: A PHASED JOURNEY

Phase 1 of the roll-out of the Harmony risk management approach at all operations was completed by the end of calendar 2018. Phase 2 of the system's roll-out is being conducted and group-wide implementation is scheduled to be completed by the end of calendar 2019. Phase 3 (currently in progress) involves embedding the monitoring of controls and responses to control failures, together with a process to continually improve control efficacy. Phase 4 will entail further embedding of our risk management systems and critical control management across the organisation, as well as safety leadership and behaviour interventions.

TOWARDS A PROACTIVE SAFETY CULTURE

In coming years (FY20 – FY22), we will have a stronger focus on safety leadership and behaviour interventions to ensure a proactive culture, as illustrated below. This component is explained in more detail in *Proactive culture and an engaged workforce*.



SAFETY AND HEALTH CONTINUED

Risk assessment becoming a way of life

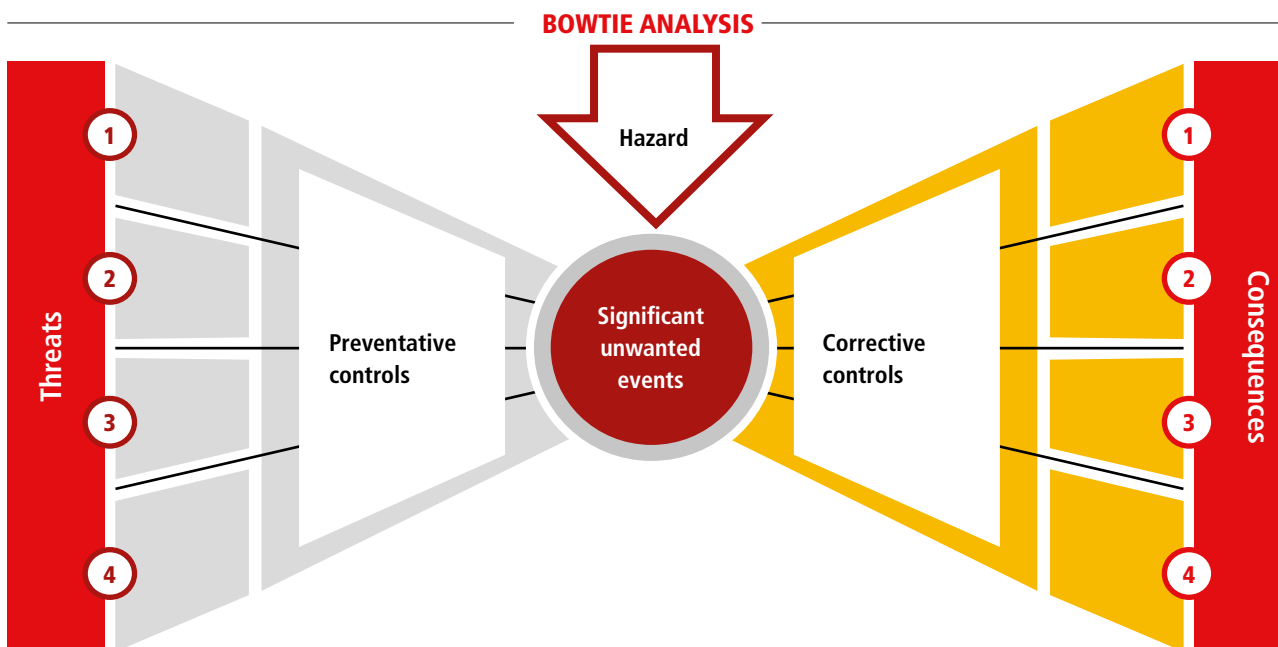
Layer 1: Baseline risk assessment

As part of the Harmony risk-management embedding process, all underground and surface operations have performed and reviewed baseline risk assessments to identify the individual operation's top 20 significant unwanted events. In identifying hazards, focus is placed on recognising the uncontrolled or unwanted release of energy driving many hazards. The consequence of the unwanted event and probability of the unwanted event are rated and combined to produce a risk level or rating on the Harmony risk matrix.

At our underground operations in South Africa, significant unwanted events relating to seismicity, underground rail-bound equipment, electricity, gravity-induced falls of ground, working at heights, winches, mud rushes and inundation, fire and explosives, and stored energy have been identified and prioritised. In addition, on surface, tailings storage facilities are closely monitored to guard against unwanted safety events. For further information on the management of our tailings storage facilities, see *Tailings management and Management of tailings in Papua New Guinea*.

Layer 2: Issue-based risk assessment

Detailed issue-based risk assessments (including detailed bowtie risk assessments) have been conducted on these significant unwanted events to identify critical controls and associated monitoring and response plans (layer 2 of risk assessment). These critical controls are actively monitored and responded to through our Harmony risk management system.



Layer 3: Task-based risk assessment and Layer 4: Continuous risk assessment

As part of the process to embed risk management, all Harmony operations identify tasks linked to significant unwanted events they prioritised in Layer 1. Risk assessments are conducted for all these critical tasks. The intent of these risk assessments is to identify the hazards and controls (Go/NoGO rules) related to all task steps. Controls identified in Layer 2 are also checked to ensure they are included in the various task steps. Detailed procedures, checklists, inspections, task observations and training material are developed from this information to ensure all tasks are performed safely and according to legal requirements. These valuable tools, together with Work Notes highlighting key workplace information, are used on a day-to-day basis as the cornerstone of our continuous risk assessment process. Another key element of our continuous risk assessment process is the SLAM principle. Before we do any task in Harmony, we Stop, Look, Assess and Manage. Hazards and high-risk activities associated with working places are further highlighted by Visual Risk Indicator Boards that have been rolled-out across all Harmony operations.

Modernisation of systems and processes

Modernisation of our risk-management journey began in April 2018. Modernisation enables our proactive risk management approach from a systems perspective. It entails upgrading of the existing system to Syncromine to improve the production planning and reporting process. This provides our mining teams with the required safety and hazard information before entering the workplace so that the mining crews are aware of hazards identified on previous shifts. All of this creates visibility of risks in our workplaces and, through control charts, highlights focus areas. Modernisation and the systemisation of our work routines is an ongoing process with the initial roll-out at all operations planned for completion by the end of calendar 2019.

Learning from incidents

To ensure that we continue to learn and do not repeat the same incidents, the Harmony risk management and central safety audit teams also conduct formal “learning from incidents” reviews and group audits after all loss of life and high potential incidents.

Proactive culture and an engaged workforce

The Harmony risk-management journey focuses not only on systems and processes but on establishing a proactive culture through active, visible leadership and consistent safe behaviours. Visible felt leadership training has been provided to all management teams. In July 2018, we started with a “psychology of safety” programme for our leaders. Facilitated “leadership safe behaviour” sessions with all management teams are also underway.

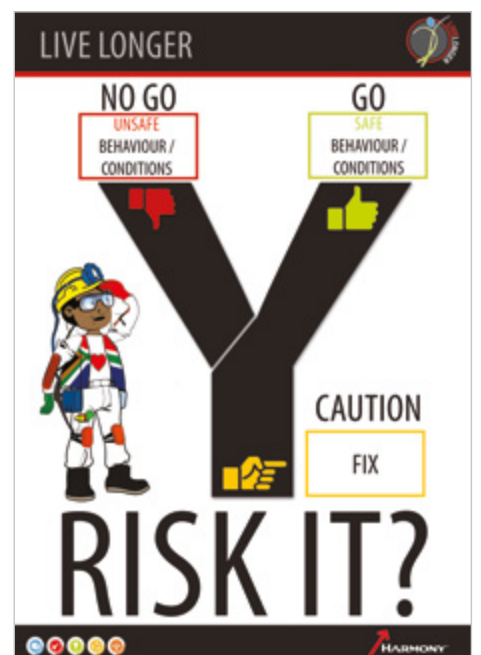
Day-to-day reinforcement of safety culture

Safety is reinforced in our day-to-day activities. To make the Live Longer strategy tangible, the Harmony risk-management message is continuously reinforced and we introduced our safety mascot, Thibakotsi (meaning “stop accidents”).



At our national safety days, hosted in October 2018 and again in May and June 2019, the message was reinforced by providing all employees with SLAM cards (38 000 red, yellow and green cards were distributed), as well as visual risk indicator boards for the workplace.

Various communication tools like “Live to tell” videos, *Live Longer* sign boards, “Y” risk it posters and risk-management newsletters are used to keep the message alive at our operations.



SAFETY AND HEALTH CONTINUED

WHAT WE DID IN FY19

Our group safety performance improved in FY19 when we recorded a group lost-time injury frequency rate of 6.16 per million hours worked (FY18: 6.26). Despite this improvement, there were, regrettably, 11 mining-related fatalities during the year (FY18:13), all at our South African operations. There were no fatalities at our Papua New Guinean operation for the third consecutive year.

Harmony continues to provide counselling and financial assistance to the families of deceased employees. An education fund established in FY14 supports the needs of school-going dependents of all employees and contractors who lose their lives in the workplace. By the end of June 2019, this fund had provided assistance totalling R3 million and ensured that 126 dependents continued their education.

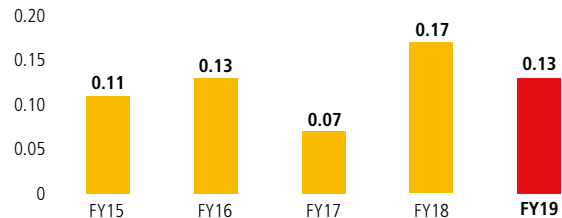
South Africa

The fatal injury frequency rate for the South African operations improved from 0.17 to 0.13 per million hours worked and the lost-time injury frequency rate to 6.48 from 6.67 per million hours worked. We lost 25 428 shifts to occupational injury (FY18: 23 780).

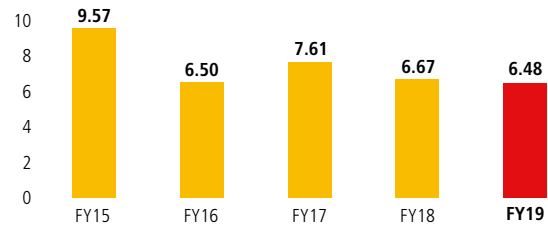
The reportable injury frequency rate improved to 4.05 per million hours worked (FY18: 4.18) with the fall-of-ground injury frequency rate improving by 23% to 1.09 (FY18: 1.41). There were three gravity-related fall-of-ground fatalities (FY18: 3) and two

seismic-related fall-of-ground fatalities (FY18: 7). The rail-bound equipment injury frequency rate improved by 7% to 0.55 (FY18: 0.59). One rail-bound equipment-related fatality was recorded during the year (FY18: 0).

South African operations: Fatal injury frequency rate (per million hours worked)



South African operations: Lost-time injury frequency rate (per million hours worked)



In memoriam

Date	Operation	Name	Occupation	Cause
19 July 2018	Tshepong	Tshepo Libate	Winch operator	Gravity-related fall of ground
10 July 2018	Kusasaletu	Michael Plaatjies	Team leader	Gravity-related fall of ground
19 October 2018	Kusasaletu	Tsietsi Manoto	Engineering artisan	Working at heights
3 November 2018	Moab Khotsong	Mvuyisi Mayekiso	Locomotive operator	Trucks, tramming and transport
22 January 2019	Phakisa	Mlameleli Mnqumeni	Driller	Seismic-related fall of ground
8 April 2019	Doornkop	Mantlobo Phelane	Winch operator	Seismic-related fall of ground
30 April 2019	Doornkop	Bernado Benedito Moiane	Winch operator	Gravity-related fall of ground
7 May 2019	Bambanani	John Daniel Nell	Miner	Working at heights
29 May 2019	Phakisa	Juan Frank Little	Rock engineer	Electricity
5 June 2019	Tshepong	Andile Mqungquthu	Winch operator	Scraper winch
28 June 2019	Kusasaletu	Sennanyane Mashapha	Cage attendant	Shaft conveyance



Target 1 – health hub



Kusasaletu – health hub

The number of Section 54/55 instructions issued during FY19 increased slightly to 247 (FY18: 242). Production lost as a result of safety-related stoppages totalled 821kg or 28 735oz (FY18: 530kg or 18 550oz).

Managing seismicity

Our mines monitor and manage seismicity continuously. Support systems and procedures focused on energy absorption are in place on our underground mines with higher levels of seismic activity.

A number of methods are used to prevent and control seismicity and its consequences:

- Routine seismic monitoring systems are in operation at all our mines in South Africa to monitor all mining-related seismicity, using data generated to quantify exposure to seismicity, to warn of potential instabilities and to aid mine planning and design
- Short-term seismic hazard assessments of each mining panel are conducted daily – mining crews are withdrawn depending on the seismic hazard rating of a workplace
- Monthly planning process limits the mining rates in high-risk areas and manages the design of mine stope faces
- Long-term planning addresses placement of development excavations in the footwall and in the vicinity of other excavations
- Long-term mining sequence is addressed in yearly life-of-mine planning and technical sessions
- On mines with the hazard of face strain bursts, pre-conditioning of the stope face is applied
- Rapid yielding hydraulic props are used on certain seismically active mines to mitigate the high velocity of closure expected during rockbursts
- On certain seismically-active mines, backfill is used as a regional and local support to assist in reducing volumetric convergence and high stresses on the face and in maintaining the integrity of fractured rock in the stope face and gully regions
- Support units are specially selected to cater for rockfall conditions and dynamic loading in seismically-active areas
- Secondary support is installed in selected areas to manage changes in stress and expected shakedown during seismicity
- Flooding of mines also influences seismicity – water levels in neighbouring mines and in the zone of influence are monitored and managed where possible
- As most seismicity occurs post blasting, centralised blasting is important in ensuring employee safety on seismically active mines. All employees are removed to areas of safety before the blast is set off centrally. This minimises employees' exposure to the blast itself as well as to the seismicity that could be triggered by the blast. Centralised blasting also helps to reduce the time period in which blasting-induced seismicity predominantly occurs after the blast, ensuring the safe return of employees for the next shift.

For a safer working environment in deep-level hard-rock mines, Harmony contributes to fundamental research programmes conducted by the University of Pretoria and the Institute of Mine Seismology into specific rock engineering and seismological issues.

Papua New Guinea

Hidden Valley recorded no fatalities for the year, and achieved 1.75 million fatality-free shifts on 2 July 2019, shortly after financial year end. The Hidden Valley operation has delivered world-class safety performance by achieving more than two years lost-time injury-free in May 2019. The lost-time injury frequency rate regressed slightly – from 0 in FY18 to 0.35 in FY19.

The safety approach at Hidden Valley focuses on risk management and critical controls, visible felt leadership and promoting a proactive safety culture.

The updated safety and risk management system was successfully implemented in February 2019 and is aligned with the risk management safety approach rolled out at the South African operations, Australian standard 4801 and the ISO 45001 (once ratified).

Safety measures in place include implementation of critical controls and verification of all high-risk (potentially fatal) activities. Work menus and related training programmes, incorporating relevant critical controls, were developed for high-risk activities, rolled out and monitored.

Verification of the implementation of critical controls continues to be embedded across the Hidden Valley operation. This is important in monitoring the effectiveness and quality of controls to use leading indicators.

The mountainous terrain, high rainfall, quickly changing weather conditions and seismicity in Papua New Guinea present particular safety challenges such as landslides and/or slope failures. Natural landslides are relatively common and, together with potential man-made landslides (slope failures associated with open-pit mining), pose a significant safety risk.

Real-time slope stability radar systems, critical in monitoring and managing potential failures and failure incidents, operate at both open pits. Specific geotechnical risk assessments are undertaken for all work sites in Papua New Guinea with the associated mitigation plans being updated at least annually.

As vehicle-related incidents are also a significant risk, we have implemented the following mitigation measures:

- installation of on-board cameras to monitor driver behaviour for corrective training
- vehicle-specific emergency braking procedure training for drivers
- manned check points for trucks to verify permits and licences prior to entry into mine lease areas and prior to certain hazardous declines
- automated controls such as collision awareness, fatigue detection and personal protective systems to prevent accidents in FY19.

HEALTH

At Harmony, we believe that every employee deserves a fulfilled life and that is why we care about their health and wellbeing. It is important that our employees are fit for life, fit for work and fit to retire.

Our approach to healthcare is proactive and risk-based and aims to ensure that healthcare is easily accessible. Healthcare and employee well-being fall into two distinct areas: employee health and wellness, which is occupational healthcare in the workplace, and non-occupational healthcare, which is lifestyle-related.

Harmony's health strategy is aligned with our strategic objectives. Reducing health-related safety risks, promoting employee wellbeing and reducing absenteeism contributes to improved productivity by providing a sustainable, cost-effective health service solution.

In South Africa, Harmony's healthcare programme provides primary, secondary and tertiary healthcare as well as occupational health services to all employees through company-managed healthcare facilities, medical aid membership and external healthcare providers. We continue to provide accessible, comprehensive healthcare services at our health hubs located close to the workplace.

Harmony's proactive healthcare aims to manage illness by identifying and treating disease early and thus helping to prevent permanent disability. Medical surveillance, active case finding, early detection and treatment of disease are integral aspects of our management healthcare system.

The four pillars of our health services are:

- health promotion and awareness
- disease prevention and risk management
- clinical intervention (treatment programmes)
- continuous health risk profiling

WHAT WE DID FY19

South Africa

Key health focus areas in FY19 included optimisation of labour availability, the ongoing integration and alignment of Harmony's healthcare strategy at Moab Khotsong, and greater attention and awareness of mental health. Given the anticipated increase in mental illnesses, with one in six South Africans suffering from psycho-social issues and substance use, we have developed an employee psycho-social programme (EPP) to provide access 24/7/365 to all employees. The programme will ensure an employee's positive state of physical and emotional wellness, and enhance employee and workplace effectiveness by preventing, identifying and resolving personal and productivity issues. The programme's roll-out began post year-end.

Employee wellness and healthcare

Healthcare delivery

At our South African operations, membership of a medical scheme is compulsory for all category 9+ employees. For category 4-8 employees, membership is voluntary with 8 202 employees participating in medical schemes in FY19 (FY18: 6 879). Harmony subsidised the related costs on behalf of employees by R18.4 million (US\$1.3 million) a month (FY18: R14 million or US\$1.1 million).

In all, 24 471 category 4-8 employees have elected not to join a medical scheme. Instead they receive in-house comprehensive health services from mine medical health facilities and associated preferred providers at no cost to the employee. The cost of providing these services was R33.4 million (US\$2.4 million) a month in FY19 (FY18: R24 million; US\$1.9 million), which includes health hub management costs, specialists and hospitalisation – the increase is a result of the inclusion of Moab Khotsong.

The dedicated health hubs at our operations undertake active case-finding and screening as well as active disease management of chronic conditions for employees who are not members of a medical scheme. Medical surveillance is conducted at our health hubs for all employees, including contractors. In all, 53 279 medical examinations were conducted in the past financial year (FY18: 46 513).

MEDICAL SCHEME MEMBERSHIP IN FY19

Employee category	Medical aid membership	Number of employee members	Monthly cost to Harmony of employee medical aid membership	Total annual cost
9+	Compulsory	8 202	R18.4 million US\$1.3 million	R220.8 million US\$15.6 million
4-8	Voluntary			
4-8	Non-medical aid members receiving in-house comprehensive medical care	24 471	R33.4 million US\$2.4 million	R400.8 million US\$28.8 million



Total cost to Harmony of medical healthcare provision in South Africa is
R621.6 million (US\$44.4 million)

Managing health-related absenteeism

Our At work health management programme continues to yield favourable results by contributing to more healthy people at work. The aim of this programme is the early identification of employees who may become chronically ill or medically incapacitated by the diseases, and to manage, review and monitor their medical conditions. Health-related absenteeism increased to 7.7% in FY19 (FY18: 7.4%). This increase was mainly as a result of more employees using private medical services. Abnormalities in absenteeism trends are closely monitored by management. In the past year, 10 663 (FY18: 8 463) individual medical cases were reviewed by a team of healthcare professionals.

Preventative healthcare – promoting awareness and education

Harmony's health initiatives focus on the prevention of diseases to ensure total worker health. Employee education, which addresses these diseases, includes the employee induction programme, podcasts and television screens to educate employees about various health issues. Other initiatives include the distribution of pamphlets, health-worker training, screening at all medical centres, disease management interventions and quality assurance. In addition, an exclusive health desk has been set up to improve and strengthen communication about health-related matters.

Monthly health awareness campaigns, guided by the annual health calendar, focus on particular health-related topics such as HIV/Aids, tuberculosis (TB), sexually transmitted infections, as well as lifestyle and occupational diseases. Ongoing monitoring and education are conducted on various digital platforms and at the medical health hubs, which oversee major health campaigns at operational level.

To curb the rise in non-communicable diseases and their devastating impact, the healthy lifestyle programme was reviewed.

The review resulted in the deployment of dieticians, biokineticists and fitness trainers to the operations (decentralisation of these services) to improve accessibility to these required services.

In preparation for the winter season in South Africa, the influenza (flu) vaccine is offered to employees, for free, as a precautionary measure. In all, 8 007 employees (FY18: 8 883) received flu vaccinations in the past financial year.

Managing diseases

Tuberculosis

TB is one of the most pressing public health concerns in South Africa, including the gold mining industry. The TB incidence rate at our South African operations remains high compared with World Health Organization and national benchmarks.

Harmony's TB control programme, which is aligned with the relevant guidelines and prescriptions of the World Health Organization, and with the National Strategic Plan to combat TB, focuses on contact tracing, comprehensive screening, testing, hospitalisation of infectious cases and a directly observed therapy short course. As an affiliate of the Minerals Council South Africa, and through the national Masoyise iTB campaign, Harmony is committed to ensuring that every employee is screened and tested for TB annually, and commits to further reduce TB infections in line with the national milestone that by December 2024, the TB incidence rate should be at or below the highest of either:

- the national TB incidence rate or
- reduce new TB infections in line with the National Strategic Plan

In FY19, 37 666 employees (including contractors), or 99% of the workforce, were screened for TB, exceeding the 90% target set by the Minister of Health. A total of 102 cases of TB were certified (FY18: 540).

The TB incidence rate per 100 000 employees has continued to decline since the introduction of our proactive healthcare strategy in FY10, improving by 21% year on year in FY19.



Target 1 – health hub

Absenteeism

	FY19	FY18	FY17	FY16	FY15
Health-related absenteeism (%)	7.7	7.4	7.4	7.2	8.0

Tuberculosis

	FY19	FY18	FY17	FY16	FY15
TB screening of employees and contractors	37 666	29 955	30 113	29 077	na
% of workforce	99	97	97	96	na
TB incidence rate (per 100 000 employees tested)	841	1 063	1 366	1 524	1 887

SAFETY AND HEALTH CONTINUED

HIV/Aids

The HIV/Aids epidemic in South Africa continues to have a significant impact on employees and their dependents despite significant progress in raising awareness and prevention, and the national roll-out of antiretroviral therapy. The untreated illness can result in higher levels of opportunistic co-infections, which lead to increased absenteeism and reduced performance levels, loss of skills, greater economic burden, and sometimes death. Motivating employees to confirm and/or disclose their HIV status, despite perceived stigma and confidentiality issues, remains one of the greatest challenges. Initiatives such as positive behaviour programmes are pivotal in this regard.

At our South African operations, 8 947 employees (FY18: 8 108) have been identified as HIV-positive and are on the HIV/Aids programme with 8 024 (FY18: 6 938) receiving antiretroviral therapy.

HIV/Aids is managed through our clinics and the services of health professionals with the support of appropriate specialists. Harmony's HIV/Aids strategy is based on promoting health through education and awareness programmes, preventative strategies to reduce the number of new cases, evidence-based medical interventions and ongoing monitoring of compliance.

The Department of Health, in conjunction with the Joint United Nations Programme on HIV and Aids (UNAids), adopted the 90-90-90 targets, which are globally aligned. Harmony has in turn aligned its HIV/Aids programme with these targets to be achieved by 2020:

- 90% of all people living with HIV will know their HIV status – Harmony is currently at 82% (FY18: 82%) (including contractors)
- 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy – Harmony is currently at 88% (FY18: 80%) medically uninsured people, excluding contractors
- 90% of all people receiving antiretroviral therapy will have viral suppression

HIV/Aids

	2020 Target (%)	FY19	FY18	FY17	FY16	FY15
Employees identified as HIV-positive		8 947	8 108	7 816	7 063	7 050
Employees receiving antiretroviral therapy		8 024	6 938	6 430	5 333	4 016
Performance against UNAids targets – 2020						
Employees knowing their HIV status (including contractors) (%)	90	82	82	78	73	na
Employees receiving antiretroviral therapy (medically uninsured, excluding contractors) (%)	90	88	80	78	74	na
Employees receiving antiretroviral therapy will have viral suppression (medically uninsured) (%)	90	73	71	70	61	na

Chronic diseases

	FY19	FY18	FY17	FY16	FY15
Employees with a chronic condition*	18 924	16 247	15 216	15 137	8 600
Proportion of South African workforce (%)	61	59	55	55	42
Diabetes (%)	9	6	6	6	6
Hypertension (%)	34	34	33	33	42
HIV/Aids** (%)	47	50	52	52	47

* Employees with more than one chronic disease are counted in each condition

** From 2016 onwards, all HIV positive people were included and not only those on treatment

Voluntary counselling and testing for HIV/Aids

Pre-test counselling and voluntary testing are offered to all employees through ongoing interventions at all Harmony healthcare hubs. In all, 38 737 (FY18: 32 194) employees received voluntary counselling and testing during the year and, of these, 31 869 (FY18: 26 082) confirmed their status.

Chronic diseases

Non-communicable chronic diseases, including hypertension, heart disease and diabetes continue to pose a significant challenge for our employees.

Specific initiatives have been implemented to manage chronic diseases with particular focus on HIV/Aids, TB, diabetes and hypertension. In FY19, 61% (FY18: 59%) of employees at the South African operations had a chronic condition. Of the 18 924 employees diagnosed with chronic conditions, 34% have hypertension, 9% diabetes and 47% HIV/Aids.



Kusasaletu

Managing occupational health

Harmony is focused on creating an enabling environment for teams to succeed. Managing underground health hazards, including temperature, dust and noise control, is critical.

Managing underground temperatures – limiting heat stress

Extensive refrigeration and ventilation measures are in place at all operations where temperatures exceed normal working ranges. Heat-tolerance testing, acclimatisation programmes, and the provision of adequate hydration and support protect employees exposed to excessive heat in the workplace.

In FY19, 22 157 heat-tolerance tests were conducted with 88 cases of heat-related illness reported (FY18: 20 797 tests and 47 cases). Most cases can be attributed to dehydration. Environmental working conditions are monitored continuously.

Noise management – eliminating noise-induced hearing loss

All Harmony employees who are exposed to high noise levels are given personalised hearing protection devices, which reduce noise levels by 25 decibels.

During the year, 99.5% of occupationally-exposed employees (and contractor employees: 85.7%) were given personalised hearing protection devices (FY18: 99% and 84%).

Sound attenuators were also fitted on all equipment, resulting in no noise level exceeding 110dB(A)-weighted decibels from any machine in compliance with our noise milestone.

Industry milestones for noise-induced hearing loss:

- *By January 2018, no employee's standard threshold shift will exceed 25dB(A) from the baseline when averaged at 2 000Hz, 3 000Hz and 4 000Hz in one or both ears:* Regrettably, five cases were reported where this threshold level was exceeded in FY19
- *By December 2024, the total operational or process noise emitted by any equipment must not exceed a milestone sound pressure level of 107dB(A):* Only three machines fall into this category to which there is restricted access and limited exposure time to ensure the safety of our employees

Annual audiometric testing is conducted at our occupational health hubs during medical examinations. The number of early noise-induced hearing loss cases (5-10% shift) decreased from 446 cases in FY18 to 272 in FY19.

An awareness drive was initiated at all operations to ensure that employees are aware of the benefits of wearing personalised hearing protection. A monitoring programme was also implemented to measure actual compliance in the workplace. Compliance monitoring is undertaken during routine occupational hygiene inspections and ad hoc audits are conducted.

As part of the initiative to prevent noise-induced hearing loss, 22 150 (FY18: 25 607) employees participated in the "hearing coach promotion" initiative during the year. Evaluations were conducted and guidance was provided where necessary on the use of customised hearing-protection devices.

Dust control – eliminating related occupational health diseases

Dust discharge occurs during activities where rock is broken at source, such as during stoping, development and trackless mining. Engineering controls to allay dust have been implemented or are being rolled out at our underground operations to minimise employees' exposure to silica dust, including leading practices as advocated by the Mining Industry Occupational Safety and Health (MOSH) such as employing fogger systems at strategic underground areas and implementing foot- and side-wall treatments to allay dust in identified intake airways.

Multi-stage dust filtration systems have also been installed and all winches have been covered. In addition, real-time dust monitors are installed at all our underground operations. These monitors provide immediate dust readings, which allow immediate action to be taken on unacceptable readings.

Training and awareness programmes address dust control in stopes and all development ends are equipped with water blasts to settle dust directly after a blast.

Managing silicosis

Silicosis is caused by long-term exposure to high levels of quartz silica dust and can increase susceptibility to TB. Harmony's integrated HIV/Aids, TB and silicosis policy and programme is intended to responsibly manage the debilitating disease and proactively prevent deterioration, and thus minimise the risk.

During FY19, 204 cases of silicosis were submitted to the Medical Bureau for Occupational Diseases and 58 cases were certified (FY18: 211 cases reported and 179 certified).

Occupational health statistics

Heat	FY19	FY18	FY17	FY16	FY15
Heat tolerance tests conducted	22 157	20 797	15 354	15 549	6 736
Heat-related cases reported	88	47	53	20	23
Noise					
Number of early noise-induced hearing loss cases	272	446	518	370	526
Compensated noise-induced hearing loss	62	116	90	87	81
Employees with personalised hearing devices (%)	99.5	99	99	97.7	98.9
Contractor employees with personalised hearing devices (%)	85.7	84	76	70.6	59.6
Silicosis					
Number of cases submitted	204	211	220	284	313
Number of cases certified	58	179	108	64	197

SAFETY AND HEALTH CONTINUED



Project Ku-Riha

Project Ku-Riha and ReConnect

Project Ku-Riha, launched by the Department of Health in 2015, aims to improve the system of compensation for mineworkers who suffer from occupational lung disease, to address the related claims backlog and to ensure that claims are paid speedily and efficiently.

Due to the impact on mineworkers who contracted silicosis and/or TB at work on gold mines in South Africa, a class action lawsuit was filed against the gold mines, going back to 1965. Subsequently six mining companies (African Rainbow Minerals, Anglo American South Africa, AngloGold Ashanti, Gold Fields, Harmony and Sibanye-Stillwater) and attorneys Richard Spoor Inc, Abrahams Kiewitz Inc and the Legal Resources Centre reached a settlement in the litigation during May 2018. This settlement was approved by the Gauteng High Court on 26 July 2019. As part of the settlement, the Tshiamiso Trust will be established to facilitate the payment of claims to potential claimants or their beneficiaries on behalf of the six mining companies.

Towards the end of 2016, Harmony began a concerted effort to finalise all current and former employees' claims and established the Harmony ReConnect department. As a result, we have finalised more than 10 800 Harmony-related claims to the value of R206 million (US\$13.4 million) from the Compensation Commissioner's fund.

Industry milestones: eliminating silicosis

- *By December 2024, 95% of all exposure measurement results will be below the milestone level for respirable crystalline silica of 0.05mg/m³.* Annual incremental targets have been set to ensure we meet this milestone ahead of time and not to wait until the deadline is upon us.
- *Occupational health and safety milestone – to eliminate silicosis. Using present diagnostic techniques, no new cases of silicosis will occur among previously unexposed individuals (that is people who were not exposed to mining dust before December 2008 and who began working in the industry in 2009):* Since 2017, regrettably, one employee has been certified with first degree silicosis. Workshops are being conducted by occupational hygienists at all operations to establish a strategy to achieve this milestone. This will assure a special focus on areas where compliance is lacking.

Radiation protection

Radiation levels and radiation exposure are monitored at all of our operations in South Africa. The dose limits are 50 millisievert a year and 100 millisievert over five years. All our South African operations comply with these limits. Operational controls ensure that elevated monitoring results are investigated and corrected when necessary. Radiological clearances are conducted at decommissioned sites to ensure the future declassification of these areas.

Community health initiatives

Harmony recognises that it can play an important role in the healthcare of surrounding communities. Activities in FY19 included:

- TB dialogue at Tshepisoeng, near our Doornkop mine, where leaders were mobilised at all levels is in line with the goals and objectives for the National Strategic Plan to promote shared accountability for sustainable response to TB and HIV/Aids
- A TB-focused health campaign was conducted at Bronville and Extension 20 in conjunction with the Department of Health in the Lejweleputswa district (close to Bambanani) and a total of 109 community members were screened for TB – four were referred for further TB management
- Harmony was a co-sponsor of the Run for Diabetes event held in April 2019 to raise awareness of the impact of diabetes on communities and the vital role played by the family in the management, care, prevention and education of diabetes. Employees from our Randfontein head office and the Doornkop and Kusasaletu mines participated in the run. The community-driven event was a collaborative effort between the Kaya FM, Harmony and other sponsors. In addition, Harmony provided free health screenings for all race participants.



Kusasaletu

Papua New Guinea

In Papua New Guinea, medical centres at Hidden Valley and Wafi-Golpu provide primary healthcare and occupational health surveillance to employees and contractors. Medical registers, in an online information system, are used to track and review each patient's progress from the first visit through to final treatment.

Upper respiratory tract infections remain one of Harmony's main medical concerns in Papua New Guinea.

Despite experiencing between 3m to 4m of rain a year, which naturally suppresses dust, testing for respirable silica is conducted with a focus on the higher-risk areas at Hidden Valley. Baseline data indicates that the risk of personnel contracting silicosis is negligible.

A total of 17 601 health examinations were conducted at the medical centres during FY19 (FY18: 15 198) of which 3 515 (FY18: 3 508) were random drug and alcohol tests.

Upper respiratory tract infections

The Hidden Valley mine is located approximately 3km above sea level and most employees reside in the lower, warmer areas. The regular change in altitude between home and work contributes to various respiratory ailments. Other factors contributing to these infections include low levels of personal hygiene in home villages and airborne pollen during peak flowering times, which affects air quality. The high rainfall all year round maintains high levels of humidity (around 80% to 90%), which creates favourable conditions for fungus, bacteria and viruses to thrive.

In all, 2 191 employees were treated for respiratory ailments in FY19 (FY18: 2 581). An employee education programme on respiratory ailments and gastro-intestinal hygiene has been successfully implemented.

Tuberculosis and HIV/Aids

Hidden Valley has installed a digital X-ray machine and medical laboratory to accurately diagnose tropical diseases, TB and HIV/Aids. In FY19, six new cases of TB were reported during the year (FY18: 22).

In all, 70 personnel underwent voluntary counselling and testing for HIV/Aids during the year at Hidden Valley compared to 472 during FY18.

Malaria

Malaria is endemic in many parts of Papua New Guinea, including work sites such as Wafi-Golpu and Lae, excluding Hidden Valley.

Many employees and contractors working at Hidden Valley reside in areas where malaria is endemic. Our community health projects play a vital role in combatting the disease in these areas. Over the past two years, there has been a 50% increase in patients with malaria-like symptoms.

Community health initiatives

The community health outreach programme was developed to improve the health and wellbeing of local communities. It is led by the Medical Department and a Health Extension Officer. During FY19, the following activities were conducted:

- **Community medical assistance** in eight mostly obstetric emergencies that were transferred to Bulolo Health Centre
- **Local health centre visits** to maintain working relationships with local health workers
- **Community donations** of beds by Rotary Australia distributed to local health facilities
- **Polio vaccination programme** to manage the polio outbreak declared by the Papua New Guinea government through a national vaccination plan developed by the World Health Organization for immunisation of children from birth to five years – the Hidden Valley health extension officer vaccinated 3 080 children during five campaigns. A further 474 vaccinations were administered within Wafi-Golpu project area communities
- **Cervical cancer vaccination programme**, begun on 16 January 2019 in partnership with the Rotary Club of Boroko, reached 474 girls, aged nine to 14 years, in the Hidden Valley landowner areas while over 6 000 vaccines were administered to communities within the Wafi-Golpu project area

OUTLOOK

Safety: Roll-out and group-wide implementation of phase 2 of our risk management approach is scheduled to be completed by the end of calendar 2019. The focus will shift to phase 3 and phase 4, the full implementation of our risk management systems and critical control management across the organisation, together with safety leadership and behaviour interventions.

While modernising and systematising our work routines is ongoing, the initial roll-out at all operations is expected to be completed by December 2019.

Health: In South Africa, roll-out of the employee psycho-social programme to address the rising scourge of mental illness will be completed in the first half of the new financial year. In addition, given the increase in non-communicable diseases related to obesity, a *Weight Warrior* programme is also to be launched to curb these diseases.



Papua New Guinea

EMPLOYEE RELATIONS

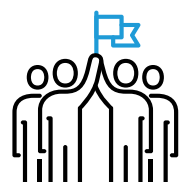


HUMAN AND INTELLECTUAL CAPITAL



We strive to maintain sound, lasting relationships with our employees. Motivated, productive employees are vital to ensuring successful delivery on our strategy and to the achievement of our business objectives.

WHAT WE ACHIEVED IN FY19



Prepared in accordance with the GRI Standards:

102-41, 202-1, 202-2, 406-1, 401-1, 404-1, 404-2, 405-1 412-1, 412-2, 412-3 and MM4

<ul style="list-style-type: none"> • Three-year South African wage agreement concluded in October 2018 remains in place 	<ul style="list-style-type: none"> • Employee training and leadership development remained an important focus area across the group 	<ul style="list-style-type: none"> • Sisonke employee share ownership scheme for non-managerial employees in South Africa launched in February 2019 	<ul style="list-style-type: none"> • Stable employee relations environment in South Africa and Papua New Guinea
<ul style="list-style-type: none"> • Positive and constructive union stakeholder relationships and roll out of employee relations policy framework in South Africa 	<ul style="list-style-type: none"> • Workforce localisation and gender diversification processes progressed in Papua New Guinea 	<ul style="list-style-type: none"> • Good progress made with financial education and counselling programmes that address employees' financial indebtedness 	<ul style="list-style-type: none"> • Promotion of employee home ownership scheme proceeding well in South Africa

APPROACH TO EMPLOYEE RELATIONS

Our employees are central to Harmony achieving its business objectives. We provide training and development, promote fair labour practices for employees and contractors, and encourage local employment opportunities to ensure employees are motivated and productive. Our aim is to provide the opportunity for each employee to develop to their full potential. Employee safety and wellbeing is a priority. For more details, see *Safety and health*.



Doornkop

Our human resource initiatives focus on four underlying goals:

- Entrenching a single organisational culture
- Attracting and retaining employees with high potential
- Developing employees to meet operational skills requirements and improve productivity
- Maintaining effective employee performance and leadership development management systems

GOVERNANCE

Our employment policies, procedures and practices take into account and comply with relevant labour legislation in South Africa and Papua New Guinea. They are aligned with the guidelines of the International Labour Organization (ILO). Recruitment initiatives focus on local communities in both countries. All human resource procedures and policies, including remuneration and incentive schemes, are reviewed regularly.

WHAT WE DID IN FY19

Employee complement

Region	Permanent employees			Contractors			% of employees drawn from local communities		
	FY19	FY18	FY17	FY19	FY18	FY17	FY19	FY18	FY17
South Africa ¹	31 201	32 520	26 478	6 159	5 951	4 512	79	75	76
Papua New Guinea ²	1 675	1 397	1 300	738	818	911	96	96	95
Harmony – total	32 876	33 917	27 778	6 897	6 769	5 423			

¹ Increase in FY18 due to the acquisition of the Moab Khotsong operation and the integration of the related employee complement

² Excludes employees of the Wafi-Golpu Joint Venture

Our activities in relation to employee engagement support the following Sustainable Development Goals:



EMPLOYEE RELATIONS CONTINUED

Employment, diversity and gender equality

We are committed to building and maintaining a workforce that is representative of the communities within which they are located.

South Africa

Our aim is for our workforce to represent the diversity of South Africa's population and, in so doing, comply with the requirements of the Mining Charter and the employment equity targets submitted to the Department of Labour.

In FY19, 62% (FY18: 60%) of Harmony's management were historically disadvantaged South Africans (defined by the Mineral and Petroleum Resources Development Act as any person, category of persons or community, association or juristic person disadvantaged by unfair discrimination before the Constitution took effect).

Mining Charter III, gazetted on 27 September 2018, introduced new targets and measurement criteria to accelerate transformation within the industry. The implementation guidelines related to the employment equity targets of Mining Charter III have been clarified by industry engagement conducted through the Minerals Council South Africa. Harmony's strategy aims to accelerate the representation of historically disadvantaged persons across a number of managerial levels, particularly women representation, formalising career progression plans and enhancing our employment equity plan to meet the requirements of Mining Charter III. The measuring of employment equity targets has now moved towards measuring employment equity in accordance with the country's national and/or provincial economically active population demographics. The transformation pillars of Mining Charter III include a transition period of five years for progressive implementation.

The new targets set out in Mining Charter III focus on representation by historically disadvantaged persons, including women, at every level. The table below compares Harmony's performance against the targets in each category.

We have one universal salary scale that does not discriminate by gender or on any other arbitrary grounds.

In FY19, a gender diversity strategy to improve women representation in management approved by the board in FY18 was fully rolled out. The strategy sets specific annual targets for the proportional representation of women in management (see [page 96](#)).

Harmony reports quarterly on its employment equity plan and on progress made to the social and ethics committee. Employment equity reports are submitted to the Department of Labour and the Department of Mineral Resources and Energy annually.

Papua New Guinea

The emphasis here is on attracting and retaining locally-recruited employees, particularly landowners and local citizens. Operations are governed by a three-year training plan lodged with the local Department of Labour in terms of which we ensure that local employees receive ongoing training and succession is managed. In all, 96% of employees (FY18: 96%) at Hidden Valley are local and 14% are women (FY18: 12%).

Talent management

All employee training and development programmes are aligned with the company's strategic and operational needs, and to enable employees to acquire the skills necessary to enable them to enhance employee performance, motivation and productivity.

South Africa

Workforce training and skills development is a key focus area. In FY19, 93% (FY18: 92%) of our South African workforce attended training and skills development amounting to R484 million or US\$34.2 million (FY18: R418 million or US\$32.5 million). This included South African-based research and development initiatives in exploration, mining, processing, technology efficiency, beneficiation and environmental conservation.

Training in critical skills, such as mentoring, hazard identification and risk assessment, mineral resource management and other initiatives is provided through study assistance and various in-house programmes. In FY19, 109 people (FY18:106) attended critical skills training.



Tshepong Operations

The various training and skills development programmes conducted are summarised below:

Leadership development	Initiated in FY18 in South Africa, the leadership development competency framework is part of the initiative to improve organisational efficiency and innovation, and includes training and development programmes aimed at improving leadership effectiveness across all levels, from supervisory to executive level. Since its inception, 395 employees have embarked on this leadership journey and 76% had completed the programme by the end of FY19 (FY18: 116 employees enrolled and 63% completed).
Adult education and training	<p>Adult education and training centres at our South African operations run full-time and part-time classes to ensure that employees are functionally literate and numerate to enable personal growth and promote transformation.</p> <p>In FY19, 337 (FY18: 493) employees and nine (FY18: five) community members attended adult education and training at a cost of R30 million or US\$2.1 million (FY18: R36 million or US\$2.8 million). The average pass rate has increased to 65%, compared to 57% reported in FY18.</p> <p>The part-time e-learning programme caters for 30% of all adult education and training learners. The centre has achieved a 67% pass rate for the two exams written during FY19.</p>
Bursary programme	On completion of their studies, student bursars can apply for Harmony's graduate development bursary programme. In all, 81 bursaries (FY18: 101) were awarded to students studying at tertiary institutions. Of the bursaries awarded in 2019, 75 (or 93%) of the students were from local communities and the remainder from the provinces in which we operate. The pass rate in the 2018 academic year was 90% (FY18: 89%). A highlight of FY19 was that four of our bursary students received awards as top-performing students at their respective tertiary institutions within the fields of medicine, engineering and social sciences.
Bridging school	<p>Harmony's bridging school supports mathematics and science at grade 12 level to assist school leavers improve their final results and gain admission to tertiary institutions. On successful completion of grade 12, some are awarded bursaries, while others apply for learnerships within the company.</p> <p>Since the school's inception in 1996, we have registered 470 students in all – 33 (or 7%) were awarded bursaries and 369 attended our learnership programme. The remaining students were appointed to permanent positions within Harmony.</p>
Mathematics, science and language enhancement project	Harmony recognises the need for learners to achieve excellent results in mathematics and physical science, and the important role teachers play. A dedicated project ensures that teachers with proven credentials and experience are appointed at schools in the communities near our Moab Khotsoeng operation, where most of the learners have disadvantaged backgrounds.
Learnerships	Harmony runs various formal learnership programmes in mining, engineering and ore reserve management. In FY19, 343 learners (FY18: 306) were enrolled at various stages in learnership programmes. Of the total number enrolled, 95 engineering learners and 34 mining learners completed their programmes in FY19 (FY18: 91 completed learnerships). Most of the learners will be appointed to positions available within the company.
Internship and experiential programmes	In support of our social and labour plans, we hosted 58 students (33 internships and 25 experiential trainees) during FY19 (FY18: 43 students – 18 interns and 25 experiential trainees).
Social plan programme	We continue to provide alternative skills training to employees, current and retrenched, through our social plan programme, which was facilitated by the framework agreement between Harmony and NUM in 2003. The training enables people to remain economically active beyond mining, cushioning the economic impact of unavoidable retrenchments or the loss of employment when mines reach the end of their lives.
Portable skills development	In FY19, 1 114 employees (FY18: 1 532) received portable skills training. Around 51% (FY18: 57%) were proxies (dependents of mine employees). The number of people being trained in portable skills has almost quadrupled in recent years. Over the past 10 years, Harmony has provided portable skills training to approximately 10 000 employees (and/or their proxies) in basic electrical work, end-user computing, basic welding, basic motor mechanics, clothing manufacture, furniture making, plumbing, bricklaying, animal production and mixed farming systems.

Papua New Guinea

Workforce training at Hidden Valley in FY19 included:

- Production training
- Safety compliance training
- National Training Accreditation Council compliance
- Professional development
- Computer software courses
- Supervisor development programme

EMPLOYEE RELATIONS CONTINUED

Our communities – training and development

Investing in our communities is a key aspect of our socio-economic approach. Considerable time and effort is dedicated to identifying community members who could benefit from bursaries, work experience, internships and the bridging school. Priority is given to local students. We are encouraged that we were able to provide permanent positions to five of the seven students who successfully completed their internship.

Our community skills development initiative, which began in FY17, is aimed at upskilling members of the community surrounding our operations. It creates a pool of trained community members who can be called on to fill appropriate vacancies at our operations.

The Welkom community training initiative launched in FY18. The first intake of 60 youths from local communities have all been transferred to various Free State operations for the competence portion of initial training.

Mining Charter III: employment equity performance by category as at June 2019¹

Occupation category	Historically disadvantaged persons		Historically disadvantaged females	
	Actual (%)	Target (%)	Actual (%)	Target (%)
Board	65	50	24	20
Top (executive) management	58	50	32	20
Senior management	52	60	28	25
Middle management	52	60	23	25
Junior management	63	70	17	30
Core and critical skills	68	60	N/A	N/A
Persons with disabilities	0.4	1.5	N/A	N/A

¹ Includes employees at Moab Khotsong operation

² Historically disadvantaged persons exclude white males and foreign nationals



Target 1 – training centre

Employee engagement

In applying our “connectedness” value, we ensure that employees feel part of the Harmony family. For employees to be committed, productive and passionate about their jobs, they should feel valued, which in turn boosts morale, productivity and participation because they feel empowered to communicate openly. Regular employee engagement involves two-way communication with employees. Furthermore, suggestions made by employees are taken seriously and acted upon where applicable.

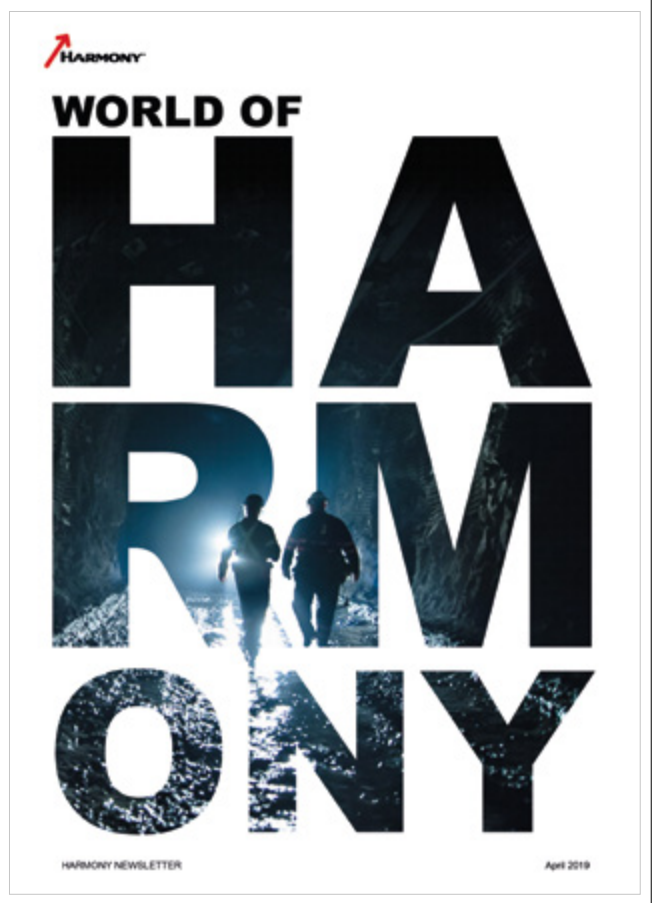
Our ongoing and interactive internal communications process is a platform for management and employee information sharing and engagement. This includes regular meetings with heads of departments, work groups and general manager engagement forums

(mass meetings and quarterly productivity meetings in South Africa, and monthly meetings at Hidden Valley in Papua New Guinea), as well as in-depth quarterly internal campaigns to drive important messages across the group, such as those relating to safety, ethics and wellness, among others. We also use printed material (posters, internal newsletters, memos and flyers) and digital media (email, mine television, intranet, website and text messaging).

A quarterly Harmony newsletter “World of Harmony” was launched in August 2018, highlighting among others, Harmony’s financial performance, events and community outreach.

Our chief executive officer communicates regularly with employees at meetings, during internal roadshows and by email.

HARMONY CONNECT COMMUNICATION PLATFORM:



EMPLOYEE RELATIONS CONTINUED

EMPLOYEE BENEFITS IN SOUTH AFRICA

Below is a discussion of some of the benefits available to our workforce in South Africa. For more information on benefits offered to employees, see the *Remuneration report*.

Employee Share Ownership Scheme – South Africa



The Sisonke (isiXhosa for “we are together”) employee share ownership scheme (ESOP) was launched in February 2019. The scheme applies to approximately 30 700 non-managerial employees. Under the scheme, 6 700 000 ordinary shares were issued to the Sisonke ESOP Trust and 225 participation units to each eligible employee. The units will vest after three years (in 2022) and will convert into shares, which will then be sold and paid out to each beneficiary together with any dividends accumulated since allocation.

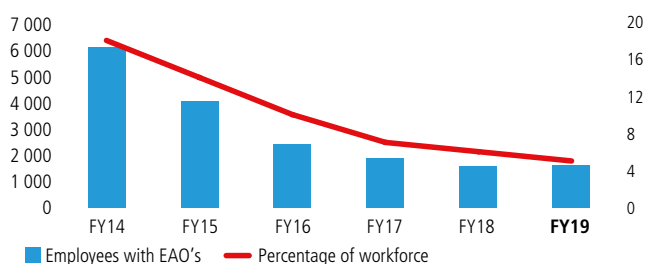
Addressing employee financial indebtedness

Financial over-indebtedness is a scourge affecting a large section of our workforce, across most categories of employees. Six years ago, Harmony embarked on an extensive financial literacy training programme, focusing mainly on lower categories (semi-skilled and skilled employees) to enable employees to better manage their personal finances.

This programme, which has contributed to improved employee morale and engagement, included a review of the arrangements for employees placed under financial administration, as they were unable to service their debts. The review process found that the administration system was being abused with employees being made to pay exorbitant administration fees. Subsequently, a total of 113 employees’ accounts were removed from administration through legal court orders. Debt of more than R1.4 million, granted to employees, was written off by creditors.

A process to verify all new emolument attachment orders (garnishee orders) was also instituted before processing them through payroll. These initiatives have since yielded favourable results for employees and the company. The number of emolument attachment orders has reduced by 78% over the past five years and the level of employee indebtedness has also declined. A particular focus of this programme is the discontinuation of non-statutory payroll deductions and notifying employees about emolument attachment orders against their pay. The legal validity of these attachment orders is verified before they are actioned. A total of 113 administration orders were rescinded during the course of FY19.

Decrease in emolument attachment orders



Harmony spent approximately R5 million on programmes to alleviate employee indebtedness during FY19. In all, 23 181 employees or 74% of the workforce (FY18: 20 851 or 78%) have attended the financial literacy and debt counselling programme since its launch in September 2013.

The average debt-to-income ratio of employees has also drastically declined, from 17% to 3% over the past five-year period, a result of the restructuring of accounts.

Promoting home ownership

As part of our home ownership strategy, Harmony is selling company-owned properties to employees at prices below market value. During FY19, 53 company properties were purchased by employees.

In addition, a housing subsidy of R20 000 per person was granted to 20 individual employees purchasing houses from Eddie Modise Properties, a third party renting houses to our employees on special arrangements in Welkom.

In all, 112 employees benefited from a home renovation scheme set up in terms of our social and labour plan at Kalgold with each employee receiving R20 000 for home improvements. Around R3 million (US\$0.2 million) was spent on the scheme during FY19. Another 110 employees will benefit from the scheme in the next financial year.

To further facilitate home ownership, the company participates in and supports the pension-backed home loan scheme negotiated for the industry by the Minerals Council. The number of employees participating in the scheme in FY19 declined to 1 110 (FY18: 1 231) as some had paid off their home loans.

Accommodation and living conditions

All employees residing in our hostels are accommodated in single rooms.

There were 7 946 employees and 61 contractors residing in Harmony hostels in FY19, and 2 544 employees were residing in company-owned houses with their families. A total of R556 million was paid to employees residing off company premises in the form of a living out allowance.

Freedom of association, labour disputes and strikes

At Harmony, employees and contractors have the right to freedom of association. We participate in collective bargaining processes and adhere to the collective agreements in each country. We strive for honest, two-way discussions through collective bargaining.

The employee relations policy framework formalising labour union organisational recognition rights at each operation was implemented in FY19.

South Africa

The employee relations environment was stable over the past financial year with no unprotected strike action.

At our South African operations, Harmony recognises five labour unions with representation in FY19 as follows: NUM 58% (FY18: 59%), AMCU 24% (FY18: 24%), UASA 6% (FY18: 6%), Solidarity 3% (FY18: 3%) and NUMSA 4% (FY18: 2%). Some 5% (FY18: 6%) of employees did not belong to a union.

In the fourth quarter of FY19, Harmony was advised that a co-operation agreement had been signed by NUM, Solidarity and UASA which would form a coalition at Harmony with joint representation, as provided by the Labour Relations Act. Combined, this coalition has representation of 67%.

Our multi-union environment promotes co-existence, inclusion and collaboration. In addition to quarterly regional meetings with unions, we also encourage proactive and robust engagement to address particular issues. As communication is ongoing at all levels, we are in daily contact with full-time stewards through our general managers and human resources leaders who interact regularly at union branch level and with shaft committees. Our regional managers hold regular meetings with regional union structures.

We endeavour to maintain peace and stability in our workforce at all times. We want our employees to feel and be safe at work.

To mitigate the risk of labour disputes, we engage frequently with organised labour at mine and company level in addition to direct engagement with employees. We are proactive in addressing employees' queries through established structures and processes.

Gold wage negotiations

Harmony negotiates changes to wages and other conditions of employment through a recognised collective bargaining structure at a centralised industry forum under the auspices of the Minerals Council. The three-year wage settlement reached on 3 October 2018 with the unions representing the majority of employees at Harmony, and extended to all employees within the bargaining unit, remains in place.

Papua New Guinea

We engage continuously with all stakeholders, including employees, contractors, and national, provincial and local government, as well as landowners and regulators.

There are no active unions at Hidden Valley where industrial relations is currently overseen by an employee representative committee. Wage increases are agreed by way of consultation with workers through a joint forum of management and the employee representative committee.

Human rights

Respect for human rights is entrenched in and underpins our values. Human rights are specifically catered for in our human resource policies, charters and contracts of engagement. The human resources function and community engagement managers closely monitor our human rights performance at operational level.

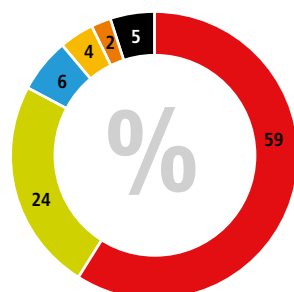
Harmony upholds the United Nations Global Compact's principles on human rights and labour. Following a survey of the company's policies, procedures, and labour practices in FY17, certain policy changes were undertaken, including internal communication campaigns on Harmony's disciplinary procedure and code of conduct.

With regard to unethical behaviour, Harmony has outsourced a 24-hour anonymous crime reporting line for employees, or any member of the public, to inform management of any suspicion of unethical behaviour, including crime, corruption and bribery. See [Corporate governance](#) for more information.

OUTLOOK

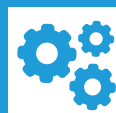
Our focus in the coming year will be to address the new Mining Charter III targets, especially those relating to women in management and to their representation in junior management.

Union representation at the South African operations as at 30 June 2019



- NUM
- AMCU
- UASA
- NUMSA
- Solidarity
- Non-union

OPERATIONAL PERFORMANCE

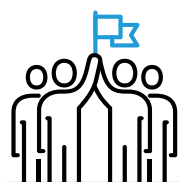


MANUFACTURED CAPITAL



The operational excellence strategic pillar is vital to delivery on our strategy – producing safe, profitable ounces and increasing margins.

FY19 HIGHLIGHTS



Operational excellence aims to create a safe and enabling environment for delivery on our operational plans, reduced unit costs and improved productivity so as to maximise the generation of free cash flow.

– Safety

- **Safety is an imperative**

- **Maintained our focus on safety risk management**, the monitoring of controls leadership and safe behaviour to embed a **proactive safety culture**

- **Group lost-time injury frequency rate improved** to 6.16 per million hours worked

– Production

- **17% increase in production – Moab Khotsong and Hidden Valley** boost production and cash flow

- **Production guidance achieved** in line with annual guidance – fourth consecutive year

- **2% increase** in underground recovered grade – seventh consecutive annual increase



Tshepong Operations

Key aspects of operational excellence

OPERATIONAL EXCELLENCE IS CORE TO GENERATING CASH FLOW

Our approach to improved operational performance is driven by our commitment to operational excellence and to ensuring safe, consistent, predictable and profitable production.

We aim to create an enabling environment for delivery on our operational plans, reduced unit costs and improved productivity so as to maximise the generation of free cash flow.

SAFETY AND HEALTH

- Live longer journey
- Risk management and focus on critical controls

INFRASTRUCTURE MANAGEMENT

- Improved insurance rating
- Fewer unplanned stoppages

MANAGEMENT OF GRADE AND MINING FLEXIBILITY

- No mining below cut-off grade
- Incorporating flexibility into our mining plans

ENVIRONMENTAL AND SOCIAL MANAGEMENT

- Sustainable and responsible environmental stewardship
- Community engagement and social upliftment

COST MANAGEMENT

- Focused cost management and project delivery
- Improved productivity

CAPITAL ALLOCATION

- Prioritised and focused capital allocation for growth and to sustain the business

OPERATIONAL PERFORMANCE CONTINUED

SAFETY AND OPERATIONAL RISK MANAGEMENT

Safety is an imperative. We are committed to ensuring safe production, to preventing fatalities and to embedding a proactive safety culture. Tragically, 11 of our colleagues lost their lives in separate mining-related incidents during FY19. Harmony embarked on a safety performance improvement journey in FY16 that has included the adoption of global best practice safety standards, including among others, a four-layered risk-based management approach, implementation of modernised safety systems, and an intensified focus on leadership development and training to address behaviour to achieve our goal of zero fatalities. We have seen improvements in FY19 with the group's lost-time injury frequency rate improving to 6.16 (6.26 in FY18) and the group fatal injury frequency rate improving to 0.13 (0.16 in FY18) (per 1 million hours worked). Refer to *Safety and health* for further details.

Managing operational risks: Operational risk management is integral to our business and entails managing risks effectively while working safely and being proactive. Risk management helps to ensure that all supporting systems are functioning efficiently. Safety hazards and operational business risks are identified and dealt with continuously at each of our operations.

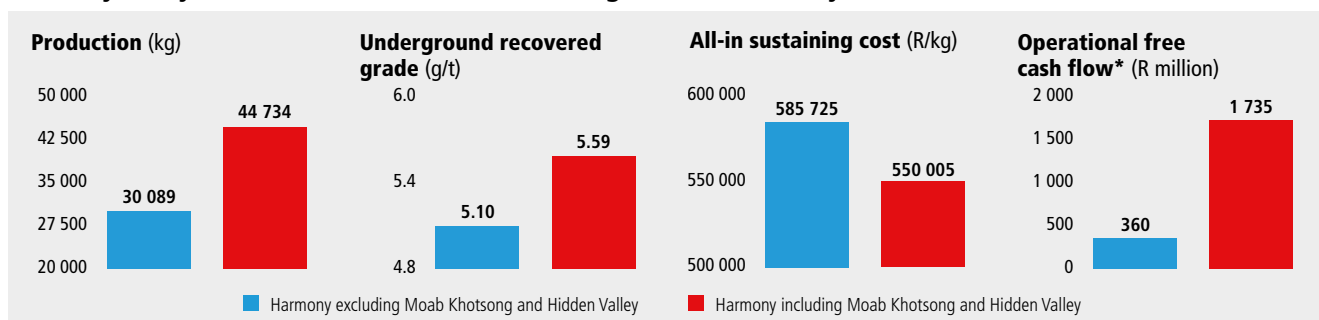
WHAT WE DID IN FY19

In line with our strategy, both annual gold production and cash flows were boosted by the inclusion of a full year of production from Moab Khotsong and Hidden Valley, as illustrated in the graphs below.

In FY19, Harmony increased production by 17% to 1.438Moz of gold (FY18: 1.228Moz) and achieved a 2% increase in underground grade mined to 5.59g/t (FY18: 5.48g/t).

Harmony achieved an all-in sustaining unit cost of R550 005/kg (US\$1 207/oz), an 8% increase year on year, due largely to increases in salary and wages and Eskom electricity tariffs, among others, and lower production from the Tshepong Operations in FY19.

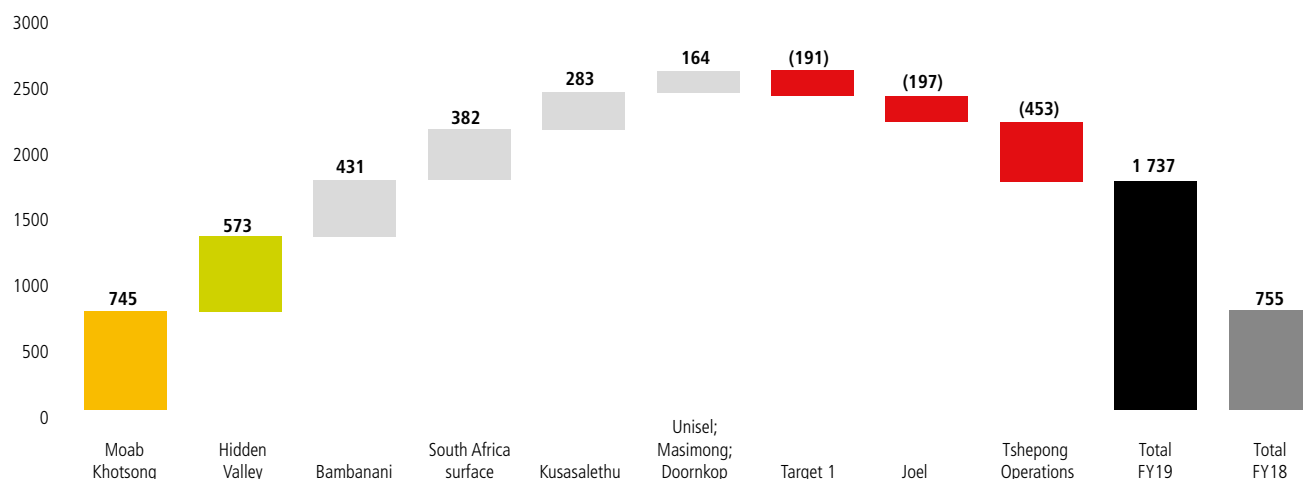
Harmony today – with and without Moab Khotsong and Hidden Valley



Operating free cash flow

Harmony is focused on generating operating free cash flow*. In FY19, Moab Khotsong and Hidden Valley proved the merits of our investment strategy and were the largest contributors to operational free cash flow.

FY19 operating free cash flow* (R million)



* Operating free cash flow = Revenue – cash operating cost – capital expenditure +/- impact of run of mine (ROM) costs as per operating results

Performance at selected operations FY19:

Moab Khotsong: Recorded gold production of 7 928kg (254 891oz) at an average recovered grade of 8.17g/t for the first full year in which this operation was included in our portfolio.

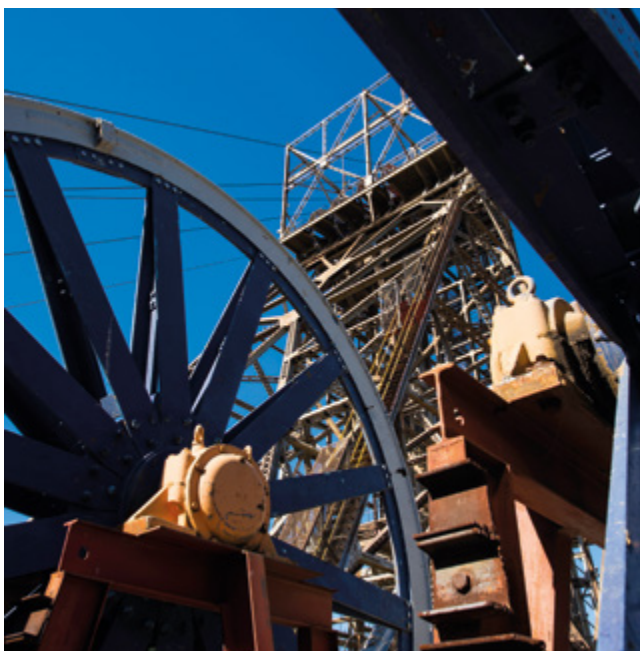
Hidden Valley: Excellent safety performance, good operational momentum and disciplined cost management contributed to gold production of 6 222kg (200 042oz), generating operating free cash flow of R573 million (US\$40 million) at a margin of 16%. Stripping of the cutbacks will continue for the next two and a half years to enable delivery of an average all-in sustaining cost of less than US\$950/oz over the life of mine.

Tshepong Operations: Gold production decreased by 15% to 7 967kg (256 146oz), due to a 10% decrease in the recovered grade to 4.94g/t and a 6% decrease in tonnes milled. The performance was impacted mainly by a lack of flexibility, a result of the decline in the availability of stoping panels to mine. Post year end, we expect improvements in the mine’s overall performance, following focused stoping development, and an improvement in overall mining and grade discipline.

Joel: Gold production decreased by 4% to 1 567kg (50 379oz), as a result of a 6% decrease in tonnes milled to 429 000t. Grade increased by 1% to 3.65g/t. The Joel decline project is nearing completion and an increase in both production and grade is expected in FY20.

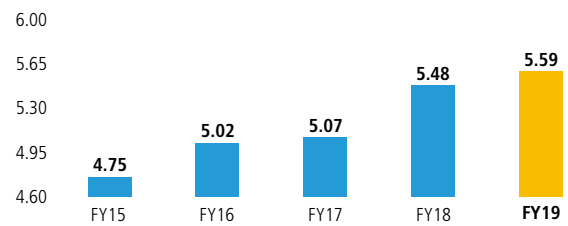
Target 1: Gold production decreased by 7% to 2 653kg (85 296oz) due to a 14% decrease in tonnes milled to 588 000t, partially offsetting the 7% increase in recovered grade to 4.51g/t. A capital efficiency project to move the ore and rock crusher, associated mining activities and services closer to the working areas is underway to improve the overall efficiency and productivity of the mining circuit at Target 1.

Details of performance by each operation are provided in the document, *Operations 2019* available online at www.har.co.za.

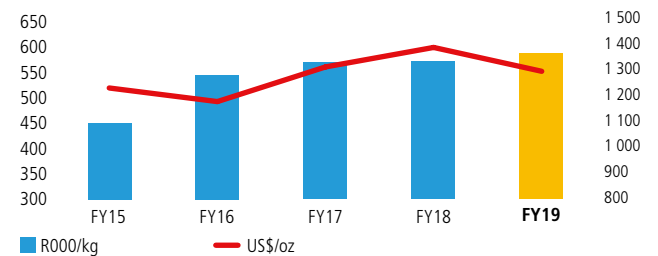


Unisel

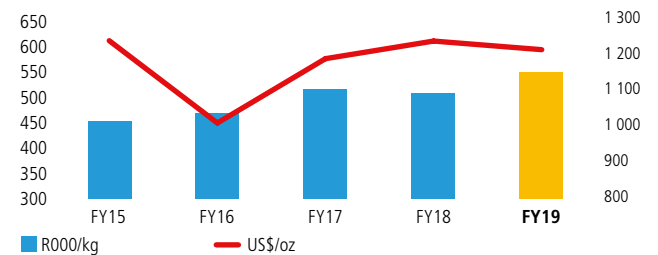
Annual underground recovered grade (g/t)



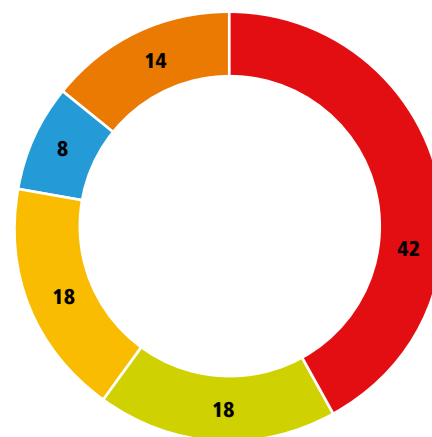
Average annual gold price received



Annual all-in sustaining costs



Production by region



- Free State
- West Rand
- Moab Khotsong
- South African surface operations (including Kalgold)
- Hidden Valley (Papua New Guinea)

OPERATIONAL PERFORMANCE CONTINUED



Tshepong Operations

FY20 OUTLOOK

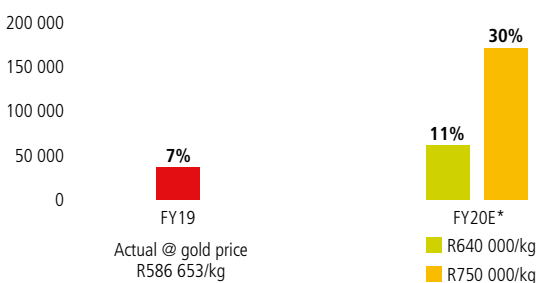
Operations geared to take advantage of higher gold prices

In the next financial year (FY20), we plan to produce approximately 1.46Moz of gold at an all-in sustaining unit cost of R579 000/kg.

As price takers, we aim to control what we can – safety, costs and production. Harmony has a mixed portfolio of assets which are highly leveraged operationally to the gold price. Operational excellence – which includes safety – will remain a key focus area to ensure delivery on our strategy to increase margins and to position our operations to take full advantage of a rising gold price environment.

Harmony's operational gearing is illustrated in the graph below:

All-in sustaining cost margin: scenarios at varying gold prices (R/kg)



* FY20E based on guidance assumptions: production of 1.46Moz at an all-in sustaining cost of R579 000/kg (including impact of gold hedge)

Key focus areas and actions FY20:

- Improve safety focus and performance at all operations
- Meet all operational targets and generate free cash flow
- Improve operating performance at Tshepong Operations
- Increase focus on cost management and reduce unit cost by improving safety performance, delivering on our production plans, and increasing the underground recovered grade and the productivity of our mining teams

FY20 production and capital guidance

Operation	Production (oz)	Capital expenditure ^{1,2}		Life of mine (years)
		(Rm)	(US\$m)	
Tshepong operations	290 000	1 083	77	19
Moab Khotsong	246 000	730	52	9
Bambanani	77 000	63	4	4
Doornkop	113 000	372	26	17
Joel	61 000	164	12	10
Target 1	84 000	408	29	7
Kusasaletu	169 000	285	20	5
Masimong	69 000	25	2	1
Unisel	32 000	11	1	1
Underground operations – total³	1 141 000	3 141	223	
South African surface operations (tailings and waste rock dumps)	87 000	34	2	14+
Kalgold	42 000	20	1	12
Hidden Valley ⁴	190 000	1 521	108	4
Total	~1.460 Moz	4 716	334	

¹ Excludes Wafi-Golpu

² At an exchange rate of R14.11/US\$

³ At an underground recovered grade of ~5.96g/t

⁴ Includes deferred stripping



Moab Khotsong

NO SELF
PROPELLED
VEHICLE
BEYOND
THIS POINT

MINERAL RESOURCES AND RESERVES – A SUMMARY



Guaranteeing a long-term pipeline of resources and reserves will help to ensure Harmony's long-term sustainability.

Harmony's statement of mineral resources and mineral reserves as at 30 June 2019 is produced in accordance with the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC), and section 12.11 of the JSE Listings Requirements (as updated from time to time). Harmony now declares all its mineral resources and mineral reserves in accordance with and in compliance with the SAMREC code. This is a change from 2018 when Papua New Guinea resources and reserves were declared compliant with the JORC code. This change is to align Harmony's corporate reporting.

Mineral resources are reported inclusive of mineral reserves. Detailed mineral resource and reserve statements are presented in the report entitled Mineral Resources and Mineral Reserves 2019, which is available at www.har.co.za/19.

INDEPENDENT REVIEW

Harmony's South African mineral resources and reserves at Doornkop as well as the group SAMREC statement were independently reviewed by The Mineral Corporation for compliance to SAMREC. Moab Khotsong's and the Wafi-Golpu Joint Venture's mineral reserves and resources were reviewed by SRK and Hidden Valley's mineral reserves and resources were reviewed by consulting Derisk Geomining Consultants.

LEGAL ENTITLEMENT TO MINERALS REPORTED

Harmony's South African operations operate under new order mining rights in terms of the Minerals and Petroleum Resources Development of Act (MPRDA) of 2002 (Act No. 28, of 2002).

In Papua New Guinea, Harmony operates under the Independent State of Papua New Guinea Mining Act 1992. All required operating permits have been obtained and are in good standing. The legal tenure of each operation and project has been verified to the satisfaction of the accountable competent person.

ENVIRONMENTAL MANAGEMENT AND FUNDING

Harmony's environmental strategy aims to optimise our environmental performance by managing our environmental impacts, focusing on effective risk controls, reducing environmental liabilities, ensuring responsible stewardship of our products within our scope of influence, complying with environmental legislation and regulations.

Details relating to the provision for environmental rehabilitation and funding can be found in note 25 in Harmony's audited annual financial statements that are presented in a separate report, the Financial Report 2019. This is also available online at www.har.co.za.

ASSUMPTIONS

In converting mineral resources to mineral reserves, the following commodity prices and exchange rates were applied:

- A gold price of US\$1 290/oz
- An exchange rate of R/US\$14.11
- The above parameters resulted in a rand gold price of R585 000/kg for the South African assets
- The Hidden Valley mine and the Wafi-Golpu project used commodity prices of US\$1 290/oz Au, US\$17.00/oz Ag, US\$9.00/lb Mo and US\$3.00/lb Cu at an exchange rate of A\$1.36 per US\$
- Gold equivalent ounces are calculated assuming: US\$1 290/oz Au, US\$3.00/lb Cu and US\$17.00/oz Ag, and 100% recovery for all metals

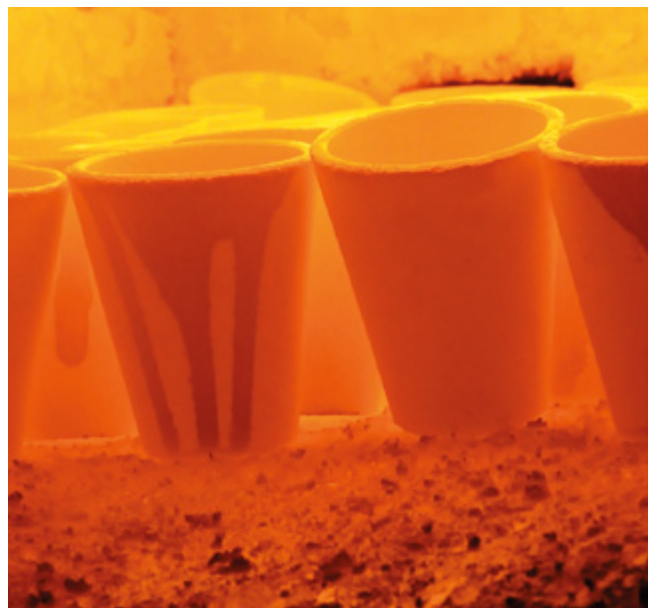
Note:

Au = gold **Cu** = copper
Ag = silver **Mo** = molybdenum

Permitting for the Wafi-Golpu project

Laws governing mineral rights affect our business and could impose significant costs and burdens. Mineral rights in the countries in which we operate could be altered, suspended or cancelled for a variety of reasons, including breaches in obligations in relation to these mining rights.

The delay in the permitting for the Wafi-Golpu joint venture project and changes to the mining legislation in Papua New Guinea may impact our resource and reserve estimates. For further details on this, see [page 116](#) in Exploration and projects.



Kalgold

MINERAL RESOURCES AND MINERAL RESERVES – SUMMARY

Harmony's total attributable gold equivalent mineral resource of 117.3Moz was declared as at 30 June 2019, a 0.4% decrease year on year from the 117.8Moz declared on 30 June 2018. Gold contained in the mineral resources at the South African operations represented 61% of Harmony's total, with the Papua New Guinea assets representing 39% of total gold and gold equivalent mineral resources as at 30 June 2019.

Harmony's total attributable gold and gold equivalent mineral reserves amounted to 36.5Moz of gold, a 0.8% decrease on the 36.8Moz declared at 30 June 2018. Gold reserve ounces at our South African operations accounted for 47% while the Papua New Guinea gold and gold equivalent ounces represented 53% of Harmony's total mineral reserves as at 30 June 2019.

South Africa



Underground operations

Harmony's mineral resources at the South African underground operations as at 30 June 2019 totalled 60.6Moz (210.4Mt at 8.96g/t), a decrease of 1.1% year on year from the 61.3Moz (216.7Mt at 8.79g/t) declared as at 30 June 2018.

Mineral reserves at the South African underground operations as at 30 June 2019 totalled 10.6Moz (56.7Mt at 5.83g/t), an increase of 4.9% year on year from the 10.1Moz (52.4Mt at 6.02g/t) declared as at 30 June 2018. The increase is due mainly to the mineral reserves added from Moab Khotsoeng, Tshepong and Doornkop.



Surface operations (including Kalgold)

Mineral resources at Harmony's South African surface operations as at 30 June 2019 were 10.8Moz (1 109.5Mt at 0.30g/t). The 14.6% increase was mainly due to exploration drilling at Kalgold.

Mineral reserves at the South African surface operations as at 30 June 2019 were 6.6Moz (808.8Mt at 0.26g/t), a decrease of 2.0% due to depletion.

Papua New Guinea



Operations

Attributable gold and gold equivalent mineral resources at our Papua New Guinea operations as at 30 June 2019 were 45.9Moz, a decrease of 2.5% year on year from the 47.1Moz declared as at 30 June 2018. This decrease is mainly due to the new resource model applied at Hidden Valley, changes in the metal price and depletion.

Attributable gold and gold equivalent mineral reserves as at 30 June 2019 are 19.3Moz, a decrease of 3.4% year on year from the 19.9Moz declared as at 30 June 2018.



Doornkop gold pour

MINERAL RESOURCES AND RESERVES – A SUMMARY

CONTINUED

MINERAL RESOURCES

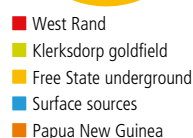
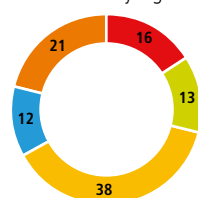
As at 30 June 2019, attributable gold equivalent mineral resources were estimated at 117.3Moz, down from 117.8Moz in June 2018. The following table shows the year-on-year reconciliation for the mineral resources.

Mineral resource reconciliation – gold and gold equivalents

	Kg (000)	Moz
June 2018 – Gold and gold equivalents	3 664	117.8
Changes during FY19		
Mined	(62)	(2.0)
Additions at Kalgold, Tshepong Operations and Joel	65	2.1
Gold equivalents	(19)	(0.6)
June 2019 – Gold and gold equivalents	3 649	117.3

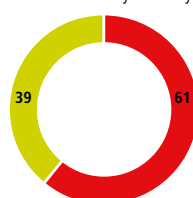
Mineral resources – gold (excluding gold equivalents) (%)

Contribution by region



Mineral resources – gold and gold equivalents (%)

Contribution by country



MINERAL RESERVES

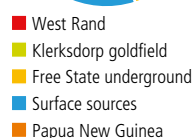
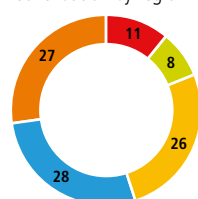
As at 30 June 2019, Harmony's attributable gold equivalent mineral reserves were estimated at 36.5Moz, down from 36.8Moz in June 2018. The year-on-year mineral reserve reconciliation is shown below.

Mineral reserve reconciliation – gold and gold equivalents

	Kg (000)	Moz
June 2018 – Gold and gold equivalents	1 146	36.8
Changes during FY19		
Mined	(48)	(1.5)
Additions at Tshepong Operations, Moab Khotsong and Doornkop	47	1.5
Gold equivalents	(9)	(0.3)
June 2019 – Gold and gold equivalents	1 136	36.5

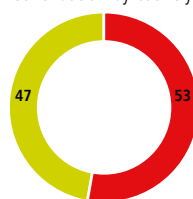
Mineral reserves – gold (excluding gold equivalents) (%)

Contribution by region



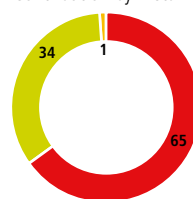
Mineral reserves – gold and gold equivalents (%)

Contribution by country



Mineral reserves – gold and gold equivalents (%)

Contribution by metal



COMPETENT PERSON'S DECLARATION

In South Africa, an ore reserve manager is appointed at each operation to take responsibility for the compilation and reporting of their operations' mineral resources and mineral reserves. In Papua New Guinea, competent persons are appointed for the mineral resources and mineral reserves for specific projects and operations.

The mineral resources and mineral reserves reported are based on information compiled by the following competent persons, as at 30 June 2019.

Mineral resources and mineral reserves of South Africa:

Jaco Boshoff

BSc (Hons), MSc, MBA

Who has 24 years' relevant experience and is registered with the South African Council for Natural Scientific Professions (SACNASP), is a member of the South African Institute of Mining and Metallurgy (SAIMM) and of the Geological Society of South Africa (GSSA).

Mr Boshoff is Harmony's Lead Competent Person.

Physical address:

Randfontein Office Park
Corner Main Reef Road and Ward Avenue
Randfontein
South Africa

Postal address:

PO Box 2
Randfontein
1760
South Africa

Mineral resources and mineral reserves of Papua New Guinea:

Gregory Job

BSc, MSc

Who has 31 years' relevant experience and is a member of the Australian Institute of Mining and Metallurgy (AusIMM).

Physical address:

Level 2
189 Coronation Drive
Milton, Queensland 4064
Australia

Postal address:

PO Box 1562
Milton, Queensland 4064
Australia

Both these competent persons, who are full-time employees of Harmony, consent to the inclusion in this report of the information in the form and context in which it appears.

Administrative information for professional organisations

Australasian Institute of Mining and Metallurgy (AusIMM)

Postal address: PO Box 660, Carlton South,
Vic 3053, Australia
Telephone: +61 3 9658 6100
Facsimile: +61 3 9662 3662
Website: www.ausimm.com.au

South African Council for Natural Scientific Professions (SACNASP)

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Details of the professional registrations of our competent persons can be obtained from the company secretary at: companysecretariat@harmony.co.za

MINERAL RESOURCES AND RESERVES – A SUMMARY

CONTINUED

MINERAL RESOURCE STATEMENT – ESTIMATES AT 30 JUNE 2019

Operations	Measured resources			Indicated resources			Inferred resources			Total mineral resources		
	Tonnes (Mt)	Grade (g/t)	Gold (000oz)	Tonnes (Mt)	Grade (g/t)	Gold (000oz)	Tonnes (Mt)	Grade (g/t)	Gold (000oz)	Tonnes (Mt)	Grade (g/t)	Gold (000oz)
GOLD												
SOUTH AFRICA UNDERGROUND												
Free State												
Tshepong Operations	24.2	11.19	8 716	12.7	10.39	4 236	36.2	10.13	11 797	73.1	10.53	24 749
Bambanani	0.6	15.96	318	–	–	–	–	–	–	0.6	15.96	318
Unisel	0.6	8.22	156	0.2	8.62	53	–	–	–	0.8	8.32	209
Joel	4.1	7.69	1 019	3.9	8.29	1 040	7.1	5.18	1 190	15.2	6.66	3 249
Masimong	2.4	8.55	659	0.3	7.86	84	–	–	–	2.7	8.47	743
Target 1	7.2	7.69	1 783	4.8	6.83	1 059	3.9	6.00	750	15.9	7.02	3 592
Target 3	0.6	9.19	178	2.9	10.17	965	1.2	8.66	340	4.8	9.66	1 483
Total	39.8	10.03	12 829	24.9	9.30	7 436	48.5	9.03	14 077	113.1	9.44	34 342
West Rand												
Doornkop South Reef	4.5	8.00	1 150	4.7	7.67	1 148	4.2	7.89	1 074	13.4	7.85	3 373
Doornkop Main Reef	0.1	5.38	14	0.05	5.51	8	0.02	5.32	3	0.1	5.41	25
Doornkop Kimberley Reef	18.1	3.36	1 957	12.1	3.15	1 226	10.1	3.28	1 066	40.3	3.28	4 249
Kusasaletu	2.8	11.40	1 037	15.6	8.73	4 379	3.8	8.70	1 051	22.2	9.07	6 467
Total	25.5	5.07	4 158	32.4	6.49	6 762	18.1	5.48	3 194	76.0	5.77	14 133
Klerksdorp goldfield												
Moab Khotsonong	3.5	18.29	2 037	11.9	16.40	6 257	5.9	20.15	3 840	21.3	17.75	12 134
South Africa underground – total	68.7	8.61	19 024	69.2	9.20	20 454	72.5	9.05	21 111	210.4	8.96	60 590
SOUTH AFRICA SURFACE												
Kraaipan Greenstone Belt												
Kalgold open pit	14.6	0.79	371	66.5	0.92	1 971	8.7	1.05	293	89.8	0.91	2 636
Kalgold tailings dam	–	–	–	–	–	–	23.8	0.26	201	23.8	0.26	201
Total	14.6	0.79	371	66.5	0.92	1 971	32.5	0.31	494	113.6	0.24	2 837
Free State surface												
Phoenix	55.8	0.27	490	–	–	–	–	–	–	55.8	0.27	490
St Helena	191.3	0.27	1 656	–	–	–	–	–	–	191.3	0.27	1 656
Central Plant	–	–	–	60.5	0.27	517	–	–	–	60.5	0.27	517
Other:												
– Waste rock dumps	–	–	–	3.9	0.51	64	17.2	0.43	235	21.1	0.44	299
– Tailings	–	–	–	561.6	0.22	4 032	15.5	0.19	94	577.1	0.22	4 126
Total	247.2	0.27	2 147	626.0	0.23	4 613	32.6	0.31	329	905.8	0.24	7 089
Klerksdorp goldfield												
Mispah	–	–	–	73.3	0.30	710	–	–	–	73.3	0.30	710
Kop Paydam	11.0	0.20	72	–	–	–	–	–	–	11.0	0.20	72
Moab MOD	–	–	–	5.9	0.41	77	–	–	–	5.9	0.41	77
Total	11.0	0.20	72	79.1	0.31	787	–	–	–	90.1	0.30	859
South Africa surface – total	272.8	0.30	2 589	771.6	0.30	7 371	65.1	0.39	824	1 109.5	0.30	10 784
SOUTH AFRICA – TOTAL (underground and surface)												
	341.5		21 614	840.8		27 825	137.6		21 935	1 319.9		71 374
PAPUA NEW GUINEA												
Hidden Valley	2.7	0.96	85	64.5	1.53	3 169	1.5	1.06	53	68.8	1.50	3 307
Hamata	0.01	2.25	1	2.0	1.90	122	0.2	1.52	10	2.2	1.86	133
Wafi ¹	–	–	–	54.0	1.65	2 800	20.0	1.28	800	74.0	1.55	3 600
Golpu ¹	–	–	–	345.0	0.71	8 000	70.0	0.63	1 400	410.0	0.71	9 400
Nambonga ¹	–	–	–	–	–	–	20.0	0.82	500	20.0	0.82	500
Kili Teke	–	–	–	–	–	–	237.0	0.24	1 810	237.0	0.24	1 810
PAPUA NEW GUINEA – TOTAL	2.8	0.97	86	465.5	0.94	14 091	348.7	0.41	4 573	812.0	0.72	18 750
HARMONY – TOTAL	344.3		21 699	1 306.3		41 916	486.3		26 509	2 131.9		90 124

MINERAL RESOURCE STATEMENT – ESTIMATES AT 30 JUNE 2019 continued

Operations	Measured resources		Indicated resources		Inferred resources		Total mineral resources	
	Tonnes (Mt)	Gold (000oz)	Tonnes (Mt)	Gold (000oz)	Tonnes (Mt)	Gold (000oz)	Tonnes (Mt)	Gold (000oz)
GOLD EQUIVALENTS ²								
Silver								
Hidden Valley	2.7	24	64.5	713	1.5	16	68.8	753
Copper								
Golpu ¹	–	–	345.0	19 150	70.0	2 960	410.0	22 110
Nambonga ¹	–	–	–	–	20.0	240	20.0	240
Kili Teke	–	–	–	–	237.0	4 108	237.0	4 108
Total	–	–	345.0	19 150	327.0	7 308	667.0	26 458
Silver and copper – total	2.7	24	409.5	19 863	328.5	7 334	735.7	27 211
PAPUA NEW GUINEA – TOTAL (including gold equivalents)	2.8	110	465.5	33 954	348.7	11 897	812.0	45 961
HARMONY – TOTAL (including gold equivalents)	344.3	21 724	1 306.3	61 779	486.3	33 833	2 131.9	117 335

OTHER METALS
PAPUA NEW GUINEA

Silver	Tonnes	Grade	Ag	Tonnes	Grade	Ag	Tonnes	Grade	Ag	Tonnes	Grade	Ag
	(Mt)	(g/t)	(000oz)	(Mt)	(g/t)	(000oz)	(Mt)	(g/t)	(000oz)	(Mt)	(g/t)	(000oz)
Hidden Valley	2.7	21.13	1 863	64.5	26.12	54 151	1.5	25.21	1 256	68.8	25.90	57 270
Golpu ¹	–	–	–	345.0	1.29	14 000	70.0	1.06	2 300	410.0	1.28	16 500
Total	2.7	21.13	1 863	409.5	5.21	68 151	71.5	1.62	3 556	478.8	4.82	73 770

Copper	Tonnes	Grade	Cu	Tonnes	Grade	Cu	Tonnes	Grade	Cu	Tonnes	Grade	Cu
	(Mt)	(%)	(Mlb)	(Mt)	(%)	(Mlb)	(Mt)	(%)	(Mlb)	(Mt)	(%)	(Mlb)
Golpu ¹	–	–	–	345.0	1.00	8 250	70.0	0.85	1 250	410.0	1.00	9 500
Nambonga ¹	–	–	–	–	–	–	20.0	0.20	88	20.0	0.20	88
Kili Teke	–	–	–	–	–	–	237.0	0.34	1 767	237.0	0.34	1 767
Total	–	–	–	345.0	1.00	8 250	327.0	0.44	3 015	667.0	0.77	11 355

Molybdenum	Tonnes	Grade	Mo	Tonnes	Grade	Mo	Tonnes	Grade	Mo	Tonnes	Grade	Mo
	(Mt)	(lb/t)	(Mlb)	(Mt)	(lb/t)	(Mlb)	(Mt)	(lb/t)	(Mlb)	(Mt)	(lb/t)	(Mlb)
Golpu ¹	–	–	–	345.0	94	72	70.0	72	11	410.0	90	83
Kili Teke	–	–	–	–	–	–	237.0	168	88	237.0	168	88
Total	–	–	–	345.0	94	72	307.0	146	99	647.0	119	171

SOUTH AFRICA

Uranium	Tonnes	Grade	U ₃ O ₈	Tonnes	Grade	U ₃ O ₈	Tonnes	Grade	U ₃ O ₈	Tonnes	Grade	U ₃ O ₈
	(Mt)	(kg/t)	(Mlb)	(Mt)	(kg/t)	(Mlb)	(Mt)	(kg/t)	(Mlb)	(Mt)	(kg/t)	(Mlb)
Free State surface	–	–	–	184.7	0.10	41	–	–	–	184.7	0.10	20
Klerksdorp goldfield surface	–	–	–	84.3	0.12	23	–	–	–	84.3	0.12	23
Moab Khotsong underground	–	–	–	15.3	0.83	28	5.9	0.72	9	21.3	0.80	38
Total	–	–	–	284.2	0.15	92	5.9	0.72	9	290.2	0.16	101

¹ Harmony's 50% attributable portion

² Gold equivalent ounces are calculated assuming prices of US\$1 290/oz for gold, US\$3.00/lb for copper and US\$17.00/oz for silver with 100% recovery for all metals

Rounding of numbers may result in slight computational discrepancies

Note: 1 tonne = 1 000kg = 2 204lb

1 troy ounce = 31.10348 grams

MINERAL RESOURCES AND RESERVES – A SUMMARY

CONTINUED

MINERAL RESERVE STATEMENT – ESTIMATES AT 30 JUNE 2019

Operations	Proved reserves			Probable reserves			Total mineral reserves		
	Tonnes (Mt)	Grade (g/t)	Gold (000oz)	Tonnes (Mt)	Grade (g/t)	Gold (000oz)	Tonnes (Mt)	Grade (g/t)	Gold (000oz)
GOLD									
SOUTH AFRICA UNDERGROUND									
Free State									
Tshepong Operations	20.0	5.87	3 774	3.8	4.70	576	23.8	5.68	4 350
Bambanani	0.7	11.69	278	–	–	–	0.7	11.69	278
Unisel	0.2	4.81	29	0.1	4.13	7	0.2	4.65	36
Joel	2.9	4.95	468	1.4	4.87	225	4.4	4.93	693
Masimong	0.6	4.37	88	0.04	3.53	4	0.7	4.33	93
Target 1	3.2	4.38	444	1.5	4.66	221	4.6	4.47	665
Total	27.6	5.72	5 080	6.8	4.72	1 034	34.5	5.52	6 114
West Rand									
Doornkop South Reef	5.3	4.92	845	5.6	4.86	872	10.9	4.89	1 718
Kusasaletu	3.6	6.79	779	0.9	6.67	194	4.5	6.76	972
Total	8.9	5.67	1 624	6.5	5.11	1 066	15.4	5.43	2 690
Klerksdorp goldfield									
Moab Khotsong	4.0	7.29	945	2.8	9.70	887	6.9	8.28	1 832
South Africa underground – total	40.6	5.86	7 649	16.2	5.75	2 987	56.7	5.83	10 636
SOUTH AFRICA SURFACE									
Kraaipan Greenstone Belt									
Kalgold	9.4	0.87	265	8.9	1.18	339	18.4	1.02	605
Free State surface									
Phoenix	55.8	0.27	490	–	–	–	55.8	0.27	490
St Helena	108.6	0.27	933	–	–	–	108.6	0.27	933
Central Plant	–	–	–	60.5	0.27	517	60.5	0.27	517
Other:									
– Waste rock dumps	–	–	–	3.9	0.51	64	3.9	0.51	64
– Tailings	–	–	–	561.6	0.22	4 032	561.6	0.22	4 032
Free State surface	164.4	0.27	1 424	626.0	0.23	4 613	790.4	0.24	6 036
South Africa surface – total	173.8	0.30	1 689	634.9	0.24	4 952	808.8	0.26	6 641
SOUTH AFRICA – TOTAL (underground and surface)	214.4		9 338	651.1		7 939	865.5		17 277
PAPUA NEW GUINEA									
Hidden Valley	2.7	0.96	85	13.6	1.91	833	16.3	1.75	918
Hamata	0.01	2.25	1	0.4	1.74	20	0.4	1.75	21
Golpu ¹	–	–	–	200.0	0.86	5 500	200.0	0.86	5 500
PAPUA NEW GUINEA – TOTAL	2.8	0.97	86	213.9	0.93	6 354	216.7	0.93	6 439
HARMONY – TOTAL	217.1		9 424	865.0		14 293	1 082.2		23 716

MINERAL RESERVE STATEMENT – ESTIMATES AT 30 JUNE 2019 continued

Operations	Proved reserves		Probable reserves		Total mineral reserves	
	Tonnes (Mt)	Gold eq (000oz)	Tonnes (Mt)	Gold eq (000oz)	Tonnes (Mt)	Gold eq (000oz)
GOLD EQUIVALENTS ²						
Silver						
Hidden Valley	2.7	25	13.6	175	16.3	199
Copper ¹						
Golpu	–	–	200.0	12 538	200.0	12 538
Silver and copper – total as gold equivalents	2.7	25	213.6	12 713	216.3	12 738
PAPUA NEW GUINEA – TOTAL (including gold equivalents)	2.8	110	213.9	19 067	216.7	19 177
HARMONY – TOTAL (including gold equivalents)	217.1	9 448	865.0	27 006	1 082.2	36 454

OTHER METALS
PAPUA NEW GUINEA

Silver	Tonnes	Grade	Ag	Tonnes	Grade	Ag	Tonnes	Grade	Ag
	(Mt)	(g/t)	(000oz)	(Mt)	(g/t)	(000oz)	(Mt)	(g/t)	(000oz)
Hidden Valley	2.7	21.13	1 863	13.6	30.41	13 271	16.3	28.85	15 134
Copper	Tonnes	Grade	Cu	Tonnes	Grade	Cu	Tonnes	Grade	Cu
	(Mt)	(%)	(Mlb)	(Mt)	(%)	(Mlb)	(Mt)	(%)	(Mlb)
Golpu ¹	–	–	–	200.0	1.20	5 400	200.0	1.20	5 400
Uranium	Tonnes	Grade	U ₃ O ₈	Tonnes	Grade	U ₃ O ₈	Tonnes	Grade	U ₃ O ₈
	(Mt)	(kg/t)	(Mlb)	(Mt)	(kg/t)	(Mlb)	(Mt)	(kg/t)	(Mlb)
Moab Khotsong	–	–	–	6.9	0.22	3	6.9	0.22	3

¹ Harmony's 50% attributable portion

² Gold equivalent ounces are calculated assuming prices of US\$1 290/oz for gold, US\$3.00/lb for copper and US\$17.00/oz for silver with 100% recovery for all metals Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tonnes and head grades Metallurgical recovery factors have not been applied to the reserve figures

Rounding of numbers may result in slight computational discrepancies

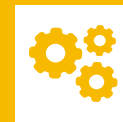
Note: 1 tonne = 1 000kg = 2 204lb

1 troy ounce = 31.10348 grams

EXPLORATION AND PROJECTS



NATURAL CAPITAL

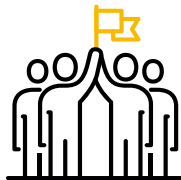


MANUFACTURED CAPITAL



Exploration is vital to ensuring the long-term economic sustainability of Harmony as a mining company.

FY19 HIGHLIGHTS



WHY EXPLORATION MATTERS

Exploration and the discovery of significant, economically viable orebodies suitable for development are central to the long-term sustainability of Harmony's business. By ensuring a future pipeline of reserves and resources, Harmony will be able to operate sustainably and profitably and to create value in the long term.

Papua New Guinea

- **Wafi-Golpu, a greenfield exploration project, an excellent long-term opportunity**
 - However, permitting and legislative changes may impact the availability of the project – see [page 116](#)

- Geotechnical drilling confirms **viability of early access of the Nambonga decline**

- Near-mine exploration in the vicinity of Hidden Valley targets **potential high-grade satellite epithermal gold deposits**

South Africa

- **Exploratory greenfield drilling** currently underway at Target North

- Focus on **organic brownfield exploration at Kalgold – mineral resource estimate updated in January 2019:**
 - 89.8Mt @ 0.91g/t for **2.636Moz** of gold
 - **prefeasibility study continues**

- **Tailings retreatment expansions** are planned or underway:
 - tailings reclamation at Joel Plant – prefeasibility underway
 - Mispah tailings retreatment project – prefeasibility study indicates an 11-year project life
 - expansion of Central Plant tailings retreatment to 500 000 tonnes a month is awaiting capital approval



Target North

OUR APPROACH

Our exploration strategy aims mainly to pursue brownfields exploration targets close to existing mining infrastructure. This will drive short- to medium-term organic ore reserve replacement and growth to support our current strategy to increase production of quality ounces and to mitigate the risk of a depleting ore reserve base.

Key work streams underpinning the FY19 exploration programme were:

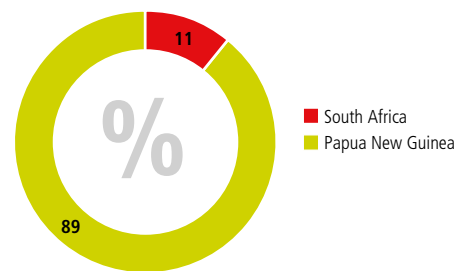
- Brownfield exploration at Hidden Valley and Kalgold to optimise existing open pit operations and extend mine life
- Brownfield exploration at underground operations in South Africa
- Greenfield exploration currently underway at Target North, South Africa

WHAT WE DID IN FY19

In FY19, we spent R526 million (US\$37 million) (FY18: R457 million; US\$36 million) on exploration in total, broken down by country as follows:

- **Papua New Guinea:** R468 million (US\$33 million) (FY18: R407 million; US\$37 million) was spent on exploration, driven largely by Wafi-Golpu related activities. Expenditure of R278 million (US\$20 million) is planned for FY20
- **South Africa:** R58 million (US\$4 million) (FY18: R50 million; US\$4 million) was spent on exploration with expenditure of R96 million (US\$7 million) planned for FY20.

Group exploration expenditure (R526 million; US\$37 million)



Exploration – Papua New Guinea

Our exploration programme in Papua New Guinea focused on near-mine brownfield exploration aimed at extending Hidden Valley's operating life and greenfield exploration and rationalisation of our tenement holdings. A summary of the work done in the past year is as follows:

Brownfield focus around Hidden Valley:

- Exploration programmes focused on near-mine brownfield targets on the contiguous tenement package surrounding the Hidden Valley mining lease which comprises 502km² of tenure
- Prefeasibility studies on the down-dip extensions of the Hidden Valley and Kaveroi orebodies to extend mine life continued
- Generative work for high-grade satellite gold deposits has developed new drill targets at the Webiak Prospect:
 - Located approximately 7km north of the Hidden Valley mine
 - Low sulphidation epithermal gold-silver vein mineralisation
 - Drill testing planned for the first quarter of FY20

Greenfield exploration and tenement rationalisation:

- Reduction in regional greenfield exploration programmes and tenement holding in favour of near-mine brownfield exploration continued
- Harmony (100%) tenement holding reduced to 711.8km² (FY18: 963.75km²)
- Joint venture (Harmony 50%) tenement holding reduced to 182.3km² (FY18: 325.3km²):
 - Harmony continues to manage exploration on the portfolio tenement package on behalf of the exploration portfolio joint venture participants (ultimate parent companies: Newcrest 50%; Harmony 50%)

EXPLORATION AND PROJECTS CONTINUED

Exploration – South Africa

Near-mine and on-mine brownfield exploration and tailings retreatment form the basis of much of our exploration and project work in South Africa.

Underground exploration

In all, 73 118 metres (FY18: 62 961 metres) were drilled across our underground operations in South Africa. This underground drilling provides useful information. Mine geologists and planners use drilling information to determine a mine's development strategy, its mine plan and eventually its economic viability.

Tshepong – B Reef

The focus of underground exploration drilling in FY19 was the B Reef at the Tshepong and Phakisa sections at Tshepong Operations. A new block of ground was identified at the Phakisa section where development towards the B Reef will begin in FY20.

Target North

Drilling of the first borehole from surface began towards the end of FY19 and a total of 1 542 metres was drilled. Drilling of three initial exploration boreholes is planned to confirm the geological model and test the Ventersdorp Contact Reef, as well as the sub-cropping Dreyerskuil and Eldorado (EA) Reefs. Drilling will continue in FY20.

Moab Khotsong – 101 level

Underground exploration drilling is underway in two specific blocks above infrastructure in the Zaaiploots project area with the aim to identify opportunities for early access and mining of these blocks of ground. Drilling will continue in FY20.

Joel

145 level exploration: Exploration is aimed at upgrading the current resource to the indicated level and to determine the economic mining limit to the north and northeast below current mining infrastructure to ensure the 145 level decline project remains economically viable. Exploration drilling began in August 2019 and is due to be completed in June 2020. Three long inclined boreholes will be drilled in all. The first hole is currently at 220m and we expect to intersect reef at 300m.

High-grade Beatrix Reef extension (Klippan): Exploration is planned to upgrade the resource to the indicated level and determine the economic mining limit in the north and north east areas originally classified as non-depositional zones. Opening up this area will greatly reduce the risks of the initial development-constrained mining areas in the 137 project area. Exploration is scheduled to start in November 2019 and it due to end in April 2020. Three boreholes will also be drilled in this area.

Kalgold brownfield exploration programme

Kalgold's mine titles provide an ideal mix of near-mine and new mine opportunities that can leverage existing infrastructure and be fast-tracked into production with aggressive exploration.

A total of 26 790 metres of drilling was completed in FY19, bringing the total drilled to date to 48 610 metres (210 boreholes). Drill results have been very encouraging and a mineral resource update and prefeasibility study to optimise the Kalgold operation based on the results of the exploration drilling is underway. Further detailed interpretation and field work to put anomalies in context with geology is planned for the first quarter of FY20, with the Kalgold prefeasibility study scheduled for completion in FY20. Future options will be evaluated once certain technical and economic criteria have been met.

Projects – Papua New Guinea

Wafi-Golpu copper-gold deposit permitting process and progressing the special mining lease application

Wafi-Golpu project (100%) – Key statistics:

	• Mineral resource contains 18.6Moz gold and 8.6Mt copper
	• Estimated life of mine of more than 28 years
	• Steady-state production estimated at 161 000t of copper, 266 000oz of gold (more than 1.4Moz of gold equivalents ounces annually)
	• Above average grades: • gold – 0.90g/t • copper – 1.27%
	• In terms of gold production, an all-in sustaining cost of minus US\$2 128/oz is estimated • For copper, production costs of US\$0.26 lb are in the lowest decile

The Wafi-Golpu project, a 50:50 unincorporated joint venture between subsidiaries of Harmony and Newcrest, is a viable development of a high-quality resource.

The special mining lease application was submitted to the Papua New Guinea Mineral Resources Authority in August 2016 and amended in March 2018, when an updated facility study was tabled, including deep sea tailings placement as the preferred tailings solution. The Environment Impact Statement was submitted in June 2018.

Permitting of the Wafi-Golpu project has been delayed. The Wafi-Golpu joint venture entered into a Memorandum of Understanding (MOU) with the Government of Papua New Guinea in December 2018, targeting a special mining lease grant by June 2019. Since the signing of the MOU in December 2018, a legal matter between the provincial and national government has interrupted the permitting process, and continues to do so. The Wafi-Golpu joint venture remains ready to engage with the Government of Papua New Guinea and the regulators. At this stage, the permitting timeline and roadmap are still to be redefined.

The Papua New Guinea government has commissioned a review of the mining regime. Any change to the Papua New Guinea mining regime may result in the imposition of additional restrictions, obligations, operational costs, taxes or royalty payments and could have a material adverse effect on Harmony's business, operating results and financial condition.

The Chamber of Mines and Petroleum of Papua New Guinea, as the representative industry body, has been collating information from industry participants and engaging with the Papua New Guinea government as part of the industry's response to the review proposals.

The primary project deliverable is the commissioning of a mining operation to produce at nameplate capacity of 16.84Mtpa a high-quality copper and gold concentrate with ore sourced from three block caves.

The Wafi-Golpu project will progress to execution when:

- the special mining licence, the environmental impact statement and all other necessary tenements and permits required have been granted
- all required agreements with the State and landowners have been signed
- all necessary approvals have been received from the boards of directors of the ultimate holding companies of the joint venture partners

Once the special mining licence has been granted, initial activities will focus on development of site access roads and bridges, and construction of the Nambonga and Watut declines.

Projects – South Africa

Kalgold expansion project

Following on from the current exploration drilling programme at Kalgold, this expansion project is aimed at optimising/increasing production. Kalgold currently treats approximately 130 000tpm.

A prefeasibility study began in June 2018 to investigate various plant throughput options. The second phase of the exploration drilling programme was completed in December and the resource estimate from this work is used in the study. A prefeasibility study is currently underway and due to be completed in August 2019. Once technical and economic criteria have been met, future options will be evaluated.

Underground projects

Underground projects are at Joel North, Target 3 and at Moab Khotsong, where two separate projects, the Great Noligwa shaft pillar extraction and the Zaaipplaats projects, are currently underway.

For the Zaaipplaats project, underground exploration drilling is underway in two specific blocks above infrastructure in the Zaaipplaats project area and is aimed at identifying opportunities for their early access and mining. Drilling will continue in FY20.

Tailings retreatment expansions

Several tailings retreatment growth projects are currently underway to optimise available surface sources in the Free State. These include:

- **Central Plant tailings retreatment facility – reclamation “plus”:** The initial project operated at monthly nameplate capacity 500 000 tonnes for most of FY19. Further expansion to monthly capacity of 700 000 tonnes is planned. The feasibility study met our economic and technical criteria and the expansion project is currently in design phase. Capital allocation is awaited
- **Mispah tailings retreatment:** A prefeasibility study was conducted to investigate the economic viability of retreating the tailings material stored in the Mispah 1 tailings facility. The tailings are to be treated at the Noligwa plant and the residue deposited onto the Mispah 3 extension of the Mispah tailings storage complex. The prefeasibility study indicated an 11-year project life with estimated production of 7 922kg of gold from the reclamation of 66.3Mt of tailings at a monthly rate of 510 000 tonnes. Project capital is estimated at R624 million and the project will yield a net present value of R400 million at a gold price of R585 000/kg and a 7.5% discount rate. The results of a risk-based study conducted by SRK on the installation of lining under the Mispah 3 TSF extension are to be presented to the Department of Water and Sanitation. The outcome of this engagement with the department will guide the timing and scope of the feasibility study, which is currently on hold
- **Joel tailings reclamation:** A prefeasibility study is underway to investigate the potential benefits of recovering gold from reclaimed tailings at the Joel plant and depositing the retreated tailings onto the Joel tailings storage facility

For further detail on our exploration programme and more information on the projects currently underway, please see *Mineral Resources and Mineral Reserves 2019*, available at www.har.co.za.



Target North

SOCIO-ECONOMIC DEVELOPMENT

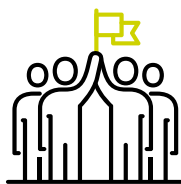


SOCIAL AND RELATIONSHIP CAPITAL



Harmony aims to be relevant to our host communities. We are committed to promoting sustainable socio-economic development so as to mitigate the impacts of our activities and to ensure a positive legacy.

WHAT WE ACHIEVED IN FY19



Prepared in accordance with the GRI Standards: 203-1, 203-2, 413-1, 413-2, 414-1, 414-2, 419-1 and MM5

- Included in the FTSE4Good Index of responsible investment in recognition of our performance

- Board approved new preferential procurement and enterprise and supplier development strategy

South Africa

- Spent R6.3 billion on black economic empowerment companies ** – of this R1.9 billion* was spent with small businesses operating in five mine host communities
- Focused drive to increase procurement opportunities for businesses in host communities, including the hosting of community supplier days
- Projects covered by second generation social and labour plans completed at a total cost of R476 million (includes R303 million investment by government) over five years 2013-2017
- Third generation infrastructure and agriculture projects implemented

Papua New Guinea

- Continued focus on community agri-business projects offering alternative sustainable income sources
- Successful cocoa and coffee pilot projects in Papua New Guinea receive many accolades attesting to their success with one farmer winning gold for his cocoa

Our socio-economic development activities support the following Sustainable Development Goals:



* Spend with companies having black economic empowerment shareholdings of at least 50% + one vote

** Spend with companies having ownership of 25% + 1 vote

OUR APPROACH TO SOCIO-ECONOMIC DEVELOPMENT

Harmony's socio-economic development initiatives aim to uplift and empower local communities and to make a positive and lasting contribution in the regions in which we operate. Harmony's strategy has been expanded to include a fourth pillar, Responsible stewardship, which entails managing and mitigating the impacts, including social impacts, of our business activities. As the primary employer in the Free State, in South Africa, and at Hidden Valley, in Papua New Guinea, we make an economic contribution through the taxes, royalties and salaries and wages paid.

Total economic value distributed – to employees, to our host communities, to government and to suppliers including local enterprises – is derived from among others salaries and wages, investment in socio-economic initiatives, taxes and royalties, and procurement, which amounted to R28.6 billion in FY19 (FY18: R24.2bn). Furthermore, we aim to improve quality of life through socio-economic spend of not less than 1% of net profit after tax which will effectively be returned to communities for shared benefit.

In FY19, we continued to align our socio-economic strategy with the overall aims and targets of the United Nations Sustainable Development Goals. For more information on this, see [Our sustainable development framework](#).



Badirile High School – science laboratory

Socio-economic development at Harmony FY19

Our aim is to uplift and empower local communities to become self-sustaining, and to be a catalyst for economic growth while creating alternative economies to support communities once mining ceases

	INVESTING IN SOCIAL LICENCE TO OPERATE	PREFERENTIAL/LOCAL PROCUREMENT	ENTERPRISE AND SUPPLIER DEVELOPMENT	CORPORATE CITIZENSHIP
	Focus on identified mine community development initiatives to stimulate socio-economic growth and development	New strategy in place promotes procurement spend to stimulate economic activity in local host communities	New approved strategy to promote and local enterprise	Supplements other socio-economic activities and initiatives to generate positive impacts and outcomes
South Africa →	Mine community development governed by the Mining Charter and social and labour plans Spend: R42 million	Focused on black economic empowerment and driven by the Mining Charter Spend: R6.3 billion**	Supporting and promoting small local black-owned businesses to become suppliers Spend: R1.9 billion*	Focus on: <ul style="list-style-type: none"> education socio-economic advancement projects health arts, culture, sports and recreation Spend: R32 million
Papua New Guinea →	Related activities are governed by the memorandum of agreement with various levels of government Focus on: <ul style="list-style-type: none"> community infrastructure (roads, bridges, educational facilities, law and order facilities, and water supply and sanitation systems in landowner and local community villages) health programmes community agriculture programmes Spend: R14 million	Aligned with terms of the memorandum of agreement for procurement in country Spend: R2.2 billion	Aligned with terms of the memorandum of agreement – localised with Morobe Province Spend: R1.1 billion	Included in social licence to operate

* Spend with companies having black economic empowerment shareholdings of at least 50% + one vote

** Spend with companies having ownership of 25% + 1 vote

SOCIO-ECONOMIC DEVELOPMENT CONTINUED

GOVERNANCE

The social and ethics committee of the board oversees the policy and strategies pertaining to corporate social responsibility, including socio-economic development, and to public safety. Responsibility for implementation of related policies vests with the management team and the executive: sustainable development. Discipline-specific policies are supported by guidelines and standards which inform the development of site-specific management systems, which are aligned overall with our sustainable development framework.

WHAT WE DID IN FY19

Delivering on our licence to operate

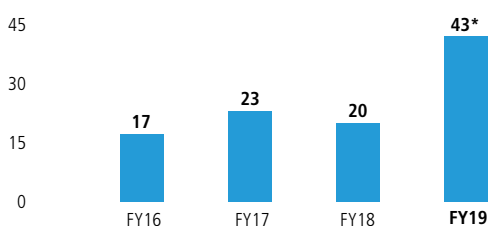
At Harmony, socio-economic development can be broadly defined as an outcome of local initiatives by stakeholders identifying and using local resources, ideas and skills to stimulate socio-economic growth and development. The outcome is the creation of employment opportunities, poverty alleviation and addressing inequality while attracting external investment, all of which are important in creating sustainable local economies.

South Africa

Harmony's South African operations are governed by approved mining rights, which are each bound by an agreed and approved social and labour plan, incorporating local economic development initiatives executed in terms of the Mining Charter, the Mineral and Petroleum Resources Development Act, and the codes of good practice for the minerals and mining industry.

In South Africa, between 2013 and 2017, our total direct investment in mine communities was R173 million. This was further augmented by the Department of Human Settlements' investment of R303 million. Commitments towards mine community development for the period 2018 to 2022 total R268 million, of which R43 million was spent in FY19.

South Africa – annual investment in mine community development (R million)



* Assured by Ngubane and Co

As mine community development projects in the social and labour plans are implemented, we continue to engage with the relevant municipalities and host communities to ensure that delivery expectations are met. These engagements are also intended to identify new projects, aligned with the integrated development plans of the municipalities, as further local economic development support projects provided for in the social and labour plans.

We measure the effectiveness of our investments by their impact. As a result of projects implemented in FY19, 206 job opportunities were created for host communities across Harmony's South African footprint. Seven local entrepreneurs assisted with delivery of these projects.

Selected community development projects in South Africa

Infrastructure development

In terms of the National Development Programme, development of a strong network of economic infrastructure – transport, energy, water resources - will promote economic investment and job creation. As road infrastructure in particular is essential to Welkom's integration within the national economy, Harmony has allocated R58 million over the next four years to road-building in Matjhabeng, the municipality within which Welkom falls, in the Free State. This funding will cover the resurfacing and resealing of roads in various towns in the local municipality. Local suppliers benefit from this project, which has created over 200 job opportunities. In the first year of the initiative, the contract was awarded to a local 100% black-owned joint venture, which subcontracted part of the work to six other local companies.



Agriculture

Poultry farmers in Lesotho, a labour-sending area, received a mobile refrigeration truck and abattoir equipment to enable them to service restaurants, supermarkets and the general public. The project was undertaken as abattoir facilities were not available in the area. The abattoir will create employment opportunities for 25 people.



Agriculture programmes

Improving agricultural productivity is central to addressing poverty in South Africa, particularly in our mining communities. The role of the sector as a food provider is particularly relevant, given increasing concern about food security.

Harmony believes that mining and agriculture can co-exist, and that both industries can contribute to economic growth. As mines close when they reach the end of their economic lives, agriculture projects can sustain an alternative industry that could continue to contribute to the local economy.

Harmony has initiated several agriculture projects with commercial and subsistence farmers. The vegetable tunnel project is a commercial agricultural initiative that was successfully implemented for our Doornkop (Soweto) and Moab Khotsoeng (Orkney) mines. It is being rolled out at Wedela in Carletonville (Kusasaletu). The project involves the production of crops by local women and youth. Produce is sold at markets in Tshwane and Johannesburg.



The Broad-Based Livelihoods Programme, a subsistence farming project with a step-wise approach to maximising participation (broad-based) and enabling easy entry for all interested parties (inclusive), encourages people or households to systematically improve as:

- producers: to attain food security and stability
- income generators: by selling, saving and adding value
- entrepreneurs: improving business management skills relating to production and sale of produce
- employers: employing family, neighbours and other community members

A horticulture programme to provide protective cultivation in the form of "greenhouse" tunnels or shade-cloth structures has been rolled out. Gardening projects for food security in the Orkney area support 60 families and involve the training 1 000 individuals in basic agriculture and the installation of tunnel infrastructure. Around 80% of the beneficiaries are women and youth



Educating, upskilling and enabling youth

Two mobile youth development hubs were purchased for host communities in the North West and Free State provinces to deliver information and communication technology, including internet access, printing, copying, and typing services, business and job vacancy searches, and business training and development.

In nurturing tomorrow's leaders, Harmony recognises sport as a tool for emotional and psychological well-being as sport promotes positive social traits among those participating, including co-operation, sharing, respect, altruism, among others.

The Virginia Sports Academy, which has been operating for close on a decade now, is fully funded by Harmony, and employs over 20 people and supports 50 boys at an annual cost of approximately R7 million. The success of this initiative was underscored when

11 rugby players from the Academy participated in regional and national teams. Two rugby players represented South Africa in Under 19 invitational Sevens Rugby Dubai and in the 15-man tour of Italy.

The soccer team participated in the Engen provincial semi-finals and regional Kay Motsepe Cup with two soccer players selected for the South African Under 20 team at Olympic qualifiers in Morocco.

The Virginia Jewellery School, fully supported by Harmony and employing 12 people, funds 13 students and two shops at an annual cost of approximately R4 million. In November 2018, 12 students completed learnerships. Since 2011, 24 students have completed learnerships and qualified as goldsmiths, and 13 students have been employed by the Virginia Jewellery School and retail shops. Five went on to open their own jewellery enterprises.

SOCIO-ECONOMIC DEVELOPMENT CONTINUED

Papua New Guinea

Regulatory control here vests in a memorandum of agreement between Harmony, various regional and local governments, and the Hidden Valley landowner association with similar socio-economic commitments to those in South Africa. This is presently under development (in draft) as part of the permitting process for the Wafi-Golpu project.

In line with Hidden Valley's current memorandum of agreement, Harmony continues to offer business development opportunities to landowners. Similar opportunities are expected to be available with the proposed development of the Wafi-Golpu project.

Harmony's social programmes at the Hidden Valley mine and within the Wafi-Golpu project area focus on building, repairing and upgrading social infrastructure such as roads, bridges, educational facilities, healthcare services, law and order facilities, water supply and sanitation systems in the landowner and local community villages. Harmony has also established various schemes intended to provide alternative sustainable income sources for mine and project-area landowners. Collectively, these initiatives continue to generate a range of positive impacts for local communities in the Morobe Province and beyond.

A total of R14 million (US\$1 million) was spent on social responsibility projects within Papua New Guinea for FY19. These projects continue to foster positive relationships with mine and project area host communities.

Community infrastructure programmes

Harmony has continued to contribute towards the maintenance of critical sections of the Lae-Bulolo highway and the Wau-Bulolo access road. Harmony has also assisted in repairing the Mabung and Kwembu bridges giving access to landowner villages in the Hidden Valley area and the Hekeng footbridge in the Wafi-Golpu Project area. An extensive upgrade to the Bulolo police station was completed during FY19, providing fencing, water supply and sanitation to previously condemned parts of the facility.

Education

Education programmes in FY19 delivered across the Hidden Valley and Wafi-Golpu areas included:

- Maintenance and upgrades to elementary and primary schools in the mine and project areas
- Provision of stationery and materials for students and teachers at elementary and primary schools
- Landowner School Fee Assistance Programme
- Harmony's Tutudesk initiative (including 2 000 Tutudesks distributed among 39 elementary schools in the Wau, Bulolo and Wafi-Golpu project area)
- Assisting provincial government in appointing new teachers
- Adult literacy programmes and education initiatives focused on women and children

Health programmes

Various community health outreach programmes are in place to improve the health and wellbeing of local communities. During FY19, health-related activities included:

- Maintenance and upgrades of mine and project area first aid posts and clinics as well as assistance with staffing
- Obstetrics training at the Bulolo health centre
- Assisting the Papua New Guinea Department of Health to administer polio and cervical cancer vaccinations (3 080 and 474 polio vaccinations administered respectively in Hidden Valley and Wafi-Golpu communities and another 6 000 for cervical cancer in Wafi-Golpu communities)
- Routine health centre visits and health patrols with focus on antenatal care and childhood immunisation
- Community medical assistance, including emergencies and transfers to Bulolo and Lae health centres
- Distributed 23 beds donated by Rotary Australia to four health facilities in the Hidden Valley area
- Contributions to power running costs at local hospitals

Community agricultural programmes

During FY19, the agri-business projects established by the Hidden Valley mine and Wafi-Golpu project continued to grow considerably. These projects aim to offer alternative sustainable income sources for mine and project area communities.

The coffee pilot programme initiated in FY19 for Hidden Valley communities included the training of 129 farmers in coffee nursery development, husbandry and farm rehabilitation as well as the provision of tools and equipment and reticulated water supply to community nurseries. The pilot scheme planted 6 000 coffee seedlings for the forthcoming coffee season. A highlight of the year was the first commercial sale from the scheme when 400 bags of parchment generated PGK75 000 (R316 984; US\$22 346) for the Nauti, Kuemba and Winima producers.

At the Wafi-Golpu project, a similar coffee programme is under development and gaining momentum. Extensive efforts were made to rehabilitate neglected coffee plantations within three Yanta villages during FY19. Since the start of the programme in late 2018, an area equivalent to 17.3 hectares of coffee trees was established in the three villages.

A cocoa programme initiated by the Wafi-Golpu project also excelled during the year. The Wafi-Golpu project now works with more than 1 000 cocoa-growing families. According to data from the Papua New Guinea Cocoa Board, the current area under production is over 600 hectares and supplies an estimated 300 tonnes per year, earning the farmers an estimated PGK2.1 million (R9 million; US\$625 000) a year.

These cocoa and coffee projects have received many accolades, attesting to the success and long-term sustainability of these pilot initiatives. Farmer Chepan Yaling, from one of the Wafi-Golpu supported cooperative farmers groups of the Lower Watut, won gold for his cocoa at the latest provincial Cocoa Show of Excellence which showcases farmers' produce from across Papua New Guinea.

Partnering for development in Papua New Guinea

At a business breakfast hosted by the Lae Chamber of Commerce on 28 August 2019, Harmony provided a wide-ranging overview of its activities in Papua New Guinea.

Harmony affirmed ongoing commitment to mining in Papua New Guinea, highlighting achievements since its entry into the country almost 16 years ago, including permitting, construction and operation of the Hidden Valley mine and advancement of the Wafi-Golpu project from exploration to current permitting phase.

Harmony emphasised the importance of safety at its operations and noted that the Hidden Valley mine currently operates at an industry-leading total recordable injury frequency rate of 0.69 per million hours worked.

As an established partner in the development of Papua New Guinea, Harmony estimates that it has contributed approximately PGK2.9 billion (R11 billion; US\$1.1 billion) to the Morobe Province through its investments in the Hidden Valley mine, Wafi-Golpu project and exploration within the province over the past 10 years.

Harmony is also a significant contributor to the Morobe Kundu Vision 2048, a vision and plan to make the Morobe province prosperous, healthy, educated and self-sufficient by 2048. We contribute financially and through our tangible contributions to the community. With an anticipated 28-year operational mine life, the Wafi-Golpu project will contribute towards the achievement of the goals of the Kundu Vision well into the future.

The Hidden Valley mine alone has directly and indirectly contributed over PGK5 billion (R19 billion; US\$1.9 billion) to the regional and national economy over the past 10 years, including PGK489 million (R1.9 billion; US\$185 million) in royalties and direct paid taxes. The mine has created around 2 000 jobs, with 72% of the workforce based in Morobe Province. To date, around PGK1.1 billion (R4.0 billion; US\$380 million) have been paid in salaries and wages over the mine's operating life. Hidden Valley's contribution includes various socio-economic development projects and programmes. Currently, over 100 local farmers are being trained in coffee husbandry and farm management, and three coffee nurseries have been established. The first harvest was taken to market in July 2019.

The development of the Wafi-Golpu project is a key future economic driver for the Morobe Province and Papua New Guinea. As an active explorer in the Morobe Province since 2004, Harmony has invested approximately PGK1 billion (R4.1 billion; US\$0.5 billion) in exploration and studies over time.



Cocoa project – Wafi-Golpu

SOCIO-ECONOMIC DEVELOPMENT CONTINUED

Preferential procurement

In pursuit of Harmony's commitment to increase its procurement spend in host communities, our board approved the preferential procurement and enterprise and supplier development strategy in FY19. This strategy is underpinned by three focal areas aimed at promoting spend with enterprises owned by previously disadvantaged individuals, particularly enterprises within Harmony's host communities.

The preferential procurement strategy focuses on these three focal areas:

- supporting existing non-compliant suppliers (those who do not comply with the minimum black economic empowerment ownership targets set out in Mining Charter III) to comply and transform, or moving procurement spend to compliant suppliers
- enhancing Harmony's current supply-chain model and ensuring that preferential procurement is embedded within the sourcing process
- creating a pipeline of small and medium enterprises to participate in the supply chain

South Africa

During the course of FY19, the new Mining Charter (Mining Charter III), came into effect. The combined procurement and enterprise development section of the new charter accounts for 40 points out of 100 for the entire charter. The aim is to strengthen participation by designated groups in both procurement and business development opportunities.

For consistency with our FY18 reporting and to ensure alignment and understanding of compliance measured, in this report we have applied the Mining Charter II reporting guidelines, targets and principles. This will ensure comparability for the full reporting period. Harmony will start reporting on Mining Charter III in the next financial year (FY20).

Given the above, procurement expenditure with black economic empowered entities measured against Mining Charter II (that is entities with black ownership of more than 25%) for FY19 is R6.34 billion against total discretionary spend of R8.47 billion, or 75% of total discretionary spend.

Expenditure with black economic empowerment (BEE) compliant companies measured against Mining Charter II definitions FY19

Category	Mining Charter II targets (%)	FY19		BEE spend as a proportion of total spend (%)		
		Discretionary spend (Rm)	BEE-compliant spend (Rm)	FY19	FY18	FY17
Capital goods	40	1 366	1 068	78	75	78
Services	70	3 658	2 683	73	79	80
Consumables	50	3 443	2 588	75	82	78
Total		8 467	6 340	75		



Moab Khotsong

Although Harmony was able to significantly increase year-on-year spend with black economic empowered entities, the decline in trends was mainly influenced by the Moab Khotsong acquisition which resulted in reduced black economic empowerment-compliance levels.

Papua New Guinea

As agreed with government authorities (local, regional and national), landowners and communities, we contract local companies wherever possible. Supply expenditure by Harmony in FY19 amounted to R3.59 billion or US\$268 million (FY18: R2.98 billion or US\$233 million) of which R2.20 billion or US\$164 million (FY18: R1.6 billion or US\$126 million) was spent within Papua New Guinea. Of this amount, R1.1 billion or US\$82 million (FY18: R1.1 billion or US\$85 million) was spent in Morobe Province. Harmony awarded contracts to local landowner companies for catering, fuel haulage, general freight, plant hire, security, labour hire, cleaning, and rehabilitation and bus services.

Enterprise and supplier development South Africa

Harmony's approach to enterprise and supplier development ensures that local black-owned small businesses benefit from the company's presence in their communities by facilitating various processes to support new local black-owned small business entrants. Harmony has developed a new enterprise and supplier development framework with a focus on creating sustainable businesses in host communities and shifting procurement spend to compliant suppliers who meet the minimum black economic empowerment ownership targets set out in the Mining Charter III.

Harmony spent R2.6 billion in FY19 on companies classified as small business, which is 30% of total procurement spend in South Africa. Of this amount, R1.9 billion was spent with black economic empowered companies as measured against Mining Charter II definitions. Small businesses include exempted micro enterprises with a maximum annual turnover of R10 million and qualified small enterprises with an annual turnover of over R10 million but less than R50 million.

Enterprise and supplier development centres

Harmony's enterprise and supplier development centres are strategically located in host communities, making it easier for small businesses and new entrants to access support without incurring exorbitant costs. In FY19, these centres managed contracts of over R42 million with 100% black-owned companies. Harmony aims to attract and sustain participation by more businesses based in our host communities.

Harmony has three centres, one each in Welkom, Soweto and Matlosana. The table below indicates the impact of these centres.

For further information on the work being done to promote enterprise development and local procurement, see the video, [Harmony: Advancing the community](#).

Supplier development centres

Centre	Value of procurement contracts*	Value of loans approved supporting small business*	Number of SMEs supported
Welkom	R22 million	R3 million	56
Soweto	R20 million	R3 million	79
Matlosana	R1 million	R3 million	35

* Rounded to the nearest million

Leano funding initiative

Beyond the enterprise and supplier development centre, Harmony has introduced the Leano funding initiative which is an extension of these centres to identify and support entrepreneurs in host communities who require financial and technical start-up assistance. This is a focused initiative to develop SMMEs within our mining communities. Harmony provides financial and non-financial support to these enterprises, irrespective of whether they enter our supply chain or other supply chains

In FY19, the fund approved 96 loans (35 for women and 17 for youth) to the value of R17 million.

SOCIO-ECONOMIC DEVELOPMENT CONTINUED

During FY19, Harmony hosted six supplier days, the first two at Merafong Local Municipality, followed by events in the Matlosana, Masilonyana, Ratlou and Matjhabeng local municipalities. Harmony has supported many businesses that emerged from the supplier days held – these are represented in the table below:

Small business empowerment

Company	Impact
Senatla Trading Enterprises Ruben Thoso, owner for Senatla Trading Enterprises, a 100% black-owned business based in Welkom, Free State, is involved in the rehabilitation and filling of closed shafts as well as the installation of pump columns. The company participated in the Lejeleputswa Supplier Day when procurement opportunities and enterprise supplier development opportunities were shared.	Employees: 46 Support provided by Harmony: <ul style="list-style-type: none"> Quality management systems Coaching, mentoring and access to procurement opportunities Total spend with Senatla Trading Enterprise for FY19 was R10 million
Lekabe Engineering Service and Project (100% black women-owned engineering company in North West Province) The owner, a black woman, is a qualified mechanical foreman with more than 15 years' experience in the mining industry	Employees: 15 Support provided by Harmony: <ul style="list-style-type: none"> Vendor facilitation services Vendor facilitation process Quality management systems Total spend with Lekabe Engineering for FY19 was R320 000 Company currently working on a R2 million engineering project at the Doornkop mine
Lesole Agencies Meshack Lesole, owner of Lesole Agencies, a 100% black-owned company based in Welkom, Free State, started by providing basic construction services to Harmony before his business expanded into land rehabilitation and plant hire.	Employees: 60, from host communities Support provided by Harmony: <ul style="list-style-type: none"> Vendor funding Preferential payment terms and technical compliance Total spend with Lesole Agencies in FY19 was R15 million
Divine Automation Solutions Ramano Gerhard, owner of Divine Automation Solutions, a 100% black-owned company was discovered at a supplier day. The company, a new entrant in the technical services industry, provides technical services for valve and actuator maintenance as well as fault finding, support and training for shaft and plant operators on preventive maintenance.	Employees: 3 Support provided by Harmony: <ul style="list-style-type: none"> Vendor financing Preferential payment terms and technical compliance Quality management systems Spend of R1 million with company in FY19

Supporting compliant businesses within host communities

Encouraging participation by host communities in procurement opportunities

In endeavouring to connect more with businesses in host communities, supplier engagement days are held. They are structured as engagement sessions aimed solely at registered businesses in Harmony's host communities and the sharing of procurement and development opportunities. Harmony shares our procurement calendar with these registered businesses, including information on upcoming procurement opportunities and on contracts that will be renewable within 12 months. These sessions also assist small, medium and micro enterprises in host communities to prepare their bid proposal packs for upcoming opportunities.

Supplier days were held in these district municipalities during FY19

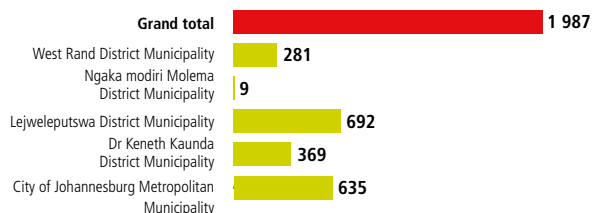
Supplier days	West Rand and City of Johannesburg	Ngaka Modiri Molema	Lejweleputswa	Dr Kenneth Kaunda
No. of participating SMMEs	110	16	51	98
No. of supplier day sessions held	2	1	2	1
No. of businesses awarded procurement opportunities	*171	7	*118	63

* Higher uptake than participation at the event, due to referrals and post event on-boarding and engagements

Harmony continues to pursue spend in host communities

Beyond these supplier days, Harmony continued to host one-on-one engagements with local businesses, at which they were coached and developed while preparing them for procurement opportunities. In all five of our host communities, Harmony spent about R1.99 billion with compliant black economic empowerment companies in FY19 – see graph.

Host community spend in South Africa (R millions)



Corporate social investment

Our corporate social responsibility policy recognises the need for socio-economic investment in South Africa and Papua New Guinea, starting with our host communities and labour-sending areas. This is in addition to our spend on local economic development. Harmony's corporate social investment programme focuses on:

- education
- socio-economic advancement projects
- health
- arts, culture sports and recreation

In selecting projects and compiling our corporate social investment strategy, we conduct research, consult with communities to understand their needs and requirements, and engage with various municipal structures.

In FY19, Harmony spent:

- R7 million or US\$0.5 million (FY18: R15 million or US\$0.8 million) on corporate social responsibility projects in South Africa

Further, Harmony made contributions to worthy causes in support of social upliftment in our neighbouring countries. These included sponsorship of the Mandela 100 Global Citizen Festival, in support of the United Nations' sustainable development goals (R15 million), as well as Cyclone Idai relief donations to the governments of Mozambique and Zimbabwe (R5 million each).

Public safety

There were no major incidents nor were any serious concerns raised during the year in relation to road transport and radiation exposure, which together with dust, are the primary public and community safety risks associated with our operations.

All Free State operations including Margaret Shaft have completed and submitted assessments in FY19. No significant incidents were reported.

South Africa

Selected corporate social investment initiatives are:

- **Back-to-school programme (education)**
 - Beneficiaries: 100 learners in five primary schools located close to our Doornkop mine
 - Donation of school shoes and bag packs
- **Doornkop schools league (sports and recreation)**
 - Beneficiaries: 10 primary schools from Soweto, near the Doornkop mine
 - Number of teams: 30
 - Sporting codes: netball, boys and girls soccer



OUTLOOK

To assist and engage with communities in and around our operations which are facing closure. We have put in place closure plans encompassing both the environmental and socio-economic impacts of closure that have detailed steps to mitigate the effects of closure and to ensure that, post-mining, communities will remain economically viable in the longer term.

In addition, we will continue to focus on the 2030 targets outlined in the SDGs and monitor our progress in contributing to them.

In Papua New Guinea, planned socio-economic projects will include health facility upgrades, infrastructure development (rural roads, electrification and water and sanitation), education, and security and safety.

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

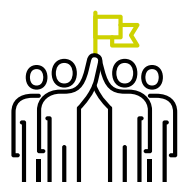


NATURAL
CAPITAL



Mining involves the exploitation of a natural resource and its extraction from the earth, that by its very nature directly impacts the natural environment – land, water and air. At Harmony, we mine responsibly

WHAT WE ACHIEVED IN FY19



Prepared in accordance with the GRI Standards: 301-1, 301-2, 301-3, 302-1, 302-2, 302-3, 302-4, 302-5, 303-1, 303-2, 303-3, 304-1, 304-2, 304-3, 304-4, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7, 306-1, 306-2, 306-3, 306-4, 306-5, 307-1, 308-1, 308-2, MM1, MM2 and MM3

Group

- **Continued investment in environmental management in FY19: R199 million (US\$13.9 million)**
- All long-life assets are ISO-14001 certified
- All plants, except Kalgold, Saaiplaas and Hidden Valley, are certified compliant with the Cyanide Code

South Africa

- **Three water retreatment plants installed contributed to:**
 - Reduced dependency on potable water supply
 - Promoted water security
 - Contributed to annual savings of R5.6 million
- Estimated cost of phase 1 of the carbon tax is **R1.6 million and for phase 2 between R100 million and R500 million**
- **Energy efficiency programme delivered savings of 233 994MWh** with 53 304 MWh in savings from newly implemented projects
- Accelerated rehabilitation programme has resulted in the rehabilitation and backfilling of **45 shafts to date**
- Linkages effected with artisanal and small miners to support the mining of gold and aggregate

Papua New Guinea

- **Hidden Valley's mine closure plan submitted** to the Papua New Guinea Conservation and Environment Protection Authority
- **25% reduction in diesel-generated power** supply at Hidden Valley due to improved supply from the national hydro-power grid
- **Project execution focused on performance and risk management of tailings storage facility to adhere to regulatory conditions** of approval and enhance existing emergency response strategies



Bio-energy and rehabilitation project – Free State

OUR APPROACH TO ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

We recognise that our activities have an inherent impact on surrounding communities and the natural environment, and that it is our responsibility to avoid, mitigate and manage such impacts. An additional benefit is reduced operating costs and exposure to risk while helping to leave a lasting, positive legacy post mining. Excellence in environmental performance is essential to our business success.

In line with Harmony's systems approach to environmental management, our long-life assets, those with a remaining life of mine of more than five years, have been certified ISO 14001-compliant. The most recent were Moab Khotsong and Joel, which were certified in FY19. In terms of ISO 14001, operations are audited annually. No material non-compliances were identified in the past year.

Operations with ISO certification:

- Doornkop complex
- Kusasalethu complex
- Target complex
- Tshepong Operations
- Masimong
- Harmony One Plant
- Moab Khotsong complex
- Joel complex

Our environmental management and stewardship activities support the Sustainable Development Goals:



GOVERNANCE

At board level, our social and ethics committee oversees implementation of Harmony's environmental strategy and performance. Our environmental strategy is aligned with a board-approved environmental policy* that outlines our commitment to responsible environmental stewardship and sustainable mining as well as closure. This strategy is in turn supported by an energy efficiency and climate change policy, a biodiversity and rehabilitation position statement and a water management strategy. The executive: sustainable development motivates environmental improvement strategically at group level.

Each operation's environmental management programme includes closure commitments to expedite beneficial post-mining land use and promote sustainable community livelihoods. In accordance with its environmental permit for the operation, Hidden Valley submitted its mine closure plan to the regulator during FY19, to initiate State approval of the closure process.

Consistent with the South African operations, Hidden Valley's environmental management is aligned with the ISO 14001 standard and all new employees receive environmental awareness training, which is reinforced by leadership training courses and monthly initiatives.

Our principal environmental issues are:

- Land stewardship – minimising our environmental footprint and conserving biodiversity
- Reducing energy consumption and greenhouse gas emissions, enhancing efficiencies and limiting impact on climate
- Water conservation and optimising water consumption at our South African operations
- Air quality and dust management
- Waste management, especially mineral waste (tailings and waste rock) and related management of tailings dams
- Regulatory compliance
- Regulatory uncertainty

* See www.harmony.co.za/sustainability/governance#policies

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Changing legislative framework creating uncertainty

South Africa:

In South Africa, mining is primarily regulated by the Mineral and Petroleum Resources Development Act, with other key legislation being the National Environmental Management Act and the National Water Act. Recent legislative changes in South Africa have included the introduction of a carbon tax, implementation of mandatory greenhouse reporting and more recently the climate change bill to promote a low-carbon economy. The environmental financial provision regulations and the various drafts since 2015, for which no conclusive draft was published, also created uncertainty. This has to some extent been mitigated by the Department of Environment, Forestry and Fisheries which has communicated its intention to delay their implementation from February 2020 to February 2021 to allow for more consultation. For further information, refer to the 20F which is available at www.harmony.co.za.

Papua New Guinea:

Water extraction and waste discharge by mining projects are regulated in accordance with the Environment Act 2000 administered by the Papua New Guinea Conservation and Environment Protection Authority.

Extensive legislative review continues and a number of policy changes are currently under consideration. Of particular relevance to Harmony in Papua New Guinea is the revised mine closure policy, which includes provision for financial assurance, as security for mine closure costs, and the introduction of a biodiversity offset policy. The proposed Papua New Guinea Biodiversity Offsets Framework was released for industry review during FY19. Harmony continues to engage with the government of Papua New Guinea through the offices of the Chamber of Mines and Petroleum, the Minister for Environment and senior members of the Conservation and Environment Protection Authority.



Steep slope rehabilitation

WHAT WE DID IN FY19

We spent a total of R199 million (US\$14.0 million) (FY18: R181 million or US\$14.2 million) on our group environmental portfolio in FY19.

Annual expenditure on our environmental portfolio

	FY19		FY18	
	Rand millions	US\$ millions	Rands millions	US\$ millions
South Africa				
Implementation of environmental control	90	6.3	71	5.6
Mine rehabilitation projects	79	5.6	86	6.7
Papua New Guinea				
Implementation of environmental control	30	2.1	24	1.9
Harmony – Total	199	14.0	181	14.2

Environmental incidents

We monitor, report and remediate environmental incidents, including direct or indirect discharges of water beyond our mining area in terms of environmental management plans. Environmental incidents are classified on a scale from 1 to 5. We report significant incidents at level 3 and above (serious medium-term environmental effects to significant impacts on sensitive species, habitats or ecosystems).

In FY19, we reported two significant incidents in South Africa and two in Papua New Guinea.

Location	FY19	Description	Mitigating action
Kalgold plant	Q1	A dust fallout resulted in relevant dust thresholds being exceeded. There was an incidence of fallout dust readings exceeding the relevant threshold. This was fugitive dust from a tailings dam.	Dust allaying interventions and vegetation on the benches of the tailings facility
Hidden Valley	Q1	Non-compliance with the environmental permit was recorded at the Nauti Compliance point. The presence of Weak Acid Dissociable Cyanide arose from under-dosing of reagents at the water treatment plant. From the monitoring results, this did not significantly impact the environment. Non-compliance remained below the human health criteria of 0.07mg/l for drinking water.	Remedial measures implemented included a review of processing procedures to safeguard against a repeat incident
Hidden Valley	Q2	A further breach of the environmental permit criteria for Weak Acid Dissociable Cyanide was recorded at the Nauti compliance point. The cause was identified as the pipeline configuration not being returned to the tailings storage facility. No significant impact to the environment was recorded and the non-compliance remained below human health (drinking water) criteria.	Further remedial measures were implemented to improve operational control. These focused on reconfigurations to the pipeline network, improved in-line and real-time monitoring capability, revisions to administrative controls such as trigger, action and response plans, and improved analytical reporting and accuracy of sample data.
Saaiplaas plant (Phoenix operation)	Q4	Spillage from a slurry pipeline resulted in reclaimed tailings leaking onto the adjacent property. This was a very localised spillage onto impacted land.	The leakage was repaired immediately together with a clean-up of the tailings slurry spillage. This is supported by a pipeline replacement programme currently underway. The impact was minimal due to the rapid response and communication with the farmer affected

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Setting environmental targets

In FY13, Harmony sought to measure relevant key performance indicators against environmental targets to monitor performance and inform decision making. An initial five-year target period was set, from FY13 to FY17. Revised targets were set for FY18 to FY22. In March 2018, Harmony acquired Moab Khotsong and its inclusion has resulted in noticeable increases in key performance indicators measured against many of our environmental targets. As a result, Harmony has revised the FY17 baseline data by including a full year's set of data from Moab Khotsong for FY19. Notwithstanding the change in baseline, Harmony is still aiming to deliver against its five-year targets.

Group environmental targets

	Current targets				Previous targets			
	Group aggregate targets				Performance against previous group aggregate targets: FY13-FY17			
	5-year target: FY18 – FY22 (%)	FY19			10-year target: FY18 – FY27 (%)	Target (%)	Actual (%)	Achieved
Target (%)		Actual (%)	Achieved					
Energy								
Reduce absolute electricity consumption (MW)	5	1	2	✓	7	3	17	✓
Electricity intensity (kWh/tonne milled)	5	1	16	✓	7	2	4	✓
Total carbon emission intensity reduction (tCO ₂ /tonne milled)	5	1	16	✓	5	2	4	✓
Renewable energy (% of total electricity consumed)	10	2	4		30% of energy mix	No target		
Diesel intensity (kL/tonne milled)	2	0.4	1	✓		No target		
Petrol intensity (kL/tonne milled)	2	0.4	10	✓		No target		
Water								
Reduce water used for primary activities (kL)	7	1.4	7.5	✓		4.5	11	✓
Water intensity (kL/tonne milled)	7	1.4	21	✓		4.5	19	✓
Water recycling (%)	6	1.2	68	✓	80% recycled and zero discharge	5	89	✓
Waste								
Hydrocarbon* recycling (% reduction)	80	60	31	✗		No target		
Non-hazardous** recycling (% reduction)	80	60	100	✓	Zero to landfill	No target		
Land, biodiversity								
Reduce the land impacted footprint (available for rehabilitation)	3	0.6	<1	✗		2	2	✓
Environmental fines	0	0	0	✓		0	1	✗
Implement biodiversity action plans	100	60	50	✗	One offset project per region where there is a residual impact	80	50	✗

* Hydraulic oil and lubricants

** Timber, steel and plastic

KEY

✓ Met or exceeded target

✗ Target not met

REHABILITATION AND LAND MANAGEMENT

South Africa

Rehabilitation ahead of closure is included in planning throughout the life of mine. In South Africa, the necessary rehabilitation funding mechanisms are in place and, where feasible, infrastructure is refurbished for alternative use. As only a small proportion of the land covered by our mining rights has been disturbed by mining, opportunities for progressive and concurrent rehabilitation are limited at this stage.

Our focus over the past two years has been on rehabilitating decommissioned shafts linked to ingress by illegal miners. Tailings dam rehabilitation, also a priority, is underway at Kalgold and planned for Welkom and Virginia for FY20. Reclamation of waste rock dumps is progressing well at Kalgold, Kusasaletu, Target, Tshepong Operations, ARM 7 and Saaiplaas 3.

Our rehabilitation strategy aims to reduce our environmental footprint through concurrent and final rehabilitation, thereby reducing our environmental liability, mitigating the risk of illegal mining and meeting the commitments made in our environmental management programme (EMP). This has helped to ensure the safety and security of our employees and communities, and has continued to ensure consistent employment and opportunity for approximately 150 persons from the local community.

Since formal rehabilitation began in 2011, we have demolished 45 shafts and rehabilitated some old plant footprints. In order to effect linkages in the host community, we ensure that the rehabilitation operations have been sourced from the local community and capacitated to be effective businesses in the rehabilitation space.

We have also demonstrated intent to support legitimate, licensed artisanal miners operating on surface by making available defunct footprints and spillage sites to a local entrepreneur for clean-up and gold reclamation. This initiative is in its first year of implementation and we remain supportive of artisanal small-scale miners – applying safe mining methods.

Our programme to rehabilitate decommissioned operations has continued to reduce our environmental liability and eliminate potential safety and health risks. In the past year, we continued to focus on rehabilitating shafts and plants. Apart from demolishing shafts and hostels, we are broadening our scope to include ancillary services infrastructure that was used to support historic mining operations like training centres, old offices and the like. In total, there are 14 active rehabilitation sites, all of which are scheduled to be completed in FY20.

At St Helena 10 shaft, a formal closure plan has been compiled and will be submitted to the regulator for approval, following which we will apply for a closure certificate to cede the mining right and any latent liabilities to the state. There is a similar process underway at Kusasaletu where a final closure plan is being compiled detailing our planned closure methodology to be submitted for approval by the regulator.

Demolition and rehabilitation FY19		
Demolition	Merriespruit 1 shaft Harmony 2 shaft training centre Harmony 4 Hostel Brand 5 shaft Eland Hostel Brand 3 waste rock profiling Freddie main offices ARM 4 and 6 headgear Freddie 9 shaft	 
Rehabilitation	Kalgold tailings facility Free State re-established vegetation	 
Reclamation and repurposing	Artisanal small-scale mining	 

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Land rehabilitation liabilities (Rm)

	FY19	FY18	FY17	FY16	FY15
South Africa	2 884	2 919	2 180	2 170	2 210
Papua New Guinea	1 039	1 336	1 391	826	675
Total	3 923	4 255	3 571	2 933	2 796
(US\$m)	278	308	166	150	230

(Refer to the 20-F for further detail on risks and liabilities)

Papua New Guinea

Most disturbed areas within the Hidden Valley mining lease remain active, however, progressive rehabilitation is undertaken where possible with a view to stabilising exposed areas to prevent ground movement proximal to critical infrastructure and to limit off-site sediment transport. In FY19, rehabilitation activities included steep slope stabilisation, erosion remediation projects and the ongoing maintenance of previously rehabilitated areas.

Five hectares of new site rehabilitation and maintenance work was undertaken on the Western Sector waste rock dump and 4 hectares of slope stabilisation works were undertaken at the Hamata pit and the southern abutment of the tailing storage facility. A major erosion remediation project was completed at Puruang Valley and a further four projects are planned for FY20.

Building on work completed in previous reporting periods, Hidden Valley submitted its mine closure plan to the regulator during FY19. This plan presents Harmony's proposed closure philosophy which is aligned with the cessation of mining in 2023. The proposed closure end land uses will be a key focus of the future stakeholder engagement programme to achieve endorsement of the current closure intent, or modification thereof. A further focus in the forthcoming year will be to create a State of Papua New Guinea working group to secure approval of the mine closure plan and document the broader closure and relinquishment strategy to be followed in the absence of a formalised closure framework. Technical work programmes to inform closure designs and refine closure liability estimates are ongoing.

BIODIVERSITY AND CONSERVATION

South Africa

Most long-life South African sites have biodiversity management plans, which are implemented either through their respective mine closure plans, environmental management plans or specific biodiversity action plans. To ensure compliance, numerous environmental projects are being implemented throughout our operations, in line with the United Nations SDGs.

Apart from Kalgold which needs to conserve the protected Camel Thorn (*Acacia erioloba*) tree, our operations do not operate in sensitive or protected environments. Nonetheless, we acknowledge that we do have important fauna and flora in our areas of operation and aim to protect and preserve these species where possible. Conservation and protection are chief tenets of our land management strategy.

Over the next five years, Harmony plans to implement our biodiversity action plans and, within the next 10 years, we aspire to participate in at least one offset initiative in each of our operating regions.

Alien and invasive plant management: An alien invasive plant eradication project continues to minimise growth and infestation of alien species to ultimately eradicate these plants. Areas of infestation are first mapped and then divided into smaller management units to enable prioritisation and appropriate planning. To date, Harmony has cleared more than 1 300ha and has now added a further 1 088ha cleared during the past year.

Flamingo conservation programme: Studies to complete the proposed Lesser Flamingo Conservation Project in Welkom were delayed as a conservation site in Kimberley required involvement by relevant stakeholders, highlighting the increasing importance of contributing towards conservation of the bird. Project design and strategy for the construction of a Lesser Flamingo bird island will be done in collaboration with the local municipality and non-profit organisations.

Final land use: As part of its socio-economic development strategy, Harmony is targeting four applications, which have been integrated into our social and labour plan (SLP) commitments:

- Agriculture and agri-processing projects at Doornkop, Moab Khotsong and Kusasaletu
- Alternative energy projects including bio-energy and solar projects
- Conservation initiatives
- Industry applications



Bio-energy and rehabilitation project – Free State

Papua New Guinea

Hidden Valley is not in a biodiversity-protected area but five species on the International Union for Conservation of Nature Red Data List are found in the vicinity of the mine. These include tree kangaroos, nectar bats, harpy eagles and long-beaked echidna, which are not endemic to the Hidden Valley area. There is no evidence to suggest that the mine's operations have affected these species.

For the Wafi-Golpu project, the Environmental Impact Statement submitted to the State of Papua New Guinea during the previous reporting period presents block cave mining as the optimal mining method to target the ore body. The selection of this underground method will reduce the surface footprint of the project, in comparison with open-pit mining and large-scale sub-level cave underground mining, and significantly reduce the amount of waste rock generated by the project.

A further key measure to manage the impacts of the proposed Wafi-Golpu project has been the selection of deep-sea tailings placement as the preferred tailings management method. This decision is based on numerous baseline oceanographic studies as well as trade-off studies assessing deep-sea tailings placement compared to terrestrial tailings disposal alternatives.

Extensive stakeholder engagement was undertaken in relation to the Wafi-Golpu project during FY19 in support of the assessment of the Environmental Impact Statement. This included roadshow consultations led by the regulator and meetings with mine area, infrastructure corridor and coastal area communities on the project, its predicted impacts and the results of ongoing investigations and technical assessments. A number of these engagements have included representatives from national and provincial government entities.

During FY19, the Papua New Guinea Conservation and Environment Protection Authority engaged three independent peer reviewers to assess the Wafi-Golpu project's Environmental Impact Statement. Permitting progress is presently on hold following an application for judicial review of the project's Memorandum of Understanding by the Morobe Governor. A stay order was issued by the National Court preventing advancement of permitting activities until the judicial review is completed.

ENERGY MANAGEMENT – OPTIMISING USE AND REDUCING CARBON EMISSIONS

Our extractive processes are energy intensive with the cost of electricity contributing close to 15.8% of operating costs at our South Africa operations. Consequently, our energy and climate change policy is underpinned by economic and ecological imperatives.

Our focus is on managing energy efficiencies and reducing carbon intensities through the life cycle of our operations. We are also looking to diversify our energy mix, moving toward the increased use of renewable energy where appropriate. It is our aspiration to replace 30% of the carbon-based electricity consumed in South Africa with renewable energy within the next three years. Refer to our *CDP Climate Change* report submitted in July 2019 for further disclosure.

Harmony endeavours tirelessly to reduce energy consumption and greenhouse gas emissions, adapt to climate change and diversify our energy mix by:

- promoting energy efficiency at our deep-level mines in South Africa
- optimising and rebalancing our asset portfolio
- promoting an alternative energy mix
- aligning our rehabilitation programme with the green energy agenda

The decrease in energy use in FY19 is attributed to numerous energy-saving initiatives. See *Operational excellence programme* and *CDP Climate Change* for further information.

Our energy consumption has declined by 3.4% over the past five years (excluding Moab Khotson operations) and our intensity use by 13%, which is in line with the annual targeted reduction. These declines have in turn contributed to reduced greenhouse gas emissions and water consumption.

South Africa

Generally, Harmony consumes energy in the form of electricity purchased from the national power utility, Eskom, which uses coal-fired power stations. There is some scope for procuring renewable energy and we are active in this space but, until the power purchase agreement is concluded, we are still dependent on Eskom's renewable sources. Eskom's electricity tariffs have risen by more than 400% since 2008 and, given the relatively significant contribution to operating costs, increases exceeding 8% have an impact on the sustainability of our operations. We are therefore intent on reducing electricity consumption.

Our energy efficiency-initiatives focus on efficient mine cooling, compressed air, water management and ventilation, as well as an improved energy mix with emphasis on sustainable renewable energy, particularly solar power and bio-energy in the short term. We have improved our capacity to generate solar power, which has helped decrease our power consumption and energy use intensity.

Energy consumption

Energy consumption (MWh)	FY19	FY18	FY17	FY16	FY15
South Africa	3 209 411	2 458 423	2 537 944	2 542 463	2 608 157
Papua New Guinea	² 131 266	³ 90 298	90 380	54 976	59 218
Total	1 3 340 677	2 548 721	2 628 324	2 597 439	2 667 375
Consumption intensity (MWh/tonne treated)	0.12	0.11	0.14	0.13	0.15

¹ Increase in energy consumption driven by Harmony's acquisition of Moab Khotson

² Includes Papua New Guinea diesel consumption used to produce electricity (13 900MWh)

³ Although full year production included, the plant did stand for planned shutdown

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Operational excellence programme – technology and innovation

As part of Harmony's operational excellence programme, a specialist has been employed to improve overall efficiency at our operations, particularly environmental conditions underground, equipment and systems efficiency as well as service delivery. We have thus moved into the fourth industrial revolution with technologies that assist in identifying the root causes of inefficiencies and finding cost-effective solutions.

More than 200 initiatives have been implemented with cumulative cost savings, over the past five years, of R450 million. Projects implemented in FY19 enabled savings of R45 million (53 304MWh) as well as significant reductions in indirect greenhouse gas emissions and water consumption. Other positive impacts include improvements to the consumption of water and compressed air, as well as ventilation, underground.

Implemented technologies:

- Intelligent real-time energy management systems automatically control compressed air, water reticulation, ventilation and ore transportation to reduce energy consumption and enhance safety.
- A data management system facilitates capturing, centralisation, validation, management and reporting of environmental and operational information. As a management toolbox, it improves access to environmental data and enables effective environmental management, including monitoring of water consumption and carbon dioxide emissions as well as performance against targets. Storage of environmental data in a central electronic repository, with supporting documentation, helps expedite data validation, reinforces accurate decision-making and improves environmental management. By automatically comparing data with the source documents, annual internal audits and travel to mine sites have become redundant as auditors can log in externally. Developed and implemented by independent environmental efficiency specialists, Harmony began using this system in June 2019.
- Condition monitoring of infrastructure and systems automatically analyses millions of data points daily to predict failures and identify inefficiencies. When problems are detected, a report is generated automatically and sent to relevant managers.
- Digital twinning and simulation technologies have been identified for strategic future mining. A digital twin is a computer-generated model of a mine that enables monitoring of the entire operation in real time. Integrating simulation capabilities into the digital twin assists with identifying the causes of inefficiencies. The simulations are also used for "what if" analyses and to predict constraints.

In addition, Harmony uses Pelton turbines that convert the energy generated by water sent underground into electricity. Tshepong Operations and Moab Khotsong are also two of a few mines in the world that use three-chamber pipe feeder systems (3CPFS) technology to extract water from mines more cost-effectively.

Real-time maintenance of all operational excellence systems is conducted daily by dedicated personnel.

Key energy saving initiatives implemented in FY19

Over the past 10 years, although our mines have become deeper, energy efficiency initiatives have resulted in significant savings. In FY19, collaboration with operational excellence specialists reduced energy intensity by 5% compared to FY18 (without considering the Moab Khotsong acquisition and discontinued operations).



Doornkop

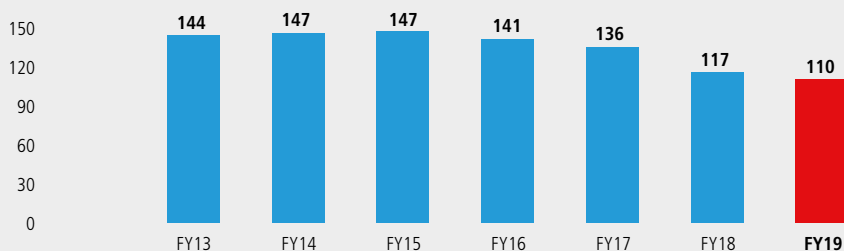
Energy management

Key energy saving initiatives implemented in FY19

Project description	Annual energy savings (MWh)	Annual greenhouse gas savings ¹ (t CO ₂)	Annual water savings ¹ (ML)
Kusasaletu			
Compressed air network optimisation	12 258	11 890	15 935
Water reticulation optimisation	7 051	6 839	9 166
Unisel			
Compressed air optimisation	9 763	9 470	12 692
Ventilation and refrigeration optimisation	10 088	9 785	13 114
Moab Khotsong			
Refrigeration optimisation	4 648	4 509	6 042
Tshepong Operations			
<i>Tshepong section</i>			
Refrigeration optimisation	6 720	6 518	8 736
Compressed air network optimisation	4 990	4 840	6 487
<i>Phakisa section and Nyala</i>			
Compressed air network reconfiguration	6 183	5 998	8 038
Masimong			
Water reticulation optimisation	4 773	4 630	6 205
Doornkop			
Compressed air supply optimisation	4 881	4 735	6 345

¹ Indirect CO₂e and water savings (Eskom)

Electricity intensity (kWh/tonnes)



Papua New Guinea

Our operations are designed to be energy efficient. As Papua New Guinea's grid power is generated in part by renewable hydro-power emission intensities are much lower at Hidden Valley. Although Hidden Valley has historically experienced interruptions in its supply of grid power, but the reliability of supply has significantly improved over the past 12 months. This is reflected in the large decrease in diesel-generated electricity consumed during FY19.

The proportion of grid power used in FY19 was a record high of 89% (FY18: 66%). In FY19, 13 900MWh of diesel-generated electricity was consumed (FY18: 30 900MWh) representing a 55% reduction on the previous period's consumption. The increase in total energy consumption recorded for FY19 reflects the increased throughput and gold production at Hidden Valley during the year.

To ensure a stable, baseload power supply, the Wafi-Golpu project is planning to use self-generated power using intermediate fuel oil. Alternative options, including renewable energy, continue to be assessed.

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Direct and indirect energy consumption (MWh)

	FY19	% of total energy used	FY18	% of total energy used	FY17	% of total energy used	FY16	% of total energy used	FY15	% of total energy used
South Africa										
Direct ¹	–	–	–	–	–	–	–	–	–	–
Indirect ²	3 209 410	100	2 458 423	100	2 537 944	100	2 542 463	100	2 608 157	100
Total	3 209 410	100	2 458 423	100	2 537 944	100	2 542 463	100	2 608 157	100
Papua New Guinea										
Direct ¹	13 927	10.6	30 931	34	38 839	41.9	14 010	25.5	10 355	17
Indirect ³	117 338	89.4	59 367	66	52 542	58.1	40 966	74.5	48 863	83
Total	131 265	100.0	90 298	100	91 381	100	54 976	100	59 218	100
Harmony										
Direct	13 927	0.4	30 931	0.1	38 839	0.1	14 010	0.5	10 355	0.4
Indirect	3 326 748	99.6	2 517 790	99.9	2 590 482	99.9	2 583 429	99.5	2 657 020	99.6
Total	3 340 675	100.0	2 548 721	100	2 629 321	100	2 597 439	100	2 667 375	100

¹ Diesel

² Non-renewable: coal-fired power stations (Eskom)

³ Renewable energy: hydropower-generated electricity

Addressing climate change by optimising our energy use

Harmony has disclosed its carbon-related impact through the CDP for several years, most recently for 2019. Internalising carbon pricing into our strategic and operational plans has been entrenched in the way we do business, especially with the advent of the carbon tax in South Africa. The carbon tax has been built into our financial models which are used for impairment testing, impacting the recoverable amount. This aligns with the principles of CDP and the Task Force for Climate-related Financial Disclosures (TCFD) requirements.

CDP and the Task Force for Climate-related Financial Disclosures

Harmony has for several years, including 2019, been disclosing its carbon-related impact and performance through its CDP Climate Change submission. Going forward, Harmony will be aligning its annual carbon-related reporting with best practice for global climate reporting and we will be structuring our annual reporting in accordance with the requirements and guidelines of the Task Force for Climate-related Financial Disclosures. We will be focusing on four key areas – governance, strategy, risk management and metrics and targets – as defined by the Task Force for this year's report as we begin integrating the its requirements with our existing reporting structures.

Harmony monitors the opportunities and risks presented by climate change. These are included in our life of mine plans and mine closure plans and communicated to the board throughout the year. Our climate strategy is then reviewed annually with a view to substituting and/or augmenting conventional electricity use (fossil fuel and grid energy) with renewable energy.

In line with our strategy for the next five years to adapt, conserve and move towards an alternative energy supply mix, we are reducing our grid-electricity consumption and greenhouse gas emissions with

year-on-year and multi-year targets. To this end, we have implemented a suite of energy-efficiency initiatives and closed carbon-intensive (high-energy) shafts. We plan to increase the use of green energy derived from hydropower, solar power and biomass.

To mitigate the risk of climate change, we have:

- rebalanced our asset portfolio by closing several carbon-intensive operations as they have reached the end of their geological life
- decommissioned and sealed old mining shafts
- received environmental authorisations for three solar projects with final procurement processes currently being concluded

Energy management

- Harmony is currently considering several renewable and alternative energy projects in South Africa:
- bio-energy project
- three 10MW photovoltaic power plants in the Free State on Harmony-owned land
- initiatives to reduce electricity consumption – these have reduced energy consumption across the group by 21% since 2010 (excluding Moab Khotsong).

The cost savings in actual electricity consumed were R29.7 million (excluding Moab Khotsong) year-on-year. Despite our electricity consumption increasing as a result of Moab Khotsong's acquisition, Harmony has measured total cost savings resulting from the energy savings initiatives implemented amounting to R44.2 million and R69.5 million valued added for maintaining the existing energy savings initiatives in FY19. Some of the savings were neutralised due to an increase in energy consumption for operational requirements.

Demand-side management is encouraged by Eskom with rewards for making more efficient use of tariffs. Initiatives to this end include scheduling of pumping, air compression, cooling, hoisting and ventilation at off-peak periods.

Projects funded by Harmony are sustainable in the long term, and include the use of energy-efficient underground fans, managing the compressed air at refuge chambers and workplaces, installation of standalone compressors, accurate measurement of compressed air and online electricity consumption monitoring.

Group carbon emissions

	FY19	FY18	FY17	FY16	FY15
Scope 1 emissions breakdown by source (CO₂e tonnes)					
Diesel	129 675	128 505	108 306	53 278	64 244
Explosives	2 294	2 135	1 953	1 838	1 748
Petrol	1 143	844	784	777	909
Total	133 112	131 484	111 043	55 893	66 901
Scope 1 emissions breakdown by source (%)					
Diesel	97.4	97.7	97.5	95.3	96
Explosives	1.7	1.6	1.8	3.3	3
Petrol	0.9	0.7	0.7	1.4	1
Total	100	100	100	100	100
Total scope 1, 2 and 3 emissions (CO₂e tonnes)					
Scope 1	133 112	131 484	111 043	55 893	66 901
Scope 2	*3 192 750	2 442 256	2 512 565	2 580 600	2 686 401
Scope 3	532 704	439 551	445 033	615 456	686 233
Total	3 858 566	3 013 291	3 068 641	3 251 949	3 439 535
Total scope 1, 2 and 3 emissions (%)					
Scope 1	3	4	4	2	2
Scope 2	*83	81	82	79	78
Scope 3	14	15	14	19	20
Total	100	100	100	100	100

Carbon emissions intensity

	FY19	FY18	FY17	FY16	FY15
Scope 1 emissions intensity by source (CO₂e tonnes/tonne treated)					
Diesel	0.0050	0.0057	0.0055	0.0029	0.0036
Explosives	0.0001	0.0001	0.0001	0.0001	0.0001
Petrol	0.00004	0.00004	0.0004	0.0001	0.0001
Total scope 1, 2 and 3 emissions intensity (CO₂e tonnes/tonne treated)					
Scope 1	0.0051	0.0061	0.0057	0.0031	0.0040
Scope 2	*0.1229	0.1090	0.1295	0.1428	0.1490
Scope 3	0.0205	0.0196	0.0229	0.0340	0.0380
Total	0.1485	0.1347	0.1581	0.1799	0.1910

* The inclusion of Moab Khotsong for the full year – presents opportunities for operating efficiencies

Responsible stewardship: suppliers and market

Harmony engages regularly with key and relevant suppliers in our supply chain, who indirectly contribute to our Scope 3 greenhouse gas emissions, to ensure that they have processes in place to monitor and manage their carbon and water footprints.

Rand Refinery, which smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients, is also committed to internationally accepted responsible sourcing practices in terms of the London Bullion Market Association Responsible Gold Guidance as well as the Organisation for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. The certified gold chain of custody is also audited independently in line with the requirements of independent bodies and enacted legislation.

Rand Refinery is ISO accredited in terms of 45001:2018, which replaced the OHSAS 18001:2007, ISO 9001:2015 and ISO 14001:2015 certifications.

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Emissions management

Ventilation exhausts servicing our underground operations in South Africa expel air into the atmosphere. Harmony conducted a study to determine the make-up of the air, especially in relation to methane and concluded that the methane emitted occurs in trace concentrations, which is negligible.

Many of our gold plants have kilns, smelters and burners which require annual monitoring and assessment for submission to the relevant regulators. During our annual assessments, elements such sulphur dioxide and nitrous oxides are measured against an approved Air Emissions Licence. All relevant gold plants meet the regulatory requirement.

The main air quality concern remains dust fallout that impacts surrounding communities. A dust monitoring programme has been comprehensively updated for relevant operations. All historic monitoring points together with the methodology were re-evaluated and additional monitoring points have been added to the existing network for improved data collection and mitigation.

OPTIMISING WATER USE, LIMITING OUR IMPACTS

Our water management policy sets the principles for water management at each of our operations in various climatic conditions. Papua New Guinea is characterised by its high rainfall tropical climate but, in contrast, Kalgold operates in a water-scarce environment. These conditions largely influence the water management strategies at each operation.

In high rainfall territories, we ensure that we hold as little water as possible so water discharge at Hidden Valley is a necessity. Surplus water is treated in the water-treatment plant to the prescribed standards before it is discharged into the Watut River system.

South Africa

At many of our underground operations in South Africa, Harmony intercepts the aquifer to generate fissure water, which we then treat and use, thus liberating other fresh water supplies for other users in our society. At these operations, we maximise the use of underground water and have begun treating this water to meet quality standards for use in our operations as we pursue our goal of zero discharge.

At Kalgold, water availability is critical to business continuity and operational growth. Given the scarcity of water, Harmony ensures that what we use does not impact upstream and downstream users. We undertake stakeholder engagement with upstream and downstream users as well as the relevant regulators as this is critical to preserving and protecting this scarce resource.

Water in South Africa is generally deemed a scarce resource and, as a country, we have adopted an inter- and a multi-disciplinary approach to the management of our water resources by means of catchment management agencies. Harmony participates in the following catchment agencies:

- Far West Rand Technical Working Group
- KOSH Mine Water Forum
- Free State Government Task Team

Doornkop agricultural project

A vegetable project, using excess potable water from the Doornkop water-treatment plant, is being established. For more information, see [Socio-economic development](#).

Additionally, as a result of the interconnectivity and contiguous nature of our orebodies, there are many mines operating within the same catchment area. This warrants a co-ordinated effort to manage the resource effectively. Harmony thus participates in the Far West Rand Technical Workings Group to collaborate on regional opportunities for water management and is also represented on the board of the Margaret Water Company in Orkney in partnership with Village Main Reef to manage the KOSH water basin.

In the western basin, Harmony and Sibanye-Stillwater are working collaboratively on the latter's closure programme for the Cooke shafts to ensure that the sealing programme inhibits any ingress to Doornkop operation. This ensures that we manage the impacts of our activities during the operating lives of our mines and that we are also focused on closure planning.

All our operations have site-specific water balances and water management plans in terms of which we operate, monitor and measure compliance.

For further information on water management, refer to the [CDP Water](#) report submitted in July 2019.



Doornkop

Water use – measured

		FY19	FY18	FY17	FY16	FY15
Water used for primary activities	000m ³	1 23 158	15 473	18 125	15 083	15 752
Potable water from external sources	000m ³	15 933	12 646	12 486	13 854	13 132
Non-potable water from external sources	000m ³	7 225	2 827	² 5 638	1 229	2 620
Surface water used	000m ³	4 042	2 034	4 863	716	776
Groundwater used	000m ³	3 183	793	775	513	1 844
Water recycled in process	000m ³	48 512	40 435	41 112	38 821	38 338
Intensity consumption	000m ³ /tonne treated	0.89	0.69	0.93	0.80	0.87

¹ Increase is due to the inclusion of Moab Khotsong

² Increase in non-potable water consumption due to impact of drought on the Free State operations

In line with legislative requirements, integrated water-use licence applications were submitted to the authorities for each operation. Where water use licences have been received, Harmony has applied for amendments to take into account omissions, additional water uses required and to clarify certain aspects. Where possible, Harmony continues to apply best practice in water management.

Our strategy to reduce dependency on potable water, and to maximise our use of fissure and process water, began in 2013.

Water conservation strategy

Our geohydrological assessments together with water balances are used to model the likely effects of a protracted drought on our operations. Success in reducing our water-use intensity is partly attributed to less wastage and reduced potable water use due to recycling and treatment.

Harmony installed two water-treatment plants at our Gauteng mines to treat fissure water to potable standards. A third treatment plant has been constructed in Free State at the Nyala shaft at Tshepong Operations at a cost of R16.8 million. This has had the added advantage of liberating potable water supply for other users, especially necessary during times of El Niño.

It is imperative that we continue to improve the efficiency of our water use in order to operate effectively under regulations that aim to reduce demand and consider community access to potable water from the same source.

- **Water conservation in the Free State:** In line with our strategy, we have built a third water-treatment plant in the Free State. This will ensure security of water, reduce water consumption and assist with water conservation. The plant will treat 2.8ML of water a day and will save R3.2 million in water bills annually. The three treatment projects will bring about a total saving of R5.6 million annually
- **Kalgold:** Situated in a water scarce area, Kalgold's D-Zone pit deposition ensures water is available for production with the surrounding borehole network augmenting water needs when necessary. Modified plant and tailings storage facilities have maximised the recovery of water for reuse; process water dams have been reinforced to increase storage capacity and minimise overflows; and efficient flow meters and valves have been installed

CDP Climate Change and Water reporting

CDP, the non-profit global environmental disclosure platform, has again acknowledged Harmony as a global leader in corporate sustainability.

Harmony's scores for CDP Climate Change 2018 and CDP Water 2018 were A- and B respectively. In South Africa, no company scored an A for water.

According to the CDP, their 2018 reports, comprising reviews of more than 7 000 global companies, were produced at the request of more than 650 investor signatories managing assets worth US\$87 trillion.

CDP South Africa Water 2018 states: "South Africa is facing a water crisis caused by insufficient water infrastructure maintenance and investment, recurrent droughts driven by climatic variation, inequities in access to water and sanitation, deteriorating water quality, and a lack of skilled water engineers."

CDP South Africa Climate Change 2018 notes: "Exceeding [temperature increases of] 1.5 degrees globally, could have catastrophic impacts for South Africa which is physically and economically vulnerable to climate change."

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Water conservation strategies

Water is a critical resource in South Africa and for mining. Harmony's main goal is therefore to reduce its dependence on water. It has also collaborated with operational efficiency specialists to simulate water reticulation networks at the different operations using Industry 4.0 technologies. These water studies have enabled Harmony to identify operational improvements in the water network resulting in monthly process water savings of 75ML and an annual potable water cost saving of R6 million.

The collaboration has also placed significant focus on ensuring continual awareness of water usage. Internal water reporting has become a key performance metric at the operations. Daily underground water reticulation analyses are done which immediately alert relevant personnel if intervention is required. Furthermore, water management systems have also been installed to manage and reduce inefficiencies. For example, these systems have contributed to a monthly improvement in chilled water usage at the Target mine of 35ML.

Results of the various efforts to reduce Harmony's water usage can be seen in the water used for primary activity key performance indicator. For the group as a whole, our operations have reduced water used in primary activities by 7.5% over the past two years while the water intensity has improved by 21% (see table below). The intensity improvement can be attributed to the increase in tonnes treated over the entire group.

Water discharge

At Doornkop, we are licensed to discharge water but the treatment plant has mitigated the need for this. Only in the event of excess water will Harmony discharge treated potable water into the Klipspruit. In this reporting cycle there was no discharges from the operation.

The Kusasaletu operation has a water use licence permitting the discharge of water. We remain committed to optimising our water balance to achieve zero discharge. Notwithstanding this, there is discharge from Kusasaletu via the mine's golf course into the Varkenslaagtespruit. We estimate this to have been around 1ML per day on average. Water quality is in line with instream water quality objectives for the Wonderfonteinspruit and upstream and downstream monitoring underscores that there is no impact to the receiving environment. However, in order to achieve our objective of zero discharge at this operation, we plan to install a treatment plant in FY20.

Margaret Water Shaft, a shaft specifically being used to pump water from underground, was transferred to Harmony (66%) and Village Main Reef (33%) upon acquiring Moab Khotsong operation. Most of the water is used by Harmony or surrounding users, however in some cases discharges are realised into the Vaal River. During 2019, the shaft had to discharge 562.4ML, averaging 1.5ML daily. The water quality is of a very high standard and meets in-stream Vaal River water quality standards.

Group key performance indicators for water

Key performance indicator	Baseline FY17 ¹	FY19	Target reduction by 2022	FY19 reduction on baseline
Water used for primary activities (m ³)	25 023 208	23 158 152	7%	7.5%
Water intensity (m ³ /tonne treated)	1.13	0.89	7%	21%

¹ Adjusted for Moab Khotsong acquisition.

Papua New Guinea

At Hidden Valley, steep topography, high rainfall and low levels of evaporation pose significant water-management challenges with the positive water balance resulting in a near-continuous discharge of water from the mine site to the environment. The main water-management techniques implemented are:

- controlled run-off of rainfall to prevent erosion and sediment entering the river system
- recycling of site water to limit the volumes of water stored on the tailings storage facility and requiring release to the environment
- treatment of wastewater prior to discharge

Point-source discharge to the receiving environment occurs to either Pihema Creek or the Upper Watut River from a cyanide detoxification plant adjacent the tailings storage facility. Compliance monitoring is undertaken at a point approximately 18km downstream of the discharge in accordance with the operation's Environment Permit.

Water quality monitoring during the year showed that all dissolved metals and physicochemical parameters complied with regulatory criteria at the Nauti compliance point. Two exceedances of Weak Acid Dissociable Cyanide were recorded, as described in the earlier *Environmental incidents* section.

Extensive monitoring programmes are in effect to understand the performance of the site's waste rock dumps and tailings storage facility, including assessment of sediment and run-off control measures.

Discharge of mine-related sediment into the Watut River drainage system has continually reduced over the last five-years with an ongoing focus on erosion control and sediment management.

Most of the raw water required by Hidden Valley is drawn from Pihema Creek and used in the process plant and related ore-processing activities. Process water recycling is prioritised to limit as far as practicable the volumes extracted from the surface environment.

Acid mine (metalliferous) drainage

Major sources of acid mine drainage include drainage from underground mine shafts as well as run-off and discharge from open pits and mine waste dumps, tailings and ore stockpiles. Tailings and ore stockpiles make up nearly 88% of all waste produced at our South African operations.

Our water-management strategy involves intercepting water before it is polluted underground. When there is a risk that rising water levels underground could hinder access to our ore reserves or those of other operations, or harm the environment, water is pumped to surface. It is then consumed as plant intake.

In our Free State operating area, Welkom, is a water-stressed environment and our environmental modelling confirms that there is no risk of a surface decant of acid mine drainage currently or beyond end of life. There is therefore no material risk to surface and groundwater sources in Welkom.

Geohydrological studies confirm the same outcome for Kalgold, Doornkop and Kusasaletu. That said, both Doornkop and Kusasaletu are situated in complex catchments compounded by the inter-connected nature of mining operations in the area. These operations participate in regional geohydrological and closure studies.

In Papua New Guinea, acid and metalliferous drainage may occur from landforms that contain potentially acid-forming material such as the waste rock dumps and ore stockpiles. Potential environmental impacts are mitigated by the construction of engineered waste rock dumps and the selective placement of potentially acid-forming waste rock within the dump.

A current focus of the closure work programmes is to understand the performance of the waste rock dumps at and beyond mine closure, with a view to formulating closure designs that preclude the occurrence of acid and metalliferous drainage.

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

OPTIMISING OUR USE OF MATERIALS

The primary materials consumed in conducting our mining activities and processes include the rock (ore and waste) we mine together with liquefied petroleum gas, grease, cyanide, fuels and lubricating and hydraulic oils.

Materials used

	FY19	FY18	FY17	FY16	FY15
Rock mined: ore and waste (000t)	47 095	43 578	33 150	27 606	29 948
Ore mined (000t)	25 980	22 441	19 402	19 739	13 041
Waste rock recycled (000t)	6 575	3 690	4 668	3 964	6 647
Slimes recycled (000t)	9 992	9 772	6 559	6 131	5 987
Liquefied petroleum gas (t)	1.3	1	0.47	0.54	1.14
Grease (t)	506	426	121	384	54
Cyanide (000t)	23.2	23.3	21.0	18.0	14.3
Petrol and diesel (000L)	48 742	48 461	40 811	20 298	24 464
Lubricating and hydraulic oil (000L)	3 163	2 744	2 768	2 291	2 772

Cyanide management

Harmony is a signatory to the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code). All our major gold mining operations and most of our metallurgical plants have been certified compliant with the Cyanide Code. This excludes the Kalgold, Saaiplaas and Hidden Valley plants, which account for 21% of production, and the Joel plant, for which certification is being reassessed as the plant is being decommissioned.

Hidden Valley had an audit in FY19, the findings of which are being addressed before re-certification, which is targeted for FY20.

MANAGING OUR WASTE

Effective waste management is a priority as it can reduce our environmental impacts and mitigate our environmental liabilities. An understanding of the actual cost of waste management enables us to plan effectively for new projects and mine closure. Practically, we maximise recycling and waste reduction during the life of a mine, and design to minimise waste and reclaim mineral waste (such as waste rock from dumps as aggregate) to curtail our total mining environmental footprint.

Internally, guidelines on mineral, non-mineral and hazardous waste materials are included in the environmental management systems implemented at all operations. We understand that waste management begins with initial generation and encompasses handling, storage and transport as well as recycling, treatment and/or disposal.

Mineral waste

Waste rock

Our mining and extractive processes generate mineral and non-mineral waste as well as emissions. Our mineral waste is characterised as tailings and overburden, often viewed as a resource in waiting. Harmony's year-on-year increase in mineral waste is due to waste stripping of the cutbacks at Hidden Valley. Waste rock is also generated from our underground operations in South Africa. Effective mineral waste management reduces the 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. Improved mineral waste management can result in significant savings and a reduction in energy consumption.

Waste rock in general has no value as gold mineral resource, but generally has characteristics that make it useful as

- plant grinding media
- feed into the backfill plants
- physical characteristics present an opportunity for the aggregate industry

As part of our commitment to inclusive mining and in accordance with our social purpose, Harmony has ring-fenced some of its waste rock for local businesses and local entrepreneurs. This has enabled us to forge a supporting an enabling relationship as large-scale miner with legitimate licence artisanal operators in our host communities. Aggregate at Kalgold is currently being reclaimed and repurposed for market by a consortium comprising a seasoned aggregate producer Platistone Ltd, the local community and employees.

In Welkom, surplus waste rock is also being processed by local aggregate producers – OMV Crushers and Stone and Allied – and has been commercially sustainable for over five years. In Welkom, Harmony is working with the local community representatives of Allanridge and NCamiso – a 100% BEE entrepreneur – to establish an additional aggregate producer.

Harmony has established a five-year target to reclaim at least 10% of our total available mineral waste footprint, provided Harmony is able to access funds set aside in the environmental rehabilitation trust funds.

The situation differs in Papua New Guinea where there is limited opportunity to re-purpose waste material given the potentially acid forming nature of much of the waste. As far as practicable, suitable waste rock is reused on site in the ongoing construction of the tailings storage facility embankments.

Waste rock is often regarded as a resource to the aggregate industry. To this end, Harmony's rehabilitation efforts and downstream beneficiation efforts repurpose waste rock into aggregate at Kalgold, Welkom and Kusalethu. Many of these initiatives are developed to support local participation to beneficiate our waste into profit streams.

Management of tailings in Papua New Guinea

Hidden Valley's advanced waste management systems have generated positive feedback from stakeholders, particularly the tailings storage facility, which is the first large facility of this type to be operated successfully in Papua New Guinea.

A magnitude 7.2 event earthquake was experienced some 55km north-north west of Hidden Valley on 7 May 2019. No significant ground movement, evidence of cracking or instabilities of concern were observed at the tailings storage facility following this earthquake event.

Approval to raise the tailings storage facility dam embankment to RL2015 was granted by the Papua New Guinea Chief Inspector of Mines on 31 January 2019, contingent on a series of conditions focused on:

- the management of safety critical risk controls
- appropriate governance and supervision
- compliance with ANCOLD 2012a
- safe and effective maintenance, construction and operation of the facility

There was thus considerable focus during FY19 on the performance and risk management of the tailings storage facility and the review, refining and upgrade of emergency response strategies. As an additional layer of corporate governance, an Independent Technical Review Board was appointed in 2018 to conduct annual reviews of the facility.

Actions during FY19 relating to tailings dam management and compliance with the conditions of approval for the facility included:

- provisions for emergency pumping capability from the facility and a revision to the trigger, action and response plan pertaining to the release of untreated water in the event of an emergency to safeguard the dam structure
- the design, installation and commissioning of an early warning siren system and two-way communications in villages downstream of the facility
- completion of tailings storage facility flood modelling under extreme scenarios to determine inundation extents in downstream communities and associated requirements for emergency preparedness and response
- extensive engagement and education programmes with downstream communities and provincial and national government representatives in relation to the early warning system and flood modelling findings. Further work continues to install flood markers and provide educational material to the three relevant communities
- increased resourcing within the organisation to improve dam governance and oversight
- continued independent third-party annual reviews and further visit by the appointed Independent Technical Review Board

At the Wafi-Golpu project, deep sea tailings placement has been selected as the preferred tailings management option based on consideration of long-term safety, engineering, environmental, social, cultural heritage and economic factors. Deep sea tailings placement is presently adopted in four countries and is in effect at three operations within Papua New Guinea.



ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

CONTINUED

Tailings management

Effective mineral waste management reduces the 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. Improved mineral waste management can result in significant savings and a reduction in energy consumption. Residual economic value can be generated from projects such as our Tswelopele reclamation initiative (Phoenix operation). Residual economic value can be generated from projects such as our Tswelopele reclamation initiative (Phoenix operation) and more recently the Central Plant reclamation operation.

In the past three years, 60.2Mt have been processed and deposited onto existing tailings dams.

To protect employees, communities and the environment, we handle all chemically reactive or radioactive waste appropriately by:

- minimising the quantity of material stored to limit the extent of the footprint of land disturbed
- ensuring storage sites are physically and chemically safe and well-engineered
- undertaking progressive rehabilitation – returning affected land to productive use after mining

Tailings comprise crushed rock and process water emitted from the gold elution process in the form of a slurry once the gold has been extracted. The composition, size and consistency of tailings vary by operation with opencast operations producing greater volumes in general than underground operations. Tailings and waste rock are usually inert but rock close to the orebody may be associated with metals or salts if these are characteristic of the orebody.

As tailings contain impurities or pollutants, they are placed on tailings dams engineered to contain the slime in line with our water management programme.

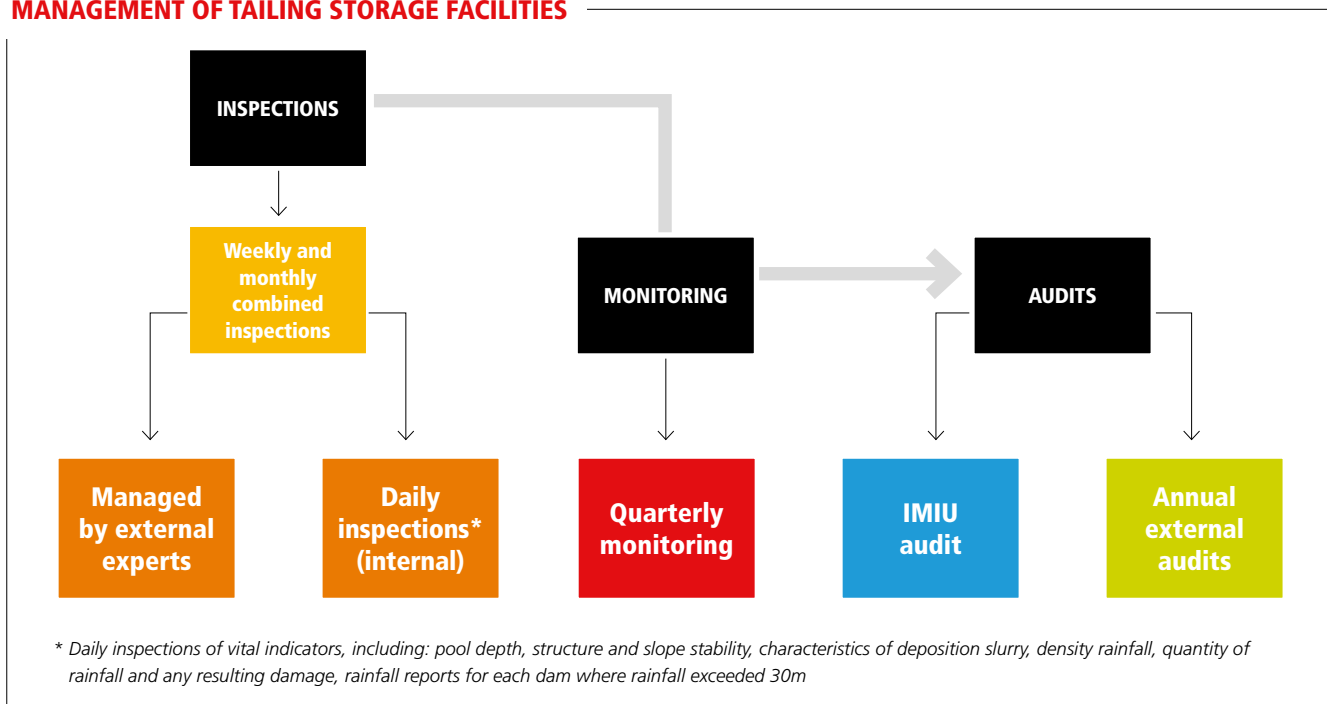
The fines are also collected and deposited on the tailings. Water is collected from toe drains and penstocks, and channelled to return water dams where it is available for reuse by the plant.

In the process, cyanide is destroyed – it self-destructs on the tailings when exposed to light – but salts and heavy metals can enter groundwater and create a pollution plume. We monitor our groundwater as public safety assessments have found that these plumes (contaminant plumes) could be contained in the tailings storage or water-management facilities.

Tailings dams have received significant coverage following the two recent international tailings dams’ failures. Harmony has always operated and engineered its tailings dams in line with good practice and our operating and environmental codes. In response to these high-profile tailings dam failures, Harmony has undertaken annual audits with more vigour.

Harmony has received letters of comfort from its independent professional engineering consultants who provide oversight and surveillance services related to Harmony’s tailings storage facilities.

MANAGEMENT OF TAILING STORAGE FACILITIES



Non-mineral waste

In FY19, 10 621t of waste (plastic, steel, wood and paper) was recycled (FY18: 16 939t). Significantly less non-mineral waste is generated than mineral waste (less than 0.2% of total waste).

Plastics, steel, paper and timber generated by processing operations are produced in lesser volume than mineral waste. This non-mineral waste is managed by recycling or reuse, off-site treatment, disposal or on-site landfills. We ensure responsible storage, treatment and disposal of non-mineral waste. Group environmental standards for non-mineral waste management are integrated into existing ISO 14001 systems.

Non-mineral waste is classified into hazardous and non-hazardous waste.

Hydrocarbons and cyanide are the chief hazardous waste streams at our operations. We aim to minimise much of the waste streams going to landfill by sending them to accredited institutions such as the Rose Foundation for repurposing while the remaining hydrocarbon waste is sent to appropriate landfill sites.

Type of waste

	FY19	FY18	FY17	FY16
Oils and grease waste generated				
Grease used (tonnes)	426	121	384	504
Lubricating and hydraulic oil used (million litres)	3.163	2.744	2.768	2.291
Oils to repurpose hydrocarbons to landfill – Oil recycled (000 litres)	978	N/A	N/A	N/A
Hazardous waste generated				
Tailings (million tonnes)	24.2	21.4	19.8	18.3
Hazardous waste to landfill (tonnes)	399.24	343.7	275.4	N/A

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

Waste generated and recycled (tonnes)

	*FY19	FY18	FY17	FY16
Timber	2 377	1 085	1 504	N/A
Steel	7 765	5 699	6 944	6 229
Plastic	479	314	459	N/A

* Consumption of materials and waste generated increased with the inclusion of Moab Khotsong

OUTLOOK/ FUTURE PRIORITIES

In addition to the five- and ten-year targets set, we will focus on:

- Continued investment in sources of renewable energy and efforts to reduce energy consumption and enhance efficiencies
- Explore initiatives to enhance water efficiency and increase proportion of water recycled, especially at our South African operations
- Implement initiatives to reduce non-hazardous waste with ultimate aim of zero waste to landfill
- Continue land rehabilitation programme, in South Africa and Papua New Guinea, so as to reduce our mining footprint and make available land for alternative economic uses such as agriculture

Our environmental planning includes planning for mine closure. Certain operations are facing closure and their closure plans, which encompass both the environmental and socio-economic impacts of closure, have detailed steps to mitigate the effects of closure and to ensure that, post-mining, the land will support alternative, sustainable and economically viable activities in the longer term.

We will remain mindful of the 2030 targets as set in the environment-related SDGs and monitor our progress towards achieving them. In addition, we will implement steps to comply with the World Gold Council's principles for responsible gold mining within three years.

MINING CHARTER II – COMPLIANCE SCORECARD

We report on our performance in relation to the Mining Charter throughout this integrated report. The table below sets out our performance in relation to the specific requirements of the Mining Charter, as gazetted in 2010, and our progress in terms of the Mining Charter targets set in 2014.

A declaratory order issued by a majority judgement of the High Court of South Africa in April 2018 recognised the continuing consequences of previous black economic empowerment transactions.

The latest version of the Mining Charter (referred to as Mining Charter III) was gazetted by the Minister of Mineral Resources in September 2018.

Harmony, through the Minerals Council South Africa, is engaging with the Department of Mineral Resources and Energy on certain issues of concern and we are optimistic that we may reach an amicable solution.

For further information and progress related to the revised Mining Charter, see the Minerals Council's website, www.mineralscouncil.org.za.

PROGRESS AGAINST MINING CHARTER TARGETS

Although negotiations on the implementation of Mining Charter III continue, our work in South Africa has continued towards fulfilling our commitments, in line with the underlying spirit of the 2014 Mining Charter (Mining Charter II) and our overall commitment to transformation. Our focus in the coming year will be on aligning with Mining Charter III.

The Mining Charter serves as a guide to the industry, focusing the transformation journey on several key elements. A template designed by the Department of Mineral Resources and Energy enables mining companies to provide the information necessary to assess their success in achieving key targets.

The table below summarises our performance against the targets for each pillar of Mining Charter II for the calendar year ended 31 December 2018.

Mining Charter II scorecard for calendar year 2018 (January – December)

	Compliance target	Target	Weighting	Progress	Score
1. Reporting					
Has the company reported its level of compliance with the Mining Charter for the calendar year?	Report annually	Yes	Yes/No	Yes	Yes
2. Ownership					
Minimum target for effective ownership by historically disadvantaged South Africans	Meaningful economic participation Full shareholder rights	26%	Yes / No	>26%	Yes
3. Housing and living conditions					
Conversion and upgrading of hostels to attain an occupancy rate of one person per room	Occupancy rate of one person per room	100%	Yes / No	100%	Yes
Conversion and upgrading of hostels into family units	Family units established (as part of mine community development)	Yes	Yes / No	*No	No
4. Procurement and enterprise development					
Procurement spend with black economic empowerment entities	Capital goods	40%	5%	73%	5%
	Services	70%	5%	72%	5%
	Consumable goods	50%	2%	77%	2%
Multinational suppliers' contribution to a social fund	Multinational supplier contributions	0.5%	3%	**0%	0%
5. Employment equity					
Diversification of workplace to reflect the country's demographics and attain competitiveness	Top management (board and executive management)	40%	3%	61%	3%
	Senior management	40%	4%	50%	4%
	Middle management	40%	3%	51%	3%
	Junior management	40%	1%	62%	1%
	Core skills	40%	5%	67%	5%

Mining Charter scorecard for calendar year 2018 (January – December) continued

	Compliance target	Target	Weighting	Progress	Score
6. Human resource development					
Development of the requisite skills, including support for South African-based research and development initiatives intended to develop solutions in exploration, mining, processing, technology efficiency (energy and water use in mining), beneficiation as well as environmental conservation	Expenditure on human resource development as a percentage of payroll	5%	25%	5%	25%
7. Mine community development					
Conduct ethnographic community consultative and collaborative processes to delineate community needs analysis	Up to date project implementation	100%	15%	***72%	11%
8. Sustainable development and growth					
Improvement of the industry's environmental management	Implementation of approved environmental management plans	100%	12%	100%	12%
Improvement of the industry's mine health and safety performance	Implementation of tripartite action plans on safety and health	100%	12%	100%	12%
Use of South African-based research facilities for the analysis of samples across the mining value chain	Percentage of samples analysed in South African laboratories	100%	5%	100%	5%
			100%		93%

* There were no hostels available for sustainable conversion at the time of reporting

** The multinational trust, the vehicle to progress this investment, has not yet been established by Government. Nonetheless, Harmony has requested that its multinationals demonstrate investment in social upliftment and many of our multinationals have supplied such evidence. However, to be conservative, Harmony has claimed 0% compliance

*** With the acquisition of Moab Khotsong in March 2018, we entered into a transition phase to June 2018, when the projects were being finalised with stakeholders. As a result, project implementation was delayed

DIRECTORS' REPORT

Our business

The Harmony group of companies has underground and surface operations and conducts gold mining and exploration in South Africa and Papua New Guinea. A general review of the group's business and operations is provided in *Operational performance*.

The company does not have a controlling shareholder and is managed by its directors on behalf of all of its shareholders. The company's primary listing is in South Africa on the JSE. Harmony's ordinary shares are also listed in the form of American Depositary Receipts on the New York Stock Exchange.

Integrated annual report 2019

As required by the King IV Report on Governance for South Africa, 2016 (King IV report) and the JSE Listings Requirements, the board has reviewed and approved the Integrated Annual Report 2019 on the recommendation of the audit and risk committee, supported by the social and ethics committee.

Statement by the board

The board of directors is of the opinion that the Integrated Annual Report 2019 and the accompanying consolidated financial statements fairly reflect the true financial position of the group at 30 June 2019 and its performance for the year.

Company secretary

The company secretary is Riana Bisschoff. Her business and postal addresses appear on the inside back cover of this report. The company secretary's certificate is found on page 151.

Board of directors

On 13 May 2019, the board appointed Ms Given Sibiya and Ms Grathel Motau as independent non-executive directors.

The board subsequently appointed Ms Given Sibiya as a member of the audit and risk committee and Ms Grathel Motau as a member of the investment committee, effective 15 August 2019.

Directors' shareholdings

At 30 June 2019, the chief executive officer, Peter Steenkamp, held 512 000 shares, the financial director, Frank Abbott, held 1 142 010 shares and executive director, Mashego Mashego, held 593 shares in Harmony while non-executive directors André Wilkens and Ken Dicks, held 101 301 and 35 000 shares in Harmony respectively. None of the directors' immediate families and associates held any direct shareholding in the company's issued share capital. No other director held or acquired any shares in the company, other than through share incentive schemes (executive directors only) during FY19. Refer to the Remuneration report for details of share incentives awarded to executive directors.

Going concern

In accordance with the solvency and liquidity test in terms of section 4 of the Companies Act, the board is of the opinion that the company has adequate resources and that the:

- company's assets, fairly valued, exceed the fair value of its liabilities
- company will be able to pay its debts as they become due in the ordinary course of business for the 12 months following 30 June 2019

Financial results

Details of the group's financial performance are discussed in the *Financial director's report*. The audited consolidated and company annual financial statements are included in the Financial Report 2019 which is available online at www.har.co.za.

Share capital

On 12 July 2018, shareholders approved the special resolution to issue 11 032 623 new ordinary shares to African Rainbow Minerals Limited at the placing price of R19.12 (ARM Placing). The proceeds of R211 million (US\$16 million) raised from the ARM Placing were used to repay part of the outstanding bridge loan raised for the acquisition of the Moab Khotsong operations.

Costs directly attributable to the issue of the shares amounted to R49 million (US\$3.7 million).

Full details of the authorised, issued and unissued share capital of the company as at 30 June 2019 are set out in the consolidated statements of changes in shareholders' equity in the Financial Report 2019 (www.har.co.za).

Shareholders

Information on shareholder spread, the range of shareholdings and public shareholders, as well as major shareholders, is presented in the *Shareholders' information* section in this Integrated Annual Report 2019.

Dividend policy

Harmony is pursuing a growth strategy which has resulted in our production having increased by approximately 30% over the past two financial years. This increase in production was predominantly financed through debt. Our priority is to reduce debt before we consider paying a dividend.

Dividends declared

No dividend declared for FY18 and FY19.

Investments

A schedule of investments in subsidiaries, associates and joint arrangements appears in the Financial Report 2019 (www.har.co.za).

Contingencies

None of Harmony's properties is the subject of pending material legal proceedings. We are involved in legal and arbitration proceedings that are incidental to the normal conduct of our business. Refer to note 35 of the consolidated financial statements for further discussion.

Borrowings

- (i) Movement in borrowings: see note 29 to the consolidated financial statements
- (ii) Borrowing powers are detailed in the company's memorandum of incorporation

Disposals

There were no material disposals during FY19.

Acquisitions

There were no material acquisitions during FY19.

Related party transactions

None of the directors or major shareholders of Harmony or, to Harmony's knowledge, their families, had an interest, directly or indirectly, in any transaction during the period under review or in any proposed transaction that has affected or will materially affect Harmony or its subsidiaries, other than as discussed below.

Modise Motloba, Harmony's deputy chairman, is a director of Tsys Limited. Tsys Limited entered into a contract with the group in February 2017 to provide services relating to the group's small and medium enterprise development projects. Approximately R4 million was paid to Tsys Limited during FY19. The contract has a 30-day notice period.

Material transactions with associates, joint arrangements and structured entities

Refer to note 34 of the consolidated financial statements for details on transactions conducted during the period under review.

Recent developments

On 26 July 2019, the Johannesburg High Court approved the R5.2bn settlement of the silicosis and tuberculosis class action suit between the Occupational Lung Disease Working Group – representing Gold Fields, African Rainbow Minerals, Anglo American SA, AngloGold Ashanti, Harmony and Sibanye-Stillwater – and lawyers representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants.

On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US\$200 million and a term portion of up to US\$200 million. The tenor of the facility is three years with an option to extend by another one year. The interest rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US\$5 million (R75 million) being drawn on, resulting in an outstanding balance of US\$300 million (R4.5 billion).

COMPANY SECRETARY'S CERTIFICATE

In accordance with the Companies Act No 71 of 2008 (the Act), I certify that for the year ended 30 June 2019, Harmony Gold Mining Company Limited, to the best of my knowledge and belief, has lodged with the Companies and Intellectual Property Commission all such returns and notices as are required of a public company in terms of the Act, and that all such returns and notices appear to be true, correct and up to date.

Riana Bisschoff

Company secretary

24 October 2019

SHAREHOLDER INFORMATION

STOCK EXCHANGE LISTINGS AND TICKER CODES

Harmony's primary listing is on the Johannesburg Stock Exchange. It is also quoted in the form of American depositary receipts on the New York Stock Exchange.

Harmony's ticker codes on these exchanges are as follows:

Johannesburg Stock Exchange	HAR
New York Stock Exchange	HMY

SHARE INFORMATION

Sector	Resources		
Sub-sector	Gold		
Issued share capital as at 30 June 2019	539 841 195		
Market capitalisation			
at 30 June 2019	R17.1 billion or US\$1.2 billion		
at 30 June 2018	R10.6 billion or US\$769 million		
Share price statistics – FY19			
Johannesburg Stock Exchange:	12-month high	R31.74	
	12-month low	R21.14	
	Closing price as at 30 June 2019	R31.74	
New York Stock Exchange:	12-month high	US\$2.27	
	12-month low	US\$1.62	
	Closing price as at 30 June 2019	US\$2.27	
Free float	100%		
ADR ratio	1:1		

Shareholder spread as at 30 June 2019

Shareholder spread	Number of shareholders	% of shareholders	Number of shares	% of issued share capital
1—1,000 shares	8 924	84.50	1 308 082	0.24
1,001—10,000 shares	1 165	11.03	3 790 264	0.70
10,001—100,000 shares	315	2.98	10 089 440	1.87
100,001—1,000,000 shares	119	1.13	38 593 946	7.15
1,000,001 shares and above	38	0.36	486 059 463	90.04
Total	10 561	100.00	539 841 195	100.00

Analysis of ordinary shares

Shareholder type	Number of shareholders	% of shareholders	Number of shares	% of issued share capital
Public shareholders	10 551	99.91	390 924 112	72.41
Non-public shareholders	10	0.09	148 917 083	27.59
Share option scheme	2	0.02	6 639 946	1.23
Holdings of more than 10%	2	0.02	140 485 898	26.03
Directors*	5	0.05	1 790 904	0.33
Subsidiaries	1	0.00	335	0.00
Total	10 561	100.00	539 841 195	100.00

* Held by Peter Steenkamp, Frank Abbott, Ken Dicks, Mashego Mashego and André Wilkens

Ownership summary as at 30 June 2019 – top 10 shareholders (by group)

Rank	Institution	% of total shares outstanding 30 June 2019
1	African Rainbow Minerals Ltd	13.83
2	VanEck Associates Corporation	12.21
3	Fairtree Capital	4.01
4	Public Investment Corporation of South Africa	3.93
5	Exor Investments (UK) LLP	3.48
6	Dimensional Fund Advisors, Inc.	3.19
7	The Vanguard Group, Inc.	2.91
8	Blackrock Inc	2.84
9	Old Mutual Ltd	2.01
10	Baker Steel Capital LLP	1.43

SHAREHOLDERS' DIARY

Financial year-end	30 June
Integrated Annual Report issued	24 October 2019
Form 20-F issued	24 October 2019
Annual general meeting	22 November 2019
Results presentations FY20:*	
Interim results	February 2020
Full-year results	August 2020

See website for diary updates

CONTACT

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GRI ASSURANCE REPORT

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 Annual Report of Harmony Gold Mining Company Limited ("Harmony") for the year ended 30 June 2019 (the Report). This engagement was conducted by a multidisciplinary team with relevant experience in sustainability reporting.

Subject matter

We have been engaged to provide a reasonable assurance opinion on the KPIs listed in (a) and a limited assurance conclusion on the KPIs listed in (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.

(a) Reasonable assurance

The following KPIs in the Report were selected for an expression of reasonable assurance:

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 (South Africa only)
Health and Safety		
Lost-time injury frequency rate	Rate	South Africa and Papua New Guinea

(b) Limited assurance

The following KPIs in the Report were selected for an expression of limited assurance:

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	
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	
Human Capital		
Critical skills training	Number	Corporate (South Africa only)
Health and Safety		
Number of silicosis cases confirmed	Rate	Corporate (South Africa only)
% people on voluntary testing and treatment	Percentage (%)	South Africa and Papua New Guinea
Percentage close out of A hazard fatal risk controls findings	Percentage (%)	

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 judgments. 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 all other ethical requirements in accordance with sections 290 and 291 of the Independent Regulatory Board for Auditors' Code of Professional Conduct for Registered Auditors (Revised January 2018), parts 1 and 3 of the Independent Regulatory Board for Auditors' Code of Professional Conduct for Registered Auditors (Revised November 2018) (together IRBA Codes) issued by the Independent Regulatory Board for Auditors (IRBA). The IRBA Codes are consistent with the corresponding sections of the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants and the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) respectively, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

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.

Our 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.

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 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.

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.

GRI ASSURANCE REPORT CONTINUED

Summary of work performed

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, KPI owners 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, KPI owners 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 KPI owners 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.

Conclusions

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 2019 are prepared, in all material respects, in accordance with the accompanying Harmony reporting criteria.

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 2019 are not prepared, in all material respects, in accordance with the accompanying Harmony reporting criteria.

Other matters

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's 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.

**Per: Nomathamsanqa Ashom Chartered Accountant (SA)
Registered Auditor
24 October 2019**

FORWARD-LOOKING STATEMENTS

CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This annual 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 annual report and the exhibits to this annual report, are necessarily estimates reflecting the best judgment 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 annual report. 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
- estimates of future earnings, and the sensitivity of earnings to the prices of gold and other metals
- estimates of future production and sales for gold and other metals
- estimates of future cash costs
- estimates of future cash flows, and the sensitivity of cash flows to the prices of gold and other metals
- estimates of provision for silicosis settlement
- estimates of future tax liabilities under the Carbon Tax Act
- 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
- 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
- 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, without limitation, regarding 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 macroeconomic 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

The foregoing factors and others described under "Risk Factors" should not be construed as exhaustive.

We undertake no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this annual report or to reflect the occurrence of unanticipated events, except as required by law. All subsequent written or oral forward-looking statements attributable to Harmony or any person acting on its behalf are qualified by the cautionary statements herein.

DIRECTORATE AND ADMINISTRATION

HARMONY GOLD MINING COMPANY LIMITED

Harmony Gold Mining Company Limited was incorporated and registered as a public company in South Africa on 25 August 1950

Registration number: 1950/038232/06

Corporate office

Randfontein Office Park
PO Box 2
Randfontein, 1760
South Africa

Corner Main Reef Road and Ward Avenue
Randfontein, 1759
South Africa

Telephone: +27 11 411 2000
Website: www.harmony.co.za

DIRECTORS

Dr PT Motsepe* (chairman)
JM Motloba* (deputy chairman)
M Msimang*^ (lead independent director)
PW Steenkamp ** (chief executive officer)
F Abbott ** (financial director)
HE Mashego** (executive director)
JA Chissano*1^
FFT De Buck*^
KV Dicks*^
Dr DSS Lushaba*^
HG Motau*^
KT Nondumo*^
VP Pillay*^
GR Sibiyi*^
MV Sisulu*^
JL Wetton*^

AJ Wilkens*
* Non-executive
** Executive
^ Independent
1 Mozambican

INVESTOR RELATIONS

E-mail: HarmonyIR@harmony.co.za
Telephone: +27 11 411 2314
Website: www.harmony.co.za

COMPANY SECRETARY

Telephone: +27 11 411 2094
E-mail: companysecretariat@harmony.co.za

TRANSFER SECRETARIES

Link Market Services South Africa (Proprietary) Limited

(Registration number 2000/007239/07)

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South Africa

Telephone: 0861 546 572
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Fax: +27 86 674 4381

ADR* DEPOSITARY

Deutsche Bank Trust Company Americas c/o American Stock Transfer and Trust Company

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c/o AST
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*ADR: American Depositary Receipts

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TRADING SYMBOLS

JSE: HAR
New York Stock Exchange: HMY
ISIN: ZAE 000015228

