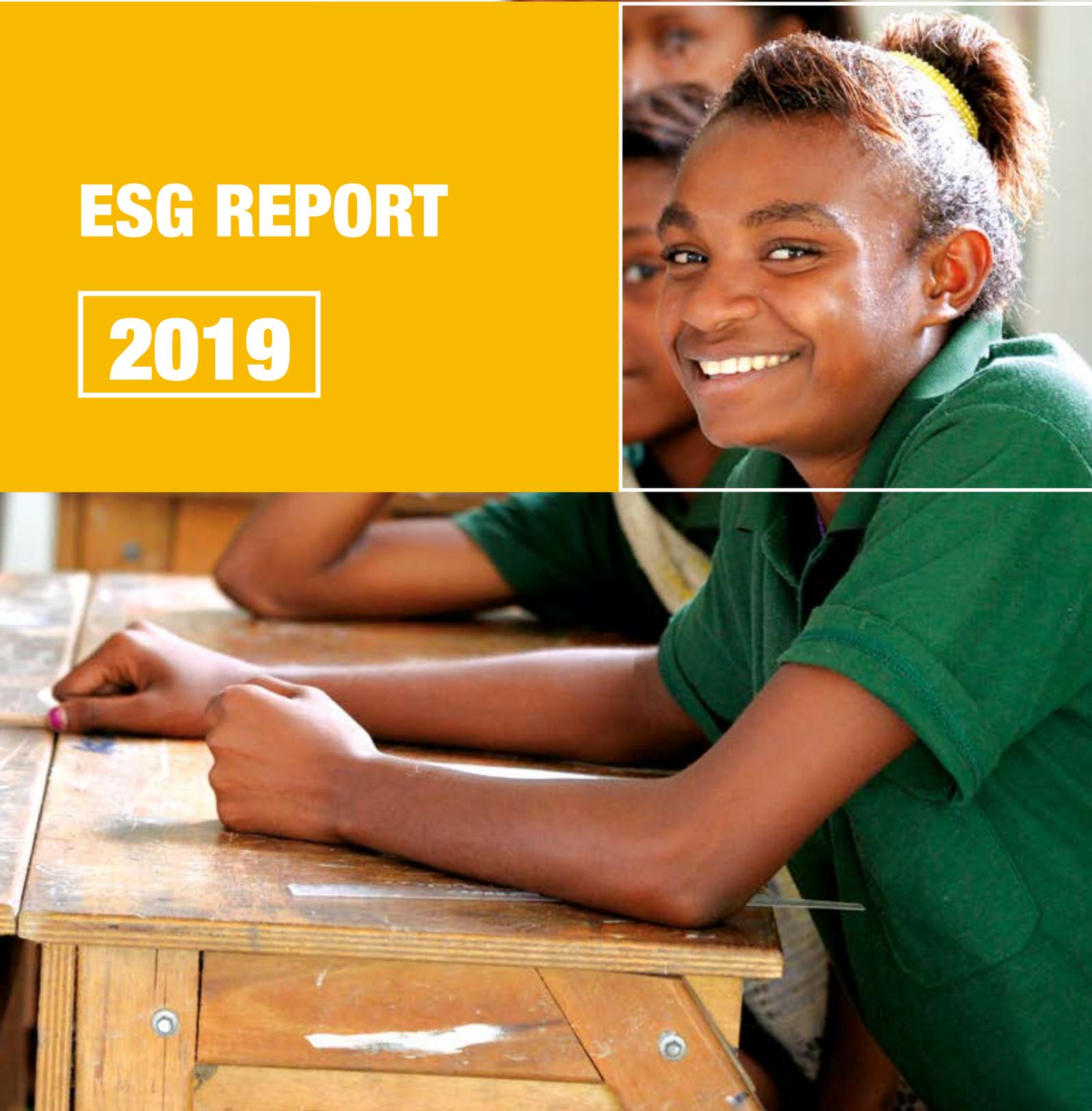




ESG REPORT

2019





ABOUT THIS REPORT

Integrated environmental, social and governance (ESG) thinking is ingrained within the company, in our strategy and in how we do business. In the increasingly challenging and constantly changing world in which we operate, we are cognisant of our accountability to our stakeholders and our connectivity to them, and of the significance and impact of our ESG performance in sustainable value creation.

In addition to our integrated annual report 2019, this year we have compiled a separate ESG report aimed at those stakeholders who have a particular interest in our ESG performance. This ESG report contains relevant extracts from our integrated report for ease of reference for concerned stakeholders, as well as a report from the chairman of the social and ethics committee, information on our sustainable development strategy and framework, stakeholder engagement and material ESG issues. Our ESG reporting is aligned with the Global Reporting Initiative (GRI) Standards.

While our integrated annual report is aimed primarily at investors and the providers of capital, this report is aimed at a broader stakeholder audience.

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.



www.harmony.co.za



FTSE4Good

Harmony included in the FTSE4Good Index Series

FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Harmony has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

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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OUR ESG PERFORMANCE

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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



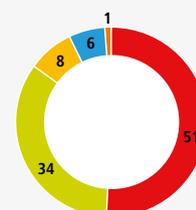
Stewardship and mine closure

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.

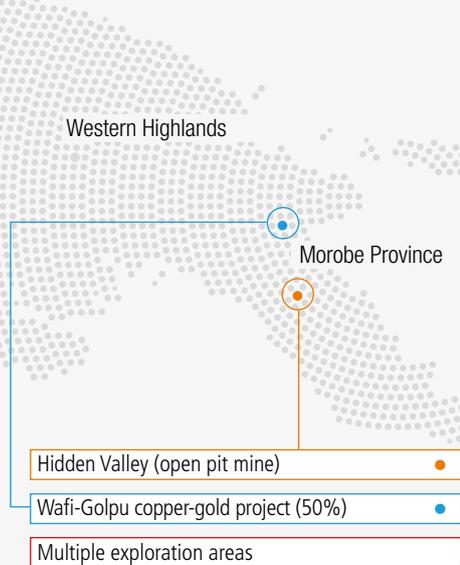
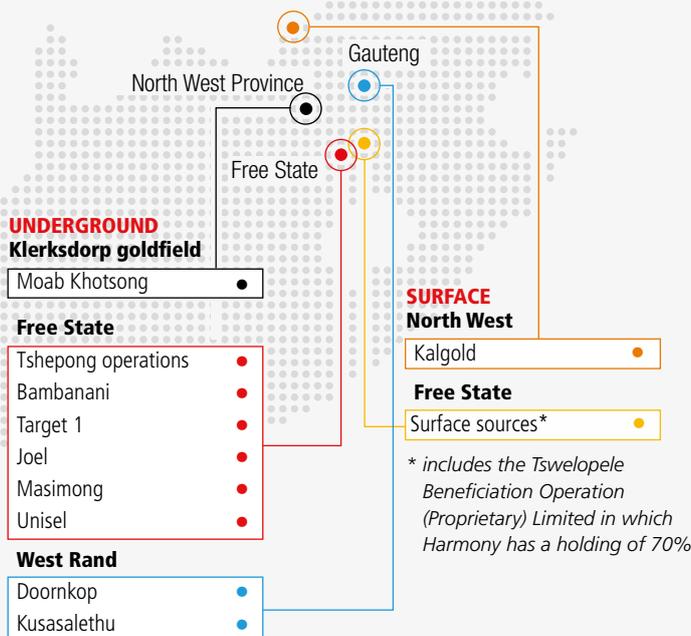
In addition, we have an open-pit mine on the Kraaipan Greenstone Belt as well as several surface treatment operations.

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

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: 20.5bn)

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 SA) <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> in the <i>Integrated Report 2019</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</i>, <i>Financial director's report</i>, <i>Operating performance</i> and <i>Exploration and projects</i> in the <i>Integrated Report 2019</i> and <i>Corporate governance</i> in this report</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

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 this report.

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* in the *Integrated Report 2019* and the technical committee's report in *Corporate governance and Safety and health* in this report.

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.

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

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



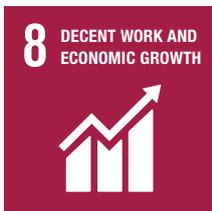
- Employment equity strategy and targets
- Women in mining programme
- Focus on women in our procurement programmes



- 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> 

HOW WE PERFORMED

E NVIRONMENT

<ul style="list-style-type: none"> • R199 million invested in environmental management and stewardship 	<ul style="list-style-type: none"> • Scored A- and B respectively for our CDP Climate Change and CDP Water submissions 	<p>South Africa</p> <ul style="list-style-type: none"> • Energy efficiency programme yields savings of 233 994MWh • 45 shafts rehabilitated and backfilled in accelerated rehabilitation programme 	<p>Papua New Guinea</p> <ul style="list-style-type: none"> • Use of diesel-generated power reduced by 25%
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S OCIAL

<ul style="list-style-type: none"> • Included in the Bloomberg Gender-equality Index 2019 and the FTSE4Good Index 	<ul style="list-style-type: none"> • Employed 39 773 people, including contractors 	<ul style="list-style-type: none"> • Total socio-economic spend of R88 million – R56 million on local economic development and R32 million on corporate social investment 	<ul style="list-style-type: none"> • Total preferential/local spend of R8.5 billion – R6.3 billion in South Africa and R2.2 billion in Papua New Guinea
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G OVERNANCE

<ul style="list-style-type: none"> • Unitary, diverse board with a varied skills set: <ul style="list-style-type: none"> • 65% of board members are independent • 65% of board members are historically disadvantaged persons • 24% of board members are women 	<ul style="list-style-type: none"> • Lead independent director appointed 	<ul style="list-style-type: none"> • Average age of board is 62 years 	<ul style="list-style-type: none"> • Zero tolerance of legislative non-compliance
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ESG performance – key performance indicators

		FY19	FY18	FY17	FY16	FY15
Environment						
Mineral waste (volume disposed) ⁹	000t	^{2,8} 52 691	¹ 50 798	^{1,8} 38 392	¹ 26 170	¹ 24 659
Total electricity use (purchased)	000MWh	^{2,8} 3 326	¹ 2 518	^{1,8} 2 629	¹ 2 597	¹ 2 657
CO₂ emissions						
– Scope 1	000t CO ₂ e	² 133	¹ 131	¹ 111	¹ 56	¹ 67
– Scope 2	000t CO ₂ e	^{2,8} 3 193	¹ 2 442	¹ 2 513	¹ 2 581	¹ 2 686
– Scope 3	000t CO ₂ e	^{2,8} 533	¹ 440	¹ 445	¹ 615	¹ 686
Water used for primary activities	000m ³	^{2,8} 23 158	¹ 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
People						
Total number of employees and contractors ³		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 ³		1 675	1 397	1 300	76	75
Contractors ³		738	818	911	30	27
Employment equity (historically disadvantaged South Africans in management) ⁴	%	² 62	¹ 60	¹ 61	¹ 60	¹ 58
Number of people in single rooms ⁵		8 019	¹ 6 739	¹ 7 266	¹ 7 252	¹ 7 436
Number of people sharing accommodation		0	¹ 0	¹ 0	¹ 0	¹ 0
Number of people in critical-skill positions trained		²109	¹ 106	¹ 75	¹ 68	¹ 69
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	²6.16	¹ 6.26	¹ 7.21	¹ 6.23	¹ 9.24
Health (South Africa)						
– Shifts lost due to injury		25 388	23 769	24 026	22 416	24 514
– Silicosis cases certified ⁶		²58	¹ 179	¹ 108	¹ 64	¹ 197
Community						
Group local economic development ⁷	R million	56	¹ 20	¹ 27	¹ 18	¹ 64
Preferential procurement (BEE-compliant spend)	R million	²6 340	¹ 5 120	¹ 4 461	¹ 3 794	¹ 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

¹ 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

² Assured by independent auditors in the current year. Please refer to the *GRI Assurance Report* in the *Integrated Report 2019* and to the *Glossary of Terms* available on the website, www.har.co.za

³ 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

⁴ 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

⁵ 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.

⁶ 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

⁷ 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))

⁸ 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

⁹ The year-on-year increase in mineral waste in FY18 was due to waste stripping of the cutbacks at Hidden Valley

ENVIRONMENTAL MANAGEMENT AND STEWARDSHIP

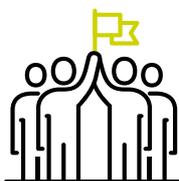


NATURAL CAPITAL



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 Khotsoong 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:

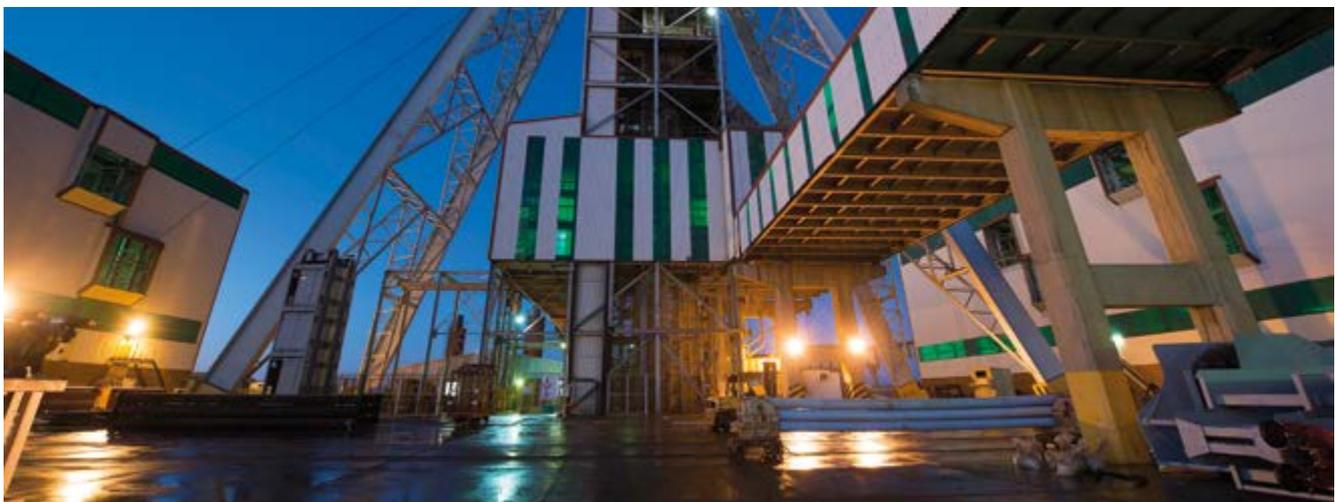
- Intelligent real-time energy management systems automatically control compressed air, water reticulation, ventilation and ore transportation to reduce energy consumption and enhance safety.
- A data management system facilitates capturing, centralisation, validation, management and reporting of environmental 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

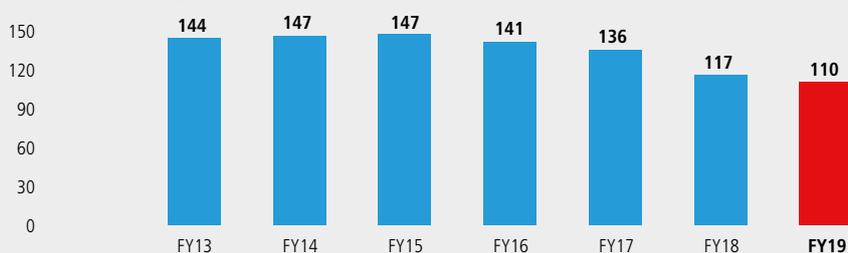
Energy management

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 further 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	123 158	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 ringfenced 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.

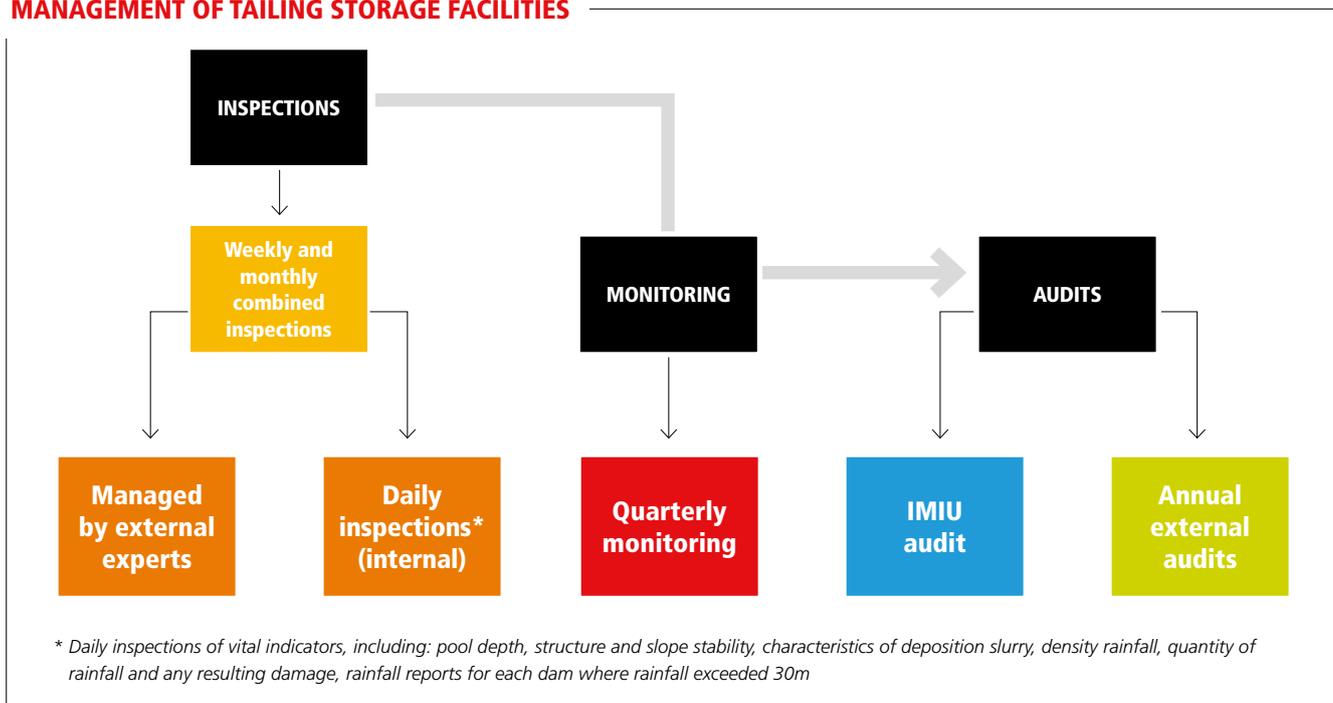
The fines are also collected and deposited on the tailings. Water is collected from toe drains and penstocks, and channelled to return water dams where it is available for reuse by the plant.

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

	*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.

EMPLOYEE RELATIONS

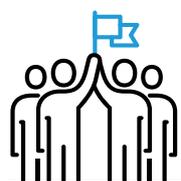


HUMAN AND INTELLECTUAL CAPITAL



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

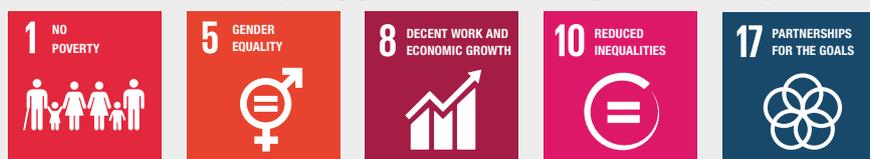
Employee complement

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 table on [page 40](#)).

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	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. 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. 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.
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	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. 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.
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.

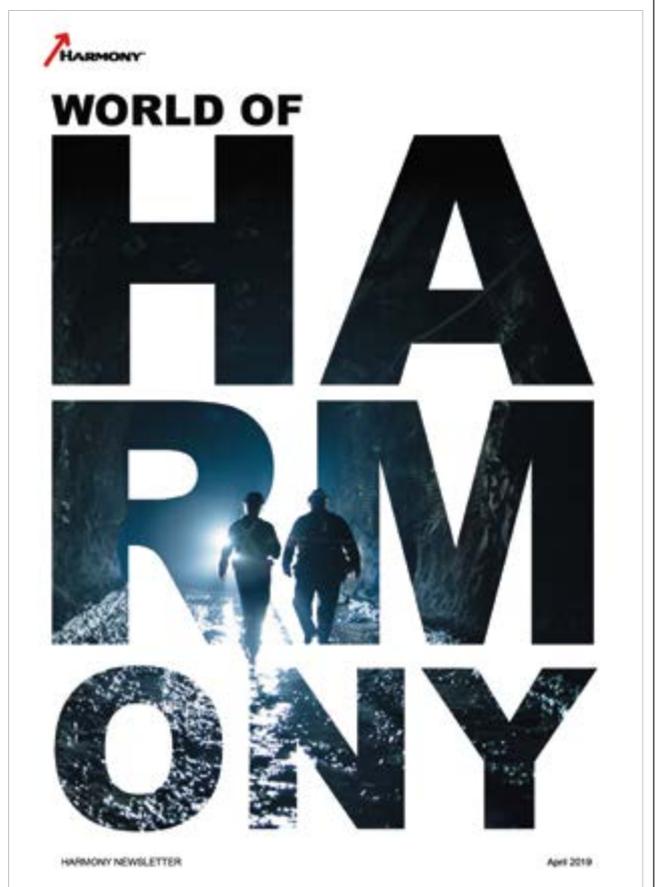
Our ongoing and interactive internal communications process is a platform for management and employee information sharing and engagement. This includes regular meetings with heads of departments, work groups and general manager engagement forums

(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* in the *Integrated Report 2019*.

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.

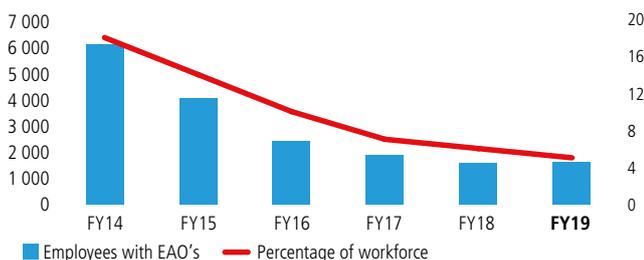
Addressing employee financial indebtedness

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.

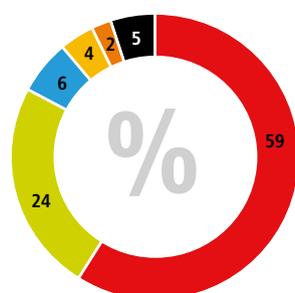
Harmony upholds the United Nations Global Compact's principles on human rights and labour. Following a survey of the company's policies, procedures, and labour practices in FY17, certain policy changes were undertaken, including internal communication campaigns on Harmony's disciplinary procedure and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

SAFETY AND HEALTH



HUMAN AND INTELLECTUAL CAPITAL

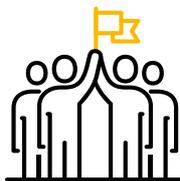


SOCIAL AND RELATIONSHIP CAPITAL



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

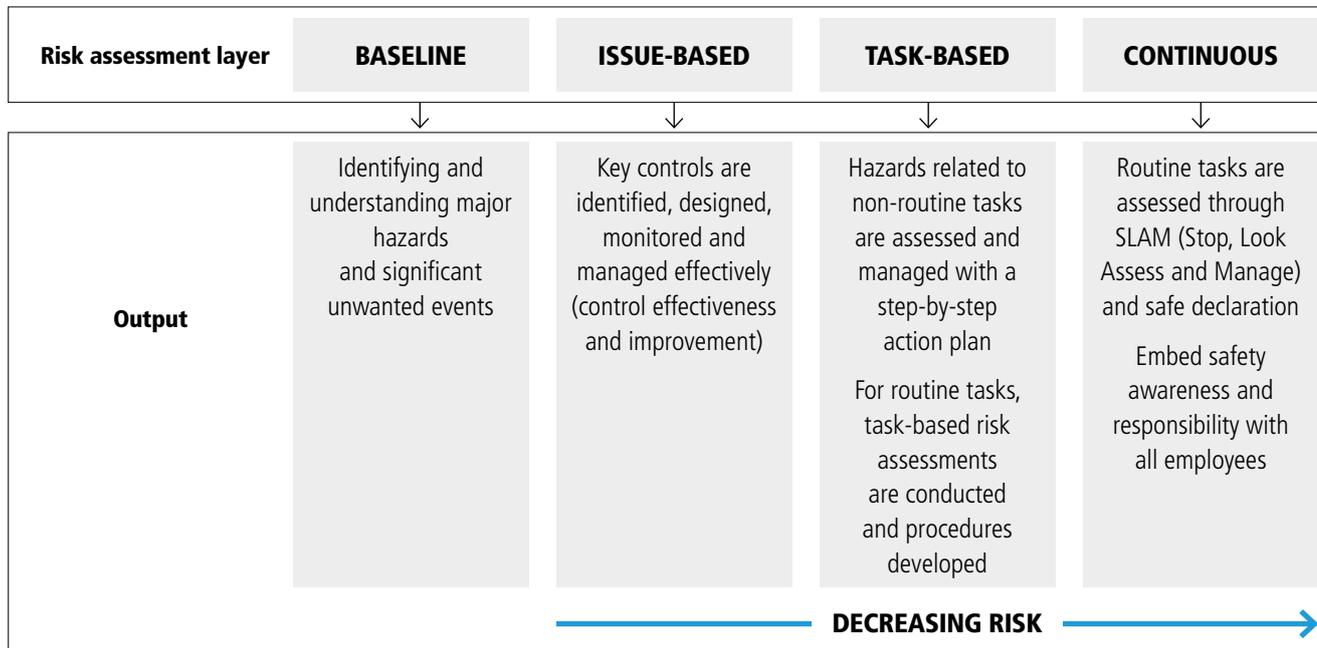
effective critical control management, we believe we can prevent significant unwanted events and fatal incidents – ensuring Harmony and our employees *Live Longer*. This journey has led to the implementation of a comprehensive integrated safety risk management system (the Harmony risk management approach), 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 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*.



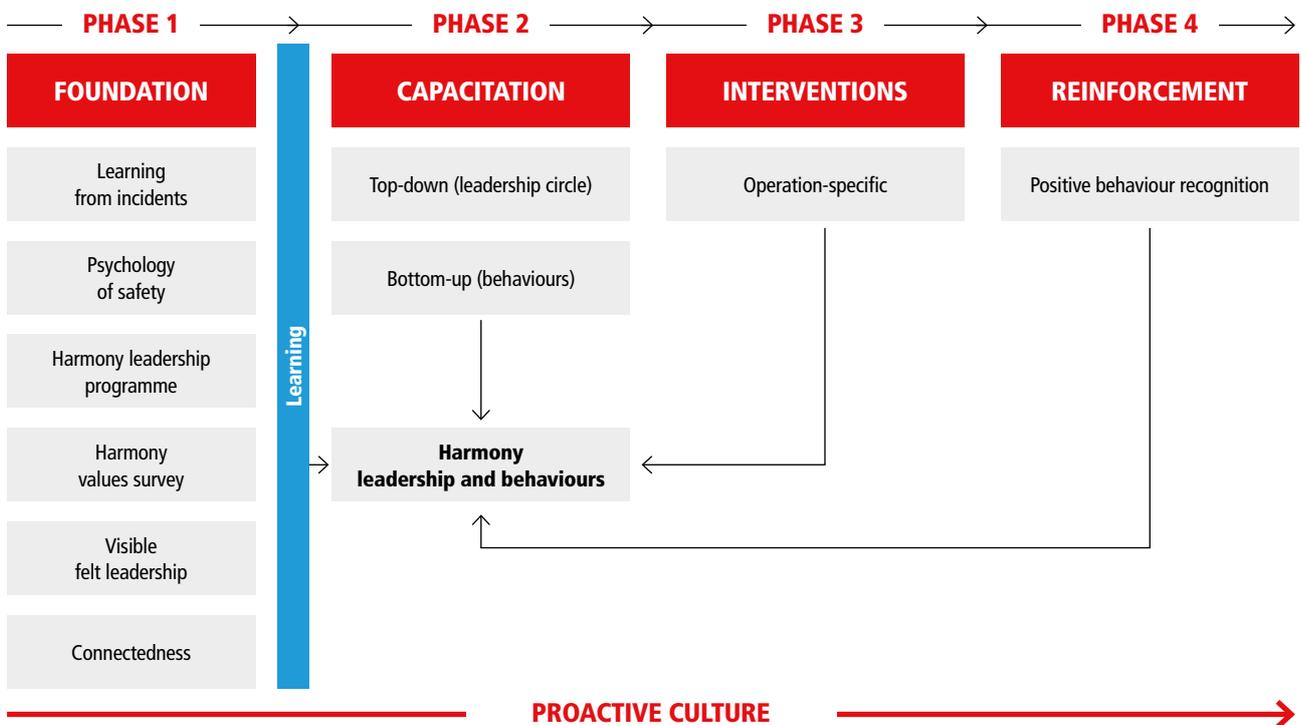
Tshepong Operations

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

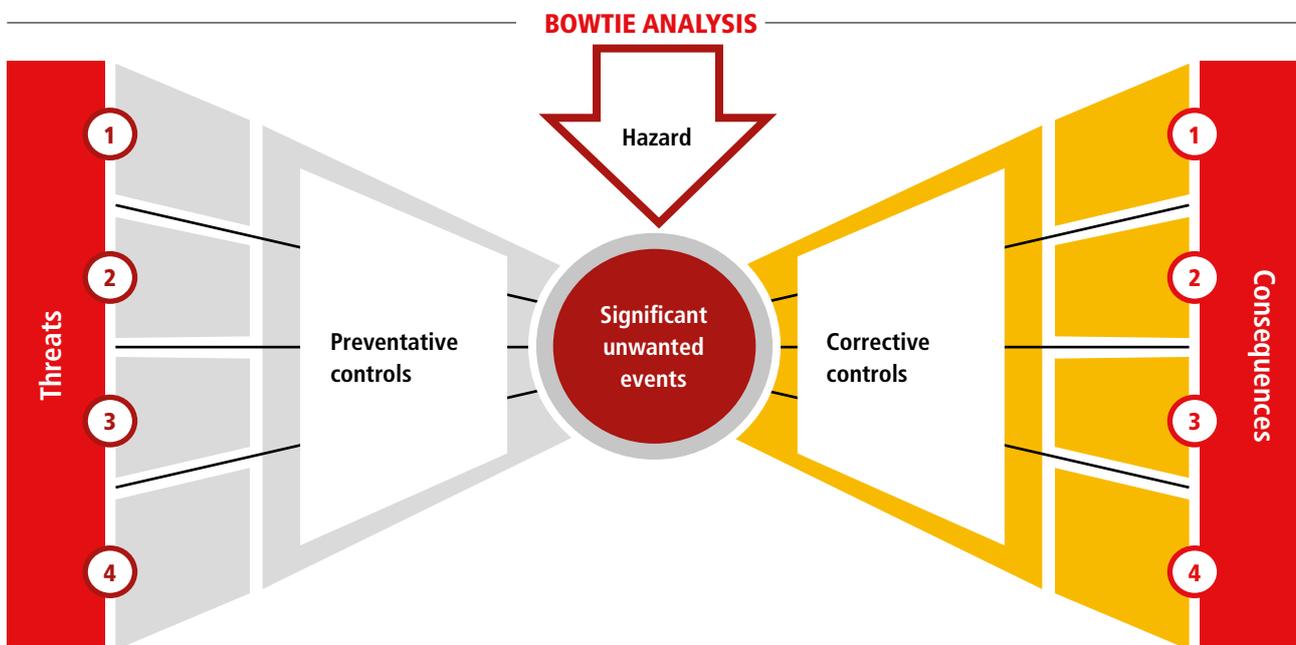
Layer 1: Baseline risk assessment

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.

MINE HEALTH & SAFETY ACT (MHS ACT)

Section 23
Every employee has the right to leave a dangerous working place.

Section 83
No person may be discriminated against for exercising any right in terms of the MHS Act including the right to withdraw in terms of Section 23.

LIVE LONGER

NO GO
UNSAFE BEHAVIOUR / CONDITIONS

GO
SAFE BEHAVIOUR / CONDITIONS

CAUTION
FIX

RISK IT?

BEFORE I DO ANY TASK, I

- S STOP**
& think about the people, area & tools
- L LOOK**
for potential hazards and understand energies
- A ASSESS**
if controls are in place and effective
- M MANAGE**
deviations & correct (see green, orange, red card)

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.

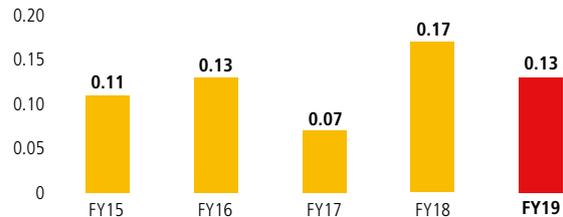
South Africa

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).

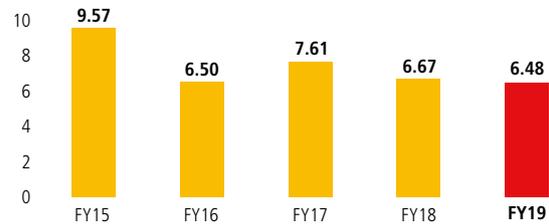
The reportable injury frequency rate improved to 4.05 per million hours worked (FY18: 4.18) with the fall-of-ground injury frequency rate improving by 23% to 1.09 (FY18: 1.41). There were three gravity-related fall-of-ground fatalities (FY18: 3) and two

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 Mngumeni	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.

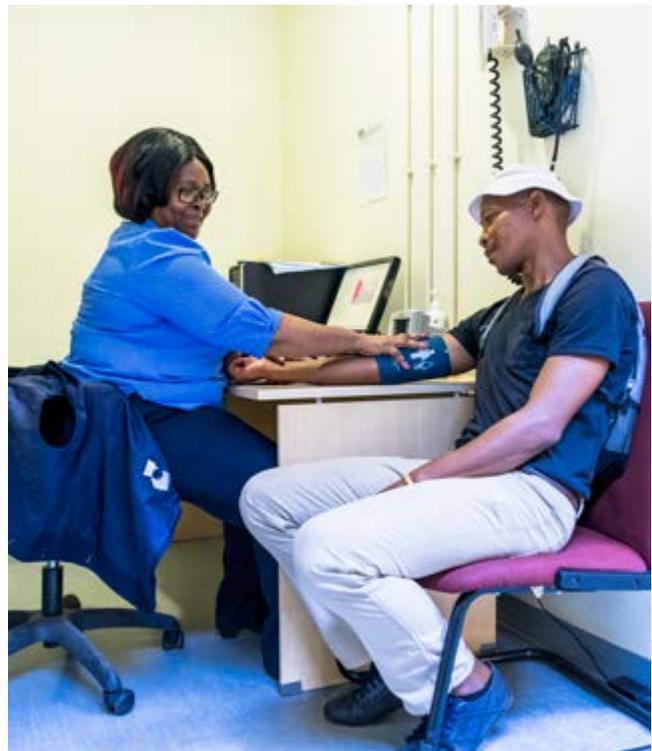
Radiation protection

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

SOCIO-ECONOMIC DEVELOPMENT

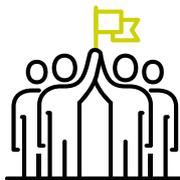


SOCIAL AND RELATIONSHIP CAPITAL



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 SOCIAL LICENCE TO OPERATE	PREFERENTIAL/LOCAL PROCUREMENT	ENTERPRISE AND SUPPLIER DEVELOPMENT	CORPORATE CITIZENSHIP
South Africa →	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
	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

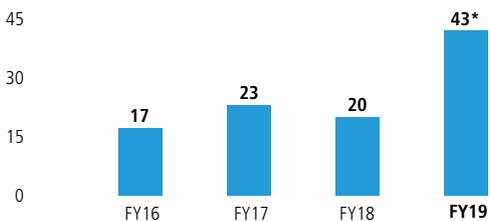
At Harmony, socio-economic development can be broadly defined as an outcome of local initiatives by stakeholders identifying and using local resources, ideas and skills to stimulate socio-economic growth and development. The outcome is the creation of employment opportunities, poverty alleviation and 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 Khotso (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

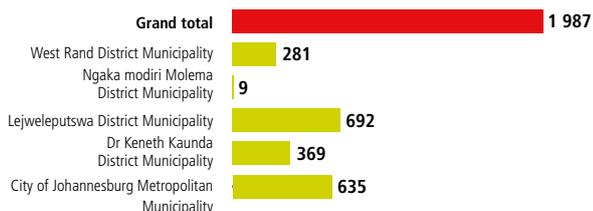
Supplier days	West Rand and City of Johannesburg	Ngaka Modiri Molema	Lejweleputswa	Dr Kenneth Kaunda
No. of participating SMMEs	110	16	51	98
No. of supplier day sessions held	2	1	2	1
No. of businesses awarded procurement opportunities	*171	7	*118	63

* 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.

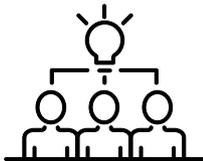
In addition, we will continue to focus on the 2030 targets outlined in the SDGs and monitor our progress in contributing to them.

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.

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:

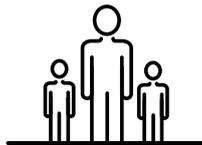
Prepared in accordance with the GRI Standards: 102-18, 102-19, 102-20, 102-21, 102-22, 102-23, 102-24, 102-25, 102-26, 102-27, 102-28, 102-29, 102-30, 102-31, 102-32, 102-33, 102-34, 102-35, 102-36, 102-37, 102-38 and 102-39



ETHICAL LEADERSHIP



The board leads by example.
Page 69



DIVERSITY



65% of our board members are historically disadvantaged persons – exceeding the Mining Charter III target of 50%.
Page 72



WOMEN REPRESENTATION



24% of our board members are women – exceeding the Mining Charter III target of 20%.
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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 81



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	

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BOARD INDEPENDENCE



65% of our board members are independent, non-executive directors.
Mavuso Msimang is our lead independent director.
Page 71

* 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* and *Safety and health* in this report and the *Remuneration report* in the *Integrated report 2019*
- **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 72](#).

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 72](#) 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

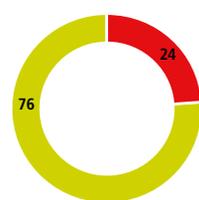
*** Appointed chairman in 2004

Appointed to the board on 13 May 2019

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

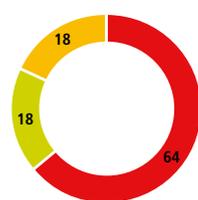
Board characteristics (%)

By gender



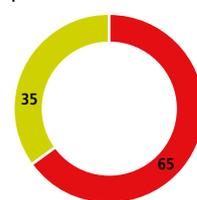
■ Female
■ Male

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* in the *Integrated Report 2019*

- 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* in the *Integrated Report 2019*. 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.

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 the *Integrated Report 2019*. 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* in the *Integrated Report 2019*.

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*.

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
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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

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COMPANY SECRETARY

Telephone: +27 11 411 2094
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TRANSFER SECRETARIES

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ADR* DEPOSITARY

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*ADR: American Depositary Receipts

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New York Stock Exchange: HMY
ISIN: ZAE 000015228



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