Harmony Gold Mining Company Limited (Harmony), a gold mining and exploration company with 67 years of experience, has operations in South Africa – one of the world’s best known gold mining regions – and in Papua New Guinea – one of the world’s premier new copper-gold regions. 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.

**KEY FEATURES**

**YEAR-ON-YEAR**

**FIFTH CONSECUTIVE ANNUAL INCREASE IN UNDERGROUND GRADE RECOVERED**  
(FY17: 5.07g/t) (FY16: 5.02g/t)

**PRODUCTION GUIDANCE MET FOR SECOND CONSECUTIVE YEAR**  
(FY17: 1.088Moz) (FY16: 1.082Moz)

**NET DEBT REDUCED TO R887 million (US$68 million)**  
(FY16: R1.08 billion, US$74 million)

**HEDGING STRATEGY SECURES CASH MARGINS**  
(FY17: R1.7 billion (US$126 million) realised)

**HEADLINE EARNINGS PER SHARE UP 35%**  
298 SA CENTS (21 US cents)  
(FY16: 221 SA cents (15 US cents))

**TOTAL DIVIDEND DECLARED FOR THE YEAR OF 85 SA CENTS (7 US cents)**

**OUR REPORTS ONLINE**

Harmony’s full set of 2017 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.

**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.
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ABOUT THIS REPORT

Our Integrated Annual Report 2017 covers Harmony’s performance for the 2017 financial year (FY17), from 1 July 2016 to 30 June 2017. Certain comparative historical information is presented where relevant and to provide insight into our future plans.

In summary, our Integrated Annual Report 2017 encompasses the following elements:

Review and reflect
External factors and material issues
Performance in terms of our strategic objectives and business model
Impact of external environment in which we operate and how we manage these variables

Future plans and outlook
What we plan to do in the future and how we intend to achieve this

Primary audience
All stakeholders, but primarily shareholders

This report covers all of Harmony’s operations in South Africa as well as its operational and exploration activities (joint venture and own) in Papua New Guinea. It details the material environmental, socio-economic and governance aspects of our operations, and of Harmony as a whole. Discontinued operations have been excluded unless otherwise stated.

For the purposes of this report we define the short, medium and long term as follows:

Short term – six months to a year
Medium term – one year to three years
Long term – longer than three years

In addition to this integrated report, the Harmony suite of 2017 reports also comprises the following:

Financial Report 2017
Audited annual financial statements (No restatements were made in the 2017 financial year)

Report to Shareholders 2017
Contains the notice of annual general meeting, proxy form and summarised financial statements

Mineral Resources and Mineral Reserves 2017
Comprehensive mineral resource and mineral reserve information on our mines, projects and exploration

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 2017
Detailed information on each operation

The full set of the 2017 reports and accompanying supplementary information are available at www.har.co.za
This integrated report has been compiled in line with the International Integrated Reporting Council’s Framework, the Global Reporting Initiative G4 guidelines and the King Report on Governance for South Africa 2016 (King IV report).

Everything we do, from risk assessment and decision making to reporting, is informed by our values and our understanding of how various elements of the business fit together. We have applied this integrated approach to our reporting – sharing insights into both our financial and non-financial performance. Certain key non-financial performance indicators presented in this report were assured by SizweNtsalubaGobodo. Their assurance report is available on page 124.

The mineral resource and reserve information presented was compiled in accordance with the South African Code for Reporting of Exploration Results, Mineral Reserves and Mineral Resources; the Australian Code for Reporting of Mineral Resources and Mineral Reserves; the Industry Guide 7 of the United States’ Securities and Exchange Commission; and the JSE Listings Requirements. This information was gathered, reviewed and confirmed by the relevant competent persons.

All the reports making up our 2017 suite of reports, together with a Glossary of Terms, defining the terms used in these reports, are available online at www.har.co.za. Any additional information can be found on our website at www.harmony.co.za.

DIRECTORS’ RESPONSIBILITY FOR THE INTEGRATED ANNUAL REPORT 2017

Our board of directors has overall accountability for this integrated report. Having reviewed the report and guaranteed the integrity of the contents, the board, supported by the recommendations of the audit and risk committee, confirmed that this report presents a balanced and representative view of the company and its performance in the past financial year. The board approved this report on 26 October 2017.

Patrice Motsepe
Chairman

Peter Steenkamp
Chief executive officer

Frank Abbott
Financial director

John Wetton
Chairman: Audit and risk committee

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
Harmony, a gold mining and exploration company, conducts its activities in South Africa, one of the world’s best-known gold mining regions, and in Papua New Guinea, one of the world’s premier new gold-copper regions. With 67 years of experience, Harmony is South Africa’s third largest gold producer.

Headquartered in Randfontein, South Africa, Harmony is listed on the Johannesburg Stock Exchange and on the New York Stock Exchange, on which its shares are quoted as American Depositary Receipts.

In South Africa, our nine underground operations are on the world-renowned Witwatersrand Basin – two on the West Rand and seven in the Free State, in the southern portion of the Basin. In addition, we have an open-pit mine on the Kraaipan Greenstone Belt as well as several surface operations.

In Papua New Guinea, Hidden Valley is a wholly-owned open-pit gold and silver mine. Our significant gold-copper portfolio includes the wholly-owned Kili Teke prospect in the Western Highlands and a 50% stake in the Wafi-Golpu project in Morobe Province, through a 50:50 joint venture with Newcrest Mining Limited (Newcrest).
WHAT WE DO

Our activities cover the entire spectrum of the mining pipeline.

EXPLORATION AND ACQUISITION

Among our principal activities are the mining of gold-bearing ore which is then processed on site to extract gold and produce unrefined gold bars known as doré. Silver is produced as a by-product.

MINING AND PROCESSING

Our principal activities are the mining of gold-bearing ore which is then processed on site to extract gold and produce unrefined gold bars known as doré. Silver is produced as a by-product.

REHABILITATION

Once our mines have reached the end of their economic lives, mine closure plans are implemented. These plans include rehabilitation, which is ongoing throughout a mine’s operating life, to restore impacted land, making it suitable for an alternative economic use.

BENEFICIATION

All our gold is fully refined and beneficiated to final product by the Rand Refinery (Pty) Limited in South Africa and by the Perth Mint Australia for gold produced in Papua New Guinea. The refined gold, which is 99.5% pure, is sold to bullion banks and commodity houses.

In FY17:
Gold production totalled
1.09Moz (FY16: 1.08Moz)
Silver production totalled
1.05Moz (FY16: 1.33Moz)
At year-end:
Total gold mineral resources
104.3Moz (FY16: 105.2Moz)
Total gold mineral reserves
36.7Moz (FY16: 36.9Moz)
33 201 employees
including contractors
(FY16: 30 547)

OPERATING CONTEXT

Factors affecting our ability to generate value:

Globally:
• Gold market and gold price
• Global economic outlook and geo-political climate
• Rand-dollar exchange rate

South Africa:
• Regulatory and legislative uncertainty
• Labour relations
• Licence to operate – community expectations

Papua New Guinea:
• Regulatory and legislative uncertainty
• Licence to operate – landowner and community expectations

For further information, see Our business context
OUR VALUES

At Harmony, we understand the significant impact our company has on the lives of people, on the communities that surround our mines, on the environment, and on the economic well-being of the countries in which we operate.

The value we create is measured by the impact we have on the lives of stakeholders, now and in the future. To this end, our values inform our decisions and guide all that we do:

- **SAFETY**
  - No matter the circumstances, safety is our main priority

- **ACCOUNTABLE**
  - We are all accountable for delivering on our commitments

- **ACHIEVEMENT**
  - Achievement is core to our success

- **CONNECTED**
  - We are all connected as one team

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

Our values, together with our governance framework and code of conduct, are ingrained in training initiatives and decision-making processes, ensuring that they are at front of employees’ minds and actions. They guide our interactions with each other and with external stakeholders, from shareholders and the media to suppliers and local communities, especially those from which our employees are drawn.

We rely on experienced, skilled teams who live our values and play their role in maintaining stakeholder relationships, growing profits and maintaining a sustainable company.

**GOVERNANCE**

Harmony's board of directors brings together a range of skills, knowledge and experience. It guides the company and maintains the highest levels of corporate governance. In turn, the directors entrust the management and day-to-day running of Harmony to skilled management teams, which work towards ensuring that the company remains sustainable, that margins are improved and that the value of assets is enhanced in line with our values.

Supporting our governance functions are the legal and compliance function, which assesses the risks and material issues facing the company, and ensures that the necessary policies, procedures and controls are in place to mitigate them. The audit and risk function monitors the effectiveness of these controls in ensuring compliance and mitigating risk.
## OUR STRATEGY AND STRATEGIC OBJECTIVES

Our strategy is to mine safe, profitable ounces and increase our margins

<table>
<thead>
<tr>
<th>OPERATIONAL EXCELLENCE</th>
<th>CASH CERTAINTY</th>
<th>EFFECTIVE CAPITAL ALLOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritising safety, strict control and management of grades mined, disciplined mining and improved productivity</td>
<td>Achieving operational plans, supported by the current hedging strategy, contributes to cash flow certainty, in turn leading to balance sheet flexibility</td>
<td>Evaluating and prioritising organic growth opportunities and value-accretive acquisitions to ensure positive stakeholder returns (dividends only paid out of profits)</td>
</tr>
</tbody>
</table>

### WHAT WE DID IN FY17

- Safety performance – the number of fatalities and related fatality frequency rate – improved. Safety is a priority
- Achieved production guidance for second consecutive year
- Increased underground grade recovered for fifth year in a row
- Successful hedging strategy strengthened cash flow margins
- Low levels of net debt contribute to improved balance sheet flexibility
- Interim and final dividends declared for FY17
- Acquired full ownership of Hidden Valley and invested in stage 5 and 6 cut-backs
- Organic growth – the integration of Tshepong and Phakisa approved and development of the Joel decline nearing completion

Our medium-term growth aspiration for FY19 is to achieve annual gold production of **1.5Moz**

For more detail on value created, see overleaf
**HOW WE DISTRIBUTE VALUE CREATED**

### EMPLOYEES

**SHARE OF VALUE**

<table>
<thead>
<tr>
<th></th>
<th>45%</th>
</tr>
</thead>
</table>

For more information, see Employees

- Creating and maintaining a positive, safe working environment
- Ensuring employee safety a priority with the ultimate aim of zero harm
- Promoting a culture of continuous learning and genuine care
- Investing in employee skills training and development
- Investing in employee housing and accommodation
- Promoting harmonious, co-operative labour relations – with employees and unions
- Promoting transformation and the employment of women in mining
- Attracting and retaining the skills and expertise required

In FY17, paid wages and salaries of **R9.2bn** to **33,201 employees** (including contractors) (**FY16: R7.9bn to 30,547 employees**)

<table>
<thead>
<tr>
<th>Wages and salaries paid</th>
<th>Papua New Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td></td>
</tr>
<tr>
<td>FY17:</td>
<td>R8.4bn</td>
</tr>
<tr>
<td>FY16:</td>
<td>R7.5bn</td>
</tr>
<tr>
<td></td>
<td>R782m</td>
</tr>
</tbody>
</table>

### INVESTORS

**SHARE OF VALUE**

<table>
<thead>
<tr>
<th></th>
<th>21%*</th>
</tr>
</thead>
</table>

For more information, see Financial director’s report

- Generating positive margins and cash flow
- Maintaining balance sheet flexibility
- Delivering on production guidance
- Investing in and delivering organic growth
- Paying shareholders dividends out of profits
- Ongoing interaction with and reporting to shareholders

**Of which 19% was:**

In FY17, investment in creation of future value and in sustaining the business equated to total capital and exploration expenditure of **R4.1bn** (**FY16: R2.7bn**)

**Investment**

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Papua New Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17:</td>
<td>R2.4bn</td>
<td>R1.7bn</td>
</tr>
<tr>
<td>FY16:</td>
<td>R2.1bn</td>
<td>R0.6bn</td>
</tr>
</tbody>
</table>

**Of which 2% was:**

Total dividend paid to shareholders of **R439m** (**US$33m**) (**FY16: nil**).

Total dividends declared for the year of **85 SA (7 US)** cents a share (**FY16: 50 SA (4 US) cents a share**)

### SUPPLIERS

**SHARE OF VALUE**

<table>
<thead>
<tr>
<th></th>
<th>29%</th>
</tr>
</thead>
</table>

For more information, see Procurement

- Engaging with suppliers and contractors to establish co-operative, trust-based relationships – helps in managing costs
- Ensuring services are delivered as agreed and in line with our values and strategic objectives
- Honest and timely communication with suppliers and contractors

In South Africa, **78%** (**R4.5bn**) of total procurement was preferential procurement with black economic empowerment entities

In FY17, Harmony spent **R3.8bn** in total on the procurement of goods and services and **R2.2bn** on electricity (**FY16: R5.0bn and R2.0bn respectively**)

**Goods and services**

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Papua New Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17:</td>
<td>R3.0bn</td>
<td>R848m</td>
</tr>
<tr>
<td>FY16:</td>
<td>R2.6bn</td>
<td>R506m</td>
</tr>
</tbody>
</table>

**Electricity**

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Papua New Guinea</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17:</td>
<td>R2.1bn</td>
<td>R85m</td>
</tr>
<tr>
<td>FY16:</td>
<td>R2.0bn</td>
<td>R87m</td>
</tr>
</tbody>
</table>
By sustaining our business and creating value, as measured by the earnings generated, we are able to share the value created among key stakeholders.

## GOVERNMENTS

### SHARE OF VALUE

4%  
*For more information, see Financial Report 2017*

- Paying taxes and royalties on the profits and earnings generated
- Maintaining positive relationships with regulators
- Ensuring legislative and regulatory compliance and that all mining rights and relevant permits are in place

In FY17, Harmony paid taxes and royalties to governments of R779m (FY16: R258m). Also paid income tax of R1.38bn on behalf of employees on salaries wages earned (FY16: R1.13bn)

### Taxes and royalties

<table>
<thead>
<tr>
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<th>Papua New Guinea</th>
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</thead>
<tbody>
<tr>
<td>FY17:</td>
<td>R722m</td>
<td>R57m</td>
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<td>FY16:</td>
<td>R219m</td>
<td>R34m</td>
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### Employees’ personal income tax*

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<tbody>
<tr>
<td>FY17:</td>
<td>R1.2bn</td>
<td>R179m</td>
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<td>FY16:</td>
<td>R1.0bn</td>
<td>R134m</td>
</tr>
</tbody>
</table>

* Included in wages and salaries paid to employees

## COMMUNITIES

### SHARE OF VALUE

1%  
*For more information, see Communities*

- Investing in local economic development and corporate social investment initiatives
- Maintaining and ensuring positive relationships with communities
- Understanding, managing and addressing communities’ expectations
- Making a positive contribution to socio-economic upliftment
- Promoting self-sustaining activities to create jobs and alleviate poverty

In FY17, Harmony contributed R74m to economic and social initiatives (FY16: R58m)

### Social investment

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<td>R71m</td>
<td>R3m</td>
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<td>FY16:</td>
<td>R57m</td>
<td>R1m</td>
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## ENTERPRISE DEVELOPMENT

Promoting suppliers, small, medium and micro enterprises, innovation and entrepreneurship

## EDUCATION

Promoting skills development and education

## ENVIRONMENT

Enhancing academic performance by means of bridging programmes

## COMMUNITIES

Planning and developing projects in consultation with communities

---

In FY17, Harmony paid taxes and royalties to governments of R779m (FY16: R258m). Also paid income tax of R1.38bn on behalf of employees on salaries wages earned (FY16: R1.13bn)

Taxes and royalties

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Social investment

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</tr>
<tr>
<td>FY16:</td>
<td>R57m</td>
<td>R1m</td>
</tr>
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Our local economic development and corporate social investment projects focus on four main areas:

- **ENTERPRISE DEVELOPMENT**: Promoting suppliers, small, medium and micro enterprises, innovation and entrepreneurship
- **EDUCATION**: Promoting skills development and education
- **ENVIRONMENT**: Enhancing academic performance by means of bridging programmes
- **COMMUNITIES**: Planning and developing projects in consultation with communities

---

In FY17, Harmony paid taxes and royalties to governments of R779m (FY16: R258m). Also paid income tax of R1.38bn on behalf of employees on salaries wages earned (FY16: R1.13bn)
HOW WE PERFORMED

Relevant Global Reporting Initiative indicators: G4-EC1

<table>
<thead>
<tr>
<th>Operating performance</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ore milled (000t)</td>
<td>19 401</td>
<td>18 373</td>
<td>18 063</td>
<td>18 784</td>
<td>18 373</td>
</tr>
<tr>
<td>Gold produced (kg)</td>
<td>33 836</td>
<td>33 655</td>
<td>33 513</td>
<td>36 453</td>
<td>35 374</td>
</tr>
<tr>
<td>Operating costs (R/kg)</td>
<td>436 917</td>
<td>392 026</td>
<td>369 203</td>
<td>328 931</td>
<td>324 979</td>
</tr>
<tr>
<td>All-in sustaining costs (R/kg)</td>
<td>516 687</td>
<td>467 611</td>
<td>453 244</td>
<td>406 934</td>
<td>424 083</td>
</tr>
<tr>
<td>Underground grade (g/t)</td>
<td>5.07</td>
<td>5.02</td>
<td>4.75</td>
<td>4.77</td>
<td>4.54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial performance</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (R million)</td>
<td>19 264</td>
<td>18 334</td>
<td>15 435</td>
<td>15 682</td>
<td>15 902</td>
</tr>
<tr>
<td>Production costs (R million)</td>
<td>14 812</td>
<td>13 250</td>
<td>12 632</td>
<td>11 888</td>
<td>11 321</td>
</tr>
<tr>
<td>Production profit (R million)</td>
<td>4 452</td>
<td>5 084</td>
<td>2 803</td>
<td>3 794</td>
<td>4 581</td>
</tr>
<tr>
<td>Operating margin (%)</td>
<td>23</td>
<td>28</td>
<td>18</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Net profit/(loss) for the year (R million)</td>
<td>362</td>
<td>949</td>
<td>(4 536)</td>
<td>(1 270)</td>
<td>(2 349)</td>
</tr>
<tr>
<td>Total headline earnings/(loss) per share (SA cents)</td>
<td>298</td>
<td>221</td>
<td>(189)</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>Capital expenditure (R million)</td>
<td>3 890</td>
<td>2 439</td>
<td>2 836</td>
<td>2 661</td>
<td>3 912</td>
</tr>
<tr>
<td>Exploration spend (R million)</td>
<td>241</td>
<td>191</td>
<td>263</td>
<td>458</td>
<td>673</td>
</tr>
<tr>
<td>Dividend paid (R million)</td>
<td>439</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>435</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market performance</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average gold price received (R/kg)</td>
<td>570 164</td>
<td>544 984</td>
<td>449 570</td>
<td>432 165</td>
<td>454 725</td>
</tr>
<tr>
<td>Total market capitalisation (R billion)</td>
<td>9.5</td>
<td>22.9</td>
<td>6.8</td>
<td>13.6</td>
<td>15.6</td>
</tr>
<tr>
<td>Average exchange rate (R/US$)</td>
<td>13.60</td>
<td>14.50</td>
<td>11.45</td>
<td>10.35</td>
<td>8.82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reserves</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold and gold equivalents (Moz)</td>
<td>36.7</td>
<td>36.9</td>
<td>42.6</td>
<td>49.5</td>
<td>51.5</td>
</tr>
<tr>
<td>Geographical distribution of gold reserves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa (%)</td>
<td>44</td>
<td>45</td>
<td>52</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>Papua New Guinea (%)</td>
<td>56</td>
<td>55</td>
<td>48</td>
<td>43</td>
<td>42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>5</td>
<td>10</td>
<td>9</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>FIFR – fatal injury frequency rate per million hours worked</td>
<td>0.07</td>
<td>0.13</td>
<td>0.11</td>
<td>0.26</td>
<td>0.10</td>
</tr>
<tr>
<td>LTIFR – lost-time injury frequency rate per million hours worked</td>
<td><strong>7.21</strong></td>
<td>7.62</td>
<td><strong>9.24</strong></td>
<td>7.54</td>
<td>5.46</td>
</tr>
<tr>
<td>TIA – total injury and accidents number of incidents</td>
<td><strong>768</strong></td>
<td>767</td>
<td>1 210</td>
<td>953</td>
<td>912</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health (South Africa)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>– Shifts lost due to occupational illness and injury</td>
<td>24 026</td>
<td>22 416</td>
<td>24 514</td>
<td>25 338</td>
<td>20 236</td>
</tr>
<tr>
<td>– Silicosis cases certified</td>
<td>108</td>
<td>64</td>
<td>197</td>
<td>175</td>
<td>185</td>
</tr>
</tbody>
</table>

1 Gold production of 364kg (11 713oz) capitalised in FY17. Zero gold production capitalised in FY16, FY15, FY14 and FY13
2 Restated to include capitalised stripping for Kalgold
3 Restated to include capitalised stripping for Kalgold and Hidden Valley
4 As per income statement
5 Total exploration spend including capitalised amounts are R438 million (US$32 million) (FY17), R433 million (US$30 million) (FY16), R385 million (US$34 million) (FY15), R470 million US$45 million (FY14) and R1.2 billion US$136 million (FY13)
Inconsistencies were found in the hours worked used as input for the calculation of the lost-time injury frequency rate. Hours worked were manually obtained from our time and attendance systems on the reporting date. Thereafter, shift adjustments are made to these hours based on actual time worked, resulting in an inconsistency between the hours previously recorded and the updated hours. Harmony has developed and is in the process of implementing a computer-based system to improve the reporting of hours worked.

Not previously assured

* Assured by independent auditors in prior years – refer to the Assurance report and to the Glossary of Terms on the website, [www.har.co.za](http://www.har.co.za).

+ 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. In FY14, the total number of single rooms (including single rooms in incomplete hostels) was 5 027 (FY13: 3 214).

<table>
<thead>
<tr>
<th>People</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employees and contractors</td>
<td>33 201</td>
<td>30 547</td>
<td>31 114</td>
<td>34 746</td>
<td>36 579</td>
</tr>
<tr>
<td>South Africa: Employees</td>
<td>26 478</td>
<td>25 861</td>
<td>26 000</td>
<td>28 991</td>
<td>30 867</td>
</tr>
<tr>
<td>Contractors</td>
<td>4 512</td>
<td>4 580</td>
<td>5 012</td>
<td>5 695</td>
<td>5 557</td>
</tr>
<tr>
<td>Papua New Guinea: Employees</td>
<td>1 300</td>
<td>76</td>
<td>75</td>
<td>59</td>
<td>101</td>
</tr>
<tr>
<td>Contractors</td>
<td>911</td>
<td>30</td>
<td>27</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>Employment equity (historically disadvantaged South Africans in management)</td>
<td>%</td>
<td>61</td>
<td>60</td>
<td>58</td>
<td>46</td>
</tr>
<tr>
<td>Number of people in single rooms</td>
<td>%</td>
<td>7 266</td>
<td>7 252</td>
<td>7 436</td>
<td>7 168</td>
</tr>
<tr>
<td>Number of people sharing accommodation</td>
<td>%</td>
<td>0</td>
<td>70</td>
<td>0</td>
<td>6 841</td>
</tr>
<tr>
<td>Number of people in critical-skill positions trained</td>
<td>%</td>
<td>75</td>
<td>68</td>
<td>69</td>
<td>56</td>
</tr>
<tr>
<td>Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group local economic development</td>
<td>R million</td>
<td>27</td>
<td>18</td>
<td>64</td>
<td>77</td>
</tr>
<tr>
<td>Preferential procurement (BEE-compliant spend)</td>
<td>R million</td>
<td>4 461</td>
<td>3 794</td>
<td>3 849</td>
<td>3 442</td>
</tr>
<tr>
<td>Total discretionary spend</td>
<td>R million</td>
<td>5 685</td>
<td>4 978</td>
<td>5 565</td>
<td>5 595</td>
</tr>
<tr>
<td>Preferential procurement spend</td>
<td>%</td>
<td>78</td>
<td>76</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mineral waste (volume disposed)</td>
<td>000t</td>
<td>3 389</td>
<td>26 170</td>
<td>24 659</td>
<td>23 498</td>
</tr>
<tr>
<td>Total electricity use</td>
<td>000MWh</td>
<td>24 597</td>
<td>2 657</td>
<td>2 798</td>
<td>2 704</td>
</tr>
<tr>
<td>CO₂ emissions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Scope 1</td>
<td>000t CO₂e</td>
<td>111</td>
<td>56</td>
<td>67</td>
<td>75</td>
</tr>
<tr>
<td>– Scope 2</td>
<td>000t CO₂e</td>
<td>513</td>
<td>568</td>
<td>2 745</td>
<td>2 648</td>
</tr>
<tr>
<td>– Scope 3</td>
<td>000t CO₂e</td>
<td>445</td>
<td>615</td>
<td>686</td>
<td>661</td>
</tr>
<tr>
<td>Water used for primary activities</td>
<td>000m³</td>
<td>13 124</td>
<td>13 689</td>
<td>14 614</td>
<td>16 495</td>
</tr>
<tr>
<td>Land rehabilitated</td>
<td>ha</td>
<td>100</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Funding/guarantees for rehabilitation and closure</td>
<td>R million</td>
<td>3 072</td>
<td>2 933</td>
<td>2 796</td>
<td>2 708</td>
</tr>
</tbody>
</table>

6 Declared a dividend of 35 SA cents (3 US cents) post year end
7 Assured by independent auditors in prior years – refer to [https://www.harmony.co.za/investors/reporting/annual-reports](https://www.harmony.co.za/investors/reporting/annual-reports)
8 Excluding employees from the Morobe Mining Joint Ventures. FY17 includes Hidden Valley employees and contractors
9 The number of cases of pure silicosis confirmed by the South Africa’s Medical Bureau of Occupational Diseases in FY13, FY14 and FY15. Previously we assured silicosis cases submitted to the Medical Bureau of Occupational Diseases
10 Definition changed for FY13 to exclude fissure water from the reported figure
11 In addition, capital of R1 million (US$0.1 million) was spent in FY16 on the upgrading of hostel accommodation at various operations, (FY15: R1.2 million (US$0.1 million)) to train people in critical-skill positions
12 Increases recorded in FY17, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years
13 We refer you to the Assurance report issued by SizweNtsalubaGobodo Inc. and their qualification on the limited assurance on the lost time injury frequency rate.
Dear Shareholders

Harmony reported a second consecutive profitable year and made significant progress during the year in its strategy to increase its production profile by acquiring:

- AngloGold Ashanti Limited’s Moab Khotsong mine complex, which will add 250 000oz of gold per year, increase Harmony’s average recovered grade, reduce our cost per ounce and improve cash flows. The transaction is subject to conditions precedent including shareholder approval.
- Newcrest Mining Limited’s 50% in Hidden Valley. Hidden Valley will produce 180 000oz of gold and 3Moz of silver annually.

The Central Plant reclamation project was also completed, and will add 15 000oz of gold annually for approximately 19 years.

Stronger operating performance and a higher gold price enabled us to reduce our debt, pay dividends and pursue our objective of increasing annual production to 1.5Moz.

Gold production for the year exceeded guidance, owing to the good work of management. Headline earnings per share increased by 35% and we declared an interim and a final dividend for FY17 and paid dividends totalling R439 million (US$33 million).

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

We remain confident of gold’s long-term fundamental demand as a desirable store of wealth. The volatility in the gold price over the previous year created the opportunity to hedge a portion of our future gold production to secure our profit margin and strengthen the balance sheet. Our hedging programme contributed R1.7 billion (US$128 million) to the group’s overall cash position.

SAFETY AND HEALTH

The safety and health of all our employees are our primary concerns. In line with our target to achieve zero harm, it is most gratifying to report on a company milestone with the last quarter of FY17 being fatality free.
Harmony and five other South African mining companies have formed a gold mining industry working group to address issues relating to compensation and medical care for occupational lung diseases in the South African gold mining industry. In consultation with all stakeholders, we are working towards finding a comprehensive and sustainable solution, which deals both with legacy compensation issues and future legislation.

Our emphasis on and commitment to safety, which involves partnerships with all employees, their union representatives and the authorities, will continue to assist in contributing to reducing incidents at our mines.

INVESTING IN OUR EMPLOYEES
Harmony employs approximately 33,200 people in South Africa and 2,100 people in Papua New Guinea. Our employees reside mainly in communities adjacent to our operations and we paid R9.2 billion (US$676 million) in salaries during the year under review.

Harmony employees received training at a cost of R409 million (US$30.1 million) in critical skills, mentorship, hazard identification, risk assessment, mineral resource management and various other courses through study assistance programmes. We awarded 76 bursaries to students studying at South African universities.

ENABLING OUR MINING COMMUNITIES
We are committed to developing and improving the living conditions of the people living in our host communities. Our socio-economic programmes, which include various corporate social investment and local economic development and social and labour plan initiatives and projects, support national imperatives such as housing, education, skills development and job creation.

We prioritised the small-, medium- and micro-enterprise sector with the launch of development funds in Carletonville, the Ratlou Municipality and in Welkom/Virginia that support women and young entrepreneurs. These initiatives created 360 jobs in host communities.

In Papua New Guinea, we supported various projects, including cocoa farming, community health improvement initiatives and much-needed water supply programmes to ensure the supply of fresh water.

We paid R779 million (US$57 million) in taxes and royalties in South Africa and Papua New Guinea. R7.2 billion (US$529 million) was spent on local procurement and R74 million (US$5 million) on socio-economic initiatives in host communities in both countries.

SOUTH AFRICAN MINING INDUSTRY
The mining industry remains a key part of the South African economy. It is a significant contributor to the country’s economic growth and sustainable development. Despite the current challenges of low business confidence, job losses and disagreement between government and the Chamber of Mines on the Mining Charter, we remain optimistic that all parties and stakeholders recognise that it is critically important that the legal, regulatory, tax and overall governing dispensation of the mining sector continues to be globally competitive and attractive for private and foreign investment.

We are committed to working with government, labour, our host communities and other stakeholders to ensure that the South African mining industry accommodates the interests of and benefits all stakeholders.

RECOGNITION
We are grateful to all our employees, our host communities and all other stakeholders for their co-operation and support during the past financial year.

I would like to thank Peter Steenkamp and his management team for their hard work, commitment and dedication in executing the company’s strategy.

I would also like to thank all the directors for their guidance and wisdom during the year.

Harmony is better positioned to continue to create value for shareholders and to operate our mines for the benefit of all stakeholders.

Patrice Motsepe
Chairman
26 October 2017
Harmony is a global mining company with a significant production profile and gold and copper reserves. Good progress was made in the past financial year in delivering on our growth strategy through the acquisition of Newcrest Mining Limited’s 50% in Hidden Valley and, post year-end, our recent acquisition of AngloGold Ashanti Limited’s Moab Khotsong mine complex. We remain committed to ensuring operational excellence, cash certainty and effective capital allocation.

**OVERVIEW**

Our financial focus has been on reducing the company’s debt burden and investing in growth opportunities. Improvements both in the gold price and in the gold recovered grades contributed to our profitability and enabled us to make interim and final dividend payments. Details of our financial performance are provided in the Financial director’s report.

Currently, our strategic targets are to achieve annual production of 1.5Moz of gold by June 2019, at a unit cost of less than US$950/oz.

We continued to hedge our gold price and currency exposures during the 2017 financial year. This provided the cash-flow certainty needed for our capital investment and growth strategy.

**SAFETY AND HEALTH**

Harmony is fully committed to the health and safety of our employees, in the workplace and at home. Despite our combined best efforts, five of our people lost their lives in the service of the company during the 2017 financial year. Those whose lives were lost were Lekhabu Seatle, Samuel Mayakala, Enoch Magwwanini, Tsokiso Kelane and Sakhele Xungu. We regret to report that, post year-end we had five fatalities at Kusasalethu following a seismic event. We extend our personal, heartfelt condolences to their families, colleagues and friends. For further information, see Safety and health.

All safety incidences are fully investigated, and the lessons learned incorporated into mine safety procedures across the group.
The establishment of health facilities at our operations, operated by qualified medical personnel, has made an important contribution to the overall health of our employees. Where more specialised care is required, an employee is transferred to specialist treatment facilities.

**OPERATIONAL REVIEW**

Operational excellence was key in improving safety performance, and we achieved annual production guidance for a second consecutive year, and increased the underground grade mined for a fifth consecutive year. Harmony produced 1.09 Moz of gold (exceeding production guidance of 1.05 Moz) and achieved an underground recovered grade of 5.07 g/t (FY16: 5.02 g/t). Our group-wide all-in sustaining cost was R516 687/kg (US$1 182/oz).

Our successful hedging strategy realised gains of R1.7 billion (US$128 million) enabling Harmony to invest in the Hidden Valley stages 5 and 6 open-pit cut-back and infrastructure reinvestment programme and to reduce net debt by 18% to R887 million (8% to US$68 million). Harmony returned cash to shareholders by paying dividends of R439 million (US$33 million).

**South Africa**

During the year, the company commenced the merger of its Tshepong and Phakisa mines to form the combined Tshepong operations. This merger will increase efficiencies, reduce operating cost at the two mines and increase production volumes. Kusasalethu showed a notable improvement in gold produced, following the decision to shorten the life of mine and focus on higher grade areas. Production increased by 14% with a 25% increase in underground recovered grade to 7.23 g/t.

Target 1’s production was hampered by unfavourable mining conditions in the higher grade areas. Lower gold production at Target 1 was offset by higher production at other mines, resulting in South African gold production for FY17 being in line with that of the previous year.

There is significant potential at Masimong and Tshepong on the B Reef, which is currently being mined as a high-grade secondary reef to the Basal Reef. The same B Reef channel is expected to exist at Phakisa and underground exploration drilling to delineate the high-grade payshoots in the B Reef channel has begun.

**Papua New Guinea**

The major strategic development during the past year was the acquisition in October 2016 of the remaining 50% interest in the Hidden Valley mine from Newcrest Mining Limited (Newcrest). This gave Harmony full ownership of the mine. The acquisition was in line with our aspiration to grow our production ounces to 1.5 Moz and provides further critical mass to our Papua New Guinea production platform. A net investment of approximately US$180 million will be made in the stage 5 and 6 cut-backs and infrastructure re-investment, with approximately US$68 million of that amount spent in FY17. The remaining investment, consisting of mine waste stripping, plant refurbishments and upgrades as well as mining equipment replacements will take place in FY18. Commercial levels of production are targeted for the June quarter of FY18. Hidden Valley is expected to produce 180 000 oz gold and 3 Moz silver per annum in FY19.

The Wafi-Golpu joint venture parties continued to progress activity in line with the work plan previously communicated, including engagement with the Papua New Guinea Government on the application for a special mining lease for the Wafi-Golpu project.

The current study work is focused on assessing:

- self-generation power supply options
- reassessment of block cave levels and increased mining rates due to increased knowledge obtained from further drilling undertaken during the year
- deep-sea tailings placement options to compare with terrestrial tailings storage options

The joint venture parties are targeting a complete update of the feasibility study during the latter part of FY18. The focus of this work will be to further optimise the business case and confirm any amendments necessary to the supporting documents for the special mining lease application. Timing of first production is dependent on the updated study outcomes and the granting of the special mining lease.

In July 2017, national elections were held in Papua New Guinea at which the prime minister was re-elected. We look forward to working with the Papua New Guinea government to achieve the appropriate regulatory and fiscal framework and the stability necessary to progress the Wafi-Golpu project.

**LABOUR**

The relationship between the company and its employees has been supportive with the exception of two unprocedural work stoppages at Kusasalethu. The three-year wage agreement will come to an end in June 2018 and a new agreement will be negotiated. For more employee-related initiatives, refer to Employees and communities in this annual report.

**MINING CHARTER AND SOCIAL RESPONSIBILITY**

Harmony is fully compliant with the 2014 Broad-Based Black Socio-Economic Empowerment Charter targets for the South African mining and minerals industry and we have exceeded the 26% ownership requirement. Refer to the Mining Charter compliance scorecard.

A new Mining Charter was published in June 2017. Its implementation has been postponed by the Minister of Mineral Resources, pending judgement in the review application brought in the High Court of South Africa by the Chamber of Mines, of which Harmony is a member. We remain optimistic that a workable solution will be found.

**CONCLUSION**

It is with much sadness that I turn to the tragic death of Simphiwe Kubheka at the end of September 2017. Simphiwe, the regional manager: Tshepong operations, will be remembered for the significant contribution he made to Harmony. I extend my sincerest condolences to his family, friends and colleagues. He will be sorely missed.

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

**Peter Steenkamp**

Chief executive officer

26 October 2017
“Good production results for the year combined with market conditions contributed to positive earnings”

Harmony’s FY17 earnings were positively impacted by the rand gold and currency hedges. Our low net debt position has created balance sheet flexibility that allows for growth.

The key outcomes achieved during FY17 were the following:

- Strengthening our balance sheet by paying down our debt
- Funding growth by acquiring our joint venture partner’s 50% interest in Hidden Valley and investing in the capitalisation of the asset
- Rewarding our shareholders with an interim and final dividend totalling 85 SA cents (7 US cents) for the year

HEDGING

Hedging programmes are topped up as and when opportunities arise to lock in attractive margins for the business.

Given the increasingly volatile nature of our gold and foreign exchange markets over recent times, after careful consideration the board approved the implementation of a gold and currency hedging programme to lock in attractive margins for the business. Over the past year this has proven successful with the hedging programme contributing meaningfully to the group’s overall revenue and earnings.
(i) Currency hedging
The foreign currency hedging is in the form of zero cost collars with a maximum term of 12 months, which establish a minimum (floor) and maximum (cap) rand/US dollar exchange rate at which to convert US dollars to rands. The nominal value of the hedging contracts as at 30 June 2017 was US$422 million (FY16: US$500 million).

The realised gain from contracts maturing in FY17 amounted to R1 003 million (US$74 million) and is included in gains on derivatives in the income statement as hedge accounting is not applied to these contracts.

(ii) Gold hedging
Rand gold hedging is in the form of gold forward sale contracts with a maximum term of 24 months. The nominal value hedged at 30 June 2017 was 324 000 ounces spread over 21 months at an average forward sale price of R693 437/kg.

Cash flow hedge accounting is applied to these contracts. A gain of R728 million (US$54 million) was realised on the contracts that matured in FY17 (6 563kg at R662 772/kg) and is included in revenue.

During June 2017 US$ gold forward sale contracts with a maximum term of 24 months were entered into for Hidden Valley for which hedge accounting is not applied. The nominal value hedged at 30 June 2017 was 64 000oz at an average of US$1 276/oz.

(iii) Silver hedging
Harmony also entered into silver zero cost collars during June 2017 for the silver from Hidden Valley; hedging instruments not exceeding 25% of the group’s two-year silver production may be entered into. The nominal value hedged at 30 June 2017 was 970 000oz spread over 18 months. Hedge accounting is not applied to these contracts.

A summary of all the open hedging contracts as at 30 June 2017 is as follows:

<table>
<thead>
<tr>
<th></th>
<th>FY18</th>
<th>FY19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td><strong>CURRENCY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$/ZAR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$m</td>
<td>111</td>
<td>132</td>
<td>120</td>
</tr>
<tr>
<td>Floor</td>
<td>15.00</td>
<td>14.40</td>
<td>14.00</td>
</tr>
<tr>
<td>Cap</td>
<td>16.30</td>
<td>15.50</td>
<td>15.00</td>
</tr>
<tr>
<td><strong>COMMODITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZAR/gold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘000oz</td>
<td>54</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>R’000/kg</td>
<td>686</td>
<td>700</td>
<td>713</td>
</tr>
<tr>
<td>US$/gold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘000oz</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>US$/oz</td>
<td>1 265</td>
<td>1 270</td>
<td>1 272</td>
</tr>
<tr>
<td>Total gold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$/silver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘000oz</td>
<td>40</td>
<td>60</td>
<td>180</td>
</tr>
<tr>
<td>Floor</td>
<td>17.10</td>
<td>17.10</td>
<td>17.10</td>
</tr>
<tr>
<td>Cap</td>
<td>18.10</td>
<td>18.10</td>
<td>18.10</td>
</tr>
</tbody>
</table>

**BALANCE SHEET FLEXIBILITY**
Our low net debt position creates balance sheet flexibility that allows for growth. The net debt/EBITDA ratio decreased from 1.88 in FY15 to 0.26 in FY17.

**Net debt versus EBITDA**
( Rm)

![Graph showing net debt versus EBITDA](image)

As at 30 June 2017, the available revolving credit facilities (RCF) were as follows:

<table>
<thead>
<tr>
<th></th>
<th>USD RCF loan</th>
<th>ZAR RCF loan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilities</strong></td>
<td>US$</td>
<td>Rm</td>
<td>US$</td>
</tr>
<tr>
<td>Drawdown balance at 30 June 2017</td>
<td>250</td>
<td>3 278</td>
<td>1 000</td>
</tr>
<tr>
<td>Available facilities</td>
<td>110</td>
<td>1 445</td>
<td>700</td>
</tr>
</tbody>
</table>

On 28 July 2017, Harmony entered into an agreement for a new three-year syndicated facility of US$350 million (US$175 million term loan plus US$175 million RCF). The facility replaces the US$250 million RCF loan and is agreed on similar terms.
**EFFECTIVE CAPITAL ALLOCATION**

We have a focused capital allocation and prioritisation strategy resulting in a capital and cost structure that fits the production plan.

Capital expenditure increased by 68% in FY17 to R3 686 million (79% to US$271 million) (excluding capitalised Wafi-Golpu exploration expenditure) of which R1 335 million (US$98 million) was spent at Hidden Valley. Capital expenditure for South African operations increased by 13% or R276 million (21% or US$30 million). The planned capital expenditure for FY18 is R4 389 million (US$319 million) of which R1 676 million (US$122 million) relates to Hidden Valley.

Below is the capital expenditure projection to FY20, excluding Wafi-Golpu, which is subject to an ongoing study outcome:

**PROVISION FOR SILICOSIS SETTLEMENT**

We hope to achieve a comprehensive settlement that is fair to past, present and future employees and sustainable for the sector.

Harmony and five other South African mining companies have formed a gold mining industry working group to address issues relating to the compensation and medical care for occupational lung diseases in the gold mining industry in South Africa. In consultation with all stakeholders, the working group is seeking to find a comprehensive and sustainable solution, which deals both with the legacy compensation issues and future legal frameworks.

A pre-tax charge of R917 million (US$70 million) has been recognised in other operating expenses representing Harmony’s best estimate of its portion of a possible settlement of the class action claims and related costs within an acceptable range.

The ultimate outcome of these matters remains uncertain, with a possible failure to reach a settlement or to obtain the requisite court approval of the settlement. The provision recorded in the financial statements is consequently subject to adjustment or reversal in the future, depending on the progress of the working group discussions and stakeholder consultations, and the ongoing legal proceedings.

Refer to note 27 in the consolidated financial statements contained in the Financial Report 2017 for further detail.

**FINANCIAL PERFORMANCE**

Operations are generating operational free cash flow and the hedging strategy secures cash margins.

**Key drivers of the FY17 financial performance:**

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold produced</td>
<td>kg</td>
<td>33 836</td>
<td>33 655</td>
</tr>
<tr>
<td></td>
<td>oz</td>
<td>1 087 852</td>
<td>1 082 035</td>
</tr>
<tr>
<td>Underground grade recovered g/t</td>
<td>5.07</td>
<td>5.02</td>
<td>1</td>
</tr>
<tr>
<td>Gold sold</td>
<td>kg</td>
<td>34 150</td>
<td>33 642</td>
</tr>
<tr>
<td></td>
<td>oz</td>
<td>1 097 944</td>
<td>1 081 615</td>
</tr>
<tr>
<td>Gold price received</td>
<td>R/kg</td>
<td>570 164</td>
<td>544 984</td>
</tr>
<tr>
<td></td>
<td>US$/oz</td>
<td>1 304</td>
<td>1 169</td>
</tr>
<tr>
<td>Production profit</td>
<td>Rm</td>
<td>4 452</td>
<td>5 084</td>
</tr>
<tr>
<td></td>
<td>US$m</td>
<td>327</td>
<td>350</td>
</tr>
<tr>
<td>All-in sustaining costs</td>
<td>R/kg</td>
<td>516 687</td>
<td>467 611</td>
</tr>
<tr>
<td></td>
<td>US$/oz</td>
<td>1 182</td>
<td>1 003</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>R/US$</td>
<td>13.60</td>
<td>14.50</td>
</tr>
</tbody>
</table>

1 FY16 restated to include capitalised stripping
2 Excludes share-based payment charge

**FINANCIAL DIRECTOR’S REPORT CONTINUED**
• Revenue increased by 5% in FY17 from R18.3 billion (US$1.3 billion) in FY16 to R19.3 billion (US$1.4 billion) mainly as a result of the inclusion of the realised gains on the rand gold hedges as part of revenue. The average gold price received was R570 164/kg (US$1 304/oz) compared to R544 984/kg (US$1 169/oz) received in FY16. A stable production performance resulted in a 2% increase in gold ounces sold year on year.

• Production costs increased by 12% in FY17 compared to the previous year mainly as a result of the following:
  • A R749 million (US$55 million) increase in labour costs due to annual increases and a special bonus paid to all employees
  • A R358 million (US$26 million) increase in consumables due to additional expenditure on support, chemical reagents and repairs and maintenance during the year
  • As a result of the acquisition of Newcrest's 50% interest, Hidden Valley recorded a R132 million (US$10 million) increase in working costs during FY17

• Amortisation and depreciation increased by R349 million (US$26 million) in FY17 mainly due to the increase in the carrying values of depreciable assets at Doornkop following the reversal of the impairment recorded in FY16. Also contributing is the increase in on-reef reserve tonnes mined at Doornkop, Kusasalethu and Joel as well as a shorter life of mine at Kusasalethu

• Impairment of assets in FY17 includes an impairment of R785 million (US$60 million) at Target 1 resulting from the exclusion of low-grade areas from the life-of-mine plan. This, together with general pressure on margins, resulted in a decrease in the profitability of the operation over its life and contributed to the decrease in the value of the resources. An impairment of R678 million (US$52 million) was recorded at Kusasalethu owing to the decrease in the value of the resources. In addition, an impairment of a portion of the goodwill balance for the Tshepong operations of R255 million (US$19 million) was recorded. Goodwill is tested as part of the value attributed to a cash generating unit together with the property, plant and equipment carrying values

• Gains on derivatives of R1.0 billion (US$75 million) was recorded in FY17 compared to the gain of R446 million (US$30 million) in FY16 resulting mainly from the realised gain on the foreign exchange hedging contracts

• The gain on bargain purchase relates to the Hidden Valley acquisition in FY17. Refer to note 10 in the consolidated financial statements contained in the Financial Report 2017 for further detail

• The current taxation expense increased by R365 million (US$28 million) in FY17 compared to the previous year. This was mainly due to the utilisation of the unredeemed capital balance and assessed loss in the Freegold subsidiary during FY16. Together with the gains on derivatives, which are taxed as non-mining income at a rate of 28%, this contributed to the increase in normal tax for FY17

• The weighted average deferred tax rates for most South African companies decreased as a result of decreased forecast profitability of these operations. The deferred tax rate for the Freegold subsidiary decreased from 20.0% to 12.5% and for the Randfontein subsidiary (consisting of Doornkop and Kusasalethu) decreased from 10.1% to 3.8%. The effect of these decreases resulted in the credit to the income statement in FY17

• The reconciliation of basic earnings per share to headline earnings per share is as follows:

<table>
<thead>
<tr>
<th>SA cents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic earnings per share</td>
</tr>
<tr>
<td>Impairment of assets*</td>
</tr>
<tr>
<td>Loss on scrapping of property, plant and equipment*</td>
</tr>
<tr>
<td>Profit on sale of property, plant and equipment*</td>
</tr>
<tr>
<td>Loss on liquidation of subsidiary</td>
</tr>
<tr>
<td>Gain on bargain purchase (Hidden Valley transaction)</td>
</tr>
<tr>
<td><strong>Headline earnings per share</strong></td>
</tr>
</tbody>
</table>

* Net of tax

Frank Abbott
Financial director
26 October 2017
Dear stakeholder,

It is with considerable pleasure and satisfaction that I report on the social and ethics committee’s activities for the year to 30 June 2017. This committee is constituted in terms of the requirements of section 72(8) of the Companies Act 71 2008 (the Act), and its associated regulations. It is a sub-committee of the board and fulfils its functions on behalf of Harmony and its subsidiary companies in relation to social and economic development, environmental stewardship, governance and ethics, public safety, health, labour and employment matters. Operational safety is the responsibility of the technical committee. For more information on the composition of the social and ethics committee, refer to the Corporate governance section of this report.

Despite a year in which gold prices recorded significant declines during the first half and which failed to reach the year’s opening levels by year’s end, Harmony persisted in its commitment to the sustainability of its business throughout FY17 as well as to delivering on its social and economic responsibilities and to making a lasting, positive impact on its host communities, its employees and other stakeholders.

**APPROACH**

Sustainability at Harmony is underpinned by our values, which are intrinsic to our operating philosophy and practices. They remain key in our decision-making. We subscribe to the five-capitals model (natural, human, social, manufactured and financial capitals) which underpins our approach to sustainable socio-economic investment. We aim to improve and advance each capital so that we create value during the lives of our mines and beyond by leaving positive, lasting and felt legacies. Our approach is allied to our commitment to the Sustainable Development Goals, introduced under the auspices of the United Nations in September 2015. This set of goals is aimed at ending poverty, protecting the planet, and ensuring prosperity for all. They are part of a new global sustainable development agenda, and are also aligned with the National Development Plan in South Africa, which is taken into account when formulating local economic development projects.

The social and ethics committee is confident that, during the past financial year, it complied fully with the legal, regulatory and other responsibilities assigned to it by the board.

**ACTIONS IN FY17**

The committee, which undertakes its duties with accountability both to the board and to the company’s stakeholders, met five times and attended one site visit during the past financial year. The committee’s key activities are summarised in Corporate governance.

**PUBLIC SAFETY AND HEALTH**

The committee maintained responsibility for public safety and reviewed its strategic interventions while reinforcing robust controls over access to our mines and the surrounding properties. Despite our emphasis on securing our decommissioned shafts, we continued to be affected by the highly dangerous practice of illegal mining with unlawful access being gained to old mine workings. In May 2017, the threat to our own employees and as well as to the illegal miners themselves was...
fatally displayed by an underground explosion that cost the lives of 25 people. We further tightened security, but it is an inescapable fact that our operations are under sustained threat from illegal operators.

Additional community and employee interventions were added to our existing programmes to further raise awareness of safety conditions and hazardous environments. Community interventions continued to focus on primary healthcare and HIV/Aids awareness as well as on providing local people in the Free State with access to world-class hospital facilities that had previously been provided for the exclusive use of our own employees.

During the year, Harmony transferred ownership and management of the Ernest Oppenheimer Hospital in the Free State to a private-sector healthcare provider. The hospital and its modern facilities had exceeded the company’s own needs and have now become available to members of local communities needing top-class health care.

EMPOWERMENT AND TRANSFORMATION

Our moral obligation to our host communities extends beyond providing direct employment opportunities and financial benefits. We also drive social sustainability through local economic-development programmes as well as by local procurement.

It bears repeating that, although the period for complying with the targets of the Mining Charter came to an end in December 2014, Harmony, in the spirit of transformation and exceeding compliance, continued to deliver in line with the tenets of the Charter, advancing in particular housing and living conditions, procurement and human resources. We measured ourselves against the 2014 targets and are pleased to confirm that we achieved and exceeded these targets during this past financial year. (See the Mining Charter compliance scorecard in this report).

During the year, however, the mines minister sought to introduce a third version of the Mining Charter, a version Harmony and other members of the Chamber of Mines contend was prepared with insufficient discussion with the mining industry and which contained provisions that could affect the very sustainability of our operations.

The proposed new Charter was gazetted in June 2017, just before the end of our financial year and, through the Chamber of Mines, we and other mining companies sought an urgent interdict to prevent the proposed Charter’s implementation without further substantive discussions between the minister, the Department of Mineral Resources and the industry. The minister has responded with a written undertaking to the Chamber of Mines that he will not implement the new Mining Charter. He has also agreed to an expedited process to have the new Charter reviewed by a full bench of judges, a review that is scheduled to be heard mid-December 2017. This written undertaking allowed the Chamber to withdraw its urgent application for an interdict and we anticipate further frank discussions in the interim.

We at Harmony remain committed to the sustainable transformation of the mining industry, but remain committed to the view that this can only be achieved through open negotiations, between the industry and the regulators. We look forward to participating in discussions with the minister and the Department of Mineral Resources.

When it comes to investing in and transforming our workforce, we have met and exceeded all the group-wide targets, with the appropriate number of historically disadvantaged South Africans employed at all levels of management. For more on this, see Employees and communities.
Societal development remains an important objective and, with this in mind, as a group we invested R27 million (US$1.9 million) in local economic development directed both at communities around our continuing operations and at those associated with mines that have closed. Among the legacy projects implemented during FY17 was our donation of office facilities that were superfluous to our needs in the Free State to Police and Prisons Civil Rights Union. The facilities are being converted into a training campus for the union and will also provide necessary accommodation for staff and trainees. The new facility will not only introduce new educational opportunities to the area, but will lead to the creation of social amenities and job opportunities for local people.

Recognising the role of small and medium enterprises in the community, Harmony continued to develop the Phakamani and Leano initiatives, which provide soft loans to entrepreneurs in all our host communities. Although still in its infancy, the initiative has already made several meaningful investments, some of which supported 360 jobs. In Gauteng, Harmony passed full ownership of seven small-business projects near the company’s Doornkop property, businesses ranging from vegetable market gardening through clothing manufacture to computer services. The businesses are serving customers over a wide regional area.

BUILDING A HEALTHY AND ENGAGED WORKFORCE

We believe that a healthy workforce coupled with a healthy workplace culture is integral to sustaining our productivity and profitability in today’s business climate. Our culture gives priority to safety and health and, to this end, Harmony persisted with its R100 million investment in a proactive healthcare strategy, particularly as concerns the provision of convenient health facilities at or near our mine shafts. These well-staffed facilities not only provide for the immediate health needs of employees but are integral to our strategy of ensuring that our employees participate fully in taking responsibility for their own health and safety as well as that of their colleagues in the workplace.

Consultation and collaboration form the cornerstones of our relationship with our employees, directly and through organised labour. It was against the strong fabric of mutual respect and trust that together we concluded a three-year wage agreement in October 2015. Unfortunately this agreement did not live fully up to expectations and operations at our Kusasalethu mine were affected on two occasions by unprotected work stoppages during FY17. The stoppages ended peacefully after discussions and agreement with the unions representing the mine’s employees. Refer to Operational Performance.

ENVIRONMENTAL MANAGEMENT

Looking back at the year under review, the committee is satisfied with Harmony’s environmental performance. Managing our finite resources responsibly continued to remain high on the agenda, particularly further moves to maximise our mines’ use of recycled water and to further restrict their water discharges. Energy conservation was achieved by driving efficiencies, and innovative solutions which resulted in a further 1.6% reduction in electricity consumption. Our performance in these areas has ensured that we have maintained our ‘A’ rankings for the Carbon Disclosure Project’s Climate Change and Water programmes.

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. For further information, see: http://www.ftse.com/products/indices/FTSE4Good

Our land rehabilitation programme has continued to advance and has created added value on reclaimed land in the Free State, through the growing and harvesting of plants that thrive under difficult conditions, a project that provides energy bio-mass as well as employment and entrepreneurial opportunities for local people. Plant matter is being processed to generate gas.

ETHICS

I make no apology for repeating what I have said before, that we at Harmony believe ethical conduct is a prerequisite for doing business. There is a direct correlation between sustainable business success and consistent ethical behaviour. The continued success of our company depends on the highest levels of integrity across all aspects of our business. We want all our stakeholders to view Harmony as a company they can trust – therefore we are unequivocal about our values and the way in which these values find expression in our daily behaviour. We have in place a code of conduct and a behavioural code, which simplifies the detail set out in the code of conduct. For more on these codes, refer to Corporate Governance.

SILICOSIS

Harmony participates in processes to address legacy issues relating to occupational lung disease. The silicosis working group, initiated by certain South African gold mining companies, continues to work to establish a sustainable, all-inclusive and comprehensive solution for the compensation of the occupational lung diseases covered by the Occupational Diseases in Mines and Works Act. In consultation with all stakeholders, the working group is working towards finding a comprehensive and sustainable solution to address related concerns, both current and legacy.
LOOKING FORWARD TO THE YEAR AHEAD
Harmony’s positioning of its operations to benefit from improvements in the gold price began to bear fruit in the second half of FY17 and, should gold’s price advance of FY18’s first few months be sustained, the rest of the new financial year will see an enhancement of our ability to meet our commitments to all stakeholders. While this has been shown by a resumption of dividend payments, it is also being shown by greater possibilities to benefit our mines’ local communities. It would, of course, be tempting providence to make commitments that we might be unable to keep, but those commitments into which we feel able to enter will be made in consultation with the stakeholders involved. On this basis, we shall further strengthen our relationships with local communities whose social needs continue to be discussed and addressed.

This applies equally to our young projects in Papua New Guinea as to our mature operations in South Africa. Our commitment to Papua New Guinea has been underpinned by our acquisition of full ownership of the Hidden Valley project, progress towards the complete permitting of the Golpu venture and in further exploration efforts to locate and prove other gold resources in the country.

As was the case at the start of FY17, FY18 has begun with no finality on the Mineral and Petroleum Resources Development Act amendment bill and the Mining Charter in South Africa. We remain committed to ensuring that legal reform results in sound implementable outcomes and to maintaining our interactions with the South African authorities through the Chamber of Mines and other forums. Harmony has a strong footprint in South Africa and Papua New Guinea and remains committed to all stakeholders and relevant host communities.

THANKS
Continuing the committee’s contribution to Harmony’s progress towards a sustainable future would not be possible without the wholehearted commitment and contributions of my committee colleagues. I extend my sincere thanks to them for their work during the past year and am assured this will continue in future. The committee is comprised of people committed to ensuring that Harmony matches up to the best safety, health, governance and environmental standards. In this, the committee continues to enjoy the full support of the board. In conclusion, I invite those with suggestions as to how we might better take our responsibilities forward to present them to us. They will be greatly appreciated.

Modise Motloba
Chairman: social and ethics committee
26 October 2017
BOARD OF DIRECTORS

Full and detailed resumés of all members of Harmony’s board of directors are available at https://www.harmony.co.za/about-us/board

Directors to be re-elected at the forthcoming annual general meeting:

In line with Harmony’s memorandum of incorporation, the following directors are required to retire on a three-year rotational cycle and, being eligible, offer themselves for re-election at the forthcoming annual general meeting of shareholders:

- Peter Steenkamp
- John Wetton
- Simo Lushaba
- Mavuso Msimang
- Ken Dicks

For further information and their detailed resumés, see our Report to Shareholders 2017

1 Patrice Motsepe
2 Modise Motloba
3 Fikile De Buck
4 Mavuso Msimang
5 Peter Steenkamp
6 Frank Abbott
7 Harry “Mashego” Mashego
8 Joaquim Chissano
9 Ken Dicks
10 Dr Simo Lushaba
11 Karabo Nondumo
12 Vishnu Pillay
13 John Wetton
14 André Wilkens
CHAIRMAN
Patrice Motsepe (55)
BA, LLB, Doctorate of Commerce (Honourius Causa), Doctor of Management and Commerce (Honourius Causa)
- Appointed a director and non-executive chairman on 23 September 2003
- In addition to being a non-independent non-executive chairman, Patrice is also a member of the nomination committee

INDEPENDENT NON-EXECUTIVE DEPUTY CHAIRMAN
Modise Motloha (51)
BSc, Diploma in Strategic Management
- Appointed to the board on 30 July 2004
- Chairman of the social and ethics committee and member of the nomination committee and the audit and risk committee

LEAD INDEPENDENT NON-EXECUTIVE DIRECTOR
Fikile De Buck (57)
BA (Economics), FCCA
- Appointed to the board on 30 March 2006
- Chairman of the nomination committee and member of the social and ethics committee. Successor to the lead independent non-executive director

EXECUTIVE DIRECTORS
CHIEF EXECUTIVE OFFICER
Peter Steenkamp (58)
BEng (Mining), Mine Manager’s Certificate Metal Mines, Mine Manager’s Certificate Fiery Mines, CPIR, MDP, BLDP
- Appointed to the board on 1 January 2016, on appointment as chief executive officer

FINANCIAL DIRECTOR
Frank Abbott (62)
BCom, CA(SA), MBL
- First appointed to the board as non-executive director on 1 October 1994 and was financial director from 1997 until 2004
- Re-appointed financial director in February 2012

EXECUTIVE DIRECTOR: CORPORATE AFFAIRS
Harry Ephraim "Mashego" Mashego (53)
BA (Economics), BA (Hons) (Human Resources Management), Joint Management Development Programme, Global Executive Development Programme
- Joined Harmony in 2005 and appointed an executive director on 24 February 2010

INDEPENDENT NON-EXECUTIVE DIRECTORS
Joaquim Chissano (78)
PhD
- Appointed to the board on 20 April 2005
- Member of the nomination committee and the social and ethics committee

Ken Dicks (78)
Mine Manager’s Certificate (Metalliferous Mines), Mine Manager’s Certificate (Fiery Coal Mines), Management diplomas (Unisa and INSEAD)
- Appointed to the board on 13 February 2008
- Member of the technical committee and the investment committee

Dr Simo Lushaba (51)
BSc (Hons), MBA, DBA, CD (SA)
- Appointed to the board on 18 October 2002
- Chairman of the investment committee and member of the audit and risk committee and the remuneration committee

Karabo Nondumo (39)
BAcc, HDip (Acc), CA(SA)
- Appointed to the board on 3 May 2013
- Member of the audit and risk committee, the technical committee and the investment committee

Vishnu Pillay (60)
BSc (Hon), MSc
- Appointed to the board on 8 May 2013
- Chairman of the remuneration committee and member of the technical committee and the investment committee

John Wetton (68)
CA(SA), FCA
- Appointed to the board on 1 July 2011
- Chairman of the audit and risk committee and member of the social and ethics committee, remuneration committee and investment committee

NON-EXECUTIVE DIRECTOR
André Wilkens (68)
Mine Manager’s Certificate of Competency, MDPA, RMIIA, Mini MBA Oil and Gas
- Appointed to the board on 7 August 2007
- Chairman of the technical committee and member of the investment committee and the remuneration committee

GROUP COMPANY SECRETARY
AND HEAD OF LEGAL
Riana Bisschoff (40)
LLB, LLM
- Joined Harmony in 2012 as group company secretary
- Appointed head of legal in February 2016
- Qualified attorney, rotary and conveyancer
EXECUTIVE MANAGEMENT

CHIEF EXECUTIVE OFFICER’S OFFICE
The executive management team has been restructured to better align with and support our strategy to enable us to achieve our strategic objectives. Harmony’s executive management comprises the chief executive officer’s office, which is supported in its work by management teams for the South Africa and South-east Asia operations.

Chief executive officer
1 Peter Steenkamp (58)

Financial director
2 Frank Abbott (62)
BCom, CA(SA), MBL

Executive director: corporate affairs
3 Harry Ephraim “Mashego” Mashego (53)
BA (Education), BA (Hons) (Human Resources Management), Joint Management Development Programme, Global Executive Development Programme

Executive: New business
4 Phillip Tobias (47)
BSc (Mining Engineering), Wits International Executive Development Programme and GIBS Advanced Management Programme, Professional Engineer (Pr Eng) and Mine Manager’s Certificate of Competence

Chief operating officer: South Africa
5 Beyers Nel (40)
BEng (Mining Engineering), MBA, Professional Engineer (Pr. Eng), Mine Manager’s Certificate of Competency

Chief executive officer: South-east Asia
6 Johannes van Heerden (45)
BCompt (Hons), CA(SA)

Executive: special projects
7 Abré van Vuuren (57)
BCom, Development Programme in Labour Relations, Management Development Programme, Advanced Labour Law Programme, Board Leadership Programme

Executive: Corporate and investor relations
8 Marian van der Walt (44)
BCom (Law), LLB, Higher Diploma in Tax, Diplomas in Corporate Governance and Insolvency Law, Certificates in Business Leadership, IR Certificate (UK IR Society)

Chief financial officer
9 Boipelo Lekubo (34)
BCom (Hons), CA(SA)

Full and detailed resumés of all members of Harmony’s executive management are available at https://www.harmony.co.za/about-us/board
SOUTH AFRICA: EXECUTIVE

Chief operating officer: South Africa
1 Beyers Nel (40)

Executive: Sustainable development
2 Melanie Naidoo-Vermaak (43)

Executive: Ore reserve management
3 Jaco Boshoff (48)

Executive: Human resources
4 Anton Buthelezi (53)

Executive: Safety and technology
5 Tom van den Berg (49)

Executive: Health
6 Dr Tumi Legobye (45)

Acting executive: Technical services and engineering
7 Robert Hart (43)

Acting chief financial officer (South Africa operations)
8 Danie Muller (57)

Regional general managers:
Kusasalethu, Doornkop and Kalgold
9 Moses Motlhageng (42)

Bambanani, Unisel, Joel, Masimong and Target 1
10 Francois Janse van Rensburg (42)

Tshepong operations
11 Simphiwe Kubheka* (35)

Regional general managers

* Harmony regrets to advise that, post year end, Simphiwe Kubheka, tragically lost his life. The board, management and all at Harmony extend deepest sympathies to his family, friends and colleagues.
EXECUTIVE MANAGEMENT CONTINUED

SOUTH-EAST ASIA: EXECUTIVE

Chief executive officer: South-east Asia
1 Johannes van Heerden (45)

Executive: Operations
2 Charles de Villiers (47)

Chief financial officer
3 Aubrey Testa (41)

Executive: Projects
4 Bryan Baillie (54)

Executive: New business and resource development
5 Greg Job (53)

Executive: Exploration
6 Mike Humphries (50)

Executive: Engineering and asset management
7 Stan Bierschenk (51)

Executive: Corporate affairs
8 Richard Wills (62)
OUR STRATEGY

“To create sustained value, which will be achieved through safe, profitable production and increased margins”

Our primary strategic objective remains to create sustained value, which will be achieved through safe, profitable production and increased margins. Cash generated will be used to advance our business objectives which are to:

- fund investment in the stage 5 and 6 cutback at Hidden Valley
- prioritise growth capital at the Tshepong operations and Joel mine
- target exploration that maximises value from existing infrastructure
- make cash-generative acquisitions to improve the quality of ounces produced at a lower all-in sustaining unit cost
- develop the world-class copper-gold Wafi-Golpu project in Papua New Guinea
- maintain levels of low net debt and
- pay dividends to shareholders only from profits

OUR STRATEGY IS SUPPORTED BY THREE PILLARS

1. Operational excellence
2. Cash certainty
3. Effective capital allocation

In line with our strategic objective, our medium-term aim is to increase annual gold production to approximately 1.5Moz by FY19 by:

- growing, nurturing and developing our core assets through operational excellence
- organic growth
- identifying and evaluating value-accretive acquisitions in South Africa, Papua New Guinea and the rest of Africa

By ensuring operational excellence and adhering to our company values, applying mining discipline, further increasing our productivity, creating an enabling environment and applying grade cut-offs, we believe that our guidance for FY18 is realistic and achievable. These actions position our operations to achieve safe, profitable production in future. Realistic planning supports our strategy to optimise assets – our ore bodies, our infrastructure and our people. This will ensure safer, more profitable production.

By mining safely and profitably at all times, we will ensure the financial strength and flexibility necessary to underpin our future sustainability and growth. This, in turn, is crucial to ensuring that we continue to serve all our stakeholders’ best interests fairly.

See our investment case in Shareholder information.
OUR BUSINESS CONTEXT

As a business, we operate in a complex and ever-changing external environment that involves social, economic and environmental changes in the short, medium and long terms.

Relevant Global Reporting Initiative indicators: G4-EC8

To help us position Harmony for success, it is vital to understand the external and internal environments as well as the relationships between the two. Identifying and understanding these factors, both internal and external, requires regular, transparent and consistent stakeholder engagement (see Material issues and stakeholder engagement). This section should also be read in conjunction with the section Managing our risks and opportunities.

Communities, labour unions, non-government organisations and external stakeholders influence the public debate on mining’s contribution to society.

Balancing shareholder and stakeholder expectations
- Ongoing open and transparent communication

Potential liability for occupational lung disease compensation

Silicosis – a sustainable, inclusive solution being sought
- Negotiations between working group and affected stakeholders progressing – legacy fund to be established – settlement provision made
- Progress made by the industry and government
- Harmony Project Ku-Riha* initiative

See Safety and health

- We have helped local communities affected by the restructuring of the Free State mines in previous years
- Various measures implemented to improve efficiency of use and reduce water consumption by recycling
- Successful energy consumption strategies have improved our carbon footprint

See Environmental performance and Communities

* Tsonga word for compensation
Our view on the long-term strength of the gold price remains positive. Gold has outperformed as the global economy has been characterised by softer growth, leading many central banks globally to hold rates steady this year. Demand for gold by investors and jewellers remains firm, particularly in the important Indian market where the unheralded currency reform introduced by Prime Minister Modi’s government in November 2016 briefly disrupted gold trading. Our hedging strategy is helping to secure cash margins over the short term.

See Financial director’s report

Regulatory certainty is key to the future success and sustainability of the South African mining industry. Our involvement in discussions regarding mining regulations through the Chamber of Mines will continue to ensure that transformation is meaningful and sustainable.

• A revised Mining Charter was gazetted in June 2017. Legal proceedings for its review have been instituted by the Chamber of Mines. Judgement on the review is expected to be heard by mid-December 2017
• The declaratory order on the “once empowered, always empowered” principle has a court date set for November 2017

Labour relations environment in South Africa can be volatile.
Harmony negotiates changes to wages and other conditions of employment through a recognised collective bargaining structure, under the auspices of the Chamber of Mines

Employees
• Ensure safety and well-being
• Support training and development
• Prevention and treatment of HIV/Aids and tuberculosis (TB)
• Competition to recruit and retain skilled employees
• Addressing employment equity and equality

Gold, copper and foreign exchange rate volatility:
Long project development lead times and a lack of flexibility to rescale operations in response to price fluctuations can impact sustainable cash generation over the long term

Regulatory compliance and adapting to changes and amendments
MANAGING OUR RISKS AND OPPORTUNITIES

WHY THIS IS MATERIAL TO HARMONY
In identifying and understanding the risks and opportunities facing our business, we are better able to mitigate and/or manage them and to reduce their potential impact on our business. This will enable us to position the company to take advantage of any opportunities, future challenges and growth prospects.

OUR APPROACH TO RISK MANAGEMENT
At Harmony, our approach to risk relies on the continual monitoring of risk and related mitigation procedures and when appropriate, their revision. Our risk management strategy strives to be practical and effective, rather than focusing solely on compliance. Risk management is embedded in our day-to-day activities and processes.

Our risk management process
The risk management process is guided by specific regulatory and legislative requirements, and is championed internally by our chief executive officer. While management is responsible for implementation and compliance, the audit and risk committee is responsible for oversight of the process, its adequacy and effectiveness. Reporting on risk-related performance is marked for the attention of the various board sub-committees.

Because relationships underpin everything we do, our risk management process is based on engagement – between management and the board, and between the company and various stakeholders – to ensure that we address risks appropriately.

Risk management has, as its starting point, the group’s strategy. It is important to understand those factors that have the potential to hinder our ability to deliver on our strategy, as well as to identify those opportunities that will enable us to achieve our goals. We benchmark the risks and opportunities identified against those of our peers to ensure that the risks identified are not only specific to Harmony but also include those facing the industry.

In preparing their formal reports to the board, the executive committee and the audit and risk committee meet quarterly to examine the risks and discuss any changes in their relative importance or in their mitigation. The audit and risk committee's review is supplemented by feedback from the various board sub-committees and reviews of specific risks falling within the ambit of their responsibilities.

Each quarterly examination is based on experiences at the operations, feedback from key stakeholders, external factors and management meetings. In addition, various teams within the company address risk on a regular basis as part of their day-to-day roles. This creates an ongoing conversation about risk at different levels, allowing any changes to be captured on a continuing basis.

While risk management is included in our day-to-day processes, formal weekly risk reviews are undertaken by management teams at the operations to identify and prioritise specific, high-risk issues at an operational level. These operational and safety risk reviews are reported to the respective regional general managers with additional oversight by the operations' committees.

Roles of the board and audit and risk committee
Risk is a standard item on the agenda at audit and risk committee meetings and the committee’s role in our risk management process is multi-dimensional. The committee’s primary task is to identify, prioritise, manage and monitor strategic enterprise risks at Harmony, while operational and safety specific risks are monitored by the technical committee of the board. Our risk management process reflects our integrated approach to business and the audit and risk committee – supported by various board sub-committees – examines all risks affecting our strategy.

To do this, the committee spends considerable time reviewing and evaluating the processes in place to identify, monitor and manage risk. These include our risk management policy, methodology and planning, formal risk assessment, internal controls and assurance processes, our risk appetite and tolerance and our responses to the risks identified. Once the audit and risk committee is satisfied with these, responsibility for their implementation devolves to executive management and their teams. In turn, their task is to ensure that these risk processes are constantly applied in day-to-day activities.

Based on these reviews, the audit and risk committee submits its findings to the board. The top strategic, operational and safety-specific risks and mitigating factors are reported to the board on a quarterly basis.

Our group-level risk appetite statement
Harmony is in the business of gold mining, which is a high-risk, high-reward business. We are involved in the entire gold mining value chain – from exploring for prospects, conducting feasibility studies and building, buying and operating mines to closing and rehabilitating mines at the end of their productive lives.

In the course of conducting our business, we are exposed to gold price and exchange rate volatility. Where appropriate, steps are taken to reduce our exposure through hedging programmes. We operate well in emerging economies and have the ability and experience to deal with the socio-political circumstances in these countries.

As exploration is one of the most effective ways to grow an ore body and to create value, we continue to invest in exploration.

We have an appetite for change and continuous improvement and are constantly looking for innovative ways to improve our existing mines and acquire mines that we can operate more efficiently and that can contribute to our achieving our strategic objectives.

Deep-level gold mining in South Africa is very labour intensive and we have the skills to deal with the challenges of multi-stakeholder labour relations. We continuously strive to improve the safety and health of our employees.

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

OUR ACTIONS IN FY17
During FY17, we formulated group-level risk appetite and tolerance levels, and continued to monitor our risks to identify and manage those that were most material to the company.

While our group-level risk appetite and tolerance levels are subject to formal annual reviews, these are continually monitored for relevance in terms of changing macro-environment factors. Our tolerance levels are further defined at lower tolerance limits per risk.
**OUR TOP RISKS AND OPPORTUNITIES**

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

<table>
<thead>
<tr>
<th>IMPACT/CONSEQUENCE/LOSS*</th>
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<tbody>
<tr>
<td>DOWNSIDE RISK/THREAT</td>
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<td>M18 M11 H6 B2 H3 H1</td>
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<td>L25 L23 M17 M16 M10</td>
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<td>rare unlikely possible expected almost certain</td>
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**LIKELIHOOD**

- Existing risk – no movement from previous year
- Existing risk – movement from previous year
- New/emerging risk

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

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<th>IMPACT/CONSEQUENCE/PROFIT*</th>
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**LIKELIHOOD**

- Existing opportunity – no movement from previous year
- Existing – movement from previous year
- New/emerging opportunity

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

**Top 10 risks**

1. Rising costs impact our margins
2. Safety
3. Gold price and foreign exchange fluctuations – varying from plan
4. Reserve base depletion
5. Socio-economic, political and regulatory changes
6. Labour disputes and unrest, and inter-union rivalry
7. Not achieving operational objectives
8. Major infrastructure incidents
9. Potential liability for occupational health diseases
10. Cyber security

**Top 6 opportunities**

1. Gold price and foreign exchange fluctuations – varying from planned levels
2. Productivity improvements
3. Growing future ounces
4. New technology
5. Mergers and acquisitions
6. Hedging production to lock-in an attractive margin
**Top risks**
Below are the top 10 risks by ranking *(the information in brackets indicates the previous year’s ranking).*

### 1. Rising costs impact our margins (new)
Harmony has a mixed portfolio of assets ranging from operations with growth opportunities, high grade but short lives and operations that have low margins and nearing the end of their operating lives, which will reduce our production profile.

**Mitigation**
An operational excellence plan has been implemented, focusing on resource management and cost control to improve productivity, boost margins and ensure we achieve our strategic objective (see risk 7). Loss-making operations are closely managed and turnaround plans implemented. If unsuccessful, these operations will be closed. Management is identifying and evaluating acquisitions that will produce better quality ounces at a lower all-in sustaining cost.

**Profitable operations will ensure positive operational cash flow and cash certainty.**

### 2. Safety (1)
Safety risks are inherent to deep-level mining. While we prioritise safety primarily to protect our people, it also has the potential to halt production, affect our reputation, lead to litigation and decrease the overall value of Harmony.

We view safety as an opportunity to engage with many key stakeholders, particularly our employees, and to live our values.

**Mitigation**
As one of our five fundamental values, safety underpins all we do. Apart from the everyday safety procedures in place, we engage with employees regularly on the topic through training sessions, awareness campaigns and open discussions. A risk-based safety management system is integrated into our daily work philosophy through the Live Longer safety campaign and we continually adopt industry-leading safety practices. A safety assurance team ensures that regular safety audits are conducted. We also believe that we can learn from safety incidents. As a result, our safety department verifies and evaluates every injury on an ongoing basis. In addition, we have standardised auditing and reporting of physical conditions at workplaces.

For more on this refer to the Safety and health section.

**Safety is integral to the sustainability of our business – it creates a common goal and purpose, helps maintain stable production and ensures that we retain our licence to operate. Safety is central to our values and material issues, and underlies our strategy.**

### 3. Gold price and foreign exchange fluctuations – varying from planned levels (new)
As with all mining companies, Harmony is a price-taker. The price received for gold produced and sold is a function of the gold price in US dollars on global markets and, as a mainly South African-based company, of the rand-US dollar exchange rate. Should the US dollar gold price decline, this could impact revenue and reduce our margins. Similarly, a stronger rand reduces rand revenue earned. Exchange rate movements can also adversely impact costs.

**Mitigation**
Steps have been taken to counter declines in the rand price received for gold sold. This includes the hedging contracts put in place during FY16 and FY17 so as to lock-in an attractive margin for our operations. The currency hedging strategy further strengthens cash certainty. Underperforming assets are closely monitored and restructured for profitability with reduced capital expenditure investment.

**Operational excellence is key to maximising cash flows. Hedging contracts provide cash certainty.**

### 4. Reserve base depletion (2)
A challenge facing any mining company is to maintain the reserves and resources necessary to ensure sustained future production. Our exploration programme aims to establish a pipeline of resources and reserves. While our exploration programme aims to establish such a pipeline, the risk is that our exploration may not result in an increase in our reserve base, which may affect investor confidence and our growth strategy. Growing our ounces has become an important imperative to Harmony in the long term.

**Mitigation**
At executive management level, the respective chief operating officers for South Africa and Papua New Guinea have responsibility for safety, mining projects, new business development and corporate strategy.

An aspiration to grow gold production to 1.5Moz by FY19 will help to mitigate this risk. In order to grow our resource base to achieve this production target, we will identify and review opportunities for acquisitions in South Africa, the rest of Africa and Papua New Guinea. Simultaneously, organic growth projects are being assessed and ranked while the mine lives of our higher cost mines have been shortened.

Corresponding with this risk is the opportunity to grow future ounces.

**By ensuring a future production pipeline of ore reserves will enable us to operate sustainably and profitably.**
5. Socio-economic, political and regulatory changes (4)

Maintaining our licence to operate entails, among others, complying with all relevant socio-economic, political and regulatory changes in the countries in which we operate.

In South Africa, this includes existing and new mining, labour and environmental legislation as well as political and regulatory changes. Uncertainty remains around proposed amendments and revisions to the Mineral and Petroleum Resources Development Act and Mining Charter. In Papua New Guinea, the Mining Act and related regulations are currently being reviewed with a view to possibly being amended in the future.

Higher community expectations are giving rise to greater pressure to increase socio-economic investment.

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<tr>
<td>Developing and maintaining healthy relationships with all stakeholders is important for each party to understand the others’ concerns and expectations, and is essential in mitigating this risk. In South Africa, we interact regularly with the regulator so as to influence legislation. Through the auspices of the Chamber of Mines of South Africa, we contributed to industry feedback on proposed amendments to mining legislation and entered into high-level contact with government officials. We met regularly with community leaders to address community concerns, and our social and labour plans are aligned with municipal economic development plans. In Papua New Guinea, the Wafi-Golpu Joint Venture, Harmony and the local Chamber of Mines collectively participate in industry consultation.</td>
<td>Maintaining our licence to operate is essential to the sustainability of our business and we strive to be socially responsible. Not complying with regulations or addressing stakeholder expectations could impact our reputation and investor confidence in our business. It could also mean incurring fines for non-compliance or that we could lose our licence to operate.</td>
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6. Labour disputes and unrest and inter-union rivalry (unchanged)

In South Africa, unstable labour relations is one of the greatest risks facing the mining industry. The increase in inter-union rivalry in particular and prolonged strikes for higher wages in recent years in South Africa in general could, if unmanaged, result in industrial action, work stoppages and production losses, damage to property and assets, safety and security risks.

In addition, prolonged strikes can have adverse financial impacts on employees by way of increased indebtedness, on Harmony and on surrounding communities. This would undermine our efforts to bring economic stability to the communities where we work.

In Papua New Guinea, while our workforce is not unionised, if unmanaged, there is a risk that labour, a large number of whom are also local landowners, could embark on industrial action, work stoppages and damage property and assets, and pose safety and security risks.

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<td>Effective mitigation of this risk relies on continuing employee engagement. A ground-breaking three-year wage agreement entered into with the majority labour unions was effective from 1 July 2015. In South Africa, proactive and robust engagement with employees and organised labour is ongoing, at both mine and company level, and includes monthly presentations of operational performance to union structures. Union representatives are empowered and receive training. Collaboration and co-existence are encouraged in the prevailing multi-union environment. Specific action has been taken to address employee indebtedness. Financial literacy training is provided and systems implemented to manage emolument attachment and garnishee orders. Our human resources policy framework has been enhanced to more effectively manage conditions of employment and an employee relations policy framework is being formalised to strengthen engagement and dispute resolution processes. In Papua New Guinea, we continuously engage with all stakeholders, including employees, provincial and local government, landowners and regulators.</td>
<td>A supportive, stable, productive workforce will enable us to meet our operational targets and strategic objectives.</td>
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</table>
7. Not achieving our operational objectives (3)

While the risk exists that we may not meet production objectives, it is something we monitor closely. Unplanned events, such as safety-related incidents and stoppages and illegal mining, as well as gold price fluctuations can all affect our operational results and cash flows, and thus our ability to meet our strategic objectives. These factors, together with labour productivity and mining flexibility, are closely monitored.

Not meeting our operational targets impacts our financial results and investor confidence, and could eventually lead to mine closures.

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<td>We continue to identify and implement initiatives to improve productivity. To assist with meeting our objectives, operational risk management and planning were enhanced, and regional general managers have been given greater oversight and responsibility, supported by the engineering discipline. Increased security intelligence is being used to combat illegal mining.</td>
<td>Achieving our operational objectives is at the crux of our strategy, as this will allow us to strengthen and grow our business and to ultimately share the value created with all stakeholders.</td>
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In the medium to long term, our aspiration is to diversify away from high-cost mines in favour of gold and copper opportunities in South Africa, the rest of Africa and Papua New Guinea.

8. Major infrastructure incidents (5)

As a mining company, we rely on large infrastructure and equipment to conduct our mining activities. Any breakdowns or infrastructure failures have the potential to threaten employee safety as well as to disrupt production, which can lead to expensive, time-consuming repairs.

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<td>We spend a considerable amount of capital and time on the maintenance of infrastructure and to proactively address any potential problems. We improved our operational risk management processes and strengthened our senior engineering capacity with a particular focus on mitigating engineering risks. This included implementation of a holistic engineering strategy to enhance infrastructure maintenance and performance.</td>
<td>By ensuring that infrastructure and equipment malfunctions are kept to a minimum, we are better able to achieve our operational targets and strategic objectives.</td>
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9. Potential liability for occupational health diseases (unchanged)

The uncertainty regarding liabilities and compensation for occupational health diseases continues, particularly regarding work-related legacy illnesses.

This risk is compounded by:
- the pending judgement in the case against the South African mining industry regarding silicosis
- proposed amendments to the Occupational Diseases in Mines and Works Act
- the backlog of cases, for both tuberculosis and silicosis, at the Compensation Commissioner

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<td>Our proactive health strategy and our at-work management programme are aimed primarily at mitigating our health risks. In addition, industry-leading practices were implemented to eliminate dust underground. Through the occupational lung disease working group, we and our peers in the industry are working to develop a sustainable, long-lasting solution to address the socio-economic impact of silicosis. The working group believes that achieving a comprehensive settlement, which is fair to past, present and future employees and sustainable for the sector, is preferable to protracted litigation. As a result of the progress made by the working group and the status of negotiations with affected stakeholders, Harmony is now in a position to reasonably estimate its share of a possible settlement of the class action claims and related costs within an acceptable range. A provision has been recognised in FY17. The ultimate outcome of these matters remains uncertain with a possible failure to reach a settlement or to obtain the requisite court approval of the settlement. Harmony launched its own Project Ku-Riha to reconnect with former employees so as to update our employee record database and assist employees in claiming amounts due to them from already established compensation funds. In addition, we are addressing the impact of the occupational health risk to ensure that this risk does not continue into the future.</td>
<td>The potential impact of this risk, is two-fold. Firstly, our people are at the heart of our business and we want to do all we can to ensure they remain safe and healthy. Secondly, the potential liability for occupational disease could decrease our cash flow and make us less resilient in the future.</td>
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For further information on Harmony’s Ku-Riha project, see the section Safety and health.
10. Cyber security (new risk)

As the conduct and record of our business activities has become increasingly electronic so the importance of cyber security has grown. Breaches of our information technology system and the potential loss of data, among others, could disrupt operations and result in financial loss, the loss of intellectual property and reputational damage in particular, all with possible legal consequences.

**Mitigation**

A comprehensive information security management system has been implemented, encompassing a related strategy, framework, policies, procedures and plans. Harmony has partnered with information technology and cyber security experts to fully understand the risk and its ramifications. Training programmes on ensuring cyber security are being developed to educate employees, including management, of common threats to cyber security, on identity theft and data protection.

**Link to strategy**

Ensuring the security of our information technology systems will enable us to continue operating as a business.

Two risks that have fallen out of the top tier risks in FY17 are:

- **Consistency of electricity supply in South Africa and associated costs:** The national power grid and the supply of electricity has stabilised following the synchronisation by Eskom of a number of units from the Medupi and Kusile power stations with the national power grid in the past 12 months
- **Strategic consideration of Hidden Valley options:** Harmony acquired full ownership of Hidden Valley in October 2016 and is investing in the stage 5 and 6 cutbacks at the mine
MANAGING OUR RISKS AND OPPORTUNITIES CONTINUED

Top opportunities
Corresponding with several of the risks facing our business, are related opportunities. We have identified several of the main opportunities facing us at present.

1. Gold price and foreign exchange fluctuations – varying from planned levels (1)

Our business is highly geared to the dollar gold price and to fluctuations in the rand-US dollar exchange rate. Increases in the gold price, in either rands or US dollars, provide a significant and immediate gain.

Our ability to deliver on production and growth targets to counter lower commodity cycles is important.

Corresponding risks: 1, 3 and 7

2. Productivity improvements (2)

To be a successful business, we need to produce sufficient gold to be profitable, which is a function of a healthy and productive workforce. Having a skilled, healthy, motivated, engaged workforce will enable us to achieve our gold production targets. Enhanced labour productivity is supported by maintaining our infrastructure, improving technical efficiencies and ensuring safe working areas.

By enhancing productivity, we will be able to produce volumes that either meet or exceed our production and cost targets. This, in turn, will strengthen our business while producing below target could destabilise our business.

Corresponding risks: 1, 3 and 7

3. Growing for future ounces (3)

As a mining company, maintaining a pipeline of resources and reserves is vital to ensuring sustained future production.

Growing the ounces produced has become an important imperative to Harmony as increasing the quality of our production will ensure that we are able to fund Golpu and/or further expansion/exploration and/or potential acquisitions.

Corresponding risk: 4

4. New technology (4)

New technology presents opportunities to enhance our competitive advantage and ensure our business model is more resilient. For example, we can use new technology to improve our cost efficiency in response to cost pressures, such as increases in electricity tariffs and labour costs. This, in turn, will boost profitability.

Corresponding risk: 1 and 7

5. Mergers and acquisitions (new)

Merging and acquiring operations, which have synergies with our existing assets, will enable us to take advantage of economies of scale, reduce costs and improve efficiencies. This would also contribute to our long-term strategy to grow the quality of our production.

Corresponding risks: 1, 4 and 7

6. Hedging production to lock-in an attractive margin (new)

The hedging of a percentage of our marginal production to take advantage of favourable gold price trends (limited periods of high-grade production and high rand gold prices) will assist with the funding of exploration activities in Papua New Guinea. We currently have in place hedge contracts that cover some 20% of planned gold output and provide the cash-flow security needed for our projected capital spending.

Corresponding risks: 1, 3 and 7

For more detailed information pertaining to risk factors and their potential impact, see the Form 20-F as filed with the United States’ Securities Exchange Commission at www.harmony.co.za/investors/reporting/20f
STAKEHOLDER ENGAGEMENT AND OUR MATERIAL ISSUES

The process to determine our material issues derives from stakeholder engagement and our risk management process.

While our relationships with our stakeholders underpin all that we do, stakeholder engagement is also integral to our risk management process. This engagement – between management and the board, and between the company and various stakeholders – ensures that we address risks appropriately.

OUR APPROACH TO STAKEHOLDER ENGAGEMENT

Our stakeholder engagement complies with relevant legislation and standards, including ISO 14001, OHSAS 18001 and ISO 9000. Using our stakeholder engagement policy and strategy, we identify various stakeholders, internal and external, across our business process.

Given our many stakeholders, priority is given to those who are most likely to have the greatest impact on Harmony in terms of our achieving our strategic objectives and our business performance.

The primary aim of our stakeholder engagement is to share and gather information to inform our business decisions. This two-way communication is guided by our values and our strategic intent:

- To improve the lives of host communities through appropriate programmes or projects
- To find solutions to the various challenges facing our society and host communities, including unemployment and lack of economic activity, by collaborating with stakeholders and forming meaningful partnerships
- To find a balance between the expectations of shareholders and those of other stakeholders

Our engagement with stakeholders is inclusive, so that it is:

- Meaningful and addresses what is material to stakeholders
- Complete so that we understand the views, needs, perceptions and expectations linked to issues that stakeholders view as material
- Responsive so that we respond to material issues timeously, coherently and appropriately

WHY STAKEHOLDER ENGAGEMENT IS MATERIAL TO HARMONY

Stakeholder engagement is integral to our business and shapes our actions in determining strategy, addressing problems, and allocating resources. Effective stakeholder engagement helps us better manage risks, opportunities and enhances the company’s reputation, which is essential to the long-term sustainability of Harmony. Furthermore, effective, meaningful stakeholder engagement contributes to our store of knowledge as a company and provides information, which leads to improved decision-making processes. The board’s social and ethics committee oversees stakeholder relations while the board itself monitors relations with stakeholders.

To be a profitable, responsible and sustainable business, mutually beneficial and sustainable relationships with various stakeholders are vital to the success of our business strategy, especially in relation to our material issues. Given that our material issues are informed by stakeholder engagement, 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.

CONTINUOUS TWO-WAY ENGAGEMENT WITH OUR STAKEHOLDERS
STAKEHOLDER ENGAGEMENT AND OUR MATERIAL ISSUES CONTINUED

OUR MATERIAL ISSUES
In the course of engaging with stakeholders, we identify those issues that are most closely related to our values and strategy. From this process, we have derived the following five material issues, which encompass most of our key risks and address our values – safety, accountability, achievement, connectedness and honesty.

1. Keeping our people safe and healthy
People are central to our business. While we have made significant progress in recent years in improving safety and health underground, safety remains a priority. We continue our proactive people-centric approach, focusing on training and communication to entrench safe behaviour in the workplace. We understand the need to make additional safety advances by applying new technology and/or advancing protective equipment.

Our employees also face occupational health risks in working underground. We address all operational health risks and offer treatment for a variety of other health concerns. We believe that prevention is better than cure and offer proactive, integrated and holistic health strategy and programmes. Our aim is to ensure our employees return home safely and in good health.

For more, see the Safety and health section of this report.

Related key risks and/or opportunities:

- Safety; potential liability for occupational health diseases; not achieving our operational objectives; labour disputes and unrest and inter-union rivalry; new technology
- Promoting engagement aimed at enhancing safety in the workplace and employee health
- Implementing proactive safety awareness campaigns aimed at improving safety performance
- Healthcare programmes implemented – health hubs
- See Safety and health

2. Achieving our business objectives
While success in achieving our business objectives drives what we do, we are not solely focused on short-term success. As explained in the section Our strategy, our aim is to create a viable business for years to come. As a result, we also consider our future objectives, such as using technology and innovation, diversifying our resource base, and ensuring we have projects in place to sustain and grow our production.

Related key risks and/or opportunities:

- Safety; reserve base depletion/growing for future ounces; not achieving our operational objectives; labour disputes and unrest, and inter-union rivalry; socio-economic, political and regulatory changes; major infrastructure incidents; reliability of power supply and associated costs; potential liability for occupational health diseases; gold price and foreign exchange fluctuations; productivity improvements; new technology
- Communicating progress made in achieving our objectives and on impacts of changes in the gold price and the rand/US dollar exchange rate
- Implementing initiatives to reduce and contain costs
- Implementing an appropriate hedging strategy to lock in cash margin certainty
- Engaging with suppliers to ensure cost increases are contained and reasonable
- Liaison with the Papua New Guinea government around Golpu, and application for the special mining lease and related approvals and permits

This is discussed throughout this report, and, in particular, in the Chief executive officer’s review and operational performance

Stakeholder
Masimong
Papua New Guinea
Free State surface
3. Maintaining stability in our workforce

A stable workforce contributes to our aim of meeting our business objectives, as it results in lower employee turnover and stabilizes production. We focus on having positive and open relationships with our employees and labour unions. By fostering conversation, we understand and are able to address grievances before industrial action. The benefits of a stable industrial relations climate are extensive. We want to create workplaces where employees feel safe, respected and valued. The benefits of meeting our business objectives are shared with employees through production bonuses, reward and recognition programmes and the employee share ownership scheme. For more on these, see Remuneration Report.

### Related key risks and/or opportunities:

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<th>Safety; labour disputes and unrest, and inter-union rivalry; not achieving our operational objectives; major infrastructure incidents; productivity improvements; new technology</th>
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<td><strong>Our response</strong></td>
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<tr>
<td>Proactive, regular engagement based on openness, honesty and integrity</td>
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<td>Constructive engagement to facilitate understanding of issues and concerns of both sides</td>
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<td>Commitment to resolving the issues and addressing concerns</td>
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See Employees and communities

### Stakeholder

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5. Managing our impacts

The resources available to our business are finite and we respect this. We are environmentally responsible through careful monitoring of our consumption, emissions and impact. Our commitment to improving health and safety speaks to our need to protect human resources, while our training and development programmes highlight how we encourage each employee to learn and grow their skills. Responsible resource management is also crucial to our socio-environmental rehabilitation planning. While our mines are operational, we want to do all we can to improve the living conditions of employees and communities, and to bolster both socio-economic and ecological developments so that, when our mines close, we will leave behind us viable communities able to support their economies and which are not plagued by environmental or health issues. This entails planning now, ahead of mine closure, and is something we are constructively working towards. For more on our skills training and rehabilitation initiatives see section Employees and communities.

### Related key risks and/or opportunities:

<table>
<thead>
<tr>
<th>Safety; socio-economic, political and regulatory changes; major infrastructure incidents; potential liability for occupational health diseases; new technology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Our response</strong></td>
</tr>
<tr>
<td>Developing and implementing initiatives to empower local communities to ensure sustainable economic activity once mining has ceased</td>
</tr>
<tr>
<td>Inclusive engagement relating to land rehabilitation in the Free State and the creation of sustainable of economic activities independent of mining</td>
</tr>
</tbody>
</table>

See Safety and health, Employees and communities and Environmental performance in this report

### Stakeholder

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**Stakeholders**

- Government (national and provincial), municipalities and regulators and, in particular, the Parliamentary Portfolio Committee on Mineral Resources
- Industry bodies, including the Chamber of Mines
- Employees and unions
- Shareholders, investors, providers of capital and analysts
- Suppliers, partners and customers
- Media and general public
- Host communities

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SAFETY AND HEALTH

At Harmony, ensuring employee safety and health are moral imperatives. Without a safe and healthy workforce, we cannot be productive and profitable.

Achievements FY17

In South Africa
- Last quarter of FY17 was fatality free
- Fatality injury frequency rate at South African operations improved by 46%
- Tshepong achieved 3 million and Doornkop 2 million fatality-free shifts
- Rates of injury related to rail-bound equipment and falls of ground improved
- Proactive, preventative healthcare model yields benefits – decreased rates of hospitalisation and medical mortality
- Number of employees confirming their HIV/AIDS status increased again, from 73% to 78%
- Decline in TB rate continued, down by 10% year-on-year
- Actively involved with certification process to address backlogs and assist the mining industry in quantifying the silicosis risk
- Improved efficiencies at the Medical Bureau of Occupational Disease have enabled removal of employees with certified second degree silicosis from further risky work environment thus reducing rate of progression of silicosis

In Papua New Guinea
- Analytical laboratory (testing for tropical diseases like malaria) and X-Ray (TB screening) facilities installed at Hidden Valley
- Monitoring of industrial hygiene begins at Hidden Valley with a focus on dust (silica), noise and diesel particulates

Challenges FY17

- Lost-time injury frequency rate regressed
- Behavioural breaches of safety standards
- Unhealthy behaviour and lifestyles predispose employees to chronic and lifestyle diseases
- Despite TB incidence decline year on year, the rate remains unacceptably high in comparison with global standards and remains one of our top five health risks
- Effective HIV/AIDS management remains a challenge, despite deep understanding of the associated risks

Relevant material issues:
- Keeping our people safe and healthy
- Achieving our business objectives
- Maintaining a stable workforce
- Protecting our licence to operate
- Managing our impacts
OUR APPROACH TO SAFETY AND HEALTH

At Harmony, ensuring employee safety and health are moral imperatives. Without a safe and healthy workforce, we cannot be productive and profitable. We aim to eliminate and prevent all fatalities and work-related injuries and illnesses by instilling and maintaining a culture that values the safety and health of all.

Our occupational safety and health policy and related management framework are aligned with the Mine Health and Safety Act in South Africa and relevant legislation in Papua New Guinea, including the Mining (Safety) Act 1977 and associated regulations, as well as with the standards and aims 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 and indicators.

Representatives from management, union and government participate in structures aimed at emphasizing the importance of safety and achieving our goal of zero harm. 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 currently 33 full-time safety and health stewards at these operations (FY16: 30). Safety and health feature as agenda items at all union and management engagements.

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.

In Papua New Guinea, safety managers report regularly to the South-east 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.

SAFETY

Continued improvement in our safety performance is essential to our achieving zero harm. A co-operative approach involving all stakeholders ensures that the necessary infrastructure and systems are in place – including relevant planning, communication and training. While management is legally responsible for safety, management and employees are jointly responsible for their actions, to halt work when a workplace is considered unsafe and/or to prevent risky actions. Line managers and supervisors constantly reinforce safe behaviour. Site-specific safety initiatives as well as behaviour reinforcement programmes are in place.

At our underground operations in South Africa, eight fatal risks – falls of ground, underground rail-bound equipment, electricity, working at heights, winches, mud-rushes and inundation, fire and explosives – have been identified. For each, risk standards with measurable critical controls have been compiled and rolled out together with the necessary training. Safety trainers, who interact directly with employees at the work face, are closely involved. Safety steering committees monitor performance. Much attention is given to fatal risk standard compliance by senior management. There has been a noticeable improvement in accident trends, specifically in that for fatal accidents. However, there is much room for improvement.

Implementation of a comprehensive integrated safety risk management system and the accompanying safety campaign – Live Longer – has begun. This system was developed following an exercise to benchmark best practice in the industry and an external audit of our safety performance and practice. Live Longer is a risk-based approach to safeguarding lives and to save mines. This approach is not limited to safety. It also encompasses health, the environment, communities and social risks, legal and regulatory risks, among others.

The overall aims of the Live Longer safety campaign are to:

- proactively manage safety risks
- establish in-house capabilities to ensure that safety awareness is a way of life
- promote a culture of continuous care and learning
- prevent accidents, especially significant unwanted events, before they happen by implementing the controls necessary to effectively manage potential hazards

The four-layered safety risk management system currently being implemented involves:

- a baseline risk assessment to identify major hazards and significant unwanted events that can cause fatalities
- issue-based risk management and bowtie analyses, based on the critical management of controls and their hierarchy, to ensure that the controls in place are effective
- task-based risk management to ensure that the related procedures are in place, effective and safe
- continuous risk management to ensure that tasks are only performed when it is safe to do so

On an individual level, this safety campaign is based on SLAM:

- STOPPING to review the work area, colleagues and the tools to be used
- LOOKING out for any potential hazards
- ASSESSING that the controls in place will be effective
- MANAGING any deviations from the norm that are identified

The Live Longer safety risk management, together with visible-felt leadership and our values, underpin our determination to achieve zero harm.

Phase 1 of the Live Longer rollout at the Harmony One plant and at the Joel mine and plant was completed. Also completed in FY17 was the high-level safety risk management training for executives and regional management. Phase 2 of the system’s rollout is being conducted at the Tshepong operations, which includes Phakisa, Doornkop and Target, and their respective plants. Group-wide implementation is scheduled to be completed by December 2018.
SAFETY AND HEALTH CONTINUED

PERFORMANCE IN FY17

Relevant Global Reporting Initiative indicators: G4-LA5, G4-LA6 and G4-LA8

South Africa and Papua New Guinea

Regrettably there were five fatalities during the year (FY16: 10), all at our South African operations (FY16: nine). There were no fatalities at our Papua New Guinean operation (FY16: one). The group fatal injury frequency rate improved by 46% to 0.07 (FY16: 0.13).

In memoriam

<table>
<thead>
<tr>
<th>Date</th>
<th>Operation</th>
<th>Name</th>
<th>Occupation</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 July 2016</td>
<td>Joel</td>
<td>Lekhabu Seatle</td>
<td>Cage assistant</td>
<td>Trucks, tramming and transport</td>
</tr>
<tr>
<td>23 September 2016</td>
<td>Phakisa</td>
<td>Samuel Sicelo Mayakala</td>
<td>Locomotive guard</td>
<td>Trucks, tramming and transport</td>
</tr>
<tr>
<td>26 October 2016</td>
<td>Central Plant</td>
<td>Enoch Sithemebelo Magrwanini</td>
<td>Engineering assistant</td>
<td>Working at height</td>
</tr>
<tr>
<td>1 February 2017</td>
<td>Masimong</td>
<td>Tekiso Kelane</td>
<td>Engineering assistant</td>
<td>Working at height</td>
</tr>
<tr>
<td>17 February 2017</td>
<td>Bambanani</td>
<td>Sakhele Xungu</td>
<td>Scraper winch operator</td>
<td>Gravity-related fall of ground</td>
</tr>
</tbody>
</table>

Sadly, post-year end, a seismic event triggered a fall of ground at Kusasalethu on 25 August 2017, resulting in the death of five employees.

Harmony continues to provide counselling and financial assistance to the families of deceased employees. An education fund established in FY14 supports the needs of the school-going dependants of all employees and contractors who lose their lives in the workplace. As at the end of June 2017, this fund had provided assistance totalling R2.7 million and ensured that 52 dependants continued with their education.

Of note is that Tshepong, which has not reported a fatality since 2014, achieved 3 million fatality-free shifts during the course of the past financial year while Doornkop achieved 2 million fatality-free shifts and Unisel and Kusasalethu achieved one million fatality-free shifts.

South Africa

The lost-time injury frequency rate for the South African operations regressed by 17% to 7.61 (FY16: 6.50). In all, 24 026 shifts were lost due to occupational injury in South Africa (FY16: 22 416).

While the focus on the high-risk safety areas resulted in significantly improved performance, the number of general type accidents increased. The increase in the incidence of slip and fall and material handling accidents accounted for the regression in overall safety performance. This will be a focal point of safety in the coming year.

The injury frequency rates for both falls of ground and rail-bound equipment improved on the year. The fall-of-ground injury frequency rate improved by 5% to 1.55 (FY16: 1.64). There was one gravity-related fall-of-ground fatality in FY17 (FY16: three gravity-related and two seismic related fall-of-ground fatalities). The rail-bound equipment injury frequency rate improved by 43% to 0.43 (FY16: 0.75). Two rail-bound equipment-related fatalities were recorded during the year.

The number of Section 54/55 instructions issued during FY17 increased to 276 (FY16: 182). However, production lost as a result of safety-related stoppages declined by 47% to 291kg (10 185oz) (FY16: 554kg, 19 393oz).

We refer you to the assurance report issued by SizweNtsalubaGobodo Inc. and their qualification on the limited assurance on the lost time injury frequency rate.

Inconsistencies were found in the hours worked used as input for the calculation of the lost-time injury frequency rate. Hours worked were manually obtained from our time and attendance systems on the reporting date. Thereafter, shift adjustments are made to these hours based on actual time worked, resulting in an inconsistency between the hours previously recorded and the updated hours. Harmony has developed and is in the process of implementing a computer-based system to improve the reporting of hours worked.
Achieved during the course of FY17:

<table>
<thead>
<tr>
<th>Fatality-free performance</th>
<th>Significant safety performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>More than three million shifts</strong></td>
<td><strong>More than three years</strong></td>
</tr>
<tr>
<td>Bambanani (rail-bound equipment): 7 million shifts</td>
<td>Target Plant: 7 years’ reportable injury free</td>
</tr>
<tr>
<td>South Africa underground operations (fall-of-ground): 6 million shifts</td>
<td>Joel Plant: 6 years’ lost-time and reportable injury free</td>
</tr>
<tr>
<td>South Africa surface operations: 4 million shifts</td>
<td>Central Plant: 6 years’ reportable injury free</td>
</tr>
<tr>
<td>South Africa all operations (rail-bound equipment): 4 million shifts</td>
<td>Education, Training and Development Services: 7 years’ lost-time and reportable injury free</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Three million shifts</th>
<th>Two years (lost-time and reportable injury free)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tshepong (including fall-of-ground and rail-bound equipment)</td>
<td>Surface operations</td>
</tr>
<tr>
<td>Doornkop (rail-bound equipment)</td>
<td>Harmony One Plant</td>
</tr>
<tr>
<td>Harmony</td>
<td>Harmony Laboratory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two million shifts</th>
<th>One year (lost-time and reportable-injury free)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa underground operations</td>
<td>Phoenix Plant</td>
</tr>
<tr>
<td>Doornkop (including fall-of-ground)</td>
<td></td>
</tr>
<tr>
<td>South Africa – total operations</td>
<td></td>
</tr>
<tr>
<td>Harmony</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>One million shifts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phoenix Plant</td>
<td></td>
</tr>
<tr>
<td>Kusasalethu (including fall-of-ground)</td>
<td></td>
</tr>
<tr>
<td>Unisel</td>
<td></td>
</tr>
<tr>
<td>Masimong (rail-bound equipment)</td>
<td></td>
</tr>
<tr>
<td>Phakisa (fall-of-ground)</td>
<td></td>
</tr>
</tbody>
</table>

Measures currently in place to ensure that safety is foremost include:

- Employee training on how to work safely. All employees are trained to conduct pre-work risk assessments before any work is done.
- Ongoing safety awareness campaigns, shaped by messages agreed by management in consultation with the unions, safety structures/representatives.
- Clearly defined safety roles and accountabilities used to measure team performance. Safety committees ensure that company standards on mining and engineering work are reviewed periodically, compiled, approved and distributed to operations for implementation.
- A formal visible-felt safety leadership coaching programme for managers and supervisors to optimise safety engagement with subordinates so as to drive positive changes in behaviour.
- Comprehensive safety reports to track incidents, measure safety performance and report back to mines on performance. Safety management systems are in place at all South African operations. Data sourced from workplace inspections by safety officers is recorded in the system and statistics are captured daily. Deliverables for the safety, health, environment, risk and quality internal control management system include a document centre, document review and automated workflow approval. User training was completed during the year. Although the system is still in its early stages, improved accident trends have already been noted.
- Reviews of external safety initiatives or 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. They attend all industry meetings and ensure that all relevant information is disseminated to the operations.
- A dedicated executive manager: safety, supports the chief operating officer: South Africa, who has specific responsibility for safety. His remit includes site visits to investigate best practice at various mining companies. It also includes responsibility for adopting and implementing world best practice in safety and health strategies at Harmony.
Papua New Guinea

The lost-time injury frequency rate for Hidden Valley improved by 63% to 0.52 (FY16: 1.39). In all, 11 shifts were lost due to occupational injury (FY16: 127).

Work on reviewing, integrating and improving the safety management system at Hidden Valley and Harmony exploration continued. Implementation of the revised system, which will align with the international safety standard ISO 45001, is scheduled for completion by December 2017.

Safety measures in place include implementation of critical controls and verification for all high-risk (potentially fatal) activities. Work menus and related training programmes, incorporating relevant critical controls, were developed for high-risk activities and rolled out. To ensure the correct critical controls are implemented for the high-risk activities, an activity-specific verification process through formalised audits was implemented.

Particular safety challenges encountered in Papua New Guinea are landslides and/or slope failures, a consequence of the mountainous terrain, high rainfall, quickly changing weather conditions and earthquakes. Natural landslides are relatively common and, together with potential man-made landslides (slope failures associated with open-pit mining), pose a significant safety risk. During the year, real-time slope stability radar monitoring systems were operational at both open pits and failures were well managed throughout the year.

Specific geotechnical risk assessments are undertaken for all work sites in Papua New Guinea. The associated mitigation plans are updated at least annually.

Vehicle-related incidents are also a significant risk and work undertaken during the year to mitigate the risk of these included:

- installation of on-board cameras to monitor driver behaviour for corrective training
- vehicle-specific emergency braking procedure training for all drivers
- manned check points for all trucks to verify permits and licences prior to entering mine lease areas and prior to certain hazardous declines
- reducing fatigue-related incidents by implementing an updated management plan (based on an expert study) and further investigations into technology to prevent accidents

PUBLIC SAFETY

The social and ethics committee oversees public safety on behalf of the board. No major incidents occurred during the year involving the safety of the public.

SAFETY TARGETS FOR FY18

Our focus remains zero fatalities and zero harm. Our FY18 safety targets for our South African operations have been set in line with the Mine Health and Safety Council milestone targets. Consequently, our target for FY18 is to improve performance regarding both lost-time and reportable injuries by 20% year on year at the South African operations.

We will continue with our strategy to improve leadership, employee behaviour and safety messaging to effect a long-term shift in thinking and behaviour.
HEALTH

Relevant Global Reporting Initiative indicators: G4-LA2 and G4-LA7

HEALTH STRATEGY

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 and medical aid membership, as well as through external healthcare providers. We continue to provide accessible, comprehensive healthcare services at our health hubs, located close to the workplace.

Harmony's proactive healthcare strategy focuses on employee well-being. It is important that our employees are fit for life, fit for work and fit to retire. This strategy aims to manage illness by identifying disease early and so help to prevent permanent disability. Medical surveillance, active case finding and the early detection and treatment of disease are thus integral aspects of our management healthcare system. This strategy will be expanded to include monitoring and promoting employees' resistance to illness.

As a member of the Chamber of Mines, Harmony participates in processes to address legacy issues relating to occupational lung disease. In May 2016, the High Court certified two classes for the related class action, namely TB and silicosis. The silicosis working group, initiated by certain South African gold mining companies who are members of the Chamber of Mines, continues to work on establishing a sustainable, all-inclusive and comprehensive solution to current and legacy concerns relating to compensation of the occupational lung diseases covered by the Occupational Diseases in Mines and Works Act.

As a result of the progress made by the working group and the status of negotiations with affected stakeholders, Harmony is now in a position to reasonably estimate its share of a possible settlement of the class action claims, and has made a provision of R917 million (US$70 million). The ultimate outcome of these matters remains uncertain.

PERFORMANCE IN FY17

South Africa

Our At work health management programme continues to yield good results by contributing to more healthy people being at work. Health-related absenteeism improved from 9.4% in FY13 to 7.4% in FY17. The aim of this programme is the early identification and care of employees who may become chronically ill, and to manage, review and monitor their medical conditions. In the past year, 8 109 of the 440 cases certified (FY16: 214). The increase in the number of certified TB cases is due mainly to improved efficiencies at the Medical Bureau of Occupational Diseases which has been addressing the backlog. More than 90% of the 440 cases certified had been submitted by employees who are not members of a medical scheme. In FY17, 15 216 (FY16: 15 137) employees were diagnosed with chronic conditions, and one third were treated for two or more chronic conditions such as hypertension, HIV/AIDS, diabetes, asthma and TB.

Medical surveillance continues at our dedicated occupational health hubs where 44 733 medical examinations were conducted during the past financial year (FY16: 41 563). Harmony's health team had several opportunities to showcase our proactive healthcare delivery model. A delegation of senior occupational health officials and practitioners visited Doornkop's health hub in April 2017.

Healthcare delivery

At our South African operations, membership of a medical scheme is compulsory for all category 9+ category employees. For category 4-8 employees, membership is voluntary. Approximately 6 870 employees participated in medical schemes in FY17 (FY16: 6 742).

Harmony subsidised the related costs on behalf of employees by R13 million (US$1.0 million) a month (FY16: R12 million or US$0.8 million).

In all, 20 905 category 4-8 employees have elected not to join a medical scheme. Instead they receive comprehensive health services from mine medical facilities and associated preferred providers at no cost to the employee. The cost of providing these services was R24 million (US$2.0 million) a month in FY17, including health hub management costs, specialists and hospitalisation.

The health hubs 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. In FY17, 15 216 (FY16: 15 137) employees were diagnosed with chronic conditions, and one third were treated for two or more chronic conditions such as hypertension, HIV/AIDS, diabetes, asthma and TB.

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Tuberculosis

TB is one of the most pressing public health concerns in South Africa and the gold mining industry. The TB incidence rate at our South African operations remains high compared with World Health Organization and national benchmarks. Given the challenges, our approach takes into account the multiple aspects of TB management, addressing both occupational and socio-economic determinants of the disease.

Harmony's TB control programme, which is aligned with the relevant guidelines and prescriptions of the World Health Organization as well as with the national strategic plan to combat TB, focuses on comprehensive screening, testing and contact tracing, the hospitalisation of infectious cases and a directly observed therapy short course. As an affiliate of the Chamber of Mines, and through the national Masoyise iTB campaign, Harmony is committed to ensuring that every employee is screened and tested for TB annually. Screening for TB has intensified since 2016, as part of the campaign to curb the TB epidemic, an initiative spearheaded by the Minister of Health.

For FY17, 30 113 employees (including contractors), or 97% of the workforce, were screened for TB, exceeding the 90% target set by the Minister of Health. A total of 440 cases of TB were certified (FY16: 214). The increase in the number of certified TB cases is due mainly to improved efficiencies at the Medical Bureau of Occupational Diseases which has been addressing the backlog. More than 90% of the 440 cases certified had been submitted by 2015. The TB incidence rate per 100 000 employees has declined by 55% since the introduction of our proactive healthcare strategy in FY10 – from 3 024 in FY10 to 1 366 in FY17.

TB incidence rate (per 100 000 employees)

<table>
<thead>
<tr>
<th>Year</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>1 834</td>
</tr>
<tr>
<td>FY14</td>
<td>1 620</td>
</tr>
<tr>
<td>FY15</td>
<td>1 887</td>
</tr>
<tr>
<td>FY16</td>
<td>1 524</td>
</tr>
<tr>
<td>FY17</td>
<td>1 366</td>
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</tbody>
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SAFETY AND HEALTH CONTINUED

HIV/Aids
The HIV/Aids pandemic in South Africa continues to have a significant impact on employees, their dependants and local and labour-sending communities. The illness can result in higher levels of co-infections of other diseases, which lead to increased absenteeism and reduced performance levels, loss of skills, increased economic burden, and sometimes death. Motivating employees to confirm or disclose their HIV status, despite perceived stigma and confidentiality issues, remains one of the biggest challenges. Initiatives such as positive behaviour programmes can be pivotal in addressing this challenge.

At the South African operations, 7 816 employees (FY16: 7 063) have been identified as being HIV-positive and are on the HIV/Aids programme, with 6 340 (FY16: 5 333) 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.

For its new HIV/Aids treatment targets beyond 2015, the Department of Health, in conjunction with the Joint United Nations Programme on HIV/Aids (UNAids), has adopted the 90-90-90 targets, which are globally aligned. Harmony has in turn aligned its HIV/Aids programme with these targets, which are:

- By 2020, 90% of all people living with HIV will know their HIV status. Harmony currently at 78% (FY16: 73%) (including contractors)
- By 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy. Harmony currently at 78% (FY16: 71%) (medically uninsured, excludes contractors)
- By 2020, 90% of all people receiving antiretroviral therapy will have viral suppression. Harmony currently at 70% (permanent employees)

Voluntary counselling and testing for HIV/Aids
Pre-counselling and voluntary counselling and testing are offered to all employees through ongoing interventions at all Harmony healthcare hubs. In all, 29 991 (FY16: 30 294) employees received voluntary counselling and testing during the year and, of these, 23 162 (FY16: 22 995) confirmed their status.

Occupational diseases
Silicosis
Silicosis remains a material concern. It 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 so minimise the risk. Indication are that the incidence of silicosis is declining.

During FY17, 220 cases of silicosis were submitted to the Medical Bureau of Occupational Diseases and 108 cases were certified (FY16: 284 cases reported; 64 cases certified). The increase in certified cases is as a result of improved efficiencies at the bureau.

Project Ku-Riha
Project Ku-Riha (Tsonga for the word compensation), launched by government in May 2015, is being rolled out by the Department of Health to improve the system of compensation for those mineworkers who have occupational lung disease and ensure that valid claims are paid more speedily and efficiently.

Harmony and seven other South African mining companies continue to participate in this initiative.

Aligned with the Department of Health’s Project Ku-Riha, Harmony’s in-house RECONNECT initiative was launched in collaboration with Teba, to trace former employees and assist in addressing the backlog in claims for occupational lung disease at the Compensation Commission for Occupational Diseases. The roll-out of the RECONNECT initiative began in Lesotho in May 2017, followed by Welkom, in the Free State in June 2017.

Currently, the status regarding this initiative is as follows:

- Number of claims paid and closed: 3 023
- Number of claims in process: 1 618
- Number of door-to-door household visits: >19 000
- Total value of claims paid to date: R81 million (US$6.0 million) by the Department of Health

Industry milestone: 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.

Using present diagnostic techniques, no new cases of silicosis will occur among previously unexposed individuals (previously unexposed individuals are those unexposed to mining dust prior to December 2008, equivalent to a new person who entered the industry in 2009). Workshops have been conducted by the occupational hygienists from all operations to establish a strategy to achieve this milestone.

A decision was taken to set annual incremental targets to meet the milestone ahead of time, and not to wait until the deadline. This will ensure a special focus on areas where compliance is lacking. Of note is the fact that Harmony is currently 88% compliant with the new milestone attributed to all the engineering controls in place.

Dust control
A range of engineering measures is used 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 have been acquired by all underground operations and are being installed in intake airways. These monitors provide immediate dust readings, which will 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.

Dust discharge occurs during activities where the rock is broken at source: stoping, development and trackless mining. Engineering controls to allay dust at source are to be investigated through the Mining Industry Occupational Safety and Health dust task team. A prototype waterblast, which can be used in both stoping and development, is currently being tested.
The testing resulted in changes to the unit to accommodate robustness and effectiveness. This continued during the current year. A final product was developed, which is being tested with apparent success. The final test results should be made available to industry in the near future.

**Noise-induced hearing loss**

Harmony embarked on an oto-acoustic emissions initiative to detect early hearing loss. The Council for Scientific and Industrial Research collaborated and analysed the data, and confirmed that Oto-Acoustic-Emissions detect damage two years earlier than an audiogram. We have received a proposal from University of Pretoria researchers to continue with further technical developments that could help prevent noise-induced hearing loss.

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

During the year, 99% of occupationally exposed employees, including contractor employees (76%), were issued with personalised hearing protection devices (FY16: 98% and 71%). A progressive total of 24 759 personalised devices had been issued by the end of FY17 (FY16: 23 226).

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

New industry milestones for noise-induced hearing loss:
- **By January 2018**, no employee's standard threshold shift will exceed 25 dB from the baseline when averaged at 2 000 Hz, 3 000 Hz and 4 000 Hz in one or both ears
- **By December 2024**, the total operational or process noise emitted by any equipment must not exceed a milestone sound pressure level of 107 dB(A)

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 526 cases in FY16 to 518 in FY17.

An awareness drive was initiated at all operations to ensure 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 also conducted.

As part of the initiative to prevent noise-induced hearing loss, 24 939 (FY16: 24 602) employees participated in the ‘hearing coach promotion’ initiative during the year. Evaluations were conducted and guidance provided where necessary regarding the use of customised hearing protection devices.

**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, support and protect employees exposed to excessive heat in the workplace.

In FY17, 15 354 heat-tolerance tests were undertaken (FY16: 14 549). The increase in the number of tests is attributed to the increase in testing at Phakisa, Masimong and Joel to mitigate associated health and business risks. Heat-related illness cases increased from 20 to 53 cases in FY17 (decreased from 23 to 20 cases in FY16). Findings from investigations revealed that environmental working conditions are within standard. The increase in the number of cases can be attributed to dehydration. Campaigns to promote awareness of the importance of hydration of employees are being conducted.

**Radiation protection**

All our operations in South Africa comply with the maximum dose limits of 50 millisievert a year and 100 millisievert over five years. 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.

**Healthy living**

**Preventative healthcare – promoting awareness and education**

Harmony’s health initiatives focus on the most common diseases and, as part of the induction programme, the e-learning module addresses these diseases. In addition, podcasts and liquid-crystal display screens are used to educate employees on various health issues. Other initiatives include the distribution of pamphlets, health-worker training, screening at all medical centres, disease management interventions and quality assurance. Furthermore, an exclusive health desk has been set up to improve and strengthen communication on health-related matters.

Monthly health awareness campaigns, guided by the annual health calendar, focus on particular health-related topics such as HIV/AIDS, TB, sexually-transmitted infections, and occupational and lifestyle diseases. Ongoing monitoring and education are conducted at the medical health hubs, which oversee major health campaigns.

**Influenza vaccines**

In preparation for the winter season in South Africa, the influenza (flu) vaccine is offered to employees as a precautionary measure. In all, 9 260 employees (FY16: 7 147) received influenza vaccinations in the past financial year, an increase of 30% on the previous year.

**Chronic diseases**

Non-communicable chronic diseases including hypertension, heart disease and diabetes continue to pose a significant challenge for our employees. This is expected to continue as HIV treatment grows.

As part of Harmony’s integrated approach to healthcare, specific initiatives have been implemented to manage chronic diseases, with a particular focus on HIV/Aids, TB, diabetes, hypertension and silicosis, as well as asthma and epilepsy. In FY17, 55% (FY16: 55%) of employees at the South African operations has a chronic condition. Of the 15 216 employees diagnosed with chronic conditions in FY17, 33% have hypertension, 6% diabetes and 52% HIV/AIDS.

**Papua New Guinea**

In Papua New Guinea, the provision of primary healthcare and occupational health surveillance to employees, dependants and the local community is provided by medical centres at Hidden Valley, Wafi-Golpu and Wau. 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 issues in Papua New Guinea (see page 50).
Despite experiencing between 3-4m of rain a year, which naturally suppresses dust, testing for respirable silica is conducted with an initial focus on higher-risk areas at Hidden Valley. Baseline data indicates that the risk of personnel contracting silicosis is negligible.

A total of 13,133 health examinations took place at Harmony medical centres in Papua New Guinea during FY17 (FY16: 13,131), of which 3,569 (FY16: 3,508) were random drug and alcohol tests.

**Upper respiratory tract infections**
The Hidden Valley mine is located approximately three kilometres above sea level and most employees reside in the lower, warmer areas; the regular change in altitude 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 heavy rainfall all year round maintains high levels of humidity (around 80-90%) which creates favourable conditions for fungus, bacteria and viruses to proliferate.

A total of 2,427 employees were treated for respiratory ailments in FY17 (FY16: 2,438). The number of cases presented annually since FY12 has halved. An employee educational programme on respiratory ailments and gastro-intestinal hygiene has been successfully implemented.

**TB 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 FY17, five new cases of TB were reported during the year in Papua New Guinea (FY16: three).

More than 150 personnel underwent voluntary counselling and testing for HIV/AIDS during the year at Hidden Valley.

**Malaria**
Malaria is endemic to many parts of Papua New Guinea, which includes work sites such as Wafi-Golpu and Lae but excludes Hidden Valley. Importantly, many employees and contractors working at Hidden Valley reside in areas where malaria is endemic, and this is where our community health projects play a vital role in combatting the disease.

Over the past two years, there has been a 22% decrease in the presentation of patients with malaria-like symptoms. This is as a result of several initiatives including support for provincial spraying and fogging programmes; standardised testing; the distribution of treated mosquito nets and treatment regimens; and ongoing malaria awareness education.

**HEALTH OBJECTIVES FOR FY18**

**South Africa**
- Continued improvement in health-related absenteeism rates, specifically a 12% decline in absenteeism
- Make the healthy healthier and create a healthy culture within the company, including contractors
- Provide a proactive, individualised well-being programme which includes health risk assessments and development of individual risk profiles
- Continue to lead the industry with our healthcare model

**Papua New Guinea**
- Monitoring of industrial hygiene to be expanded at Hidden Valley
EMPLOYEES AND COMMUNITIES

A stable, engaged, skilled and motivated workforce has an important role to play in the successful achievement of our strategic business objectives.

Relevant Global Reporting Initiative indicators: G4-LA1, G4-LA9 and G4-LA12

Achievements FY17

In South Africa
- Overall the employee relations environment has been stable and conducive to an improved working relationship
- Achieved management employment equity target of approximately 61%
- Human resource development expenditure: 5% of payroll (on target)
- Training in personal indebtedness: 19 621 employees trained to date (74% of workforce)
- Hostel accommodation: 100% single-room occupancy rate maintained
- Procurement expenditure with black economic empowerment entities of 78% exceeded Mining Charter targets

In Papua New Guinea
- Papua New Guinea citizens make up 95% of our workforce
- Employee training and development: 50 907 hours

Challenges FY17

- Retaining the skills and experience required to operate efficiently
- Managing inter-union rivalry
- Competition for high-level engineering skills

WHY EMPLOYEES AND COMMUNITIES ARE MATERIAL TO HARMONY

A stable, engaged, skilled and motivated workforce has an important role to play in the successful achievement of our strategic business objectives.

Our employees contribute to the growth and development of our company and we, in turn, contribute to the growth and development of our people. Our aim is to provide the means for our employees to achieve a good quality of life for themselves and their families, and to provide the opportunity for each individual to develop to his or her full potential.

Similarly, the support and goodwill of host communities is vital to maintaining our social licence to operate, and we aim to leave an enduring legacy in those areas in which we operate. Ongoing positive, transparent engagement with communities is necessary to understand, manage and respond to community concerns and expectations.

At Harmony, we are committed to sustainable socio-economic development, to the well-being of our host communities and to ensuring that they have sustainable livelihoods once mines have reached the end of their operating lives. As these communities are those from which we draw our employees, their well-being and development underpin our own sustainability.

Relevant material issues:
- Ensuring our workforce is safe and healthy
- Maintaining stability in our workforce
- Establishing a committed, dedicated culture of delivery
- Protecting our social licence to operate
- Being relevant in the communities in which we operate
EMPLEYESS AND COMMUNITIES CONTINUED

OUR APPROACH
Relevant Global Reporting Initiative indicators: G4-LA2

Our human resources 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 efficiency
- Maintaining effective employee performance and leadership development management systems

Our employment policies, procedures and practices take into account and comply with the relevant labour legislation in South Africa and Papua New Guinea. Our recruitment initiatives focus on local communities in both countries. A review of all human resource procedures and policies is ongoing, including remuneration and incentive schemes.

Ongoing engagement with communities is necessary to understand, manage and respond to community concerns and expectations, especially where mines are near closure.

EMPLOYEES

PERFORMANCE IN FY17

South Africa: At the end of FY17, our employee complement totalled 30 990 (FY16: 30 441), with 85% (FY16: 85%) being permanent employees and 15% (FY16: 15%) contractors. More than 76% (FY16: 75%) of the South African workforce was drawn from local communities.

There were 2 002 employee terminations in FY17, of which 48% were due to medical incapacity, 11% resignations, 22% dismissals and 8% as result of death in service (natural causes). The employee turnover rate at the South African operations averaged 7% for FY17 (FY16: 9%).

Papua New Guinea: At the end of FY17, our employee and contractor complement was 2 211, excluding employees of the Wafi-Golpu joint venture. Of these, 59% were permanent employees and 41% were contractors. A total of 95% were local.

Employment and gender equity
Relevant Global Reporting Initiative indicators: G4-EC6 and G4-HR3

In all the areas in which we operate, a representative workforce is a moral and legislative imperative.

South Africa: Harmony reports quarterly on its employment equity plan and progress made to the social and ethics committee. Annual reports are submitted to the departments of Labour and Mineral Resources.

In FY17, 61% (FY16: 60%) of Harmony management were historically disadvantaged South Africans, exceeding the Mining Charter 2014 target of 40% for company-level compliance.

The proportion of women employed at management level in FY17 was 17% (FY16: 17%). There is no difference in salary scales for men and women at Harmony.

Employment equity performance by category – South Africa as at June 2017

<table>
<thead>
<tr>
<th>Occupational category</th>
<th>Historically disadvantaged South Africans (target = 40%)</th>
<th>Women employed by category (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>57</td>
<td>14</td>
</tr>
<tr>
<td>Top (executive) management</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Senior management</td>
<td>49</td>
<td>26</td>
</tr>
<tr>
<td>Middle management</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Junior management</td>
<td>63</td>
<td>16</td>
</tr>
<tr>
<td>Core and critical skills</td>
<td>59</td>
<td>11</td>
</tr>
</tbody>
</table>
Papua New Guinea: Emphasis 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, 97% (FY16: 95%) of employees at Hidden Valley were local. In all, 12% of employees in Papua New Guinea are women.

Employee share ownership: South Africa
Launched in FY12, the Tlhakanelo Employee Share Ownership Plan applied to all eligible non-managerial employees.

The 2012 Tlhakanelo Employee Share Ownership Plan came to an end in March 2017. For more details on this share ownership plan and employee remuneration, please refer to the Remuneration report.

Employee engagement
In applying our “connectedness” value, we ensure that employees feel part of the Harmony family. Internal communications, a continuous interactive process, allows employees access to information and provides an opportunity to engage with management. This includes regular meetings with heads of departments, work groups and general manager engagement platforms (mass meetings and quarterly productivity meetings), as well as in-depth quarterly internal campaigns to drive important messages across the group, such as safety, ethics and wellness, among others. We also make use of print (posters, internal newsletters, memos and flyers), digital media (email, mine television, intranet, website and text messaging) and social media (Twitter).

The chief executive officer communicates regularly with employees by e-mail, at meetings and during internal roadshows.

For employees to be committed, productive and passionate about their jobs, they need to feel valued, which in turn increases morale, productivity and participation because they feel empowered to communicate openly. To this end, we ensure that our employees understand their roles within the company, their contribution to the overall company objectives and what is happening in the industry. They are the first to hear important news. Regular employee engagement involves communication both to and from employees. Furthermore, suggestions made by employees are taken seriously and acted upon.

Following the acquisition in full of Hidden Valley in Papua New Guinea, Harmony’s values were launched to both employees and local communities.

Wau values roll out

Employee relations
Development of a new employee relations framework is underway. Progress has been slower than anticipated, having been hindered by inter-union rivalry, primarily between the National Union of Mineworkers (NUM) and the Association of Mineworkers and Construction Union (AMCU).

Union leadership empowerment programme
An empowerment programme, initiated in FY15, continues. The programme aims at sharing business imperatives and performance, company strategy and an understanding of business principles with labour unions. The unions understand the financial health of each operation and are included in decision-making and the future of operations.

South African gold wage negotiations
Relevant Global Reporting Initiative indicators: G4-EC5
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 Chamber of Mines. In October 2015, a three-year wage agreement was reached with the unions representing the majority of employees at Harmony and was extended to all employees in the bargaining unit. As this agreement will end in June 2018, the next round of wage negotiations in the sector is due to start in the coming calendar year. For more information, refer to www.goldwagenegotiations.co.za

Labour disputes and strikes
Relevant Global Reporting Initiative indicators: MM4, G4-LA16 and G4-HR11
Labour disputes and strikes are considered a material issue as, in addition to the resulting loss of production, disputes affect morale and reputation, and present a risk to non-striking employees, communities and company assets. Several instances of unprotected strike action at Kusasalethu occurred in the second half of the year.

We endeavour to maintain peace and stability in our workforce at all times. We want our employees to feel and be safe at work. 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 while our general managers and human resources leaders interact regularly at branch level and with shaft committees.

Discussions are currently underway with various unions on an employee relations policy framework. Disciplinary action against AMCU is also proceeding regarding the three unprotected strikes at Kusasalethu during the year.
EMPLEYEEs AND COMMUNITIES CONTINUED

South Africa: 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. Various initiatives address the scourge of employee indebtedness, which have had the added benefit of improving employee morale and engagement. These include, among others, financial literacy and personal indebtedness training. In all, 19 621 employees or 74% of the workforce (FY16: 16 033 or 62%) have attended the financial literacy and debt counselling programme since its launch in September 2013. A particular focus is the suspension 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.

Papua New Guinea: We engage continually with all stakeholders, including employees, contractors, national, provincial and local government, landowners and regulators.

Freedom of association
Relevant Global Reporting Initiative indicators: G4-HR4

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

South Africa: Harmony recognises four labour unions. Union representation in FY17 was as follows: NUM at 62% (FY16: 60%), AMCU at 22% (FY16: 24%), the United Association of South Africa at 7% (FY16: 8%) and Solidarity at 2% (FY16: 2%). Some 7% (FY16: 6%) of employees did not belong to a union.

Papua New Guinea: There are no active unions. Industrial relations at Hidden Valley is currently overseen by an employees’ representative committee.

Training and development

South Africa
Relevant Global Reporting Initiative indicators: G4-LA9

All training and development programmes are aligned with the company’s strategic and operational needs and include skills development, adult education and training, learnerships, graduate development, talent management, and supervisory and leadership development. In FY17, 5.0% of the payroll was spent on human resource development (FY16: 5.3%).

Following its approval, a leadership development competency framework is to be rolled out in the coming year. This framework is part of the initiative to improve organisational efficiency and innovation, and includes training and development programmes aimed at improving leadership effectiveness and the supervisory development programme.

In addition to upskilling employees, we recognise and devote considerable time and effort to identifying community members who could benefit from bursaries, work experience, internships and the bridging school. Priority is given to local students. Most pleasingly, we were able to employ 92% of the students who had successfully completed their internship into available permanent positions.

In FY17, 92% (FY16: 92%) of our workforce attended training and skills development at a cost of R409 million or US$30.1 million (FY16: R364 million or US$25.1 million). This included South African-based research and development initiatives in exploration, mining, processing, technology efficiency, beneficiation and environmental conservation.

In all, 75 people (FY16: 68) received training in critical skills, such as mentoring, hazard identification and risk assessment, mineral resource management and various others, through study assistance programmes. In addition, another 183 employees attended the supervisory development programme intended to equip employees with the skills to better manage and lead their teams.

Adult education and training
Relevant Global Reporting Initiative indicators: G4-LA10

Adult education and training centres at our South African operations run full-time classes to ensure that employees are functionally literate and numerate so as to enable personal growth and transform workforce.

In FY17, 537 employees attended adult education and training (FY16: 412) and eight (FY16: two) community members at a cost of R38 million or US$2.8 million (FY16: R28 million or US$1.9 million). The overall average pass rate increased to 66% in FY17 (FY16: 56%), an 18% improvement on the previous year.

E-learning programmes were piloted in August 2015 and since then five operations have rolled out adult education and training e-learning programmes, which adult learners may complete in their own time. E-learning is expected to increase the number of participants as employees will be able to study after hours at their own pace.

Harmony’s literacy rate has improved to 80% of the total workforce.

Bursary programme

On completion of their studies, student bursars can apply for Harmony’s graduate development programme. A total of 76 bursaries (FY16: 52) were awarded to students studying at tertiary institutions in the 2017 academic year. Of the bursaries awarded in 2017, 70 or 92% (FY16: 51 or 98%) of the students came from local communities and the balance from the provinces in which we operate. The pass rate for our bursars for the 2016 academic year exceeded 90% for all modules written.

Bridging school
Harmony’s bridging school supports mathematics and science at grade 12 level to assist school leavers to improve their final results and gain admission to tertiary institutions. On successful completion of grade 12, some are awarded bursaries while others applied for learnerships with the company.
Since the school’s inception in 1996, we have registered 430 students in all. Of these, 27 (6%) were awarded bursaries and 330 (77%) attended our learnership programme. The balance were appointed to various permanent positions within Harmony.

**Learnerships**
Harmony runs a formal learnership programme. In FY17, 152 learners (FY16: 214) were enrolled at different levels of the learnership programme. Of the total number enrolled, 123 (FY16: 100) completed their learnerships. Most were appointed to positions available within the company.

**Internship and experiential programmes**
In support of our social and labour plans, we hosted 49 students (18 internships and 31 experiential trainees) during FY17 (FY16: 65 students – 30 interns and 35 experiential trainees).

**Social plan programme**
We continue to provide alternative skills training to employees, both current and retrenched, through our social plan programme, which was facilitated by the framework agreement between Harmony and NUM in 2003. The training provided enables people to remain economically active beyond mining, cushioning the economic impact of unavoidable retrenchments or the loss of employment when mines reach the ends of their lives.

**Portable skills development**
In FY17, 1,631 employees (FY16: 1,545) received portable skills training. Around 63% (FY16: 52%) were proxies (dependants of mine employees). The number of people receiving such training has almost quadrupled in recent years. Over the past nine years, Harmony has provided portable skills training to 7,631 employees (and/or their proxies) – in basic electrical maintenance, end-user computing, basic welding, basic motor mechanics, clothing manufacture, furniture making, plumbing, bricklaying, animal husbandry and mixed farming systems.

**Papua New Guinea**
In FY17, workforce training events conducted at Hidden Valley included:

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

**Employee educational support**
Harmony provided educational support to 352 Hidden Valley employees (FY16: 347) and their dependants.
Housing and living conditions in South Africa

Housing and accommodation

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target (%)</td>
<td>Planned</td>
<td>% Achieved</td>
</tr>
<tr>
<td>Residences (hostels):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single room occupation 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One person per room</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Hostels (non-operational):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>conversion to family units</td>
<td>100</td>
<td>1,100</td>
<td>86</td>
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<tr>
<td>Facilitation of home ownership 2</td>
<td>4,700</td>
<td>69</td>
<td>3,231</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>85</td>
<td>84</td>
<td>82</td>
</tr>
</tbody>
</table>

1 The number of single rooms available

2 Houses sold to employees and other housing development programmes (actual achieved will depend on employee affordability profiles and the ability to obtain finance). Certain elements are beyond Harmony’s control, such as whether employees are granted bonds or receive state subsidies. Bank lending, affordability and indebtedness remain stumbling blocks to increased home ownership.

Of those employees residing in our hostels, all are accommodated in single rooms. Of the 1,100 family units to be built over three years, 945 (FY16: 945) units have been built to date – 86% (FY16: 86%) of the total planned. This includes 448 family units built at the Merriespruit housing project, which has now been completed. Post year end, the Merriespruit housing project was awarded first place in the provincial community residential unit category in the Free State.

To further facilitate home ownership, we subscribe to and support the pension-backed home loan scheme negotiated for the industry by the Chamber of Mines. In all, 1,772 (FY16: 1,072) of employees used this facility with a reduction in the number of subscribed employees paying off their loans. During FY17, 100 (FY16: 156) houses were purchased by way of a ‘rent-to-own scheme’.

Negotiations are currently underway with the local Merafong municipality and other interested parties regarding the construction of Deelkraal rental units, close to Doornkop and Kusasalethu. The municipality has requested that the entire area be formalised. A costing for the provision of bulk services and a population demographics study are to be undertaken as preparatory steps in the process. Harmony will contribute a portion of land for the proposed township, once an application for the relevant subdivision has been approved.

Progress is being made with the construction of the 10 Doornkop family units. A contractor has been appointed and construction is scheduled to be completed by December 2017. A key aspect of this project is to provide mine housing for the future. The design of the housing units incorporates new energy efficient and building systems.

While all existing mine housing is offered to employees at affordable rates, the sale of those in Wedela, near Kusasalethu, is progressing slowly, owing to the inaccessibility of funding. Alternative funding models are being put in place and to date 12 houses have been sold.

HUMAN RIGHTS – FOR EMPLOYEES AND COMMUNITIES

Relevant Global Reporting Initiative indicators: G4-LA14, G4-HR3, G4-HR10 and G4-HR12

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 an operational level.

We abide by the human rights conventions of the International Labour Organization, as supported by the South African Constitution. At group level, adherence is monitored by the social and ethics committee. In addition, certain human rights requirements are incorporated in supplier contracts.

The South African Constitution also prohibits forced, compulsory or child labour. None of Harmony’s operations are at risk of human rights contraventions and no contraventions of these principles were alleged or reported in FY17.

An employee survey based on the United Nations Global Compact on labour and human rights was conducted at four operations. The survey highlighted that Harmony’s employee development programmes were aligned with best practice.

Key areas to be addressed include improved monitoring of internal labour policies, improved communication on employment contracts to lower category workers, enhancing prevention mechanisms for workplace disputes, providing greater clarification on policy guidelines regarding the use of private security and the security of employees, the need for clear policy and procedures on workplace harassment, and sexual harassment in particular, and greater monitoring of contractors’ conditions of employment to ensure that these are aligned with Harmony’s. Once the survey’s recommendations have been thoroughly considered, an action plan will be developed to address shortcomings.
COMMUNITIES

SOCIAL AND LABOUR PLANS

Relevant Global Reporting Initiative indicators: G4-EC4

Harmony’s South African operations are governed by approved mining rights, each of which is bound by an agreed and approved social and labour plan. Our social and labour plans include 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. Refer to our Mining Charter Compliance Scorecard for the current status of our achievements in terms of the targets detailed in the Mining Charter 2014.

We identify appropriate local economic development initiatives and projects through stakeholder engagement and in partnership with communities, government departments, municipalities, educational institutions, non-governmental organisations, and the governments of Lesotho and Mozambique.

For the five-year social and labour plan cycle ending December 2017, our social and labour plan commitments entailed total planned expenditure of R844 million (US$57.3 million) by government and Harmony, of which, as at 30 June 2017, R494 million (US$38.0 million) had been spent (FY16: R430 million; US$33.3 million). Of this, R418 million was spent on mine community development projects, which included R303 million from government for two legacy projects, the conversions of the Masimong and Merriespruit 3 hostels into residential units.

As our social and labour plans are aligned with local municipal integrated development plans, we ensure we make relevant and sustainable contributions to local communities. At regular Harmony-led community forums, stakeholders meet to discuss and agree on key projects for host communities. The aim is to identify and develop industries lacking in the local economy as well as the enterprises necessary to service those industries.

As a result of somewhat improved levels of profitability at certain mines in FY17, expenditure on local economic development in South Africa increased to R24 million or US$1.7 million in FY17, after a decline in FY16 (FY16: R17 million or US$1.2 million).

Several local economic development projects are underway in labour-sending areas, and an agreement is in place to provide home-based care to medically incapacitated employees in all areas.

Socio-economic investment

Relevant Global Reporting Initiative indicators: G4-SO1 and G4-SO2

We are committed to the sustainable socio-economic development and well-being of our host communities long after mining has ceased. We endeavour not just to comply with laws and regulations but to conduct regular meetings with stakeholders, such as government and community leaders, to address concerns, grievances and misperceptions.
Annual local economic development spend

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R million</td>
<td>US$ million</td>
<td>R million</td>
</tr>
<tr>
<td>South Africa</td>
<td>24</td>
<td>1.7</td>
<td>17</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>3</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>Harmony – total</td>
<td>27</td>
<td>1.9</td>
<td>18</td>
</tr>
</tbody>
</table>

Sustainable human settlement initiatives
Harmony makes available land to provincial and local governments for the development of integrated human settlements. On the West Rand, land valued at R7 million in Mohlakeng Extensions 13 and 14 was donated to the province of Gauteng. To date, 1 200 houses have been built in line with government’s reconstruction and development programme. An updated housing programme, based on government’s breaking new ground housing strategy, aims to promote an integrated society by developing sustainable human settlements and quality housing within a subsidy system for different income groups. An additional 291 units are currently under construction. Of these, qualifying Harmony employees will be entitled to 100 units, as part of the land availability agreement with the province.

In support of the housing project, an industrial development initiative with local stakeholders is in underway. Harmony will lease land adjacent to the housing project for the establishment of a motor industry-related industrial hub. This project will provide economic and job opportunities for the area.

In addition, existing mine houses are sold to employees at discounted selling prices. To assist with affordability, a pension-backed loan scheme is being facilitated by the company. To date, more than 100 houses have been sold through this scheme, which is open to all employees.

In the Free State, Harmony is funding three spatial development frameworks in conjunction with the respective municipalities. These are the Masimong-Thabong, Virginia Core Area and the Merriespruit spatial development frameworks. The function of these frameworks is to include mining infrastructure and mine housing into the municipal areas. These initiatives will create home-ownership options for employees and job creation for the communities.

Harmony also makes available ‘social leases’ to businesses and organisations. These are redundant mine buildings that are rented at below-market rates to assist small, medium and micro enterprises, and charity organisations with affordable accommodation. Such buildings have also been donated to schools and orphanages.

Corporate social responsibility
Our corporate social responsibility policy recognises the need for socio-economic investment in South Africa and Papua New Guinea, starting with the broader communities in which we operate, and our activities are considered, approved and monitored at board level by the social and ethics committee.

In FY17, Harmony spent R11 million or US$0.8 million (FY16: R9 million; US$0.6 million) on corporate social responsibility projects, including the funding of development programmes for small, medium and micro enterprises.
Ongoing corporate social investment includes our sponsorship of the National Science Olympiad Awards and Enactus. Harmony has been the chief partner and sponsor of the National Science Olympiad event since 2009, contributing more than R16 million over the years towards identifying talent, encouraging excellence in maths and science, and stimulating interest in the science subjects. Harmony, a platinum level sponsor of Enactus for 11 years, has contributed more than R22 million to this initiative to date. In FY17, 2,839 students representing 74 community outreach projects around the country participated in the national Enactus competition. The national championship was won by the University of Zululand, which represented South Africa at the Enactus World Cup in London in September 2017.

Harmony is continuing to fund research into specific rock engineering issues at the University of Pretoria in support of providing a safer working environment in deep-level hard rock mines. In FY17, we contributed R5 million (US$0.4 million) to this research project.

Papua New Guinea

In Papua New Guinea, regulatory control vests in a memorandum of agreement between Harmony, various national, regional and local governments, and the Hidden Valley landowner association with similar social commitments to those in South Africa. Corporate social responsibility projects and programmes are considered, approved and monitored by the head of our South-east Asian operations.

Corporate social responsibility expenditure remained focused on health, education, agriculture and infrastructure in FY17. Harmony’s infrastructure programme at the Hidden Valley mine focuses on constructing, repairing and upgrading roads, bridges, educational facilities, health facilities and water supply in the landowner and local community villages.

Two social responsibility programmes for the Wafi-Golpu project are showing positive results:

- An adult literacy and numeracy pilot programme started in 2014 with most participants being women. In addition to being able to read bibles in church services and write short stories, women are also gaining confidence in speaking at community meetings about subjects affecting their livelihood.
- Assistance has been provided to the Lower Watut cocoa farmers who are now selling up to 300t of cocoa beans annually, which is approximately double their historical production level. In 2015, their cocoa beans were ranked top five in the world by the International Cocoa of Excellence show in Paris, France and in 2017 a Lower Watut cocoa fermentary received a bronze award at a country-wide cocoa show. See Noteworthy action.

Agriculture development programme

During FY17, community training was conducted in six local villages, with a total of 129 people being trained in coffee husbandry and quality control. Six model solar dryers for coffee processing were constructed.

Terms of reference were developed for coffee and fresh produce farmers. An external resource was invited to bid for this exercise.

Community education programmes

A team comprising representatives from both government and Hidden Valley visited various schools and health facilities in the villages of Nauti 1, Nauti 2, Manki Tawa, Yokua Kaisenik, Nato, Paraora and Menianda. In addition, basic stationery, library books, text books for the standard-based curriculum, as well as volley balls were delivered to local elementary and primary schools.

Harmony supported elementary schools in the Bulolo District by sponsoring the supply and delivery of Tutu Desks. In all, 900 desks were delivered to the schools. Harmony’s South-east Asia executive committee attended the launch of this programme.
EMPLOYEES AND COMMUNITIES CONTINUED

Community projects
Six water supply projects, with a total budget of R3 million (US$0.2 million), were approved by the Benefit Sharing Agreement Trustees for the principal Hidden Valley landowner villages including: Nauti, Kwembu, Winima, Greenhill, Akkikanda and Minava. Three of the projects (Nauti, Kwembu and Greenhill) have been completed, two are in progress and one is yet to start. Once completed, these water projects will benefit a population of 2,200 people.

Other projects to which Harmony is contributing in Papua New Guinea:

- Maintenance of critical sections of the Lae-Bulolo highway
- Fencing of the Wau Airstrip and grading of an alternative road access to Wau
- Contributed to outstanding power bills for the Wau Hospital
- Sponsored the Lae-Bulolo-Wau leg of the World Cup Rugby League tour

PROCUREMENT
Relevant Global Reporting Initiative indicators: G4-LA15 and G4-SO10

Extending our supplier network to include emerging businesses enables a more equitable distribution of economic benefits.

South Africa
Our preferential procurement strategy complies with legislation, and procurement processes and expenditure are governed by our group strategy and policy. We support this approach by helping to develop the business management skills required for emerging enterprises to succeed.

Our preferential procurement strategy encompasses:

- regional enterprise development centres, which make it easier for qualifying suppliers to do business with our company
- amending tender policies to help Harmony meet Mining Charter requirements
- measuring each mine’s procurement from historically disadvantaged South African entities against targets in the Mining Charter scorecard
- small, medium and micro enterprises and/or historically disadvantaged South African-compliant vendor development aimed at maintaining acceptable standards

Our preferential procurement strategy promotes expenditure with companies recognised as black economic empowered entities under the Mining Charter.

In FY17, procurement expenditure with black economic empowerment (BEE) entities was R4.4 billion or US$323 million (FY16: R3.4 billion or US$0.2 billion); equivalent to 78% (FY16: 76%) of total discretionary spend.

South Africa: Annual BEE-compliant procurement

<table>
<thead>
<tr>
<th>Year</th>
<th>(Rbn)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>1.0</td>
<td>20</td>
</tr>
<tr>
<td>FY14</td>
<td>2.0</td>
<td>40</td>
</tr>
<tr>
<td>FY15</td>
<td>3.0</td>
<td>60</td>
</tr>
<tr>
<td>FY16</td>
<td>4.0</td>
<td>80</td>
</tr>
<tr>
<td>FY17</td>
<td>5.0</td>
<td>100</td>
</tr>
</tbody>
</table>

NOTEWORTHY ACTION
Lower Watut cocoa farmers project
In Papua New Guinea, Harmony through the Wafi-Golpu project joint venture, has been providing training and assistance to the Lower Watut Farmers’ Co-operative Society in Morobe Province since 2010. Around 1,000 farmers in 42 cluster groups from 10 villages make up the Lower Watut Farmers’ Co-operative Society. Their aim now is to further increase yields and the quality of the cocoa beans produced and to begin export to global markets.

The Wafi-Golpu joint venture has also assisted with the supply of 150,000 hybrid seeds. The cocoa farmers began harvesting these hybrids in 2014 and production has steadily increased – from less than 150t of cocoa beans in 2010 to around 300t annually. The hybrid seeds are expected to last for another 15 years before they need to be replaced. The joint venture will soon oversee the installation of five new fermentaries to supplement the three provided in 2013. Once set up, the fermentaries will further increase production. For further detail on the cocoa farmers’ project, see www.harmony.co.za/sustainability.
South Africa: Our performance in relation to the Mining Charter’s black economic procurement targets as a percentage of total spend:

<table>
<thead>
<tr>
<th>Category</th>
<th>Mining Charter target</th>
<th>FY17*</th>
<th>FY16*</th>
<th>FY15*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital goods</td>
<td></td>
<td>40</td>
<td>78</td>
<td>81</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td>70</td>
<td>80</td>
<td>79</td>
</tr>
<tr>
<td>Consumables</td>
<td></td>
<td>50</td>
<td>78</td>
<td>76</td>
</tr>
</tbody>
</table>

* Calculation is based on Harmony’s financial year.

Papua New Guinea

As agreed with government authorities (local, regional and national), landowners and communities, we issue contracts to local companies wherever possible.

Supply expenditure by Harmony in FY17 amounted to R2.7 billion or US$198 million (FY16: R2.9 billion or US$203 million) of which R1.0 billion or US$75.4 million (FY16: R1.8 billion or US$123 million) was expended in Papua New Guinea. Of this amount, R725 million or US$53.3 million (FY16: R734 million or US$51 million) was spent in Morobe Province on goods and services. Contracts were awarded by Harmony to local landowner companies for catering, fuel haulage, general freight, plant hire, security, labour hire, cleaning, rehabilitation and bus services.

ENTEPRIZE AND SUPPLIER DEVELOPMENT

South Africa

Harmony established the Phakamani and Leano small business funds in all host communities in South Africa to fund and promote small, medium and micro enterprise development. Since inception, Harmony’s visibility in the host community has increased significantly and the Leano initiative has approved 35 transactions with a total value of R6.8 million.

During FY17, Harmony established the Soweto-Doornkop Hub and the first local company has been selected for funding. Interactive campaigns were also conducted in the mining communities of Matjhabeng and Masilonyana in the Free State to promote awareness among local entrepreneurs on this funding initiative/programme.

Since inception, the Leano initiative has supported 29 enterprises. In all 14 women and 14 youth entrepreneurs are being assisted.

To date, four companies are being funded by this initiative and are under incubation – three engineering businesses and one armature rewinding business. Two of these are youth-owned. In addition, a women-owned business producing achaar is also being funded.

Papua New Guinea

In line with Hidden Valley’s current memorandum of agreement, Harmony continues to offer and encourage business development opportunities to landowners. Similar opportunities are expected to be available with the proposed development of the Wafi-Golpu project.
ENVIRONMENTAL PERFORMANCE

We are aware that our activities and processes can negatively impact the natural environment in which we operate. We therefore accept responsibility for preventing, mitigating, managing and minimising these impacts.

In South Africa

- Drilling of boreholes in local communities to supply water during the drought
- Recycling water to reduce dependency on potable supply
  - Two water treatment plants being built in Welkom to reduce potable water consumption by 30%
- 5ML plant installed at Doornkop to generate potable water
- Water treatment plant installed at Kusasalethu
- Partnership with solar energy providers in Welkom
- Environmental impact assessments approved for 10MW plants at Eland, Nyla and Tshepong
- Bio-energy plant being commissioned for commercial production
- Energy efficiency initiatives continue to reduce electricity consumption

In Papua New Guinea

- Environmental inception report for the Wafi-Golpu project approved by the Conservation and Environment Protection Authority
- Environmental impact statement for the Wafi-Golpu project being prepared – includes feasibility of potential for deep-sea tailings placement and on-site power generation

At group level

- Achieved our five-year energy consumption target in FY17
- A listings for performance and reporting on climate change and water from the Carbon Disclosure Project (CDP)

Two significant incidents

- Overflow of process water dams due to heavy rainfall in Welkom and Carletonville with no material impact
- Failure of sewage pump station at Kusasalethu

At Hidden Valley, a significant oil spill of approximately 9,500 litres occurred when forklift tynes pierced a shipping container and containment bladder

WHY THE ENVIRONMENT IS MATERIAL TO HARMONY

We are aware that our activities and processes can negatively impact the natural environment in which we operate. We therefore accept responsibility for preventing, mitigating, managing and minimising these impacts.

Relevant material issues:

- Managing our environmental impact
- Reducing our environmental footprint
- Delivering lasting environmental benefits
- Prudent use of our natural resources
- Protecting our licence to operate
OUR APPROACH
We aim to manage our environmental impacts, related risks and liabilities, and comply with environmental legislation, as responsible stewards upholding a culture that shares knowledge and experience within and outside our group.

Our social and ethics committee oversees Harmony’s environmental strategy and performance while an executive environmental manager and environmental leadership team motivate environmental improvement strategically at group level. General managers are accountable for environmental management at each operation in terms of annual environmental management plans that identify opportunities for improvement.

Our environmental strategy is supported by our board-approved environmental policy, available at www.harmony.co.za/sustainability/governance#policies. Operations are guided by technical and performance standards, which are incorporated into environmental management systems and implemented in line with ISO 14001. Our commitment to responsible environmental stewardship, and sustainable mining and closure, is outlined in this policy. Environmental management programmes include detailed closure plans for each operation within five years of planned closure to expedite beneficial post-mining land use and sustainable community livelihoods.

In South Africa, by year-end, seven of our mining operations and five of our processing plants had been certified in terms of ISO 14001.

All the South Africa operations are either ISO14001 certified and/or operate in compliance with this standard. Continual improvements are noted year on year. The Joel, Target, Harmony One, Central, Doornkop and Kusasalethu plants were recertified in accordance with the International Cyanide Management Code in FY17, illustrating the responsible environmental practices being applied in relation to cyanide management.

In Papua New Guinea, Hidden Valley’s environmental management plan 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.

Environmental legislation
South Africa

In the year under review, Harmony, together with the Chamber of Mines, met with the Department of Environmental Affairs to clarify our obligations as a mining right holder in terms of the Financial Provision Regulations under the National Environmental Management Act. On 21 September 2016, the Department of Environmental Affairs notified the Chamber of Mines that amendments were being considered.

We also await promulgation of amendments to the regulation of tailings storage facilities to which the norms and standards for landfill sites had been applied in terms of the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008), until the Chamber of Mines engaged with the Department of Water and Sanitation to remove residue deposits from this legislation. We expect regulation to revert to the Mineral and Petroleum Resources Development Act once promulgated.

Papua New Guinea
Water extraction and waste discharge for mining projects are regulated by applicable environmental legislation issued by the Conservation and Environment Protection Authority (formerly the Department of Environment and Conservation). Part 1 of the Environment (Amendment) Act 2014, which constitutes major and substantive amendments to the Environment Act 2000, has not yet been gazetted.

Sorghum on tailings
ENVIRONMENTAL PERFORMANCE CONTINUED

PERFORMANCE IN FY17
Relevant Global Reporting Initiative indicators: G4-EN22

We spent a total of R74 million (US$5.5 million) (FY16*: R91 million; US$6.3 million) on our environmental portfolio in FY17 of which R54 million (US$3.9 million) (FY16*: R75 million; US$5.2 million) was spent in South Africa and R21 million (US$1.5 million) in Papua New Guinea (FY16: R16 million; US$1.1 million). During FY17, we spent R14 million (US$1.0 million) on the implementation of the bio-energy initiative in South Africa. To date, a total of R63.8 million (US$4.9 million) has been spent on this project. In addition, Harmony spent a total of R80 million (US$5.9 million) (FY16: R44 million; US$3.1 million) on various rehabilitation projects in South Africa in FY17.

* Restated to include expenditure on the Doornkop (R21 million, US$1.4 million) and Kusasalethu (R1 million, US$0.1 million) water treatment plant infrastructure.

ENVIRONMENTAL INCIDENTS
Relevant Global Reporting Initiative indicators: G4-EN24, G4-EN29, G4-EN34

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 and we report incidents at level 3 and higher (from serious medium-term environmental effects to significant impacts on sensitive species, habitats or ecosystems).

Relevant Global Reporting Initiative indicators: G4-EN8, G4-SO8

In FY17, we reported seven level 3 incidents in South Africa and one in Papua New Guinea:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Description</th>
<th>Steps taken in mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 FY17</td>
<td>Kusasalethu</td>
<td>Process water overflow owing to faulty anti-pollution sump</td>
<td>Pump repaired and the cyclical pumping system restored. Instream water sampling indicated water quality was within acceptable levels. The incident was reported to Department of Water and Sanitation and closed out. The site is monitored continuously to avoid a repeat of the incident</td>
</tr>
<tr>
<td>Q3 FY17</td>
<td>West Rand and Free State operations</td>
<td>Incidents related to process water overflows following heavy late-summer rains</td>
<td>Flash floods depleted holding capacity albeit that it was designed for a one in a 100-year storm event</td>
</tr>
<tr>
<td>Q3 FY17</td>
<td>Kusasalethu</td>
<td>Pump station failure resulted in sewerage discharge onto golf course</td>
<td>Pump station was included in the engineering maintenance programme to ensure no further overflows and an extra pump station was installed for emergency situations</td>
</tr>
<tr>
<td>Q2 FY17</td>
<td>Hidden Valley</td>
<td>A significant oil spill of +9 500 litres caused by forklift tynes piercing a shipping container full of oil</td>
<td>Prompt bunding of the immediate area minimised the impact on the environment. The incident was reported to the regulatory authority and immediate steps taken to mitigate the risk of a similar incident by changing container handling procedure so that oil containers are consistently marked as dangerous goods</td>
</tr>
</tbody>
</table>
REHABILITATION, LAND MANAGEMENT AND ENVIRONMENTAL CONSERVATION

Relevant Global Reporting Initiative indicator: MM1

We acknowledge that we must rehabilitate the land impacted by our mining and mining-related activities in order to ensure sustainable post-mining land use. Rehabilitation ahead of closure is therefore included in planning throughout the life of mine. The necessary rehabilitation funding mechanisms are in place and, where feasible, infrastructure is refurbished for alternative use. As only a small proportion (14%) 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 to date has been to rehabilitate decommissioned shafts which have been linked to ingress by illegal miners.

Land under management (ha)

<table>
<thead>
<tr>
<th>Mining right area to date</th>
<th>Land disturbed*</th>
<th>Land rehabilitated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY17</td>
<td>FY16</td>
</tr>
<tr>
<td>Kalgold</td>
<td>991</td>
<td>515</td>
</tr>
<tr>
<td>Kusasalethu and Deelkraal</td>
<td>5 605</td>
<td>312</td>
</tr>
<tr>
<td>Doornkop</td>
<td>905</td>
<td>296</td>
</tr>
<tr>
<td>ARMGold shafts (1, 2, 3, 4, 6 and 7)</td>
<td>5 980</td>
<td>338</td>
</tr>
<tr>
<td>Joel (1 and 2)</td>
<td>2 162</td>
<td>253</td>
</tr>
<tr>
<td>Target (1, 2 and 3)</td>
<td>4 327</td>
<td>365</td>
</tr>
<tr>
<td>President Steyn South (Steyn 1, 2 and plant)</td>
<td>1 847</td>
<td>34</td>
</tr>
<tr>
<td>President Steyn North (Steyn 7 and 9)</td>
<td>1 651</td>
<td>193</td>
</tr>
<tr>
<td>Virginia, Masimong, Saaiplaas, Unisel, Merriespruit, Harmony and Brand</td>
<td>22 583</td>
<td>3 397</td>
</tr>
<tr>
<td>Bambanani, Joint Metallurgical Services and Harmony One plant</td>
<td>2 356</td>
<td>1 245</td>
</tr>
<tr>
<td>Eland, Kudu, Sable, Nyalal, Tshepong, Phakisa and Western Holdings 5</td>
<td>10 799</td>
<td>1 558</td>
</tr>
<tr>
<td>St Helena 2, 4, and 8</td>
<td>4 912</td>
<td>471</td>
</tr>
<tr>
<td>St Helena 10</td>
<td>944</td>
<td>7</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>4 098</td>
<td>567</td>
</tr>
<tr>
<td>Total</td>
<td>69 160</td>
<td>9 551</td>
</tr>
</tbody>
</table>

* Land available for rehabilitation amounts to 555ha

Land rehabilitation liabilities

<table>
<thead>
<tr>
<th></th>
<th>FY17 (Rm)</th>
<th>FY16 (Rm)</th>
<th>FY15 (Rm)</th>
<th>FY14 (Rm)</th>
<th>FY13 (Rm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>2 180</td>
<td>2 170</td>
<td>2 210</td>
<td>2 209</td>
<td>2 123</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>1 391</td>
<td>826</td>
<td>675</td>
<td>795</td>
<td>507</td>
</tr>
<tr>
<td>Total</td>
<td>3 571</td>
<td>2 933</td>
<td>2 796</td>
<td>2 708</td>
<td>2 354</td>
</tr>
</tbody>
</table>

South Africa

Our programme to rehabilitate decommissioned operations began in FY10 with a view to reducing environmental liabilities and eliminating potential safety and health risks. To this end, we work with provincial authorities to meet local socio-economic imperatives. Site demolition of shafts, plants, defunct workshops and hostels continued in FY17. To date, we have decommissioned and demolished 36 shafts (including ventilation shafts).

In FY17, the total rehabilitation liability for our South African operations was R2.2 billion (US$166 million) (FY16: R2.2 billion; US$150 million), which is fully funded. Since its start in FY10, our rehabilitation programme has reduced environmental liabilities by R763 million (US$57 million). In addition to the land rehabilitated, the programme has provided procurement opportunities and employment for at least 200 local residents.
**ENVIROMENTAL PERFORMANCE CONTINUED**

**NOTEWORTHY ACTION**

**Bio-energy project on track**
Our most significant rehabilitation project is progressing well. This involves heating water in the elution process of the Harmony One plant using bio-gas. Commissioning is currently underway ahead of commercial production.

The project involves rehabilitating land for the cultivation of bio-crops to generate renewable bio-energy, such as bio-gas and bio-char, to be used as a substitute for polyfuel. To date, R53 million (US$3.7 million) has been spent on the project.

The bio-crops being cultivated include giant king grass, sweet sorghum and sugar beet. Given its high-energy production, resilience to mine-impacted land and optimum yields per hectare, giant king grass is the primary bio-crop feedstock.

Implementation of phase 1 began in September 2014 when a pilot plant was established to generate an equivalent of 1.5MW of energy. Harmony’s existing Steyn gold processing plant was refurbished and converted into a bio-gas plant. This phase will enable Harmony to offset about 8 000t of CO₂ emissions annually. Phase 1 is set to deliver 71 000GJ of the total 187 000GJ of energy.

Once the plant is fully operational and the concept has proven, implementation of phase 2, involving ramp up to an energy equivalent of 5MW at a cost of about R100 million, will begin. This plant will enable an annual offset of 27 000t of CO₂.

In the initial pilot project, 100ha of mine-impacted land was used for crop cultivation. An additional 250ha of land will be planted for the phase 2 ramp-up.

Eventually, local communities will also be able to use bio-char as a source of fuel and will benefit from the skills development and job creation presented by this project. This project currently employs 14 people.

**Papua New Guinea**
Work on the development of a detailed rehabilitation and mine closure plan for the Hidden Valley operation continues. An updated and revised environment improvement plan has been approved by the Conservation and Environment Protection Authority, following the expiry of the previous one at the end of December 2014. For accounting purposes, an updated financial provision for unplanned closure as at 30 June 2017 has been made and an estimate for closure at completion of stage 6 has been prepared. Work will begin during FY18 to improve confidence in the estimates for final mine closure.

The detailed Hidden Valley rehabilitation and mine closure plan addresses corporate and regulatory requirements, agreements with stakeholders, the post-closure monitoring period and cost provisions.

**BIODIVERSITY, LAND MANAGEMENT AND CONSERVATION**

*Relevant Global Reporting Initiative indicators: G4-EN12, G4-EN14, G4-EN31, MM1, MM2*

**South Africa**
All 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 to such, numerous environmental projects are being implemented throughout our operations in line with the sustainable development goals of the United Nations.

The following conservation projects continued in FY17:

**Aggregate production community project:** Kalgold has created a broad-based black economic empowerment consortium to crush waste rock material for aggregate production. Working in partnership with the local community, the consortium will crush, screen and stockpile crushed material for collection by third parties. Site establishment began in October 2016, and offices and access control have been completed. The local community will have a 10% free carry in this project and employees 5%. This project addresses the aspect of land management. By reclaiming the rock dump, we will liberate the land from its current state and instead create an opportunity for alternative land uses that contribute to conservation.

** Welkom agricultural project:** An olive plantation is being established in Welkom as an alternative sustainable land use for the largely rehabilitated land covered by the St Helena mining right, which is adjacent to decommissioned and rehabilitated sites. Currently 26 400 trees are on order to be supplied over several years; once 15 000 trees have been purchased and planted in year one.

**Doornkop agricultural project:** The vegetable plantation established at Doornkop will use excess potable water treated by the Doornkop water treatment plant. At least four different types of vegetables will be grown. Produce will be sold to Harmony’s Doornkop and Kusasalethu hostels as well as at a district market that Harmony intends creating.

**Deelkraal waste rock reclamation project:** Similar to that at Kalgold, a stream of waste rock from the gold mining process will be crushed and beneficiated to generate construction aggregate. Additionally, the programme will support local broad-based black economic empowerment companies.

**Demolition and rehabilitation programme:** We continue to rehabilitate decommissioned shafts and plants. To date, 36 shafts have been demolished and rehabilitated in the Free State. Our work on the ARM 7 shaft was completed, as well as plugging of Brand 3, including its ventilation shaft. Demolition and rehabilitation is still underway at the ARM 6 shaft and hostel.

**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. There is no evidence that the mine has affected these critical habitats. The five species include tree kangaroos, nectar bats, harpy eagles and long-beaked echidna, none of which are endemic to the Hidden Valley area.
Key measures proposed to manage the impacts of the Wafi-Golpu project on the terrestrial ecology include limited vegetation clearing, the preservation of vulnerable flora species as well as measures to control weeds and pests. Extensive baseline studies have been completed to inform the project’s environmental impact statement.

Field work on the Wafi-Golpu deep-sea tailings placement, an alternative option to terrestrial tailings storage, continued in FY17. Updated prefeasibility and feasibility studies for the Wafi-Golpu project are scheduled for completion in the third quarter of FY18.

ENERGY MANAGEMENT – OPTIMISING OUR ENERGY USE, REDUCING OUR CARBON EMISSIONS

Relevant Global Reporting Initiative indicators: G4-EN3, G4-ENS and G4-EN6

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

Our total energy use in FY17 was 2,629,321 MWh (FY16: 2,597,439 MWh), an increase of 1%. This increase is due to Hidden Valley being included at 100% following Harmony’s having acquired that operation in full during the course of FY17.

The corresponding energy intensity level was 0.135 MWh/tonne treated (FY16: 0.13 MWh/tonne). However, our energy consumption has declined by 14% in the past five years and our intensity usage by 28%, which is in line with the annual reduction targeted for the five years to FY18. These declines have in turn reduced our greenhouse gas emissions.

<table>
<thead>
<tr>
<th>Energy consumption and consumption intensity</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>2,537,944</td>
<td>2,542,463</td>
<td>2,608,157</td>
<td>2,756,029</td>
<td>2,664,111</td>
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<tr>
<td>Papua New Guinea</td>
<td>90,380</td>
<td>54,976</td>
<td>59,218</td>
<td>60,414</td>
<td>51,414</td>
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<tr>
<td>Harmony total</td>
<td>2,629,321</td>
<td>2,597,439</td>
<td>2,667,375</td>
<td>2,816,443</td>
<td>2,704,220</td>
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</tbody>
</table>

**South Africa**

Generally, Harmony consumes energy indirectly in the form of electricity purchased from the national power utility, Eskom, which uses coal-fired power stations. We therefore have little scope for large-scale purchases of energy from renewable sources. Eskom’s electricity tariffs have risen steadily 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 and hydro power, and bio-energy in the short term. We have improved our capacity to generate solar power and this has helped decrease our power consumption and energy-use intensity.

To date Harmony has implemented 11 solar energy projects, which continue to operate as we strive to achieve total combined energy saving of 64,040 MWh a year. Some of our projects are energy neutral (load-shifting projects), which only contribute to cost savings. The energy-efficient fans installed underground at Kusasalethu are exceeding expectations.

We have reduced our carbon footprint through a fleet-optimisation initiative that reduces the use of fossil fuels (petrol and diesel) consumed in transporting people and material. We also use fewer vehicles and monitor fuel consumption monthly in line with key performance indicator measurements. The average age of the vehicles in our fleet is recorded as a further measure to reduce emissions as there is a direct correlation between fleet age, kilometres travelled, oil consumption and maintenance costs.

Increases recorded in FY17 in Papua New Guinea electricity consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years.
## ENVIRONMENTAL PERFORMANCE

### Direct and indirect energy consumption (MWh)

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>% of total energy used</th>
<th>FY16</th>
<th>% of total energy used</th>
<th>FY15</th>
<th>% of total energy used</th>
<th>FY14</th>
<th>% of total energy used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>South Africa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect 2</td>
<td>2 537 944</td>
<td>100</td>
<td>2 542 463</td>
<td>100</td>
<td>2 608 157</td>
<td>100</td>
<td>2 756 029</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2 537 944</td>
<td>100</td>
<td>2 542 463</td>
<td>100</td>
<td>2 608 157</td>
<td>100</td>
<td>2 756 029</td>
<td>100</td>
</tr>
<tr>
<td><strong>Papua New Guinea</strong></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct 4</td>
<td>38 839</td>
<td>41.9</td>
<td>14 010</td>
<td>25.5</td>
<td>10 355</td>
<td>17</td>
<td>18 354</td>
<td>30</td>
</tr>
<tr>
<td>Indirect 4</td>
<td>52 542</td>
<td>58.1</td>
<td>40 966</td>
<td>74.5</td>
<td>48 863</td>
<td>83</td>
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<td><strong>Total</strong></td>
<td>90 380</td>
<td>100</td>
<td>54 976</td>
<td>100</td>
<td>59 218</td>
<td>100</td>
<td>60 414</td>
<td>100</td>
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<tr>
<td><strong>Harmony</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>38 839</td>
<td>0.1</td>
<td>14 010</td>
<td>0.5</td>
<td>10 355</td>
<td>0.4</td>
<td>18 354</td>
<td>1</td>
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<tr>
<td>Indirect</td>
<td>2 590 482</td>
<td>99.9</td>
<td>2 583 429</td>
<td>99.5</td>
<td>2 657 020</td>
<td>99.6</td>
<td>2 798 089</td>
<td>99</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2 629 321</td>
<td>100</td>
<td>2 597 439</td>
<td>100</td>
<td>2 667 375</td>
<td>100</td>
<td>2 816 443</td>
<td>100</td>
</tr>
</tbody>
</table>

1. Diesel
2. Non-renewable: coal-fired power stations (Eskom)
3. Increases recorded in FY17 in Papua New Guinea electricity consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years
4. Renewable energy: hydropower-generated electricity

### Papua New Guinea

As our operations are designed to be energy efficient, with a predominantly renewable energy base, emission intensities are much lower at Hidden Valley, which has used a proportion of hydropower since 2011 – 58% in FY17 (FY16: 75%). The decline in the proportion of hydropower consumed in FY17 was due to the poor supply reliability. In FY17, 38 800MWh of diesel-generated electricity was consumed (FY16: 14 000MWh), a result of the lower proportion of hydropower used and Harmony’s having acquired full ownership of Hidden Valley during the year.

### Addressing climate change by optimising our energy use

**Relevant Global Reporting Initiative indicators: G4-EC2**

Harmony monitors the opportunities and risks presented by climate change, included in our mine closure plans, and communicates these to the board throughout the year. Our climate strategy is then reviewed every year with a view to substituting and or augmenting conventional electricity use (fossil-fuel and grid energy) with renewable energy (see solar procurement programme on page 70 and bio-energy project on page 66).

In line with our short-term 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.

Our long-term strategy to mitigate the risk of climate change is based on:

- rebalancing our asset portfolio: over the years we have closed several carbon-intensive operations as they have reached the end of their geological life
- post-mining land use: See bio-energy project on page 66
NOTEWORTHY ACTION

South Africa: beyond national target for energy efficiency

Supply status
Eskom generates approximately 95% of the electricity used in South Africa and approximately 45% of the electricity used in Africa. Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and redistributors.

During FY17, electricity supply in South Africa has seen less pressure than in previous years, with fewer power interruptions (also referred to as load shedding) occurring. Supply has improved and there has been no load shedding since September 2015.

Supply and demand for electricity remains very tight, especially during peak evening periods between 18h00 and 20h00. Harmony participates voluntarily in the Eskom demand response programme to reduce our electricity usage at these times. Harmony has renewed its contract agreement with an energy service company to ensure that various load clipping and load shifting projects savings are sustained. They will also assist with implementation of new energy saving initiatives at the South African operations to reduce electricity demand during morning and evening peaks. Harmony also benefits financially from this as the Eskom tariffs are more expensive during these periods. Currently, the risk of power outages will be limited mainly to the evening.

Government remains committed to ensuring energy security for the country by rolling-out a nuclear new build programme as an integral part of the energy mix. Government remains committed to ensuring the provision of reliable and sustainable electricity supply, in order to mitigate the risk of carbon emissions.

Renewable energy
Energy is a critical component of the country’s future policy mix. The argument around electricity really comes down to the questions: are renewables, primarily wind, efficient and sustainable, and can they ensure security of electricity supply at a competitive economic price?

Forecasts are that renewable energy technologies, predominantly solar- and wind-based systems, will grow further in coming decades, overcoming coal-based electricity around 2030 (International Energy Agency, 2015). South Africa is no exception and renewable energy has become a significant element in the country’s electricity landscape.

Discussions around other technologies, such as gas-to-power and nuclear energy, are adding to this vibrant dynamic. Significant vested interests are still at play alongside massive state support to maintain the domination of the coal industry over the electricity supply industry in South Africa.

Tariffs
Like all mining companies, Harmony is a major user of electricity, mostly supplied by South Africa’s power utility, Eskom. Energy is a significant and growing portion of our operating costs, given rising electricity tariffs. Electricity tariffs have increased by 107% since 2010. On 3 October 2014, the National Energy Regulator of South Africa (NERSA) approved implementation of the Regulatory Clearing Account (RCA) balance for Eskom. This is a plan for the once-off recovery from standard tariff customers and other Eskom customer categories. In effect, this limited the tariff increase to 2.2% during FY17. Eskom will apply for another RCA for 2018 and will be submitting an application for a 19.2% tariff increase. This application was delayed due an application to declare the previous RCA unlawful. The court ruled in NERSA’s favour and Eskom will be able to proceed with its new RCA application.

Energy efficiency
Harmony has worked closely with Eskom to manage electricity use and peak demand, underlining our commitment to reduce energy consumption. This includes demand-side management strategies to reduce electricity consumption in peak periods, timing our pumping to coincide with cheaper off-peak periods, making more efficient use of Eskom tariffs that reward load-shifting, and improving the efficiency of pumping operations.

We have implemented various energy efficiency projects in recent years, resulting in an average load reduction of 40.66MW and energy savings of 345GWh since 2009. Owing to capital constraints, the projects committed to for 2016 were moved to 2017, including several other projects identified. With little capital expenditure Harmony has, with the assistance of an energy service company, achieved a R50 million cost saving on new projects and maintained a cost saving of R54 million from completed projects. The average weekday load reduction of 5.6MW will yield anticipated energy savings of 4 363MWh a month.
Renewable energy
At present, Harmony is considering several renewable and alternate energy projects in South Africa:

- Bio-energy project
- Three 10MW photovoltaic power plants in the Free State – on Harmony-owned land

Our initiatives to reduce electricity consumption have surpassed national expectations of 12%. Harmony has improved energy consumption across the group by 17% since 2008.

The year on year reduction in energy consumption for FY17 was 1.61% (41 000MWh). The 41 000MWh electricity savings represents an annual water consumption reduction of 59ML and a reduction in CO$_2$ emissions of 40 590t.

By the end of FY17, Harmony had contracted an energy saving company (ESCO) to assist with increasing operational efficiency, reducing energy costs and ultimately ensuring that targeted energy savings are achieved. The ESCO will help to ensure that savings are maximised and existing projects maintained. New initiatives resulted in electricity cost savings of R48 million (US$3.5 million) in FY17.

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 turning off water and compressed air when mines are not operating.

Projects that continued throughout FY17 included:

Solar procurement programme: The Department of Environmental Affairs has approved the construction of two 10MW solar energy plants at the Eland and Nyala shafts. Harmony has setup a steering committee comprising various specialists. A power purchase agreement was completed and an information memorandum document developed. Discussions were held with financiers and project developers.

Power-generating turbines: Kusasalethu’s water consumption was reduced by an average of 5.18ML per day since May 2017. This contributed to a significant reduction in the electricity consumption of the dewatering pumps.

Energy management: We continue to use the Kusasalethu and Doornkop plant mills and shaft winders at off-peak periods to reduce electricity costs and decrease load during national high-demand periods.

Compressed air management: Installation of control valves on compressed air lines at a number of operations, which reduce the flow of compressed air during periods of lower demand resulted in a reduction in the electricity consumption of the compressors.

Refrigeration
At Bambanani, Masimong and Unisel updated control philosophies for the fridge plants were developed and implemented. These control philosophies are based on the “cooling on demand” principle and take ambient conditions and seasonal changes into account.

Other initiatives
A dedicated effort to maintain the performance of previously-implemented demand-side management projects was conducted in FY17. These projects generated significant electricity cost savings.

A project to increase awareness on the importance of energy efficiency and opportunities for improvement was implemented. The project entails increasing awareness through automated distribution of daily, weekly and monthly reports on various operational aspects such as the energy consumption of a site, efficiency of a system, performance of energy savings projects, etc.

NOTEWORTHY ACTION
Papua New Guinea: reducing use of fossil fuels
Hydro power usage at Hidden Valley was lower this year due to poor supply reliability from the hydro power provider. However, since year end this has improved and plans are well advanced to also enable the mine to access another third party supplier of hydro power.

The Wafi-Golpu project is being designed to exceed Papua New Guinean statutory requirements and to align with Australian and other international environmental standards. In terms of the feasibility study, all infrastructure is being designed to minimise power consumption. Also as part of the updated feasibility study, options for the self-generation of power are currently being investigated.
Climate change and greenhouse gas emissions

Relevant Global Reporting Initiative indicators: G4-EC4, G4-EN15, G4-EN16, G4-EN17, G4-EN18 and G4-EN19

Harmony’s Scope 1 and Scope 2 emissions in FY17 totalled 2 623 607t CO$_2$e (FY16: 2 636 493t CO$_2$e) with a corresponding intensity of 0.135t CO$_2$e/tonne milled (FY16: 0.145t CO$_2$e/tonne milled). Indirect emissions in South Africa, largely due to electricity purchased from Eskom, accounted for 97.9% of emissions. In FY17, we decreased our Scope 1 and Scope 2 emissions by 0.5% (FY16: 4%).

In FY17, our total carbon emissions decreased by 5.6% (FY16: 5.5%) with a corresponding decrease in intensity, which averaged 0.158t CO2e/tonne treated for the year (FY16: 0.179t CO2e/tonne treated). At group level, absolute and intensity-based greenhouse gas emission reduction targets have been set for the five years to FY18.

### Group carbon emissions

<table>
<thead>
<tr>
<th>Scope 1 emissions breakdown by source (CO$_2$e tonnes)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>108 306</td>
<td>53 278</td>
<td>64 244</td>
<td>71 728</td>
<td>90 951</td>
</tr>
<tr>
<td>Explosives</td>
<td>1 953</td>
<td>1 838</td>
<td>1 748</td>
<td>2 079</td>
<td>2 026</td>
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<tr>
<td>Petrol</td>
<td>784</td>
<td>777</td>
<td>909</td>
<td>950</td>
<td>1 337</td>
</tr>
<tr>
<td>Total</td>
<td>1 111 043</td>
<td>55 893</td>
<td>66 902</td>
<td>74 758</td>
<td>94 314</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 1 emissions breakdown by source (%)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
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<td>Explosives</td>
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<td>Petrol</td>
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<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total scope 1, 2 and 3 emissions (CO$_2$e tonnes)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>111 043</td>
<td>55 893</td>
<td>66 902</td>
<td>74 758</td>
<td>94 314</td>
</tr>
<tr>
<td>Scope 2</td>
<td>2 512 565</td>
<td>2 580 600</td>
<td>2 686 401</td>
<td>2 745 005</td>
<td>2 648 126</td>
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<tr>
<td>Scope 3</td>
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<td>616 978</td>
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<tr>
<td>Total</td>
<td>3 068 633</td>
<td>3 251 949</td>
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<table>
<thead>
<tr>
<th>Total scope 1, 2 and 3 emissions (%)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
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### Carbon emissions intensity

<table>
<thead>
<tr>
<th>Scope 1 emissions intensity by source (CO$_2$e tonnes/tonne treated)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
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<tr>
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<td>0.0001</td>
<td>0.0001</td>
<td>0.0001</td>
<td>0.0002</td>
</tr>
<tr>
<td>Petrol</td>
<td>0.0004</td>
<td>0.0001</td>
<td>0.0001</td>
<td>0.0001</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total scope 1, 2 and 3 emissions intensity (CO$_2$e tonnes/tonne treated)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
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<tbody>
<tr>
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<td>0.0040</td>
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<tr>
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<td>0.0380</td>
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<tr>
<td>Total</td>
<td>0.1581</td>
<td>0.1799</td>
<td>0.1910</td>
<td>0.1830</td>
<td>0.1828</td>
</tr>
</tbody>
</table>

1 Increases recorded in FY17, a result of the acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years
ENVIRONMENTAL PERFORMANCE CONTINUED

NOTEWORTHY ACTION

CDP reporting: 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 is included in the CDP’s 2017 A List for climate and water. This is the second consecutive year in which we have been awarded an A for both climate and water. Harmony was one of only 25 companies to score an A for both climate and water in 2017.

This achievement acknowledges our performance in mitigating and managing environmental risks, cutting carbon emissions and enhancing water stewardship.

According to the CDP, their 2017 A List, which comprises 156 global companies, has been produced at the request of more than 800 investors with assets of over US$100 trillion.

NOTEWORTHY ACTION

Engagement with suppliers and their environmental impacts

Relevant Global Reporting Initiative indicators: G4-12, G4-EN32, G4-EN33, G4-HR11

Our supply chain risk is managed by engaging continuously with our top 50 suppliers to reduce their greenhouse gas emissions and climate change risks across the value chain.

Environmental management and compliance with legislation and regulations, among others, are included in the general conditions of contract for suppliers. Should a supplier be found to be in contravention or to be non-compliant, we will suspend our contracts with them. To date, there have been no such suspensions, and we have not received any reports of grievances against suppliers regarding adverse environmental impacts.

A specific clause has been included in supplier contracts to ensure that all suppliers agree to introduce a greenhouse gas reporting system for the products we purchase, and to submit an annual report on their carbon footprint to Harmony.

In so doing, we will help suppliers improve their greenhouse gas performance by reducing our Scope 3 emissions.
OPTIMISING WATER USE, LIMITING OUR IMPACTS

Relevant Global Reporting Initiative indicators: G4-EN8, G4-EN9 and G4-EN10

Our water strategy supports conservation and demand management, including optimisation of supply in regions such as Welkom, particularly to secure supply during a protracted drought, and for the sustainable development of the business and our host communities.

The total amount of water used for primary activities declined to 13 123m$^3$ in FY17 with an intensity of 0.68m$^3$/tonne treated (FY16: 13 689m$^3$ and intensity of 0.76m$^3$/tonne treated).

Across the group, Harmony has implemented a campaign to re-use process water and thus reduce our dependency on groundwater by 4.5%, while increasing the amount of water recycled by 5%, by FY18. We have exceeded this target with the volume of process water being recycled increasing by 12% in FY17 alone.

Water use – measured

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water used for primary activities</td>
<td>13 123</td>
<td>13 689</td>
<td>14 614</td>
<td>16 495</td>
<td>18 556</td>
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<tr>
<td>Potable water from external sources</td>
<td>10 953</td>
<td>12 459</td>
<td>11 993</td>
<td>13 139</td>
<td>15 610</td>
</tr>
<tr>
<td>Non-potable water from external sources</td>
<td>5 638</td>
<td>1 230</td>
<td>2 620</td>
<td>3 355</td>
<td>2 946</td>
</tr>
<tr>
<td>Surface water used</td>
<td>4 863</td>
<td>716</td>
<td>776</td>
<td>1 037</td>
<td>1 230</td>
</tr>
<tr>
<td>Groundwater used</td>
<td>775</td>
<td>513</td>
<td>1 844</td>
<td>1 550</td>
<td>1 716</td>
</tr>
<tr>
<td>Water recycled in process</td>
<td>41 112</td>
<td>38 821</td>
<td>38 338</td>
<td>24 531</td>
<td>27 593</td>
</tr>
<tr>
<td>Percentage of water recycled</td>
<td>% 86</td>
<td>74</td>
<td>72</td>
<td>61</td>
<td>60</td>
</tr>
</tbody>
</table>

1 Decrease in water used for primary activities due to Kalgold’s being less dependent on water from external sources and increasing its usage of recycled water
2 Decrease in groundwater used due to reduced dependency on groundwater by Kalgold as a result of its increased use of recycled water in the process
3 Increases recorded in FY17 in Papua New Guinea water consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years

Water used for primary activities – measured

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity consumption</td>
<td>0.68</td>
<td>0.76</td>
<td>0.81</td>
<td>0.88</td>
<td>1.01</td>
</tr>
<tr>
<td>Water used for primary activities</td>
<td>13 124</td>
<td>13 689</td>
<td>14 614</td>
<td>16 495</td>
<td>18 556</td>
</tr>
</tbody>
</table>

Annual water consumption and intensity

South Africa

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 and to clarify certain aspects. Where possible, Harmony continues to apply best practice in water management. By year-end, most of our operations were zero discharge mines.

Our strategy to reduce dependency on potable water, and to maximise our use of fissure and process water, began in 2013.

This has enabled us to continue to maintain a favourable water use intensity. Conservation of potable water is a priority, particularly in light of the impact of the continuing drought in South Africa. Enhanced water awareness campaigns and water management initiatives, including recycling, among others listed below, were effective throughout FY17.

- Water conservation strategy: Harmony has reviewed the water balances at each operation to determine the likely effects of the protracted drought. With the water treatment plants at Doornkop and Kusasalethu now operational, these operations will not be affected. It is imperative that we improve the efficiency of our water use in order to operate effectively under regulations that aim to reduce demand. The Doornkop and Kusasalethu water treatment plants, which are now operational, will treat water for use by the mines as well as by an agricultural project.

However, Doornkop discharged water under directive until March 2017 once the water treatment plant had become operational. At Kusasalethu, certain ad hoc discharges are permitted in terms of the water use licence. This discharge was primarily potable water from a broken infrastructure line.
**ENVIRONMENTAL PERFORMANCE**

- **Water conservation in the Free State**: Harmony has engaged with water treatment service providers to build water treatment plants at the Harmony One and Target plants to secure water for the operations while reducing water consumption and assisting with conservation. These plants will treat 3.3ML of water a day and save Harmony more than R2 million in water bills annually. The project began in March 2017. The aim is to reduce the Free State plants’ potable water usage by 30%.

- **Community drilling project**: In Welkom, we have negotiated with Sedibeng Water to offset our consumption by drilling and equipping boreholes so that the community has access to good quality water, particularly during the current drought. A geohydrological assessment and hydroxensus to drill a borehole in the Theunissen area have been conducted. This will assist the municipality in delivering water to residents of Theunissen and Maslonyane.

- **Kalgold**: Kalgold is in a water scarce area but the D-Zone pit deposition ensures water is available for production and the surrounding borehole network is able to augment water needs if 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. These measures have realised the following:
  - an increase of more than 100% in the average quantity of water recycled (FY15: 43 547m$^3$; FY16: 112 706m$^3$ and FY17: 1 193 028m$^3$)
  - 93% reduction in surface water sourced (7 306m$^3$ in FY15; 1 000m$^3$ in FY16 and 61 202m$^3$ in FY17)
  - 18% reduction in volume of groundwater abstracted (125 436m$^3$ in FY15; 32 959m$^3$ in FY16 and 74 245m$^3$ in FY17)

Kalgold is Harmony’s only South African operation to draw water directly from a surface source aquifer. Other operations are supplied by bulk water service providers and municipalities, surface water run-off, water pumped to surface from underground operations, recycled water and borehole water.

**Papua New Guinea**

Following a request from the Conservation and Environment Protection Authority to apply for an amendment to the current environmental permit with respect to turbidity and cobalt, Hidden Valley has developed proposed terms for an extensive environmental permit amendment application. After a site visit by the Conservation and Environment Protection Authority in FY17, agreement was reached in principle on the terms of an amendment. Submission of the amended application is expected in the second quarter of FY18.

An environmental permit amendment for an additional treated water discharge pipeline has been approved by the Conservation and Environment Protection Authority.

Compliance monitoring of water quality during the year showed that all dissolved metals (except cobalt) and physicochemical parameters complied, except for turbidity and total suspended solids at the Nauti compliance point. The cobalt exceedances are due to inappropriate compliance criteria expressed as limit of detection. Water extraction and discharge volumes at all points were in compliance.

At Hidden Valley, the steep topography, high rainfall and low levels of evaporation pose significant water management challenges. Two main water management techniques in use are:

- controlled run-off of rainfall to prevent erosion and sediment entering the river system
- conservation of site water used to limit the volumes of treated wastewater that need to be discharged to the environment

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. Although process water recycling is prioritised, the tropical environment creates a positive water balance thus, together with the requirement to minimise water storage in the tailings storage facility, there is a high rate of water discharge to the environment.

Hidden Valley treats all water to prescribed standards before it is discharged into the environment and the mine monitors any environmental impact on the Watut River system. Quality assurance/ control programmes have been implemented to monitor construction of the waste dump and tailings storage facility, including assessment of sediment and run-off control measures.

Discharge of mine-related sediment into the Watut River has been reduced with continued focus on erosion control and sediment management. Lime dosing of treated water prior to discharge continues when required to control acidity and dissolved metal levels. At the sewage treatment plant, continuous operator training has improved compliance with permitted discharge criteria.

**NOTEWORTHY ACTION**

**Providing community infrastructure in Papua New Guinea**

In terms of a benefit sharing agreement with the communities, Hidden Valley will manage and co-ordinate implementation of six water supply projects. Implementation of the first two projects – Nauti and Greenhill – has begun and are progressing well. The communities are actively involved in supplying labour for the projects and this has engendered much support from the local district administration and local government structures.

**Acid mine drainage**

Major sources of acid mine drainage include drainage from underground mine shafts and 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.
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 while the geology at Doornkop and Kusasalethu is far more complex geohydrologically, given the interconnected nature of mining operations in the vicinity. These operations participate in regional geohydrological and closure studies.

In Papua New Guinea, acid mine drainage can occur as a result of waste rock dumps that contain potentially acid-forming material. Environmental impacts are mitigated by the construction of engineered waste rock dumps and the controlled placement of potentially acid-forming waste rock. When required, lime is added to the process-water discharge to maintain natural levels of alkalinity at the compliance point. Water sampling and studies continue to improve our understanding of acid mine drainage impacts and enable us to formulate plans for longer-term reduction and mitigation.

**OPTIMISING OUR USE OF MATERIALS**

**Relevant Global Reporting Initiative indicators: G4-EN1**

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.

**Cyanide**

Harmony used 21 000t of cyanide during FY17 (FY16: 18 000t). The increase in cyanide consumption was largely due to the greater volume of tonnes treated in FY17 – 19.4Mt compared to 18.1Mt in FY16.

The corresponding intensity usage is 1.08t cyanide/tonne treated for FY17 (FY16: 0.97t cyanide/tonne treated).

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 of our major gold mining operations and most of our metallurgical plants have been certified compliant with the Cyanide Code. Successful recertification audits were conducted at the Joel, Target, Doornkop, Harmony One and Central plants in FY17 – and all plants were recommended for recertification.

**Kalgold:** The cyanide detox plant was commissioned in July 2015 when the Kalgold plant began to deposit tailings into the D-Zone open pit as part of Kalgold’s open pit closure strategy. The cyanide detox plant will reduce cyanide concentrations in the tailings to acceptable levels. Cyanide concentration levels are monitored at the detox plant, along the tailings and return water pipeline route and at the point of discharge into the pit.

**Phoenix retreatment operation (Saaiplaas plant):** The plant’s process does not allow for decreases in cyanide dosages as this results in reduced gold recovery and we are therefore unable to reduce the weak acid dissociable concentration of cyanide leaving the plant.

**Hidden Valley:** Delays in the recertification audit field work and a planned extended mill shutdown for maintenance work, led to Hidden Valley’s cyanide code compliance audit being temporarily postponed. Re-certification procedures have been rescheduled to begin in the third quarter of FY18, once operations have been resumed following the plant shutdown.

**Materials used**

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock mined: ore and waste (000t)</td>
<td>33 150</td>
<td>27 606</td>
<td>129 948</td>
<td>39 133</td>
<td>38 668</td>
</tr>
<tr>
<td>Ore mined (000t)</td>
<td>19 402</td>
<td>19 739</td>
<td>13 041</td>
<td>14 798</td>
<td>13 312</td>
</tr>
<tr>
<td>Waste rock recycled (000t)</td>
<td>18 577</td>
<td>3 964</td>
<td>6 647</td>
<td>7 058</td>
<td>8 008</td>
</tr>
<tr>
<td>Slimes recycled (000t)</td>
<td>19 815</td>
<td>6 131</td>
<td>5 987</td>
<td>5 933</td>
<td>5 358</td>
</tr>
<tr>
<td>Liquefied petroleum gas (t)</td>
<td>0.47</td>
<td>0.54</td>
<td>1.14</td>
<td>1.21</td>
<td>1.08</td>
</tr>
<tr>
<td>Grease (t)</td>
<td>121</td>
<td>1384</td>
<td>54</td>
<td>87</td>
<td>61</td>
</tr>
<tr>
<td>Cyanide (000t)</td>
<td>21.0</td>
<td>18.0</td>
<td>14.3</td>
<td>14.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Petrol and diesel (000L)</td>
<td>40 811</td>
<td>20 298</td>
<td>24 464</td>
<td>27 148</td>
<td>61 354</td>
</tr>
<tr>
<td>Lubricating and hydraulic oil (000L)</td>
<td>2 768</td>
<td>2 291</td>
<td>2 772</td>
<td>3 011</td>
<td>3 860</td>
</tr>
</tbody>
</table>

\(^1\) Reduction mainly due to closure of Target 3 and restructuring of Kusasalethu’s production profile
\(^2\) Reduction in petrol and diesel consumption due to closing Kimberley Reef area at Doornkop and decline in consumption at Hidden Valley with increased use of hydropower
\(^3\) Increased use at Hidden Valley when overland conveyor malfunctioned
\(^4\) Excludes Evander (previous years not restated)
\(^5\) Increased usage at Phakisa and Tshepong
\(^6\) Increase in cyanide consumption due to high usage at Kalgold when milling oxides
\(^7\) 100% reporting for Papua New Guinea
MANAGING OUR EFFLUENTS AND WASTE

Relevant Global Reporting Initiative indicators: G4-EN22, G4-EN23, G4-EN24 and MM3

Effective waste management is a priority and 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

In FY17, 38.4Mt of mineral waste was generated from gold production (FY16: 26.1Mt), comprising 18.6Mt (FY16: 7.9Mt) of waste rock and 19.8Mt of tailings (FY16: 18.3Mt).

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 ore body may be associated with radiation or salts if these are characteristic of the ore body.

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 (radionuclide contaminant plumes) could be contained in the tailings storage or water management facilities for hundreds to thousands of years.

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 Phoenix reclamation initiative.

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.

Hidden Valley’s advanced waste management systems have generated positive feedback from stakeholders, particularly the tailings storage facility, the first to be operated successfully in Papua New Guinea. The review of laws relating to management and disposal of tailings is now on hold indefinitely while the Mining Policy and Geohazard Department focuses on completing the revised Mining Policy Act and related new regulations put forward in 2015. The Mining Policy Act review was deferred due to national elections but is expected to proceed to its final stages of approval by the government during FY18.

Of note, at Hidden Valley, we have:

- completed extensive design for the biophysical aspects of mine closure
- permitted a second water discharge point to improve water management capacity
- discussed with the Conservation and Environment Protection Authority an environmental permit amendment including revised discharge criteria for cobalt and sediment
- prepared a comprehensive revision of the environmental permits, in readiness for submission to the authority
- trained sewage treatment plant operators to ensure that consistent treatment and proper sampling procedures are followed – and have thereby improved compliance.
<table>
<thead>
<tr>
<th>Waste (000t)</th>
<th>FY17</th>
<th>FY16</th>
<th>FY15</th>
<th>FY14</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated tailings in tailings storage facilities (active and dormant)</td>
<td>928 662</td>
<td>1 418 577</td>
<td>1 400 273</td>
<td>1 382 178</td>
<td>1 359 770</td>
</tr>
<tr>
<td>Accumulated waste rock dumps</td>
<td>1 585 959</td>
<td>203 559</td>
<td>196 692</td>
<td>190 128</td>
<td>169 115</td>
</tr>
<tr>
<td>Scrap steel</td>
<td>6.944</td>
<td>6.229</td>
<td>4.996</td>
<td>4.919</td>
<td>5.583</td>
</tr>
</tbody>
</table>

**Waste recycling project**

In FY17, 22 458t of waste (plastic, steel, wood and paper) was recycled (FY16: 11 895t), generating R5 million (US$0.4 million) (FY16: R6 million; US$0.4 million).

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/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.

**NOTEWORTHY ACTION**

**Merafong Waste Recycle project**

Launched in 2012, this is a collaborative project between Harmony, AngloGold Ashanti Limited and Sibanye-Stillwater Limited, as well as the Merafong City Local Municipality and Khulisa Social Solutions, an implementing agent. Each company has committed to contribute R1 million over three years to the project which is located in Fochville within the Merafong City Local Municipality. The project aims to empower the community, create jobs and address environmental issues by recycling waste within the Merafong community. Project implementation began in FY17.
MINING CHARTER COMPLIANCE SCORECARD

Harmony is a truly empowered company and we report on our performance in relation to the Mining Charter throughout this integrated report. The table below sets out our performance in relation to the specific requirements of the Mining Charter, as gazetted in 2010, and our progress in terms of the targets it set for 2014.

A revised Mining Charter, the third iteration, was gazetted in June 2017. The Chamber of Mines, of which Harmony is a member, has obtained a written undertaking from the Minister of Mineral Resources that the revised Mining Charter will not be implemented before the revised Charter’s review by a full bench of judges. Judgement on the review is expected to be heard by mid-December 2017. For further information and progress related to the revised Mining Charter, see the Chamber of Mines’ website, www.chamberofmines.org.za.

PROGRESS AGAINST MINING CHARTER TARGETS

Although the new Mining Charter is yet to be finalised, we at Harmony have continued to work towards fulfilling our commitments, in line with the underlying spirit of the 2014 Mining Charter and with our overall commitment to transformation.

The Mining Charter serves as a guide to the industry, focusing the transformation journey on nine key elements. A template designed by the Department of Mineral Resources enables mining companies to provide the information necessary to assess their success in achieving key Mining Charter targets.

The following is a summary of our performance against the targets for each of the Mining Charter’s nine pillars for the calendar year ended 31 December 2016.

<table>
<thead>
<tr>
<th>Mining Charter Scorecard</th>
<th>Element</th>
<th>Measurement</th>
<th>Compliance target</th>
<th>Weighting</th>
<th>Progress</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reporting</td>
<td>Has the company reported its level of compliance with the Charter for the calendar year</td>
<td>Annually</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Ownership</td>
<td>Minimum target for effective ownership by historically disadvantaged South Africans</td>
<td>Meaningful economic participation</td>
<td>26%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Housing and living conditions</td>
<td>Conversion and upgrading of hostels to attain an occupancy rate of one person per room</td>
<td>Occupancy rate of one person per room</td>
<td>100%</td>
<td>Yes</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Procurement and enterprise development</td>
<td>Procurement spend with black economic empowered entities</td>
<td>Capital goods</td>
<td>40%</td>
<td>5%</td>
<td>80%</td>
</tr>
<tr>
<td>5</td>
<td>Employment equity</td>
<td>Diversification of the workplace to reflect the country’s demographics to attain competitiveness</td>
<td>Top management (board, executive management)</td>
<td>40%</td>
<td>3%</td>
<td>59%</td>
</tr>
<tr>
<td>6</td>
<td>Human resource development</td>
<td>Diversification of requisite skills, including support for South African-based research and development initiatives intended to develop solutions in exploration, mining, processing, technology efficiency (energy and water use in mining), beneficiation as well as environmental conservation</td>
<td>Human resources expenditure as a percentage of payroll</td>
<td>5%</td>
<td>25%</td>
<td>6%</td>
</tr>
</tbody>
</table>
### Mining Charter Scorecard (continued)

<table>
<thead>
<tr>
<th>Element</th>
<th>Measurement</th>
<th>Compliance target</th>
<th>Targets</th>
<th>Weighting</th>
<th>Progress</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Mine community development</td>
<td>Conduct ethnographic community consultative and collaborative processes to delineate community needs analysis</td>
<td>Up to date project implementation</td>
<td>100%</td>
<td>15%</td>
<td>93%</td>
<td>14%</td>
</tr>
<tr>
<td>8 Sustainable development and growth</td>
<td>Improvement of the industry's environmental management</td>
<td>Implementation of approved environmental management plans</td>
<td>100%</td>
<td>12%</td>
<td>95%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Improvement of the industry's mine health and safety performance</td>
<td>Implementation of tripartite action plans on health and safety</td>
<td>100%</td>
<td>12%</td>
<td>83%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Use of South African-based research facilities for analysis of samples across the mining value chain</td>
<td>Percentage of samples in South African laboratories</td>
<td>100%</td>
<td>5%</td>
<td>100%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>100%</strong></td>
<td><strong>93.29%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OPERATIONAL PERFORMANCE

Maintaining and growing our margins as efficiently as we can is essential to sustaining our business and meeting our strategic objectives.

Achievements FY17

- Safety performance improved in terms of fatality frequency rate
- Produced 1.088 Moz of gold, exceeding guidance of 1.05 Moz
- Focus on improving efficiencies, asset management and maintenance result in a reduction in the average number of unplanned stoppages
- Tshepong and Doornkop achieved 3 million and 2 million fatality free shift respectively
- Projects deliver increased grade at Phakisa, Joel and Tshepong and mining Kusasalethu’s higher grade areas contribute to the increase in underground recovered grade for the fifth consecutive year, to 5.07 g/t
- Increased margins and profitability at Kusasalethu following the decision to shorten the life-of-mine plan and focus on higher grade areas
- Phoenix tailings retreatment operation performed well and delivered a 14% increase in production and improved operating free cash flow margin from 24% in FY16 to 28% in FY17
- Hidden Valley stage 5 and stage 6 investment on budget and on schedule

Challenges FY17

- Lost-time injury frequency rate regressed year on year – the Live Longer safety campaign will focus on this
- At Target 1, unstable ground conditions in planned areas and lack of flexibility resulted in having to focus on lower-grade massives
- Unisel’s ageing infrastructure and challenging operating conditions impacted on the profitability of the operation in FY17
- Increased unit costs – the operational excellence initiatives will address this challenge

WHY OUR OPERATIONAL PERFORMANCE IS MATERIAL

Maintaining and growing our margins as safely and efficiently as we can is essential to sustaining our business and meeting our strategic objectives. This includes delivering safely on our operational plans, reducing unit costs, improving productivity and maximising revenue.

Our approach takes into consideration the long-term sustainability of the company as a whole. We aim to mine those areas which will return a positive cash flow.

We are price takers and have no influence on the gold price or exchange rates, and as a result need to continuously focus on factors within our control such as costs and production. Our hedging strategy has provided a degree of cash certainty over the short term.

OPERATING PERFORMANCE FY17

Operational excellence in FY17 was key in attaining the decrease in the fatality frequency rate year on year and achieving a fatality free quarter during the June 2017 quarter, achieving our annual production guidance for a second consecutive year and increasing underground grade for a fifth consecutive year. In FY17, Harmony produced 1.088 Moz of gold (FY16: 1.082 Moz) and achieved an underground grade of 5.07 g/t (FY16: 5.02 g/t).

Refer to the Financial director’s report for a discussion on Harmony’s financial performance during FY17.

Harmony acquired full ownership of Hidden Valley in October 2016 and made the decision to invest in the stage 5 and 6 cut-back with a net investment of US$180 million (of which US$68 million was incurred in FY17). Good progress was made on the stages 5 and 6 cutback project which was on budget and on schedule in FY17. Management is fully committed to the success of this investment which is expected to deliver 180,000 oz of gold and 3 Moz of silver annually at an average all-in sustaining cost of less than US$950/oz by FY19.

Following the successful conclusion of the study to investigate their integration, Tshepong and Phakisa have been consolidated as a single entity, Tshepong operations. The integration and consolidation of these two mines will enable Harmony to optimise existing synergies – given the proximity of their orebodies – to reduce unit costs and to make better use of Tshepong’s underutilised infrastructure. This integration will also alleviate bottlenecks and operating constraints at Phakisa. Ore from Phakisa will be trammed and hoisted at Tshepong.
The Central Plant conversion to tailings retreatment began and was successfully completed in FY17. Expenditure was within budget. The tailings operation, which is expected to produce 15 000oz annually from FY18, is an additional low-risk, low operating cost asset in our surface operation portfolio.

Notable operating performances in FY17 included:

- **Kusasalethu**: FY17 was a fatal-free and profitable year. Following the decision to shorten the life of mine and to focus mining on higher grade areas, gold produced increased by 14% to 4 394kg (141 270oz) as a result of a 25% increase in recovered grade to 7.24g/t.

- **Masimong**: Mining of the high-grade B Reef contributed to a 4% increase in production. Good cost control supported increased profitability.

- **Phoenix**: Production improved by 14% owing to a 10% rise in the recovered grade and a 4% increase in volumes processed as a result of good operating momentum and plant efficiencies.

The following operations reported lower gold production during the year:

- **Target 1**: Unfavourable ground conditions in the higher grade areas and a lack of flexibility significantly impacted operating performance in FY17. Production declined by 21% to 2 669kg (85 809oz) as grade fell by 22% to 3.58g/t. Production improved in the second half of FY17 and grades are expected to pick up in FY18. Geological drilling will be conducted in FY18 to inform the extent of future project capital expenditure.

- **Unisel**: Production declined by 6% to 1 595kg on the back of a 7% decrease in volumes milled (394 000t), a result of ageing infrastructure and engineering-related stoppages. A decision was made to begin mining the higher-grade areas in the shaft pillar in the next few years.
OPERATIONAL EXCELLENCE
The fundamentals of mining underpin operational excellence at Harmony. Disciplined mining is integral to ensuring the safety of our employees, improving productivity and efficiencies and achieving our targets.

Operational excellence is key to creating an enabling environment. Safety is considered at all times, teams are motivated, and the workplace environment is conducive to productivity.

Managing operational risks: Operational risk management is integral to our business, and to optimise the gold mining value chain, it is essential to have in place a risk management plan to ensure that all supporting systems are functioning efficiently. Managing risks effectively while working safely and being proactive are core to our success. Safety hazards and operational business risks are identified and dealt with continuously at each of our operations.

OUTLOOK FOR FY18
Relevant Global Reporting Initiative indicators: G4-EC7 and G4-EC8
Our approach towards our FY18 operational planning:
Annual production guidance for FY18 is in line with our strategy to produce safe, profitable ounces and increase margins through operational excellence. Our target for FY18 is to produce 1.1Moz at an all-in sustaining cost of R520 000/kg (US$1 180/oz). Planned capital expenditure of R4.4 billion (US$319 million) for FY18 is prioritised at Hidden Valley, for the stage 5 and 6 investment, and at the Tshepong operation, for ongoing development capital, the sub-75 decline project and ventilation improvements at the Tshepong section.

Highlights of what we expect for FY18:
• Improved safety focus and performance at all operations
• All operations to be profitable and generate operational free cash flow
• An increase in total production to 1.1Moz and increase in the underground recovered grade to 5.18g/t
• Greater focus on cost management and unit cost reductions
• Hidden Valley to reach commercial levels of production in the June quarter of FY18 and deliver the stage 5 and 6 investment on schedule and on budget
• Tshepong operations production to increase on higher volumes and a higher recovered grade following the integration of Tshepong and Phakisa
• Masimong to build on the momentum achieved in FY17 and generate free cash
• Target 1 to turnaround its FY17 performance as higher grade massives are accessed
• Kusasalethu to remain profitable, focusing on higher grade areas and benefiting from maintenance and engineering improvements conducted in FY17
• Central Plant tailings project to achieve or exceed guidance in the first year of tailings retreatment
• Unisel to return to profitability following the decision to mine the shaft pillars

Harmony’s production guidance is based on a gold price of R520 000/kg (or US$1 180/oz) and an exchange rate of R13.74/US$ for FY18. Our guidance per operation for FY18 is provided below:
## FY18 forecast and guidance

<table>
<thead>
<tr>
<th>Operation</th>
<th>Production (oz)</th>
<th>Capital expenditure (Rm)</th>
<th>Capital expenditure (US$m)</th>
<th>Life of mine (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tshepong operations</td>
<td>303 000</td>
<td>1 150</td>
<td>84</td>
<td>17</td>
</tr>
<tr>
<td>Bambanani</td>
<td>83 000</td>
<td>73</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Target 1</td>
<td>92 000</td>
<td>386</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>Doornkop</td>
<td>94 500</td>
<td>285</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Joel</td>
<td>66 500</td>
<td>231</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Kusasalethu</td>
<td>143 000</td>
<td>321</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Masimong</td>
<td>72 000</td>
<td>116</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Unisel</td>
<td>55 000</td>
<td>112</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Underground operations – total(^1)</td>
<td>909 000</td>
<td>2 674</td>
<td>194</td>
<td></td>
</tr>
<tr>
<td>South Africa surface operations (including Kalgold)</td>
<td>96 500</td>
<td>39</td>
<td>3</td>
<td>14+</td>
</tr>
<tr>
<td>Hidden Valley(^2)</td>
<td>94 500</td>
<td>1 676</td>
<td>122</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>~1.1Moz</td>
<td>4 389</td>
<td>319</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Excludes Golpu

\(^2\) At an exchange rate of R13.74/US$

\(^3\) At a grade of ~5.18g/t

For detailed information by operation, see the individual pdfs on each operation available at [www.har.co.za](http://www.har.co.za)
EXPLORATION AND PROJECTS

EXPLORATION PROGRAMME IN PAPUA NEW GUINEA – FY17 HIGHLIGHTS AND MILESTONES

Advancement of the Wafi-Golpu project:
- Special mining lease application submitted in August 2016
- Completion of a targeted drilling programme has significantly improved the geotechnical understanding of relevant domains
- Start of feasibility study update, including trade-off studies of deep-sea tailings placement, terrestrial tailings storage and other tailings management solutions, and self-generated on-site power supply
- Collection of oceanographic data on the deep-sea placement of tailings
- Selection of final block cave extraction levels and the mine production rate
- Ongoing preparation of environmental impact study

Increased resource declared for Kili Teke prospect:
- FY17 inferred mineral resource update: 237Mt @ 0.3% copper, 0.24g/t gold and 168ppm molybdenum containing 802 000t copper, 1.81Moz of gold and 40 000t molybdenum

Consolidated exploration tenure in the Morobe Goldfield:
- 100% of the contiguous tenement package surrounding the Hidden Valley mining lease included with the acquisition of Hidden Valley
- 502km² of tenure centered on one of Papua New Guinea’s premier goldfields – encompasses the historic Wau Gold Mining Centre
- Increased brownfield exploration focus – high-grade epithermal gold targets generated for drill testing as potential satellite deposits for Hidden Valley

Tenement rationalisation:
- Harmony (100%) tenement holding increased 66% to 1 265km² (FY16: 764km²)
- Joint venture (Harmony 50%) tenement holding declined by 50% to 495km² (FY16: 999km²)
- EL1629 is held under an option to purchase by Pacific Niugini Minerals and who are also responsible for maintaining the joint venture tenement in good standing
- Harmony continues to manage exploration on the portfolio tenement package on behalf of the exploration portfolio joint venture participants (ultimate parent companies: Newcrest 50%; Harmony 50%)
PAPUA NEW GUINEA

HARMONY’S EXPLORATION ACTIVITIES

Harmony began actively exploring in Papua New Guinea in 2003. Since then, we have developed a high-quality project portfolio, both in established mineral provinces and in emerging gold and copper districts. Harmony has advanced several gold and copper-gold prospects which are at various stages of exploration and evaluation across Harmony’s lease areas. These include the Kili Teke prospect.

Our exploration strategy takes a balanced approach, incorporating both greenfield and brownfield exploration. We target highly prospective, underexplored terrains and mining districts to discover and develop large, long-life, bulk mineable gold and copper-gold deposits. Key work streams underpin the FY17 exploration programme:

• Optimisation of feasibility and prefeasibility studies of the Golpu copper-gold deposit
• Brownfield exploration at Wau (for Hidden Valley) for high-grade satellite deposits to optimise existing open pit operations
• Greenfield exploration to enhance Harmony’s world-class copper-gold footprint in Papua New Guinea

In FY17, we spent R431 million (US$32 million) (FY16: R433 million; US$29.9 million) on exploration in Papua New Guinea.

The case for exploration investment in Papua New Guinea remains strong. Harmony closely monitors the environment for new opportunities to enhance our project portfolio, in line with core operating capabilities. The country is hugely prospective and underexplored. In addition, Harmony has an established track record of discovery and adding value through cost-effective exploration:

• Since 2003, resource growth from Harmony-held tenements, both those held in joint venture (Harmony’s 50% equity share) and by Harmony alone (100%-held), amounts to 12.7Moz of gold and 5.1Mt of copper
• Discovery cost on a per ounce gold equivalent basis of less than US$10 is among the best in the world

Tenements held in joint venture
(Wafi-Golpu Joint Venture and Exploration Portfolio Joint Venture) (Harmony 50%)

Harmony is in a 50:50 joint venture with Newcrest Mining over a number of tenements in Morobe Province. These tenements encompass the Wafi-Golpu project and span the Wafi Transfer and its strike extensions, and are prospective for epithermal gold and porphyry style copper-gold deposits. The exploration strategy is to discover bulk tonnage (~1Moz) or high-margin gold or copper-gold deposits to provide new resource options that can leverage infrastructure or complement the Wafi-Golpu project.

In conjunction with Harmony’s acquisition of Newcrest’s 50% interest in Hidden Valley, the exploration portfolio joint venture tenement portfolio was restructured and reduced to several tenements contiguous with the Wafi-Golpu project. The aggregate tenement package in Morobe Province, held in the 50:50 joint venture between Newcrest and Harmony, now stands at 496km$^2$ (FY16: 999km$^2$). During FY17, total Harmony expenditure (50%) on exploration on the joint venture tenements in Morobe Province was R7 million (US$0.5 million), compared to R9 million (US$0.6 million) in FY16. Generative work using airborne geophysics in combination with mapping and surface sampling is planned to continue in FY18.

Overview of Wafi-Golpu and exploration portfolio exploration activity (Harmony 50%)

<table>
<thead>
<tr>
<th>Wafi-Golpu project</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target:</strong> Progress the Wafi-Golpu project to permitting and development</td>
<td>Lodged an application for a special mining lease and proposal for development in August 2016. Began a feasibility study update that will incorporate an increased mining rate, finalise tailings management studies (including deep-sea tailings placement as a potential tailings management option) and on-site, self-generation of power.</td>
<td>Complete the feasibility study update and lodge an amended proposal for development with the mineral resources authority. Complete the environmental and social impact assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exploration portfolio tenements (Wafi-Golpu district)</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target:</strong> Wafi transfer zone – greenfields exploration targeting discovery of additional resources to expand Wafi-Golpu into a mineral district</td>
<td>Trial ZTEM airborne geophysical survey flown (283 line km) and 3D inversion modelling completed. First pass drill testing was completed at the Nambonga North Prospect (1 hole / 1 022m)</td>
<td>Extend regional ZTEM airborne geophysical coverage to assist in defining the limits of the Wafi-Golpu system Petrophysical sampling and 3D inversion modelling to improve target ranking and interpretation of ZTEM data Follow-up mapping and surface sampling and integration with geophysical datasets to develop drill targets</td>
</tr>
</tbody>
</table>

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**EXPLORATION AND PROJECTS CONTINUED**

**Wafi-Golpu project**
The Wafi-Golpu Project is owned by the Wafi-Golpu joint venture, a 50:50 unincorporated joint venture between subsidiaries of Harmony and Newcrest Mining Limited (Australia) respectively.

The Wafi-Golpu joint venture participants are the holders of exploration licences EL440 and EL1105, which are located approximately 65km southwest of Lae, in Morobe Province.

Lae, the second largest city in Papua New Guinea, will host the project’s import and concentrate export facilities. The proposed mine site sits at an elevation of approximately 400m above sea level in moderately hilly terrain and is located near the Watut River, approximately 30km upstream from its confluence with the Markham River.

In February 2016, the Wafi-Golpu Joint Venture participants completed feasibility and prefeasibility studies for the Wafi-Golpu copper-gold project and declared updated resources and reserves for the project. Both studies confirmed a robust investment case. In August 2016, an application for a special mining lease was lodged, supported by a proposal for development.

Subsequent to the completion of these studies and after further geotechnical drilling, certain technical challenges were identified, including seismicity impacting the preferred location of the terrestrial tailings storage facility, and limitations on the capacity of identified potential terrestrial storage sites in the vicinity of the mine to accommodate the projected life of mine volume of mine tailings.

Deep-sea tailings placement was seen as a potential alternative tailings management strategy, as there are excellent geographical conditions around Papua New Guinea for the deep-sea placement of tailings with a number of other mines in the area using this method.

In light of this development and other changes to the proposed project configuration, work has begun on an update to the 2016 Wafi-Golpu feasibility and prefeasibility studies. The studies, scheduled for completion in the third quarter of FY18, will include the following:

- An improved understanding of the geotechnical conditions expected at the proposed block coves
- Optimisation of mining and processing throughput rates
- Studies of deep-sea tailings placement, including an accelerated programme of oceanographic data collection. A number of environmental monitoring buoys have been deployed in the Huon Gulf to the south of Lae. Shipboard surveys are also being undertaken in the gulf
- A programme of work to address the chemical composition of the tailings and its reactivity with the oceanic environment of the Huon Gulf, and to identify any mitigating measures (including processing) which may be required
- A review of terrestrial tailings management options, including dry stacking
- A trade-off study, comparing deep-sea tailings deposition and terrestrial tailings management solutions, with a final recommendation to be made. Until the study has been concluded, both terrestrial and deep-sea options for tailings management remain open

The joint venture participants are also considering a site-based power station to reduce the risk of interruptions to the grid power supply. Work is continuing to review and align the proposal for development lodged in August 2016 with the outcomes of the updated studies. A framework of overarching principles for state and landowner engagement is also being prepared that will inform the details of the matters to be negotiated, both with the state (mining development contract) and at the Development Forum between the state and landowner representatives.

For further details on the mineral resources and reserves at Wafi-Golpu and Nambonga, see the *Mineral resources and mineral reserves report 2017*.

**Tenements held exclusively by Harmony**
(Harmony Gold Mining Company Limited and Harmony Gold (PNG) Exploration Limited) (Harmony 100%)

With the acquisition of Newcrest’s interest in the Hidden Valley mine, Harmony’s 100%-owned tenement portfolio in Papua New Guinea increased to 1,265km² compared with FY16: 764km² (a 66% increase year-on-year). The increase included the acquisition by Harmony Gold (PNG) Exploration of the tenements held by the Exploration Portfolio Joint Venture in the area surrounding the Hidden Valley mine (EL 677, EL497 and EL2313).

A total of R147 million (US$10.6 million) was spent on 100% Harmony-owned projects in FY16 (FY16: R164 million/US$11.3 million). Investment in regional greenfield porphyry copper and gold exploration declined in the second half of FY17. Work programme expenditure was reprioritised to include development of brownfield gold targets within a 10km of the Hamata processing plant at Hidden Valley.

The FY17 resource update for Kili Teke stands at 782,000t of copper, and 1.8 Moz of gold. The deposit is open at depth and along strike to the southeast. Drill spacing remains broad. Potential to increase the resource base is excellent and follow-up work is planned for FY18.

For further details on Kili Teke and its mineral resource, see the *Mineral resources and mineral reserves report 2017*.
Details of the FY17 work programme are outlined below:

### Kili Teke Project – EL2310

| Target: Targeting copper-gold porphyry | Progress in FY17: 19 holes / 11,876m drilled during the year. A revised mineral resource estimate for Kili Teke was published Q1FY17 and comprised 222Mt at 0.35 % copper and 0.25 g/t gold and 170ppm molybdenum (782,000t copper, 1.75Moz gold, 38,000t molybdenum). Global resource grades declined slightly compared to the maiden resource due to the effect of late-stage barren intrusive phases. | Targets/plans for FY18: Work programme planned to target resource base expansion: • Drill testing strike and depth extensions • Drill testing peripheral targets for additional centres of mineralisation based on: • airborne geophysics • follow-up surface mapping and sampling |

### Poru Project – EL2386

| Target: Large scale epithermal gold-silver deposit +4Moz gold | Progress in FY17: Exploration during the year focused on first pass detailed mapping and surface sampling. Some 1,341 soil samples, 111 rock chip samples and 315 trench channel samples were collected and analysed for gold and multi-elements. Detailed mapping was completed over the Caldera. Results have outlined significant zones of multi-element anomalism (silver-gold-lead-zinc) to the northeast of the historic prospect area defined by Kennecott Exploration | Targets/plans for FY18: Drill target development including: • Infill soil sampling and follow-up mapping • Data compilation and interpretation including integration of ASD field spectrometer data |

### Hidden Valley District Project – EL497, EL677, EL2386

| Target: Brownfields exploration within a 10km radius of the Hidden Valley plant to develop replacement resources and support expansion | Progress in FY17: Over 870 samples were collected and a number of quality targets were finalised for drill testing in the first half of FY18 which include: • The Koranga Uplow zone: mapped contact breccia with over 600m of strike with small scale informal mining on exposures, together with high-grade historic gold intercepts up to 24m @ 6.36g/t Au • Kunai Hill: open ended mineralised zone with over 200m of strike where historic intercepts include 24m @ 3.3g/t Au. Extensive supergene gold occurs in overlying Namie Breccia to the southeast, with informal mining. The drill targets represent potential new high-grade satellite resource areas to supplement mill feed at Hidden Valley. | Targets/plans for FY18: • Finalise community agreements and drill pad preparation • Drill testing prioritised targets: Initial drill programme comprises 3,400m. |

### Project generation

| Target: Develop a project pipeline capable of delivering additional quality resources to sustain growth and regional operations | Progress in FY17: Initial reconnaissance completed on EL677 at the Udat Creek prospect was completed, approximately 20km west of the Hidden Valley Mine. In all, 389 surface samples were collected which included ridge and spur soils, rock chip and stream sediment samples. Results are extremely encouraging with visible gold obtained from panned stream sediment concentrates over a 2.5km footprint. Outcrop of high-grade mineralised skarn was also confirmed in mapping from the prospect area. Tenement monitoring for new opportunities continued | Targets/plans for FY18: Follow-up work at Udat creek including • Extension of reconnaissance surface sampling and mapping • Drill target development Prospect identification and development including: • Ridge and spur soil sampling, mapping and rock-chip sampling • Integration of geophysics including IP, ZTEM and airborne magnetics |
EXPLORATION AND PROJECTS CONTINUED

SOUTH AFRICA

All of our underground mines are in the Witwatersrand Supergroup. Most of these can be found in the south-western corner of the Witwatersrand Basin or Free State goldfields, and comprise sedimentary rocks that extend laterally for hundreds of kilometres into the West Rand goldfields and East Rand Basin. The Kraaipan Greenstone Belt can be found further north-west where we have an open pit operation. For detail on the geology, see the Mineral resources and mineral reserves report 2017.

Underground exploration

A total of 62 860m (FY16: 63 281m) was drilled across Harmony’s underground operations in South Africa.

Using a method known as continuous coring, underground exploration drilling is done as per required intervals from existing underground excavations (haulages and cross cuts). This drilling is done to determine the elevation and grade of the targeted reef horizon as well as the geological features in the immediate surrounding lithology. It assists in structural geological interpretation and evaluation of specific areas as well as in the compilation of regional structural geological and evaluation models. Mine geologists and planners use this information to determine the mines development strategy and eventually the mines economic viability.

Brownfields exploration in South Africa

A summary of brownfields exploration conducted in South Africa in FY17 and planned for FY18:

<table>
<thead>
<tr>
<th>Reef Name</th>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tshepong B Reef</td>
<td>At the Tshepong section, exploration continues to maintain current levels of B Reef mining. Drilling is being conducted to identify areas of economic value in the down dip extensions of the current B Reef channels being mined</td>
<td>Eighteen exploration holes have been completed, with values ranging between 8cmg/t and 3580cmg/t. Thus far the drilling has assisted in delineating the channel boundaries of the down dip extensions of the B Reef channels identified in the Leebosch, Midas and Horizon dyke areas</td>
<td>Drilling of a further 10 holes will continue in three different areas over four levels at the Tshepong section.</td>
</tr>
<tr>
<td>Phakisa B Reef</td>
<td>Currently, there is no mining of the B Reef at the Phakisa section. Exploration drilling is being undertaken to identify areas of economic value in the down-dip extensions of the channels being mined at the neighbouring Tshepong section. Significant potential may exist to mine the B Reef north of the shaft pillar on the Phakisa section</td>
<td>Four exploration holes have been completed, the values range between 38cmg/t and 487cmg/t. Although progress has been slow, the drilling has assisted in improving understanding of the boundaries of the B Reef channel to the north of the Zindaba Dyke</td>
<td>Drilling of an additional 13 holes will continue from 69 to 75 levels north of the Zindaba Dyke from the 65 line northwards</td>
</tr>
<tr>
<td>Doornkop Main Reef</td>
<td>The Main Reef is located 60-70m below the South Reef with classification as a minor reef that can be explored or mined using the existing South Reef infrastructure</td>
<td>A total of eight boreholes had been drilled and completed by March 2017. The geological model was updated with information obtained from the reef intersections</td>
<td>No further drilling is planned at this stage</td>
</tr>
<tr>
<td>Doornkop South Reef</td>
<td>Current South Reef structural model in the inferred areas is based on that of the Kimberly Reef, which lies stratigraphically 800m above the South Reef. Drilling of long-incline boreholes will be done to assist with modelling of the South Reef on levels 202, 207 and 212</td>
<td>Geological interpretation has been done, drilling platforms have been identified and drilling schedules established to confirm the levels where South Reef can be mined</td>
<td>Drilling will begin from seven different platforms to confirm the presence of the South Reef on levels 202, 207 and 212</td>
</tr>
</tbody>
</table>
## Doornkop seismic survey

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently our South Reef structural model is based on that of the Kimberly Reef, which lies stratigraphically 800m above the South Reef. The recently completed seismic survey identified and located major geological structures and confirmed the South Reef levels</td>
<td>Field work including a total of 92 line kilometres and 12 widely spaced dip and strike lines over the Doornkop lease area was completed in December 2016</td>
<td>Geophysical structural interpretation has been completed and a start made on development of the 3D models of all the potential economic reef horizons. All historical information is being incorporated into the new model so as to increase confidence levels and have a more accurate geological model with better defined production levels.</td>
</tr>
</tbody>
</table>

## Kalgold

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
</table>
| High-grade gold satellite deposits and resource extensions to provide operational flexibility and/or support re-optimisation and expansion of the current operation | Within the mining lease area, data consolidation and review was completed and a number of priority drill targets were developed for additional high-grade open pit ore sources. These include:  
- Depth and strike extensions of mineralisation along the main Watertank – A Zone line of lode  
- Spanover border prospect where historic drill intercepts include GR75: 24m @ 1.3g/t Au from 12m  
- Windmill line of load with historic drill intercepts including MDGP503: 20m @ 3.6g/t Au from 60m remain open for follow-up drilling.  
Outside of the mining lease on the surrounding prospecting rights, some 50 boreholes (3,793m) were completed. The reconnaissance drilling program was designed to establish stratigraphy and mineralised strike extensions north and south of the known deposits. The drilling was successful in intersecting significant intervals of BIF (banded iron formation) with accompanying highly anomalous levels of gold mineralisation | For the Kalgold mining lease area a drill proposal comprising 67 holes, ~19,350m has been finalised and approved for completion in H1 FY18. Follow-up drilling will be planned based on results.  
Drill target development on the surrounding prospecting rights including:  
- Madibe Block:  
  - systematic surface geochemical sampling and mapping  
  - drill target development through integration of airborne geophysical data, surface mapping and geochemistry.  
- Northern Farms and Goldridge south areas: drill target development through surface sampling and mapping, and application of geophysical techniques including induced polarisation and electromagnetic surveys as appropriate |

## Harmony – White Rivers Exploration joint venture

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
</table>
| The main objective of this exploration joint venture is to explore and develop potential gold resources at White Rivers Exploration (Pty) Limited’s Beisa Project and abutting exploration areas within Harmony’s adjacent Target complex | In terms of the agreement, White Rivers and Harmony (through Loraine Gold Mines Limited and Avgold Limited) will have initial and fixed interests of 65% and 35% respectively in the exploration joint venture. White Rivers will fund and manage exploration activities to prefeasibility study level  
Initial exploration activities, which include collation of historical data, interpretation and verification of data, and geological modelling, are in progress. The initial resource in the project area has been identified and the scoping study has been carried out | Mineral resource modelling is in progress |
## EXPLORATION AND PROJECTS

### PROJECTS

A summary of projects underway in South Africa in FY17:

#### Joel North

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order to access the ore body from 137 level, two declines are being developed at 12° from 129 level – a chairlift decline and a conveyor belt decline. Primary footwall development is currently taking place on 137 level.</td>
<td>All capital development has been completed. The temporary conveyor is in use which allows rock to be tipped at the bottom of the decline and transported up to 129 level. Equipping of the permanent conveyor is currently being done as is the construction of the box fronts on 137 level.</td>
<td>Completion of the whole project including all construction and equipping. Gaining access to the reef horizon and being positioned to start stoping.</td>
</tr>
</tbody>
</table>

#### Tailings retreatment expansion

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retreatment of additional tailings in the Free State (Saints project)</td>
<td>A feasibility study on phase 1 of the Saints project to treat an additional 1Mt of tailings was completed. The study showed that 333 000tpm of tailings could be profitably treated at an extended Central Plant. However the project implementation decision has been delayed by a year in view of more cost effective ways of using available capital. The phase 2 pre-feasibility study, which considered the treatment of 667 000tpm as a bolt on to the Harmony 1 plant, was near completion at year end. However, high capital costs at current gold prices will delay further work on this project for the foreseeable future.</td>
<td>It is planned to further optimise the Saints phase 1 project study.</td>
</tr>
</tbody>
</table>

#### Central plant tailings reclamation

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
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<tbody>
<tr>
<td>Reclaim material from FSS5 tailings facility for processing at the central plant (to be converted for tailings re-treatment) at a rate of 300 000t annually. Central plant operation will be similar to the highly profitable Phoenix operation, which has been in operation since 2007.</td>
<td>Construction of this project was completed by the end of May 2017 and largely commissioned by the end of the financial year. The project was delivered on time and under budget.</td>
<td>Ramp up throughput to 300 000tpm by the end of July 2017 and maintain this level of throughput.</td>
</tr>
</tbody>
</table>

#### Target 3 shaft

<table>
<thead>
<tr>
<th>Target:</th>
<th>Progress in FY17:</th>
<th>Targets/plans for FY18:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target 3 shaft was placed on care and maintenance in FY15. This project entailed looking at the possibility of opening the shaft again and mining only the higher grade Basal Reef.</td>
<td>An in-house concept study was completed in November 2016 and an externally led feasibility study by June 2017. The project showed that the shaft could be profitably mined if operations were geographically confined and only the basal reef was mined. The high capital cost and long lead time, due to the rehabilitation needed in the shaft and accesses, has meant that a decision on this project has been delayed for the time being.</td>
<td>Target 3 shaft is a main pumping shaft and some rehabilitation work in the shafts will take place while the pumping operations are conducted.</td>
</tr>
</tbody>
</table>
MINERAL RESOURCES AND RESERVES – SUMMARY

Harmony’s statement of mineral resources and mineral reserves as at 30 June 2017 is produced in accordance with the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC) and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC). It should be noted that mineral resources are reported inclusive of mineral reserves. Our detailed mineral resources and reserves statements are presented in the report entitled Mineral Resources and Mineral Reserves 2017, which is available on our company website, www.har.co.za/17/download/HAR-RR17.pdf.

Harmony uses certain terms in the summary such as ‘measured’, ‘indicated’ and ‘inferred’ resources, which the United States’ Securities and Exchange Commission guidelines strictly prohibit companies registered in the United States from including in their filings with the United States’ Securities and Exchange Commission. United States investors are urged to consider the disclosure in this regard in our Form 20-F which is available on our website at https://www.harmony.co.za/investors/reporting/20f.

HARMONY – TOTAL MINERAL RESOURCES AND RESERVES

The company’s total attributable gold equivalent mineral resource of 104.3Moz was declared as at 30 June 2017, a 0.9% decrease year-on-year from the 105.2Moz declared on 30 June 2016. Gold contained in the mineral resources at the South African operations represented 53.2% of Harmony’s total, with the Papua New Guinea assets representing 46.8% of total gold and gold equivalent mineral resources as at 30 June 2017.

Harmony’s total attributable gold and gold equivalent mineral reserves amounted to 36.7Moz of gold, a 0.5% decrease on the 36.9Moz declared at 30 June 2016. Gold reserve ounces at our South African operations accounted for 44.3% while the Papua New Guinea gold and gold equivalent ounces represented 55.7% of Harmony’s total mineral reserves as at 30 June 2017.

South Africa

Underground operations

The company’s mineral resources at the South African underground operations as at 30 June 2017 are 46.6Moz (159.4Mt at 9.10g/t), a decrease of 4.0% year on year from the 48.6Moz (162.1Mt at 9.32g/t) declared as at 30 June 2016. This decrease is mainly due to depletion. The company’s mineral reserves at the South African underground operations as at 30 June 2017 are 9.1Moz (50.4Mt at 5.61g/t), a decrease of 5.9% year on year from the 9.7Moz (54.2Mt at 5.55g/t) declared as at 30 June 2016. The decrease is lower than normal depletion due to gains in reserves from Masimong, Doornkop and Kusasalethu.

Surface operations including Kalgold

Harmony’s mineral resources at its South African surface operations as at 30 June 2017 were 8.8Moz (984.6Mt at 0.28g/t). Given an increase in reserves at Kalgold, Harmony’s mineral reserves after normal depletion at its South African surface operations as at 30 June 2017 were 7.2Moz (827.8Mt at 0.27g/t), in line with the 7.1Moz (840.4Mt at 0.26g/t) declared at 30 June 2016.

Papua New Guinea

Operations

Mineral resources at our Papua New Guinea assets as at 30 June 2017 were 48.8Moz of gold equivalents, an increase of 3.6% year-on-year from the 47.1Moz declared at 30 June 2016. This increase was due to the mineral resources declared at Kili Teke and increases resulting from the change in the gold equivalent ratios applied given the revised long-term commodity prices used.

Mineral reserves at the Papua New Guinea assets as at 30 June 2017 were 20.5Moz, an increase of 1.6% on the 20.2Moz declared as at 30 June 2016.

AUDITING

Harmony’s South African mineral resources and mineral reserves were comprehensively audited by a team of internal competent persons that functions independently of the operating units. The internal audit team verifies compliance with the Harmony code of resource blocking, valuation, resource classification, cut-off calculations, development of life-of-mine plans and SAMREC-compliant statements for each operation and project, which support Harmony’s annual mineral resources and mineral reserves declaration.

This audit process is specifically designed to comply with the requirements of internationally recognised procedures and standards such as:

- The South African Code for Reporting Mineral Resources and Mineral Reserves (SAMREC)
- Industry Guide 7 of the United States’ Securities and Exchange Commission Sarbanes-Oxley requirements
- The Australian Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (JORC), which complies with SAMREC

Harmony’s South African mineral resources and reserves were reviewed by The Mineral Corporation for compliance with SAMREC. The mineral resources and reserves of the Papua New Guinea assets were reviewed by AMC Consultants (Pty) Ltd for compliance with the standards set out in JORC.
MINERAL RESOURCES AND RESERVES – SUMMARY

COMPETENT PERSON’S DECLARATION
In South Africa, an ore reserve manager is appointed at each operation to take responsibility for the compilation and reporting of the operation's mineral resources and mineral reserves. In Papua New Guinea, competent persons are appointed and have responsibility for the mineral resources and mineral reserves for specific projects and operations.

The mineral resources and mineral reserves in this report are based on information compiled by the following competent persons, as at 26 October 2017.

Resources and reserves of South Africa:
Jaco Boshoff, BSc (Hons), MSc, MBA, Pr. Sci. Nat, MSAIMM, MGSSA, who has 22 years’ relevant experience and is registered with the South African Council for Natural Scientific Professions (SACNASP), is a member of the South African Institute of Mining and Metallurgy (SAIMM) and of the Geological Society of South Africa (GSSA).

Mr Boshoff is Harmony's Lead Competent Person.

Physical address:
Randfontein Office Park
Corner of Main Reef Road and Ward Avenue Randfontein
Randfontein
South Africa

Postal address:
PO Box 2
Randfontein
1760
South Africa

Resources and reserves of Papua New Guinea:
Gregory Job, BSc, MSc, who has 29 years’ relevant experience, is a member of the Australian Institute of Mining and Metallurgy (AusIMM).

Both these competent persons, who are full-time employees of Harmony, consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Administrative information for professional organisations

AusIMM – The Australasian Institute of Mining and Metallurgy
PO Box 660, Carlton South, Vic 3053, Australia
Telephone: +61 3 9658 6100; Facsimile: +61 3 9662 3662

SACNASP – The legislated regulatory body for natural science practitioners in South Africa
Private Bag X540, Silverton, 0127, Gauteng Province, South Africa
Telephone: +27 (12) 841 1075; Facsimile: +27 (86) 206 0427
http://www.sacnasp.org.za/

SAIMM – The Southern African Institute of Mining and Metallurgy
PO Box 61127, Marshalltown, 2107, Gauteng Province, South Africa
Telephone: +27 (011) 834 1273/7; Facsimile: +27 (011) 838 5923/8156
http://www.saimm.co.za/

ENVIRONMENTAL MANAGEMENT AND FUNDING
Harmony’s environmental strategy aims to optimise our environmental performance by managing our environmental impacts, focusing on effective risk controls, reducing environmental liabilities, ensuring responsible stewardship of our products within our scope of influence, complying with environmental legislation and regulations. For further information regarding Harmony’s approach to sustainability and environmental performance, refer to Environmental performance.

Details relating to the financial provisions made for environmental rehabilitation and funding can be found in note 26 in Harmony’s audited annual financial statements which are available in a separate report, the Financial Report 2017, which is available online at www.har.co.za.
LEGAL ENTITLEMENT TO MINERALS REPORTED

Harmony’s South African operations operate under new order mining rights in terms of the Minerals and Petroleum Resources Development Act (MPRDA) of 2002 (Act No. 28, of 2002). In Papua New Guinea, Harmony operates under the Independent State of Papua New Guinea Mining Act 1992. All required operating permits have been obtained, and are in good standing. The legal tenure of each operation and project has been verified to the satisfaction of the accountable competent person.

MINERAL RESOURCES

As at 30 June 2017, attributable gold equivalent mineral resources were 104.3Moz, down from 105.2Moz in June 2016. The following table shows the year-on-year reconciliation of the mineral resources.

### Gold and gold equivalent mineral resources reconciliation

<table>
<thead>
<tr>
<th></th>
<th>Tonnes</th>
<th>Moz</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2016 – Gold and gold equivalents</td>
<td>3 271</td>
<td>105.2</td>
</tr>
<tr>
<td>Changes during FY17:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mined</td>
<td>(44)</td>
<td>(1.4)</td>
</tr>
<tr>
<td>Geological changes and Hidden Valley 100%</td>
<td>30</td>
<td>1.0</td>
</tr>
<tr>
<td>Gold equivalents</td>
<td>(14)</td>
<td>(0.5)</td>
</tr>
<tr>
<td>June 2017 – Gold and gold equivalents</td>
<td>3 243</td>
<td>104.3</td>
</tr>
</tbody>
</table>

MINERAL RESERVES

As at 30 June 2017, Harmony’s attributable gold equivalent mineral reserves were 36.7Moz, down from 36.9Moz. The year-on-year mineral reserves reconciliation is shown below.

### Gold and gold equivalent mineral reserves reconciliation

<table>
<thead>
<tr>
<th></th>
<th>Tonnes</th>
<th>Moz</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2016 – Gold and gold equivalents</td>
<td>1 148</td>
<td>36.9</td>
</tr>
<tr>
<td>Changes during FY17:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mined</td>
<td>(36)</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Life of mine extensions and Hidden Valley 100%</td>
<td>42</td>
<td>1.3</td>
</tr>
<tr>
<td>Gold equivalents</td>
<td>(11)</td>
<td>(0.3)</td>
</tr>
<tr>
<td>June 2017 – Gold and gold equivalents</td>
<td>1 143</td>
<td>36.7</td>
</tr>
</tbody>
</table>

ASSUMPTIONS

In converting the mineral resources to mineral reserves, the following commodity prices and exchange rates were applied:

- A gold price of US$1 200/oz
- An exchange rate of R/US$13.61
- These parameters result in a rand gold price of R525 000/kg for the South African assets
- The Hidden Valley mine and Golpu project in the Morobe Mining Joint Ventures used commodity prices of US$1 200/oz Au, US$18.00/oz Ag, US$7.00/lb Mo and US$3.00/lb Cu at an exchange rate of US$0.76 per A$
- Gold equivalent ounces are calculated assuming US$1 200/oz Au, US$3.00/lb Cu and US$18.00/oz Ag, and assuming a 100% recovery for all metals
## MINERAL RESOURCES AND RESERVES – SUMMARY

### MINERAL RESOURCE STATEMENT

<table>
<thead>
<tr>
<th>Gold</th>
<th>Measured resources</th>
<th>Indicated resources</th>
<th>Inferred resources</th>
<th>Total mineral resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tonnes (Mt)</td>
<td>Grade (g/t)</td>
<td>Gold (000oz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SOUTH AFRICA UNDERGROUND</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free State</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tshepong operations</td>
<td>24.6 11.21 8 865</td>
<td>11.9 10.27 3 919</td>
<td>34.3 9.25 10 215</td>
<td>70.8 10.10 22 999</td>
</tr>
<tr>
<td>Bambarani</td>
<td>0.9 15.15 456</td>
<td>– – – –</td>
<td>– – – 0.9 15.15 456</td>
<td></td>
</tr>
<tr>
<td>Unisel</td>
<td>1.3 7.02 302</td>
<td>1.2 6.93 271</td>
<td>0.1 6.54 14</td>
<td>2.6 6.97 586</td>
</tr>
<tr>
<td>Joel</td>
<td>2.6 8.40 709</td>
<td>5.2 8.51 1 421</td>
<td>0.2 8.06 47</td>
<td>8.0 8.46 2 178</td>
</tr>
<tr>
<td>Masimong</td>
<td>3.0 7.69 730</td>
<td>1.0 6.58 212</td>
<td>0.1 5.78 23</td>
<td>4.1 7.36 966</td>
</tr>
<tr>
<td>Target 1</td>
<td>7.8 8.27 2 086</td>
<td>7.0 7.78 1 761</td>
<td>4.2 5.79 779</td>
<td>19.1 7.55 4 626</td>
</tr>
<tr>
<td>Target 3</td>
<td>7.3 9.10 2 057</td>
<td>4.7 7.10 1 063</td>
<td>– – – 11.7 8.31 3 119</td>
<td></td>
</tr>
<tr>
<td>Free State underground – total</td>
<td>47.3 9.99 15 206</td>
<td>31.0 8.68 8 647</td>
<td>38.9 8.86 11 078</td>
<td>117.2 9.27 34 931</td>
</tr>
<tr>
<td>West Rand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doomkop South Reef</td>
<td>2.8 8.04 714</td>
<td>3.6 8.07 932</td>
<td>10.6 7.78 2 648</td>
<td>16.9 7.88 4 294</td>
</tr>
<tr>
<td>Doomkop Main Reef</td>
<td>0.1 5.38 14</td>
<td>0.05 5.51 8</td>
<td>0.02 5.32 3</td>
<td>0.1 5.41 25</td>
</tr>
<tr>
<td>Doomkop – total</td>
<td>2.8 7.96 728</td>
<td>3.6 8.03 940</td>
<td>10.6 7.78 2 651</td>
<td>17.1 7.86 4 319</td>
</tr>
<tr>
<td>Kusasalethu</td>
<td>3.1 12.08 1 219</td>
<td>20.0 8.70 5 604</td>
<td>1.9 8.77 543</td>
<td>25.1 9.13 7 366</td>
</tr>
<tr>
<td>West Rand – total</td>
<td>6.0 10.13 1 947</td>
<td>23.7 8.59 6 544</td>
<td>12.5 7.93 3 194</td>
<td>42.2 8.61 11 685</td>
</tr>
<tr>
<td>South Africa underground – total</td>
<td>53.3 10.01 17 153</td>
<td>54.7 8.64 15 191</td>
<td>51.4 8.63 14 272</td>
<td>159.4 9.10 46 616</td>
</tr>
<tr>
<td><strong>SOUTH AFRICA SURFACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kraaipan Greenstone Belt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kalgold</td>
<td>5.4 0.84 147</td>
<td>29.9 0.96 927</td>
<td>6.2 0.99 198</td>
<td>41.6 0.95 1 273</td>
</tr>
<tr>
<td>Kalgold tailings dam</td>
<td>– – – – –</td>
<td>– – – – 23.8 0.26 201</td>
<td>– 23.8 0.26 201</td>
<td>23.8 0.26 201</td>
</tr>
<tr>
<td>Kalgold – total</td>
<td>5.4 0.84 147</td>
<td>29.9 0.96 927</td>
<td>30.0 0.41 400</td>
<td>65.4 0.70 1 474</td>
</tr>
<tr>
<td>Free State Region – surface</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoenix</td>
<td>73.0 0.28 646</td>
<td>– – – –</td>
<td>– – – 73.0 0.28 646</td>
<td></td>
</tr>
<tr>
<td>St Helena</td>
<td>191.3 0.27 1 656</td>
<td>– – – –</td>
<td>– – – 191.3 0.27 1 656</td>
<td></td>
</tr>
<tr>
<td>Central plant</td>
<td>– – – – 67.3 0.27 574</td>
<td>– – – – 67.3 0.27 574</td>
<td>– – – 67.3 0.27 574</td>
<td></td>
</tr>
<tr>
<td>Free State (other):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Waste rock dumps</td>
<td>– – 3.9 0.51 64</td>
<td>19.8 0.42 270</td>
<td>23.7 0.44 334</td>
<td></td>
</tr>
<tr>
<td>– Tailings</td>
<td>– – – – 548.3 0.23 4 028</td>
<td>– – – – 15.5 0.19 94</td>
<td>563.8 0.23 4 122</td>
<td></td>
</tr>
<tr>
<td>– Subtotal</td>
<td>– – – – 552.2 0.23 4 092</td>
<td>– – – – 35.3 0.32 364</td>
<td>587.5 0.24 4 456</td>
<td></td>
</tr>
<tr>
<td>Free State Surface – total</td>
<td>264.4 0.27 2 303</td>
<td>619.6 0.23 4 666</td>
<td>35.3 0.32 364</td>
<td>919.2 0.25 7 333</td>
</tr>
<tr>
<td>South Africa Surface – total (including Kalgold)</td>
<td>269.8 0.28 2 450</td>
<td>649.5 0.27 5 592</td>
<td>65.3 0.36 764</td>
<td>984.6 0.28 8 807</td>
</tr>
<tr>
<td>South Africa – total</td>
<td>323.1 19 603</td>
<td>704.2 20 783</td>
<td>116.7 15 036</td>
<td>1 144.0 55 423</td>
</tr>
<tr>
<td><strong>PAPUA NEW GUINEA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hidden Valley</td>
<td>0.4 1.04 14</td>
<td>79.4 1.49 3 795</td>
<td>2.4 1.14 87</td>
<td>82.3 1.47 3 897</td>
</tr>
<tr>
<td>Hamata</td>
<td>0.1 1.09 2</td>
<td>2.7 1.96 171</td>
<td>0.2 1.46 10</td>
<td>3.0 1.90 184</td>
</tr>
<tr>
<td>Wafi¹</td>
<td>– – – – 56.7 1.72 3 146</td>
<td>11.3 1.30 475</td>
<td>68.1 1.65 3 621</td>
<td></td>
</tr>
<tr>
<td>Golpu¹</td>
<td>– – – – 344.0 0.71 7 905</td>
<td>67.9 0.63 1 377</td>
<td>411.9 0.70 9 282</td>
<td></td>
</tr>
<tr>
<td>Nambonga¹</td>
<td>– – – – – –</td>
<td>– – – – 19.9 0.79 507</td>
<td>19.9 0.79 507</td>
<td></td>
</tr>
<tr>
<td>Kili Teke</td>
<td>– – – – – –</td>
<td>– – – – 237.0 0.24 1 810</td>
<td>237.0 0.24 1810</td>
<td></td>
</tr>
<tr>
<td>Papua New Guinea – total</td>
<td>0.5 1.04 17</td>
<td>482.9 0.97 15 018</td>
<td>338.7 0.39 4 267</td>
<td>822.1 0.73 19 301</td>
</tr>
<tr>
<td><strong>TOTAL GOLD</strong></td>
<td>323.6 19 620</td>
<td>1 187.1 35 801</td>
<td>455.5 19 303</td>
<td>1 966.1 74 724</td>
</tr>
</tbody>
</table>
## MINERAL RESOURCE STATEMENT

### Gold equivalents

<table>
<thead>
<tr>
<th></th>
<th>Measured resources (Mt)</th>
<th>Indicated resources (Mt)</th>
<th>Inferred resources (Mt)</th>
<th>Total mineral resources (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silver</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hidden Valley</td>
<td>0.4</td>
<td>79.5</td>
<td>1 100</td>
<td>82.3</td>
</tr>
<tr>
<td><strong>Silver – total</strong></td>
<td>0.4</td>
<td>79.4</td>
<td>1 100</td>
<td>82.3</td>
</tr>
<tr>
<td><strong>Copper</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golpu¹</td>
<td>–</td>
<td>344.0</td>
<td>20 575</td>
<td>411.9</td>
</tr>
<tr>
<td>Nambonga¹</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>19.9</td>
</tr>
<tr>
<td>Kili Teke</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>237.0</td>
</tr>
<tr>
<td><strong>Copper – total</strong></td>
<td>–</td>
<td>344.0</td>
<td>20 575</td>
<td>411.9</td>
</tr>
<tr>
<td><strong>Silver and copper – total</strong></td>
<td>0.4</td>
<td>423.5</td>
<td>21 674</td>
<td>327.2</td>
</tr>
<tr>
<td>Papua New Guinea – total</td>
<td>0.4</td>
<td>4</td>
<td>1100</td>
<td>2.4</td>
</tr>
</tbody>
</table>

### Gold and gold equivalents

|                     | Total Harmony Gold and Gold Equivalents | 323.6 | 19 632 | 1 187.1 | 57 475 | 27 167 | 1 966.1 | 104 266 |

### Other metals

|                     | PAPUA NEW GUINEA | | | | | | |
|---------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **Silver**          |                 |                 |                 |                 |                 |                 |                 |                 |
| Hidden Valley       | 0.4             | 19.73           | 79.4            | 3.4             | 79.4            | 1 100           | 2.4             | 34              | 82.3            | 1 137           |
| Golpu¹              | –               | –               | 344.0           | –               | 20 575          | 67.9            | 3 180           | 411.9           | 23 755          |
| Nambonga¹           | –               | –               | –               | –               | –               | 19.9            | 235             | 19.9            | 235             |
| Kili Teke           | –               | –               | –               | –               | –               | 237.0           | 4 416           | 237.0           | 4 416           |
| **Total**           | –               | –               | 344.0           | –               | 20 575          | 324.8           | 7 831           | 668.8           | 28 405          |
| **Silver and copper – total** | 0.4 | 4 | 423.5 | 21 674 | 327.2 | 7 864 | 29 542 |
| **Papua New Guinea – total** | 0.4 | 20 | 482.9 | 36 692 | 338.7 | 12 131 | 822.1 | 48 844 |

### Copper

|                     | Total Harmony Gold and Gold Equivalents | 323.6 | 19 632 | 1 187.1 | 57 475 | 27 167 | 1 966.1 | 104 266 |

### Molybdenum

|                     | Total Harmony Gold and Gold Equivalents | 323.6 | 19 632 | 1 187.1 | 57 475 | 27 167 | 1 966.1 | 104 266 |

### SOUTH AFRICA

|                     | Total Harmony Gold and Gold Equivalents | 323.6 | 19 632 | 1 187.1 | 57 475 | 27 167 | 1 966.1 | 104 266 |

¹ Harmony’s 50% attributable portion

NB: Rounding of numbers may result in slight computational discrepancies

Note: 1 tonne = 1 000 kg = 2 204 lbs; 1 troy ounce = 31.10348 grams

Au = gold  Ag = silver  Cu = copper  Mo = molybdenum
### MINERAL RESERVE STATEMENT

#### SOUTH AFRICA UNDERGROUND

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Mineral Reserves</th>
<th>Total Mineral Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>(Mt) (g/t) (000oz)</td>
<td>(Mt) (g/t) (000oz)</td>
</tr>
<tr>
<td>Proved reserves</td>
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<tr>
<td>Probable reserves</td>
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<td>Total mineral reserves</td>
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#### SOUTH AFRICA SURFACE

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Mineral Reserves</th>
<th>Total Mineral Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>(Mt) (g/t) (000oz)</td>
<td>(Mt) (g/t) (000oz)</td>
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<tr>
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<td>Total mineral reserves</td>
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#### PAPUA NEW GUINEA

<table>
<thead>
<tr>
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<th>Total Mineral Reserves</th>
</tr>
</thead>
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<tr>
<td>Gold</td>
<td>(Mt) (g/t) (000oz)</td>
<td>(Mt) (g/t) (000oz)</td>
</tr>
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<td>Proved reserves</td>
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<tr>
<td>Total mineral reserves</td>
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<td>510</td>
</tr>
</tbody>
</table>

---

1 Harmony’s 50% attributable portion

2 Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tonnes and head grades

Metallurgical recovery factors have not been applied to the reserve figures

NB: Rounding of numbers may result in slight computational discrepancies

Note: 1 tonne = 1 000 kg = 2 204 lbs; 1 troy ounce = 31.10348 grams

Au = gold    Ag = silver    Cu = copper    Mo = molybdenum
## MINERAL RESERVE STATEMENT continued

<table>
<thead>
<tr>
<th></th>
<th>Proved reserves</th>
<th></th>
<th>Probable reserves</th>
<th></th>
<th>Total mineral reserves</th>
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</tr>
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<tr>
<td></td>
<td>Tonnes (Mt)</td>
<td>Au eq (000oz)</td>
<td>Tonnes (Mt)</td>
<td>Au eq (000oz)</td>
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<tr>
<td><strong>Silver</strong></td>
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<td></td>
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<td>Hidden Valley</td>
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<td>24.4</td>
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<td><strong>Silver – total</strong></td>
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<td>24.4</td>
<td>403</td>
<td>24.8</td>
<td>407</td>
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<tr>
<td><strong>Copper</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golpu¹</td>
<td>–</td>
<td>–</td>
<td>189.6</td>
<td>13 168</td>
<td>189.6</td>
<td>13 168</td>
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<tr>
<td><strong>Copper – total</strong></td>
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<td>–</td>
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<td>189.6</td>
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<tr>
<td><strong>Silver and copper as gold equivalents – total</strong></td>
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<td>4</td>
<td>214.0</td>
<td>13 571</td>
<td>214.4</td>
<td>13 575</td>
</tr>
</tbody>
</table>

**Gold and gold equivalents**

|                      |                     |                     |                   |                     |                        |                     |
|                      |                      |                     |                   |                     |                        |                     |
| **Papua New Guinea including gold equivalents – total** | 0.5 | 21 | 215.3 | 20 462 | 215.8 | 20 483 |
| **TOTAL HARMONY GOLD AND GOLD EQUIVALENTS** | 223.6 | 8 659 | 870.3 | 28 087 | 1 093.9 | 36 746 |

**Other metals**

|                      | **PAPUA NEW GUINEA** |                     |                   |                     |                        |                     |
|                      |                      |                     |                   |                     |                        |                     |
| **Silver**           |                      |                     |                   |                     |                        |                     |
| Hidden Valley        | 0.4                 | 19.73               | 272               | 24.4                | 34.23                  | 26 835              |
|                      |                     |                     |                   |                     |                        |                     |
| **Copper**           |                      |                     |                   |                     |                        |                     |
| Golpu¹               | –                   | –                   | 189.6             | 1.26                | 5 269                  | 27 107              |

¹ Harmony’s 50% attributable portion
² Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tonnes and head grades
Metallurgical recovery factors have not been applied to the reserve figures
NB: Rounding of numbers may result in slight computational discrepancies
Note: 1 tonne = 1 000 kg = 2 204 lbs; 1 troy ounce = 31.10348 grams
Au = gold  Ag = silver  Cu = copper  Mo = molybdenum
CORPORATE GOVERNANCE

“The board recognises the group’s responsibility to be a responsible corporate citizen.”

Introduction
Harmony’s board of directors (the board) subscribes to the principles of good corporate governance because it is the right thing to do. For this reason, 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 as set out below.

The King IV Report on Corporate Governance for South Africa, 2016 which was launched on 1 November 2016 (King IV Report) has elevated the call on boards and other governing bodies to apply their own minds as to the appropriate practices in each organisation that will illustrate the application of the governance principles as contained in the King IV Code on Corporate Governance that is included in the King IV Report. The report below is a first attempt at setting out the practices within Harmony that the board believes confirm Harmony’s application of the King IV principles. Considering that the core messages of good corporate governance have remained mainly unchanged throughout the different King reports to date, together with the Harmony board’s long-standing commitment to good corporate governance, the board is comfortable that sufficient practices are 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 in the 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 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 direction for how ethics should be approached in the group. 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. Detail on the arrangements for governing and managing ethics, key areas of focus 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.

Responsible corporate citizenship
Being part of 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, the 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 and relating to the following areas:

- Workplace – Employees and communities; Remuneration report; Safety and health
- Economy – Employees and communities
- Society – Employees and communities, which includes reports on corporate social investment and human rights
- Environment – Environmental performance

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 a number of 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. Strategy forms part of the ongoing conversations in the boardroom and is a key feature of the agenda of every board meeting. Ongoing oversight of the implementation of strategy and operational plans take place against agreed performance measures and targets.

As the company’s reputation as a responsible corporate citizen is an invaluable attribute and asset of the group, the consequences of the activities and outputs of the group on the various capitals employed by the group are continuously assessed by the board through its subsidiary
committees. This will ensure that we are able to respond responsibly to 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 Harmony and the group, the board ensures that comprehensive reporting is done on different platforms. In addition to the integrated annual report (which is available on the Harmony website at www.harmony.co.za), a separate report to shareholders as well as a financial report and a mineral resources and reserves report are published. The group’s performance as measured against the GRI Scorecard also forms part of the group’s publications. 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.

**Political donations**

*Relevant Global Reporting Initiative indicators: G4-SO6*

Harmony supports the democratic processes in South Africa and Papua New Guinea and contributes to its political parties. A policy relating to political donations has been adopted by the company. In the year under review, R2 million (US$0.2 million) was donated to political parties in South Africa and R1.5 million (US$0.1 million) in Papua New Guinea in accordance with this policy.

**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 head of internal audit, the company secretary and members of executive management.
Board composition, chairman and independence

The Harmony board consists of a total of 14 highly experienced and reputable individuals, three of whom are executive directors. Ms Cathie Markus resigned from the board on 9 February 2017 after serving nearly 10 years as a valuable member of the board.

The chairman of the board, Mr Patrice Motsepe, is a non-executive director but is not classified as independent. A lead independent director has therefore been in place for some time. Ms Fikile De Buck occupied the position of lead independent director for the period under review. The duties of the chairman as well as the lead independent director have been captured in the board charter and are based on the recommendations of the King III and King IV codes. The roles of the chief executive officer and chairman are separated. In addition to the chairman and lead independent director, the board has also appointed a deputy chairman, Mr Modise Motloba, as well as a deputy lead independent director, Mr Mavuso Msimang. These appointments are all reviewed annually and form part of the board’s succession plans for the position of chairman and lead independent director.

The guidance provided by the King IV Code as far as membership of board committees is concerned in respect of the chairman of the board 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.

Profiles of all board members can be found in the Board of directors in this report.

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

- Ms Fikile De Buck – 11 years
- Mr Joaquim Chissano – 12 years
- Mr Modise Motloba – 13 years
- Dr Simo Lushaba – 15 years

The nomination committee specifically assessed the independence of these individuals on behalf of the board and has concluded that the members exercise objective judgement at all times. 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 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 is a key focus area for the board and following the resignation of one female director from the board during the period under review, two board members are female and nine members are black. A policy on gender and race diversity at board level has been formally adopted. Although no voluntary targets have been set, the appointment of an additional black female director will be explored in the coming year. 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.

As required by the provisions of the Harmony 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 2017 annual general meeting. The board is comfortable in recommending their re-appointment to shareholders.

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 the diversity performance are all aspects considered by the board before appropriate candidates are identified for nomination. The nomination committee would do the necessary independent checks and investigations as recommended by the King IV Code 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 these members to make the maximum contribution within the shortest possible time. Ongoing mentorship is provided to members with no or limited governance experience and such individuals are also encouraged to undergo appropriate training. Provision has also been made in the annual work plan of the board for regular briefings on legal and corporate governance developments, as well as risks and changes in the external environment of the group.

Conflicts of interest

Each member of the board is required, amongst 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 committees

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

The following committees have been established:

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

Disclosures in respect of each committee can be found from page 104 of this report.
Formal terms of reference have been adopted for each board committee and are reviewed regularly to ensure that the content remains appropriate and relevant. The terms of reference address, as a minimum, the recommended items in the King IV Code.

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. Timings of committee meetings are 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. Membership of committees has also been approached in such a manner as to ensure a balanced distribution of power across committees so that no individual has the ability to dominate decision-making and no undue reliance is placed on any individual.

The board is comfortable that each committee as a whole has the necessary knowledge, skills, experience and capacity to execute its duties effectively. 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 individual also has no vote in meetings and will not be entitled to fees for attendance of the meetings unless specifically agreed by the board and provided for in the board fee structure as approved by shareholders.

The board considers the recommendations and 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.

Board performance evaluations
The board fully supports the notion that an appropriate evaluation of the board and its various structures is a value adding exercise that facilitates the continued improvement of the board's performance and effectiveness. For this reason a 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 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 board is satisfied that the audit and risk committee sufficiently considers cyber security and regularly reviews the information and technology strategy, but requested that more detail be reported to the board in future. In addition, management was invited to send periodic, updated information to the board in between board meetings when applicable. The board also noted that opportunities to standardise reporting on effective stakeholder communication in order for the board to better monitor the continuous improvements made towards such communication, should be explored. The recommendations were included in the board's work plan for the following year.

Considering the outcome of the evaluation process, the board is satisfied that the process is improving its performance and effectiveness.

Appointment and delegation to management
The board is responsible for appointing the chief executive officer, on the recommendation of 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.

The board monitors the chief executive officer's performance. 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. 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 coordinating 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 13 years (10 years in a listed environment). Her summary résumé is included in this report on page 25. 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.

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 has satisfied itself with her competence, experience and qualifications.

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

**Effective control – Governance functional areas**

**Risk governance**

The board appreciates that risk should be integral to the way it makes decisions and executes its duties. Risk governance in the boardroom encompasses both opportunities and risks as well as a consideration of the potential positive and negative effects of these 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 as and when deemed necessary and appropriate.

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 the section Managing our risks and opportunities forming part of the integrated annual report. 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.

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

An information technology steering committee, chaired by the financial director and with its membership including the chief information officer and members of the group executive committee, has a well-defined charter and is responsible for the oversight of information technology direction, investment and alignment with business strategy and priorities.

Information technology management has adopted the IT Governance Institute’s governance model and Control Objectives for Information and Related Technology (COBIT 5), as a framework for information technology governance, while continuing to employ best practice frameworks such as Information Technology Infrastructure Library and information security ISO 27001 as guidelines for establishing and maintaining effective internal controls, continuity and risk management.

In line with COBIT 5, a framework for information technology policies has been developed and adopted, taking into consideration stakeholder needs, business imperatives, current legislation and information technology trends.

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

**Compliance governance**

*Relevant Global Reporting Initiative indicators: G4-SO7, G4-SO8*

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 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.

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. Our ethics programme is also subject to independent assurance as part of the internal audit coverage plan.

Our management ethics committee monitors our ethical culture and integrity. It 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.

The code of conduct encourages employees and other stakeholders to report any suspected irregularities. This can be done anonymously through a 24-hour crime line (which is managed by external auditing specialists), as well as through 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.
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 21 23 39
- Papua New Guinea: +61 448 188 463
- Australia: +61 1800 940 949

Harmony paid no significant fines in any of its areas of operation and had no actions brought against it for anti-competitive behaviour, or for anti-trust or monopoly practices during FY17.

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 2017 Form 20-F filed with the United States Securities and Exchange Commission on our website at: https://www.harmony.co.za/investors/reporting/20f.

Harmony has made significant progress in the implementation of the requirements of the Protection of Personal Information (PoPI) Act. The Harmony PoPI awareness campaign has proven to be very successful.

In accordance with PoPI, we recently appointed an experienced information and compliance officer to manage the company's information, ensure compliance with the PoPI Act, manage the company's records and archives and ensure compliance with the company's regulatory environment in general. Our information and compliance officer will assist the audit and risk committee in drafting a comprehensive compliance policy in the coming year.

Harmony complies with the Promotion of Access to Information Act 2000, 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 both 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: https://www.harmony.co.za/sustainability/governance#policies. The company received no requests for access to information in terms of this legislation during FY17.

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.

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 remuneration in the group is provided in the Remuneration report. In addition, provision has been made in the notice of the 2017 annual general meeting for a non-binding advisory vote of shareholders on both the remuneration policy as well as the implementation report.

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, both 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.

Legitimacy

Stakeholder relationships

In furtherance of the reputation and legitimacy of Harmony and the group, the board sets the direction for how stakeholder relationships should be approached and conducted. In the best interests of the company, an inclusive stakeholder-engagement model has been adopted that considers the legitimate needs, interests and expectations of all material stakeholders.

Information on the material stakeholders and the manner in which relationships with stakeholders are managed is provided in the section Stakeholder engagement and our material 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 areas of focus.

Shareholders are encouraged to attend the Harmony annual general meeting, information of which is contained in the notice of the 2017 annual general meeting in the Report to shareholders 2017.

Board committees

During FY17, the majority of the members of all board committees were independent non-executive directors. All board committees were chaired by an independent non-executive director, except for the technical committee chaired by André Wilkens (a non-independent, non-executive director). The board is confident that Andre's leadership as chairman of the technical committee is in the best interests of the company, based on his extensive knowledge of the specific areas of responsibilities of that committee.

A brief description of each board committee, its functions and what each committee achieved during FY17, follows overleaf.
Audit and risk committee

Members
John Wetton* (chairman)  Simo Lushaba*
Fikile De Buck*  Karabo Nondumo*
Modise Motloba*
* Independent non-executive

Description of committee’s overall expertise and experience
A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the audit and risk committee:

- Accounting experience, experience in investment banking, treasury services and fund management
- Roles on various other boards, as well as industry bodies
- Governance experience
- Knowledge of business development in and around Africa
- Previous roles as chief financial officers, business managers and an external auditor. Therefore a good understanding of company finances, risk, processes and controls

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 FY17
For the actions of the audit and risk committee in FY17 refer to the Audit and risk committee chairman’s report.

Remuneration committee

Members
Vishnu Pillay* (chairman)  John Wetton*
Fikile De Buck*  André Wilkens
Simo Lushaba*  Cathie Markus**
* Independent non-executive
** Resigned as member and chairman of the committee on 9 February 2017

Description of committee's overall expertise and experience
A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the remuneration committee:

- Experience in accounting, remuneration and financial management roles, as well as mining experience, allowing members to ensure our remuneration is aligned with industry standards, best practice and legislation
- Knowledge of the duties and responsibilities of the board and executive positions, allowing realistic key performance indicators to be related to remuneration

Primary functions
- Ensures directors and executive managers 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 administrating its share incentive schemes
- Operates as an independent overseer of the group remuneration policy and makes recommendations to the board for final approval
Remuneration committee (continued)

Key activities and actions in FY17

- 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 changes to the committee’s terms of reference, to better align these with King IV, to the board for approval. The committee’s work plan was updated accordingly
- Considered and recommended the remuneration policy and implementation report to the board for inclusion in the notice to the annual general meeting for consideration by the shareholders as non-binding advisory resolutions. No changes to the company’s remuneration policy were recommended. The policy was found to be in line with market trends (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 head of internal audit

Nomination committee

Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fikile De Buck*</td>
<td>(chairman)</td>
</tr>
<tr>
<td>Joaquim Chissano*</td>
<td></td>
</tr>
<tr>
<td>Patrice Motsepe</td>
<td></td>
</tr>
<tr>
<td>Modise Motloha*</td>
<td></td>
</tr>
<tr>
<td>Mavuso Msimang*</td>
<td></td>
</tr>
</tbody>
</table>

* Independent non-executive

Description of committee’s overall expertise and experience

The following insights allow the committee to find and nominate individuals who will add value to our Harmony board in the areas that we require:

- Experience in the mining, financial, accounting and legal sectors
- Extensive experience in management and leadership roles
- Understanding of Harmony, and its needs, as well as of the requirements of being on a board

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 FY17

- 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 recommended 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, the lead independent director and the deputy 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
Social and ethics committee

Members
Modise Motlooa* (chairman) Mavuso Msimang*
Joaquim Chissano* John Wetton*
Fikile De Buck* Cathie Markus**

* Independent non-executive
** Resigned as member of the committee on 9 February 2017

Description of committee’s overall expertise and experience

A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the social and ethics committee:

- Proven experience in the fields of sustainable and business development in Africa, community affairs, government relations, the drafting and implementing of charters, international relations and global leadership
- The collective experience of committee members brings with it the skills and relationships necessary to ensure Harmony can contribute to meaningful change through its social development and transformation work. In addition, this experience adds weight to the committee’s ability to enforce the code of conduct within Harmony

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 FY17

- Reviewed and recommended the social and ethics committee report to be included in the integrated annual report
- Reviewed and considered the social, economic and environmental issues affecting the company’s business
- 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 employment relationships
- Attended a site visit to the Medical Bureau for Occupational Diseases (MBOD) and the Compensation Commissioner for Occupational Diseases. Members also attended a site visit to the company’s operations in Papua New Guinea
- Reviewed and recommended changes to the committee’s terms of reference to align with King IV to the board for approval. The committee’s work plan was updated accordingly

See the Social and ethics committee: chairman’s report

Investment committee

Members
Simo Lushaba* (chairman) John Wetton*
Ken Dicks* André Wilkens
Karabo Nondumo* Cathie Markus**
Vishnu Pillay*
* Independent non-executive
** Resigned as member of the committee on 9 February 2017

Description of committee’s overall expertise and experience

The combination of the following skills equips the investment committee with knowledge of what reasonable returns on investments are and a thorough understanding of the investment process, as well as insight into what investors want:

- Occupy various roles on other boards
- Experience in entrepreneurship and business development
- Extensive knowledge of the mining, legal and financial industries
### Investment committee (continued)

#### 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 FY17
- Reviewed and recommended the budget and business plans for FY18
- Considered investments, proposals, projects and proposed acquisitions in line with the board's approved delegation of authority and the committee’s terms of reference
- Reviewed and recommended changes to the committee’s terms of reference to align same with King IV to the board for approval. The committee’s work plan was updated accordingly
- Attended an underground site visit to Tshepong operations

### Technical committee

#### Members
- André Wilkens (chairman)  
- Vishnu Pillay*
- Ken Dicks*  
- Karabo Nondumo*  
  * Independent non-executive

#### Description of committee’s overall expertise and experience
- Decades of experience in the mining industry, particularly in gold, mining technology and mining engineering
- Strong research skills

This experience allows members to fully grasp the technical and operational challenges facing Harmony and lend their knowledge to the tasks required of them

#### 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 FY17
- Monitored exploration 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
- Monitored safety across all operations
- Reviewed and recommended changes to the committee’s terms of reference to align same with King IV to the board for approval. The committee’s work plan was updated accordingly
- Attended underground site visit to Tshepong operations
### Board and board committee meeting attendance – FY17

<table>
<thead>
<tr>
<th>Name</th>
<th>Board</th>
<th>Audit and risk</th>
<th>Nomination</th>
<th>Remuneration</th>
<th>Technical</th>
<th>Investment</th>
<th>Social and ethics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrice Motsepe (chairman)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>9**</td>
<td>9**</td>
<td>6***</td>
</tr>
<tr>
<td>Modise Motloba (deputy chairman)</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>6</td>
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<tr>
<td>Joaquim Chissano</td>
<td>2</td>
<td>–</td>
<td>1</td>
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<td>2</td>
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<tr>
<td>Fikile De Buck</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>–</td>
<td>–</td>
<td>5</td>
</tr>
<tr>
<td>Ken Dicks</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>9</td>
<td>9</td>
<td>–</td>
</tr>
<tr>
<td>Simo Lushaba</td>
<td>5</td>
<td>5</td>
<td>–</td>
<td>6</td>
<td>–</td>
<td>8</td>
<td>–</td>
</tr>
<tr>
<td>Cathie Markus*</td>
<td>3</td>
<td>–</td>
<td>–</td>
<td>5</td>
<td>–</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Mavuso Msimang</td>
<td>6</td>
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<td>–</td>
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<td>6</td>
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<tr>
<td>Karabo Nondumo</td>
<td>6</td>
<td>5</td>
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<td>9</td>
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<tr>
<td>Vishnu Pillay</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>–</td>
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<tr>
<td>John Wetton</td>
<td>6</td>
<td>5</td>
<td>–</td>
<td>6</td>
<td>–</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>André Wilkens</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>–</td>
</tr>
<tr>
<td>Peter Steenkamp</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Frank Abbott</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Mashego Mashego</td>
<td>6</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

- Not applicable
* Resigned from the board on 9 February 2017
** Includes two site visits
*** Includes one site visit
Dear shareholder

During the year, under the able management of Peter Steenkamp, management delivered on their production guidance, had a good safety performance and improved the company’s financial standing. This enabled us to deliver on the strategy to grow the company’s production profile.

A major focus has been to retain and attract valuable staff members in the prevailing economic climate. The remuneration committee plays an important role in ensuring fair, equitable and responsible remuneration practices.

The remuneration committee reviewed local and global remuneration trends and our remuneration strategy. We also considered an external consultant’s benchmark of our remuneration policy against comparative companies. The reduction of inequality should remain a top priority with a focus being placed on “living wages” for entry-level workers. Furthermore, we should continue to find innovative ways in which the company and all role players can assist workers in addressing their most pressing basic financial concerns and create jobs to address the problem of unemployment within the country.

A review of sustainable development goals, globally and in South Africa, also provided the committee with a better understanding, not only of the global priorities of companies in relation to the United Nations Sustainable Development Goals but also of the specific concerns and needs of citizens. Zero hunger and poverty, clean water and sanitation, decent work and economic growth, quality education – these are some of the basic concerns of the people of South Africa. There can be no argument that corporates have a vital role to play in addressing these needs. Refer to Social and ethics committee: chairman’s report.

The following key changes were made to the long- and short-term incentive plans and, where applicable, were approved by the shareholders at the 2016 Annual General Meeting held on 25 November 2016:

• the introduction of a minimum shareholding requirement for executive management
• the vesting of performance shares to be determined on actual achievement against the applicable performance criteria when a participant is a good leaver
• the minimum acceptable level of performance (i.e. qualification threshold) was increased from 90% to 95%
• the R/kg performance driver was changed to total cost (working cost plus capital excluding royalties)
• the short-term incentive for executives to be modified by a personal performance rating

With the assistance of remuneration specialists, the committee considered these key changes against best market practice. By and large, it was confirmed that these changes were aligned with market trends and supporting the objective of fair and responsible remuneration practices.

“Harmony’s reward strategy underpins our business strategy to produce profitable ounces, safely, and increase our margins”
In considering the proposed fees for non-executive directors, the committee not only looked at general increases in the market place for comparison and alignment purposes but also took account of the fiduciary risks carried by non-executive directors as well as the workload, time commitment, expertise and preparation time expected of each non-executive director.

The release of the King IV Report for Corporate Governance, 2016 (King IV) has brought an opportunity to have a fresh look at all aspects of our remuneration practices as we continuously strive to be an organisation that is known for remunerating fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long term. All elements of remuneration, including the structuring, execution and reporting thereof, have been carefully considered during the period under review with the assistance and input from independent and objective remuneration consultants. The remuneration policy was found to be in line with best market practice.

The content of the remuneration policy, a summary of which is set out in the Remuneration report, has been compared with the recommended practices contained in King IV to ensure alignment. In addition, the reader is referred to the implementation report, also contained in the Remuneration report and which sets out the remuneration outcomes in respect of non-executive and executive directors as well as prescribed officers. Voting practices have now been aligned with the King IV recommendations and the Notice of annual general meeting 2017 included in the Report to shareholders 2017 contains two separate non-binding, advisory votes in respect of the remuneration policy as well as the implementation report.

We value our shareholder comments and, as always, we invite our shareholders to engage with the company, through the office of the company secretary (companysecretariat@harmony.co.za), once the remuneration policy and implementation report as set out below have been perused with a view to obtaining a better understanding and/or clarification of any aspect thereof prior to exercising a vote at the 2017 Annual General Meeting. This should again enable shareholders to make an informed decision on these matters in the interest of responsible investing.

At the 2016 Annual General Meeting, the non-binding, advisory vote on the remuneration policy was supported by more than 91% of the votes exercised on the resolution. Considering that 87% of the total issued shares of the company were voted on the resolution, the remuneration committee is satisfied with shareholders’ support for this very important aspect of the business. However, this does not mean that we should become complacent and the remuneration committee is committed to continuous improvement in remuneration practices in the interest of the company and its stakeholders. The committee is satisfied that the remuneration policy has achieved its stated objectives.

For more on the committee and its activities during the year under review see Corporate governance in this integrated annual report 2017.

A focus for the remuneration committee in the new year, will be to continue the review of our short- and long-term incentive schemes as well as the active engagement with our shareholders.

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

Cathie Markus resigned as director of the board and chairman of the remuneration committee on 9 February 2017. On behalf of the remuneration committee, we want to express our sincere gratitude for her invaluable guidance as our chairman. We wish her well with her future endeavours.

Vishnu Pillay
Chairman, remuneration committee
26 October 2017
PART ONE: FY18 REMUNERATION POLICY

Harmony’s reward strategy underpins our business strategy of producing profitable ounces, safely and increasing our margins.

In order to achieve this, we rely on experienced, skilled teams who live our values and maintain stakeholder relationships, in growing profits, and in maintaining a sustainable company.

Our remuneration policy has been designed with our business strategy in mind – to attract and retain these experienced, skilled teams, and to motivate them to deliver and achieve our key business goals. To ensure that this happens, we need to be certain that all elements of our remuneration and wider reward offerings are aligned and market competitive.

In determining remuneration, the remuneration committee takes into account shareholders’, interests as well as the financial health and future of the company.

Board remuneration (non-executive directors)

Harmony’s philosophy regarding the remuneration of non-executive directors is to ensure that they are fairly rewarded for their contribution to the company’s overall performance.

Non-executive directors’ fees are reviewed annually to ensure that they remain competitive. In line with the recommendations of King IV, our non-executive directors are paid a retainer for board meetings and an attendance fee for every board meeting attended. Non-executive directors also receive a retainer for serving on a committee. In addition, an ad hoc fee is paid for special meetings or attendance to company business, per day. Non-executive directors’ fees exclude VAT.

Non-executive directors do not receive share options or other incentive awards correlated with the share price or group performance as these may impair their ability to provide impartial oversight and advice.

The proposed fees for FY18 are set out in the notice of annual general meeting on page 34 in the Report to shareholders 2017.

Remuneration mix at Harmony

Harmony chooses to adopt an integrated approach to rewarding its employees.

The graphs below illustrate the designed outcome of the total remuneration package for executive management and prescribed officers, based on achieving targeted performance. The guaranteed pay, short-term incentives and long-term incentives are expressed as a percentage of total remuneration.

The graphs depicting actual payment can be found in Part Two, on page 116 of this Remuneration Report.

On target pay mix: Chief executive

On target pay mix: Financial director

These elements of the remuneration package are discussed in more detail below.

Key elements of Harmony’s remuneration structure

<table>
<thead>
<tr>
<th>Reward elements</th>
<th>Remuneration strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed pay</td>
<td>In reviewing and approving levels of guaranteed pay, the committee ensures that the guaranteed pay portion of remuneration is aligned with similar roles in the market sector in which we operate and the contribution made by employees. To compete effectively for skills in a challenging employment market, we identify the target market against which to benchmark guaranteed pay. This target market includes those organisations or companies that employ similar skills sets to those which we require. Comparisons are made predominantly with the mining and resources sectors to ensure that Harmony remains competitive. Harmony aims for guaranteed pay levels relative to the median of the target market. Guaranteed pay is inclusive of contributions by the company to a retirement fund and a medical aid scheme.</td>
</tr>
</tbody>
</table>
Key elements of Harmony’s remuneration structure (continued)

**Reward elements** | **Remuneration strategy**
--- | ---
**Short-term incentive** | The short-term incentive scheme provides for bonus payments. Bonus payments are:

- based on team performance against annual targets that are reviewed annually, modified by a personal performance rating for executive management
- paid twice a year for all management employees in corporate, central services, medical services and central operations (including executive directors and prescribed officers)
- paid quarterly for designated shaft management team members and regional operations management teams
- paid monthly for mining and engineering crews
- during 2016, the board approved the following changes to the short-term incentive scheme:
  - the minimum acceptable level of performance (i.e. qualification threshold) was increased from 90% to 95%
  - the R/kg performance driver was changed to total cost (working cost plus capital excluding royalties)
  - the short-term incentive for executives to be modified by a personal performance rating

The reason for changing the R/kg performance driver to total cost (working cost plus capital excluding royalties) is to award effective working cost and capital management.

The targets on which bonus payments are based are derived from the company’s business plan which is developed in terms of the company’s strategic objectives for the year.

For executive management, the measures and weightings are as follows:

<table>
<thead>
<tr>
<th>Performance drivers</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold produced</td>
<td>40%</td>
</tr>
<tr>
<td>Total cost (working cost + capital expenditure excluding royalties)</td>
<td>30%</td>
</tr>
<tr>
<td>Underground grade</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Payment parameters**

To achieve a minimum qualification for a bonus, Harmony must achieve at least 95% of the business plan.

On-target performance will result in a total bonus of 60% of guaranteed pay.

Above-target performance is capped at 100% of guaranteed pay as illustrated below:

<table>
<thead>
<tr>
<th>% of business plan achieved</th>
<th>% of 6-month guaranteed pay</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;95</td>
<td>0</td>
<td>Threshold</td>
</tr>
<tr>
<td>95</td>
<td>40</td>
<td>Threshold</td>
</tr>
<tr>
<td>100</td>
<td>60</td>
<td>Target</td>
</tr>
<tr>
<td>105</td>
<td>100</td>
<td>Maximum</td>
</tr>
<tr>
<td>&gt;105</td>
<td>100</td>
<td>Maximum</td>
</tr>
</tbody>
</table>

**Safety as a modifier**

Safety performance is applied as an adjustment in the calculation of our short-term incentive bonuses. The company’s lost-time injury frequency rate for the total South African business plan is used to measure Harmony’s safety performance.

If the planned safety target is achieved, 10% will be added to the overall percentage bonus paid. If the company does not achieve its safety target, up to 10% will be deducted from the overall percentage bonus paid as per the gradation scale illustrated below:

<table>
<thead>
<tr>
<th>Achievement against business plan</th>
<th>% added or deducted from overall bonus percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>10%</td>
</tr>
<tr>
<td>95</td>
<td>5%</td>
</tr>
<tr>
<td>90</td>
<td>0%</td>
</tr>
<tr>
<td>85</td>
<td>-5%</td>
</tr>
<tr>
<td>80</td>
<td>-10%</td>
</tr>
</tbody>
</table>

*Linear interpolation between these points

**Personal performance modifier:**

The personal performance percentage will be calculated according to an executive manager’s personal performance measured against objectives set out in that executive’s performance management contract as follows:

Guaranteed pay x group performance against plan (0% – 100%) x personal performance percentage (0% – 150%)
Key elements of Harmony’s remuneration structure (continued)

<table>
<thead>
<tr>
<th>Reward elements</th>
<th>Remuneration strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term (share-based) incentive</td>
<td>The Harmony share plan (the plan) consists of share appreciation rights (SARs), performance shares and restricted shares. Employees eligible for participation in the plan include executive directors, executive management and management. Non-executive directors may not participate in the plan. There is no repricing or surrender or re-grant of any offers. Share awards are not granted in a closed period and no backdating of awards is allowed. Rewards are settled in shares, although participants may receive, via our share scheme administrators, cash from the sale of these shares, less tax payable. The main elements of the share plan and performance conditions are summarised below.</td>
</tr>
</tbody>
</table>

**Share appreciation rights (SARs)**

Eligible employees received annual allocations based on a percentage of their cost to company, which vest in equal thirds on the third, fourth and fifth anniversaries of such allocations and lapse in the sixth year. The value or reward that accrues is based on the positive appreciation of the share price over time (compared to the issue price) and continued employment.

The company acknowledges shareholders’ sentiment with regard to the issuing of share appreciation rights. Such views will be considered should the company issue new share appreciation rights going forward. Share appreciation rights were last allocated in November 2014 (FY15).

**Performance shares**

Eligible employees receive annual conditional awards of a maximum number of performance shares based on a percentage of cost to company and remuneration category. The conditional award vests after three years, if and to the extent that performance conditions have been satisfied and is subject to the minimum shareholding requirement described below. The conditional awards that do not vest at the end of the three-year period will be forfeited.

The company reviewed and changed the performance criteria for performance shares.

Awards made since November 2015 will be measured on the total shareholder return of the company over a three-year period and will be capped at the maximum vesting percentage of 100%. The total shareholder return vesting criteria will comprise of two components:

- 50% is based on absolute performance which takes into account the value of the company’s share price growth and the value of dividends paid over the measurement period
- 50% is based on the relative performance of the company compared to that of the gold index over the measurement period

**Absolute performance:**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Achievement</th>
<th>Vesting*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full (stretch)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Target</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Threshold</td>
<td>45%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Linear interpolation will apply between levels

**Relative performance:**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Achievement</th>
<th>Vesting*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full (stretch)</td>
<td>40%</td>
<td>150%</td>
</tr>
<tr>
<td>Target</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>Threshold</td>
<td>-5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Linear interpolation will apply between levels

Details of the awards made during FY17 can be found in Part Two of this Remuneration Report, on page 115.
Key elements of Harmony’s remuneration structure (continued)

<table>
<thead>
<tr>
<th>Reward elements</th>
<th>Remuneration strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term (share-based) incentive (continued)</td>
<td><strong>Restricted shares</strong></td>
</tr>
<tr>
<td>Reward elements</td>
<td>Remuneration strategy</td>
</tr>
<tr>
<td>Long-term (share-based) incentive (continued)</td>
<td><strong>Restricted shares</strong></td>
</tr>
<tr>
<td>The share plan allows for restricted shares and matching performance shares to be granted to eligible employees at the discretion of the board based on past performance. The board determines the quantum and balance between restricted shares and matching performance shares.</td>
<td></td>
</tr>
<tr>
<td>Restricted shares vest three-years from the grant date. If the grant is not exercised, partially or fully at the time, these shares remain restricted for a further three years and are supplemented by a matching grant of restricted shares. The restricted shares and the matching restricted shares are then settled after the end of a further three-year period. We acknowledge the sentiments of shareholders with regard to restricted shares and our last grant of new restricted shares was made in 2012.</td>
<td></td>
</tr>
<tr>
<td>Minimum shareholding requirement</td>
<td></td>
</tr>
<tr>
<td>We have encouraged executive management to retain performance shares when they vest and a minimum shareholding requirement has been introduced to achieve this. Our objective is that executive management should hold Harmony shares to the equivalent of 200% of guaranteed pay and other executive managers, 100% of guaranteed pay. This shareholding is meant to be significant and has been introduced to align shareholder and executive objectives to grow total shareholder return.</td>
<td></td>
</tr>
<tr>
<td>The shareholders have approved this amendment to the share plan at the annual general meeting held in November 2016. For further details, a copy of our share plan is available on the Harmony website, <a href="http://www.harmony.co.za">www.harmony.co.za</a>.</td>
<td></td>
</tr>
<tr>
<td>Plan limit</td>
<td></td>
</tr>
<tr>
<td>The approved aggregate number of shares that may be acquired by participants in the long-term incentive plan, together with any other share plan or scheme are 60 011 669 shares as approved by the members of the company at an annual general meeting held on 1 December 2010. To date, Harmony has issued 10 450 581 of these approved shares. The aggregate number of shares that may be acquired by any one participant in terms of the long-term incentive plan together with any other share plan or scheme approved by the members shall not exceed 2 100 000 shares. To date, none of the participants has acquired an aggregate of more than 2 100 000 shares.</td>
<td></td>
</tr>
<tr>
<td><strong>Tlhakanelo Employee Share Trust</strong></td>
<td></td>
</tr>
<tr>
<td>The Tlhakanelo Employee Share Trust had a life of five years. The first allocation date was on 31 August 2012 and the first vesting date on 15 March 2013. The fifth and final vesting date was 15 March 2017.</td>
<td></td>
</tr>
<tr>
<td>With the consent of the board of Harmony, the Trustees of the Trust had resolved to terminate the Trust in accordance with the provisions of the Trust Deed.</td>
<td></td>
</tr>
<tr>
<td>Harmony is, in consultation with our unions and other stakeholders, in the process of drafting a new employee share option scheme. This will be presented to our shareholders for approval in due course.</td>
<td></td>
</tr>
<tr>
<td>Details of the vesting during FY17 can be found in Part Two of this Remuneration report, on page 117.</td>
<td></td>
</tr>
</tbody>
</table>

Contracts, severance and termination

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

Non-binding advisory vote

Shareholders are requested to cast non-binding advisory votes required by King IV on Part One and Part Two of this remuneration report. For more information refer to the notice of the annual general meeting in the Report to shareholders 2017.

In the event that either the remuneration policy or the implementation report, or both are voted against by 25% or more of the voting rights exercised at the 2017 annual general meeting, the committee will in good faith and with the best reasonable effort engage with its shareholders to ascertain the reasons for the dissenting votes and appropriately address legitimate and reasonable objections and concerns raised which may include amending the remuneration policy, or clarifying or adjusting the company’s remuneration governance and/or processes.

Stakeholder feedback

We maintain open communication channels with our stakeholders, listen to feedback and take action where this is deemed to be in the best interests of the company.
PART TWO: IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN 2017

Increases to guaranteed package during the year under review

An assessment of executive remuneration, and short- and long-term incentives was undertaken during FY17.

Taking into consideration the prevailing market conditions, affordability and shareholders’ expectations, an average increase of 6% to guaranteed remuneration packages of executives and management was made during FY17. Illustrated below are the average percentage increases awarded during FY16 and FY17 to executives, management and unionised staff:

Unionised staff, management and executive average salary increase (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unionised staff (July every year)</td>
<td>8.10</td>
<td>7.80</td>
</tr>
<tr>
<td>Management (January every year)</td>
<td>5.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Executives (August every year)</td>
<td>5.00</td>
<td>5.50</td>
</tr>
<tr>
<td>Consumer price index</td>
<td>5.58</td>
<td>6.05</td>
</tr>
<tr>
<td>Consumer price index</td>
<td>5.58</td>
<td>6.05</td>
</tr>
</tbody>
</table>

Short-term incentive payments during the year under review

During the year under review, achievement levels against the targets for the executive short-term incentive scheme were as follows:

First period FY17 (July to December 2016)

<table>
<thead>
<tr>
<th>Company performance measures</th>
<th>Weighting</th>
<th>% of plan achieved</th>
<th>Weighted %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total kilograms</td>
<td>40</td>
<td>99</td>
<td>22.4</td>
</tr>
<tr>
<td>Total cost</td>
<td>30</td>
<td>102</td>
<td>22.8</td>
</tr>
<tr>
<td>Grade</td>
<td>30</td>
<td>99</td>
<td>16.8</td>
</tr>
<tr>
<td>Weighted average</td>
<td>–</td>
<td></td>
<td>62</td>
</tr>
<tr>
<td>Lost-time injury frequency rate adjustment</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Percentage of six-months’ guaranteed pay</td>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Second period FY17 (January to June 2017)

<table>
<thead>
<tr>
<th>Company performance measures</th>
<th>Weighting</th>
<th>% of plan achieved</th>
<th>Weighted %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total kilograms</td>
<td>40</td>
<td>93</td>
<td>0</td>
</tr>
<tr>
<td>Total cost</td>
<td>30</td>
<td>97</td>
<td>14.4</td>
</tr>
<tr>
<td>Grade</td>
<td>30</td>
<td>99</td>
<td>16.8</td>
</tr>
<tr>
<td>Weighted average</td>
<td>–</td>
<td></td>
<td>31.2</td>
</tr>
<tr>
<td>Lost-time injury frequency rate adjustment</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Percentage of six-months’ guaranteed pay</td>
<td>31.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The board decided not to apply the lost-time injury frequency rate adjustment due to the company’s significant improvement in fatalities during the period under review.
Long-term incentives awarded during the year under review

During FY17, the company took its shareholders’ sentiment with regard to the issuing of share appreciation rights into consideration. As a result, no share appreciation rights were issued to employees in FY17. Instead, such rights were replaced with a commensurate number of performance shares.

Harmony share plan rules applicable to the FY17 awards

Share appreciation rights: No further allocations of share appreciation rights have been made since 2014. The value or reward that accrues on share appreciation rights is based on the positive appreciation of the share price over time compared to the issue price.

Performance shares: The performance measure applicable to the performance awards is based on Harmony’s total shareholder return over a three-year period. The vesting criteria will comprise two components, namely, absolute and relative performance, as set out on page 113 of this report, with vesting capped at 100%.

Matched performance shares: The 2013 performance shares vested and pledged in accordance with minimum shareholding requirement were matched with additional performance shares.

The number of grants awarded for each executive director and prescribed officer is as set out in the table on pages 118 and 119 of this report.

The values at date of grant for awards made during FY17 are illustrated below:

<table>
<thead>
<tr>
<th></th>
<th>Chief executive officer</th>
<th>Financial director</th>
<th>Prescribed officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value at award date (Rm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance shares</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Matched performance shares</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Vesting of long-term incentives during the year under review

During the year, the following awards in terms of the long-term incentive plan vested in November 2016:

- Share appreciation rights allocated in November 2013
  The performance condition determined that the headline earnings per share growth from the allocation date should exceed the consumer price index. The 2013 allocation has met the performance condition and has vested and can be exercised on the subsequent anniversaries over the next three years.

- Performance shares awarded in November 2013
  The vesting percentage of performance shares was based on the achievement of two conditions, namely gold production against plan and relative share price performance against South African gold mining companies.
  This resulted in a total vesting of 49.2% of performance shares awarded in November 2013 calculated as follows:
  - Gold production had a maximum vesting of 50% and a minimum vesting of 0%. The company achieved 87%, 88% and 92% of plan over the three consecutive years which resulted in an average vesting of 20%.
  - The company’s performance against its peers on the basis of its relative share price performance resulted in a vesting of 29.2%.

Total remuneration outcomes

The compositions of total remuneration outcomes for FY17 for the chief executive officer and financial director are illustrated below:
Payments made through the Tlhakanelo Employee Share Trust (R)

<table>
<thead>
<tr>
<th>Payments made through the Tlhakanelo Employee Share Trust (R)</th>
<th>FY17: Incentives</th>
<th>Total since incorporation of the trust:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of ordinary shares sold and proceeds paid to in total to all participants (before tax)</td>
<td>15 203 584</td>
<td>146 808 054</td>
</tr>
<tr>
<td>Value of bonus payments paid to in total to all participants by Harmony based on R18 per share appreciation right (before tax). No sale of shares</td>
<td>17 866 864</td>
<td>123 690 777</td>
</tr>
<tr>
<td>Total payments received by participants (value of shares plus share appreciation rights bonus) (before tax)</td>
<td>33 070 449</td>
<td>270 498 831</td>
</tr>
</tbody>
</table>

Non-executive directors’ fees

During May 2017, the remuneration committee considered an industry benchmark on non-executive directors’ fees. On the recommendation of the remuneration committee, the board proposed an increase in fees for all non-executive directors, to be considered for approval by the shareholders at the forthcoming annual general meeting. For more information on the notice of the annual general meeting refer to the Report to shareholders 2017.

Directors’ emoluments (R000)

<table>
<thead>
<tr>
<th>Name</th>
<th>Directors’ fees FY17</th>
<th>Salaries and benefits FY17</th>
<th>Retirement savings and contributions during the year (FY17)</th>
<th>Bonuses paid FY17</th>
<th>Total FY17</th>
<th>Total FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-executive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrice Motsepe</td>
<td>1 150</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1 150</td>
<td>1 105</td>
</tr>
<tr>
<td>Joachim Chissano</td>
<td>610</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>610</td>
<td>463</td>
</tr>
<tr>
<td>Fikile De Buck</td>
<td>1 080</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1 080</td>
<td>970</td>
</tr>
<tr>
<td>Ken Dicks</td>
<td>682</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>682</td>
<td>606</td>
</tr>
<tr>
<td>Dr Simo Lushaba</td>
<td>828</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>828</td>
<td>718</td>
</tr>
<tr>
<td>Cathie Marku²</td>
<td>438</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>438</td>
<td>694</td>
</tr>
<tr>
<td>Modise Motloba</td>
<td>1 142</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1 142</td>
<td>971</td>
</tr>
<tr>
<td>Mavuso Msimang</td>
<td>582</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>582</td>
<td>545</td>
</tr>
<tr>
<td>Karabo Nondumo</td>
<td>796</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>796</td>
<td>544</td>
</tr>
<tr>
<td>Vishnu Pillay</td>
<td>622</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>622</td>
<td>593</td>
</tr>
<tr>
<td>John Wetton</td>
<td>1 040</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1 040</td>
<td>956</td>
</tr>
<tr>
<td>Andre Wilkens</td>
<td>721</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>721</td>
<td>784</td>
</tr>
<tr>
<td>Executive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frank Abbott</td>
<td>–</td>
<td>5 136</td>
<td>516</td>
<td>1 882</td>
<td>7 534</td>
<td>7 064</td>
</tr>
<tr>
<td>Mashego Mashego</td>
<td>–</td>
<td>3 751</td>
<td>488</td>
<td>1 358</td>
<td>5 597</td>
<td>5 285</td>
</tr>
<tr>
<td>Peter Steenkamp³</td>
<td>–</td>
<td>7 260</td>
<td>1 188</td>
<td>2 784</td>
<td>11 232</td>
<td>4 022</td>
</tr>
<tr>
<td>Prescribed officers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beyers Nel</td>
<td>–</td>
<td>4 483</td>
<td>646</td>
<td>1 448</td>
<td>6 577</td>
<td>1 683</td>
</tr>
<tr>
<td>Phillip Tobias</td>
<td>–</td>
<td>4 264</td>
<td>526</td>
<td>1 448</td>
<td>6 238</td>
<td>1 590</td>
</tr>
<tr>
<td>Johannes van Heerden⁴</td>
<td>–</td>
<td>5 988</td>
<td>308</td>
<td>1 354</td>
<td>7 650</td>
<td>8 626</td>
</tr>
<tr>
<td>Former</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G Briggs⁵</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 915</td>
<td></td>
</tr>
<tr>
<td>A Pretorius⁶</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>402</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9 691</td>
<td>30 882</td>
<td>3 672</td>
<td>10 274</td>
<td>54 519</td>
<td>74 536</td>
</tr>
</tbody>
</table>

¹ Reflects amounts paid and not earned during the year
² Resigned as non–executive director on 9 February 2017
³ Appointed January 2016
⁴ Salary is paid in AUS$ and is influenced by the movement in the exchange rate
⁵ CEO until December 2015
⁶ Prescribed officer until July 2015
⁷ FY16 total restated to exclude executive management
## EXECUTIVE DIRECTORS AND MANAGEMENT SHARE INCENTIVES

### As at 30 June 2017

<table>
<thead>
<tr>
<th></th>
<th>Number of share awards</th>
<th>Average price of shares (SA rand)</th>
<th>Number of share awards</th>
<th>Average price of shares (SA rand)</th>
<th>Number of share awards</th>
<th>Average price of shares (SA rand)</th>
<th>Number of share awards</th>
<th>Average price of shares (SA rand)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Executive directors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter Steenkamp</td>
<td>512 000</td>
<td>n/a</td>
<td>1 116 937</td>
<td>n/a</td>
<td>730 077</td>
<td>n/a</td>
<td>361 318</td>
<td>n/a</td>
</tr>
<tr>
<td>Frank Abbott</td>
<td>420 423</td>
<td>n/a</td>
<td>245 881</td>
<td>n/a</td>
<td>152 091</td>
<td>n/a</td>
<td>177 366</td>
<td>n/a</td>
</tr>
<tr>
<td>Mashego Mashego</td>
<td>84 952</td>
<td>n/a</td>
<td>84 952</td>
<td>n/a</td>
<td>(61 106)</td>
<td>n/a</td>
<td>(25 470)</td>
<td>n/a</td>
</tr>
<tr>
<td>Johannes van Heerden</td>
<td>87 714</td>
<td>n/a</td>
<td>63 298</td>
<td>n/a</td>
<td>(26 298)</td>
<td>n/a</td>
<td>(3 877 232)</td>
<td>n/a</td>
</tr>
<tr>
<td>Phillip Tobias</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beyers Nel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>932 423</td>
<td>n/a</td>
<td>1 275 104</td>
<td>n/a</td>
<td>757 564</td>
<td>n/a</td>
<td>486 916</td>
<td>n/a</td>
</tr>
</tbody>
</table>

### Performance shares

- **Opening balance at 1 July 2016**: 512 000 n/a 1 116 937 n/a 730 077 n/a 361 318 n/a 31 199 747 n/a 34 978 088 n/a
- **Awards granted**: 420 423 n/a 245 881 n/a 152 091 n/a 177 366 n/a 7 835 110 n/a 9 160 328 n/a
- **Matched awards granted**: 84 952 n/a n/a n/a n/a n/a 75 319 n/a 160 271 n/a
- **Awards exercised/pledged**: (84 952) n/a (61 106) n/a (61 106) n/a (25 470) n/a (2 099 190) n/a (2 332 224) n/a
- **Average sales price**: 43.36 n/a 43.36 n/a 43.36 n/a 43.36 n/a 43.36 n/a
- **Gain realised on awards exercised and settled**: 2 657 928 n/a 1 104 254 n/a 87 127 662 n/a 93 547 772 n/a
- **Closing balance at 30 June 2017**: 932 423 n/a 1 275 104 n/a 757 564 n/a 486 916 n/a 505 248 n/a 33 133 754 n/a 37 848 573 n/a

### Restricted shares

- **Opening balance at 1 July 2016**: n/a n/a 100 544 n/a 62 776 n/a 107 300 n/a 40 084 n/a 549 270 n/a 859 974 n/a
- **Awards granted**: n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
- **Awards exercised**: n/a n/a n/a n/a n/a (44 524) n/a n/a n/a (114 038) n/a (158 962) n/a
- **Average sales price**: n/a n/a n/a n/a n/a 43.36 n/a n/a 43.36 n/a
- **Closing balance at 30 June 2017**: n/a n/a 100 544 n/a 62 776 n/a 62 776 n/a 40 084 n/a 435 232 n/a 701 412 n/a

### Share appreciation rights

- **Opening balance at 1 July 2016**: n/a n/a 139 362 33.97 107 580 37.39 107 580 37.39 80 909 36.72 46 850 18.41 13 674 501 34.68 14 156 782 34.74
- **Rights accepted**: n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
- **Rights exercised**: n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
- **Average sales price**: n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
- **Gain realised on awards exercised and settled**: n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
- **Rights forfeited and lapsed**: n/a n/a n/a (6 400) 84.81 (6 400) 84.81 (4 329) 84.81 n/a n/a n/a n/a n/a
- **Closing balance at 30 June 2017**: n/a n/a 139 362 33.97 101 180 34.39 101 180 34.39 76 580 34.01 46 850 18.41 12 011 545 32.60 12 476 697 32.60
- **Gain realised on awards exercised (SA rand)**: n/a n/a n/a 2 657 928 n/a 4 588 270 n/a 1 104 254 n/a 98 178 745 n/a 106 529 197 n/a

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**Remuneration Report**

Continued
EXECUTIVE DIRECTORS AND MANAGEMENT SHARE INCENTIVES continued

As at 30 June 2017

<table>
<thead>
<tr>
<th>Movements on share incentives</th>
<th>Executive directors</th>
<th>Prescribed officers</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of awards</td>
<td>Average price ($A rand)</td>
<td>Number of awards</td>
<td>Average price ($A rand)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outstanding awards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(listed by allocation date)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance shares</strong></td>
<td>932 423</td>
<td>1 275 104</td>
<td>757 564</td>
<td>757 564</td>
</tr>
<tr>
<td>17 November 2014</td>
<td>–</td>
<td>n/a</td>
<td>207 462</td>
<td>149 715</td>
</tr>
<tr>
<td>16 November 2015</td>
<td>–</td>
<td>n/a</td>
<td>336 809</td>
<td>455 758</td>
</tr>
<tr>
<td>17 February 2016</td>
<td>512 000</td>
<td>n/a</td>
<td>–</td>
<td>n/a</td>
</tr>
<tr>
<td>29 November 2016</td>
<td>420 423</td>
<td>330 833</td>
<td>152 091</td>
<td>177 366</td>
</tr>
<tr>
<td><strong>Restricted shares</strong></td>
<td>–</td>
<td>100 544</td>
<td>62 776</td>
<td>40 084</td>
</tr>
<tr>
<td>15 November 2011</td>
<td>–</td>
<td>8 000</td>
<td>8 000</td>
<td>4 000</td>
</tr>
<tr>
<td>16 November 2012</td>
<td>–</td>
<td>21 136</td>
<td>11 694</td>
<td>8 021</td>
</tr>
<tr>
<td>17 November 2014 (2011 award – matching shares)</td>
<td>–</td>
<td>8 000</td>
<td>8 000</td>
<td>4 000</td>
</tr>
<tr>
<td><strong>Share appreciation rights</strong></td>
<td>–</td>
<td>139 362</td>
<td>101 180</td>
<td>76 580</td>
</tr>
<tr>
<td>15 November 2011</td>
<td>–</td>
<td>6 585</td>
<td>5 361</td>
<td>4 620</td>
</tr>
<tr>
<td>16 November 2012</td>
<td>–</td>
<td>16 204</td>
<td>11 694</td>
<td>8 021</td>
</tr>
<tr>
<td>15 November 2013</td>
<td>–</td>
<td>52 951</td>
<td>38 212</td>
<td>26 459</td>
</tr>
<tr>
<td>17 November 2014</td>
<td>–</td>
<td>63 622</td>
<td>45 913</td>
<td>37 480</td>
</tr>
<tr>
<td><strong>Closing balance at</strong></td>
<td>932 423</td>
<td>1 515 010</td>
<td>921 520</td>
<td>603 580</td>
</tr>
</tbody>
</table>

1 Performance shares granted in terms of vested awards pledged pursuant to the minimum shareholding requirement.
The audit and risk committee (the committee) is pleased to present its report for the financial year ended 30 June 2017. While this report is issued primarily in compliance with the statutory requirements relating to an audit committee, it also addresses certain material matters as discussed below.

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

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

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

The committee’s terms of reference can be accessed HERE.

“Sound governance and independent assurance confirmed an effective control environment for quality internal and external reporting and legislative compliance”
**Composition and function**

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Date appointed</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Wetton (chairman)</td>
<td>Independent non-executive director</td>
<td>1 July 2011 (Chairman with effect from 30 November 2011)</td>
</tr>
<tr>
<td>Fikile De Buck</td>
<td>Lead independent non-executive director</td>
<td>30 March 2006</td>
</tr>
<tr>
<td>Dr Simo Lushaba</td>
<td>Independent non-executive director</td>
<td>24 January 2003</td>
</tr>
<tr>
<td>Modise Motloba</td>
<td>Independent non-executive director</td>
<td>30 July 2004</td>
</tr>
<tr>
<td>Karabo Nondumo</td>
<td>Independent non-executive director</td>
<td>3 May 2013</td>
</tr>
</tbody>
</table>

For details of the qualifications, expertise and experience of the members of the audit and risk committee, refer to Board of directors.

Recommendations for the appointment of members to the committee for the new financial year can be found in the notice of annual general meeting in the Report to shareholders 2017 that accompanies the annual financial statements.

The group chief executive, the financial director, the executive: risk management and services improvement, the executive: ore reserves, the group IT manager, the external auditors, the group head of internal audit and other assurance providers attend meetings either by standing invitation or as and when required.

**Roles and responsibilities**

The committee is satisfied that it complied with its legal, regulatory and other responsibilities during the financial year ended 30 June 2017 (FY17). The committee's primary objective is to assist the board with its responsibilities for the management of risk, cyber security, the safeguarding of assets, oversight of financial control and reporting on internal controls, shareholder reporting and corporate governance, particularly relating to legislative and regulatory compliance.

The committee’s roles and responsibilities include statutory and regulatory duties as per the Companies Act of 2008, the JSE Listings Requirements and those items recommended in the interest of good governance according to King IV. In addition, the board has assigned certain other duties to the committee, embodied in its terms of reference.

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

No major concerns were raised by any member of the committee in FY17.

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

**The integrated annual report**

The committee is responsible for overseeing the group’s integrated annual report and the reporting process. This integrated annual report, which has been reviewed by the committee, focuses not only on the group’s financial performance, but also its economic, social and environmental performance. This report sets out how the group has engaged with stakeholders, addressed its material issues and governed its business. The committee is satisfied with the quality and integrity of the information contained in the integrated annual report 2017 and recommended it to the board for approval.

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

The committee has reviewed the annual report filed on Form 20-F for the year ended 30 June 2017 and recommended the report to the board for approval.

**Annual financial statements and accounting practices**

The committee has reviewed the audited annual financial statements and summarised consolidated financial statements for the year ended 30 June 2017. No significant matters were identified by the committee relating to the annual financial statements and the committee submits that they present a balanced view of the group’s performance for the period under review. The statements comply with International Financial Reporting Standards and the findings as highlighted in the JSE’s most recent report back on proactive monitoring of financial statements for the year ended 30 June 2017.

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

**External auditor appointment and independence**

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

The committee ensured that the appointment of the auditor complies with the requirements of the Act and other applicable legislation relating to the appointment of auditors. The committee,
in consultation with management, agreed to the engagement letter and terms, and to the audit plan as well as scope of work performed and budgeted audit fees for the 2016/17 year.

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

Fees paid to the external auditor for the year were R24 million, of which R23 million was for audit related services, R0.4 million for non-audit services and R0.6 million for tax services.

**Tenure of the audit firm**

PwC has been the group's external auditor for 67 years. At the annual general meeting held on 25 November 2016, PwC was reappointed as the independent external auditor and undertook to hold office until the conclusion of the 2017 annual general meeting.

The individual registered auditor responsible for the audit for the financial year ended 30 June 2017 was Mr HP Odendaal. As PwC is required to rotate the audit partner responsible for the group audit every five years, the current lead audit partner will be required to change from FY21 onwards.

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

For the financial year ending 30 June 2018, the committee has recommended to the board that PwC be re-appointed as the group's independent external auditor and that it hold office until the conclusion of the 2018 annual general meeting.

The directors will propose the re-appointment of PwC at the annual general meeting to be held on 23 November 2017. Details can be found in the notice of annual general meeting in the Report to shareholders 2017 that accompanies the annual financial statements.

**Internal controls**

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

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

**Internal audit**

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

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

During FY17, the committee approved internal audit's charter and its annual audit plan. The group head of internal audit is responsible for regularly reporting the findings of the internal audit work against the agreed internal audit plan to the committee.

The group head of internal audit has direct access to the committee, primarily through its chairman. During the year, the committee met with the external auditors and with the group head of internal audit without management being present.
The committee is satisfied that the group internal audit follows an approved risk-based internal audit plan and regularly reviews the group’s risk profile with necessary changes to the internal audit plan being proposed as and when deemed appropriate. Internal audit provides an overall statement as to the effectiveness of the group’s governance, risk management and control processes.

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

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

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

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

**Information and technology governance**
The committee intensified its focus on the group’s governance of information and technology. The committee considered and approved a technology and information governance framework and strategy to be implemented to manage information and technology as well as to identify any associated risks.

During the period under review, inter alia, management reviewed and expanded Harmony’s disaster recovery measures, implemented a streamlined systems development life cycle and ensured the availability of adequately skilled resources to support operational and project initiatives.

The committee’s terms of reference were updated during May 2017 to include the King IV recommendations regarding the governance of information and technology. This will be a focus area for the committee in FY18.

**Evaluation of the expertise and experience of the financial director and the finance function**
The audit committee is satisfied that the financial director has the appropriate expertise and experience to execute his designated functions. The expertise, experience and adequacy of the resources making up the finance function were also considered and the committee is satisfied that these are appropriate.

**Subsequent events**
On 19 October 2017, Harmony announced that it would acquire AngloGold Ashanti Limited’s Moab Khotsong and Great Noligwa mines together with other assets and related infrastructure for a cash consideration of the rand equivalent of US$300 million. The transaction is subject to approval from Harmony’s shareholders and other conditions precedent, including regulatory approvals. The board has unanimously approved the transaction and has resolved to recommend the transaction to shareholders.

**John Wetton**  
Chairman of the Audit and Risk Committee  
26 October 2017
ASSURANCE REPORT

Introduction
We have been engaged to perform an independent assurance engagement for Harmony Gold Mining Company Limited ("Harmony") on Selected Sustainability Information reported in Harmony’s Annual Integrated Report for the year ended 30 June 2017 (the "Report"). Our engagement was conducted by an independent multi-disciplinary team with relevant experience in reporting and assurance.

Subject matter
We are required to provide reasonable and limited levels assurance on the following sustainability indicators (KPIs) to be published in the Annual Integrated Report:

Reasonable assurance
The following KPIs in the Report were selected for an expression of reasonable assurance:

- Electricity purchased (kWh)
- Total Scope 2 carbon emissions (tCO₂e)
- Preferential Procurement – BEE total spend (South African Rands)
- Local Economic Development (LED) spend (South African Rands)
- Employment equity in management in South Africa (%)

Limited assurance
The following KPIs in the Report were selected for an expression of limited assurance:

- Housing and living conditions – average number of employees in single or sharing Harmony accommodation
- Water used for primary activities (kilolitres)
- Lost Time Injury Frequency Rate (LTIFR)
- Total Injuries and Accidents (TIA) – number of injury cases in the 2017 reporting period
- Silicosis – number of cases confirmed in the 2017 reporting period
- Critical skills training – number of people trained in the 2017 reporting period
- Total Scope 1 carbon emissions (tCO₂)
- Total Scope 3 carbon emissions (tCO₂e)
- Mineral waste (volume disposed)
- Amount of land rehabilitated in the 2017 reporting period

Directors responsibilities
The Directors are responsible for the selection, preparation and presentation of the KPIs, the identification of stakeholders requirements and material issues, for commitments with respect to sustainability performance, and establishing and maintaining appropriate performance management and internal control systems from which the reported information is derived, and for such internal control as the directors determine to be necessary to enable the preparation of the Selected Sustainability Information that is free from material misstatement, whether due to fraud or error.

The Directors are also responsible for the selection and application of the reporting criteria as required by the Global Reporting Initiative (GRI) G4 and CDP Guidelines.

Inherent limitations
Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining, calculating, sampling and estimating such information. The absence of a significant body of established practice on which to draw allows for the selection of certain different but acceptable measurement techniques which can result in materially different measurements and can impact comparability. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments. The precision thereof may change over time.

In particular, where the information relies on the factors derived by independent third parties, our assurance work will not include examination of the derivation of those factors and other third party information. It is important to understand our assurance conclusions in this context.

Our Independence and Quality Control
We have complied with the independence and all other ethical requirements of the Code of Professional Conduct for Registered Auditors issued by the Independent Regulatory Board of Auditors, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

SizweNtsalubaGobodo Inc. applies the International Standard on Quality Control and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our responsibility
Our responsibility is to express an independent conclusion, based on the reasonable assurance procedures we have performed and the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. That Standard requires that we plan and perform our engagement to obtain either reasonable or limited assurance about whether the Selected Sustainability Information is free from material misstatement.

We further have a responsibility to form an independent conclusion, based on the limited assurance procedures we have performed and the evidence we have obtained, on whether anything has come to our attention to indicate that the Selected Sustainability Information for limited assurance has not been prepared, in all material respects, in accordance with ISAE 3000 (Revised).

A reasonable assurance engagement in accordance with ISAE 3000 (Revised) involves performing procedures to obtain evidence about the quantification of the Selected Sustainability Information and related disclosures. The nature, timing and extent of procedures selected depend on our judgement, including the assessment of the risks of material misstatement, whether due to fraud or error. In making those risk assessments we considered internal control relevant to Harmony’s preparation of the Selected Sustainability Information. A reasonable assurance engagement also includes:

- Assessing the suitability in the circumstances of Harmony’s use of its reporting criteria as the basis for preparing the Selected Sustainability Information;
• Evaluating the appropriateness of quantification methods and reporting policies used, and the reasonableness of estimates made by Harmony; and
• Evaluating the overall presentation of the selected sustainability KPIs.

For a limited assurance engagement, the extent of evidence gathering procedures performed is less than that of a reasonable assurance engagement and therefore a lower level of assurance is provided.

Summary of work performed
Our work included examination, on a test basis, of evidence relevant to the selected sustainability information. It also included an assessment of the significant estimates and judgments made by the directors in the preparation of the Selected Sustainability Information. We planned and performed our work so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence on which to base our conclusion in respect of the Selected Sustainability Information.

Our procedures included the understanding of risk assessment procedures, internal control, and the procedures performed in response to the assessed risks. The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

• Interviewed management and senior executives to obtain an understanding of the internal control environment, risk assessment process and information systems relevant to the sustainability reporting process.
• Inspected documentation to corroborate the statements obtained from management and senior executives in our interviews.
• Reviewed the process that Harmony has in place for determining material Selected Sustainability Information to be included in the report.
• Applied the assurance criteria in evaluating the data generation and reporting processes.
• Reviewed the processes and systems to generate, collate, aggregate, monitor and report on the selected key performance indicators.
• Conducted interviews with senior management to evaluate reporting processes against the GRI G4 Core guidelines.
• Evaluated the reasonableness and appropriateness of significant estimates and judgments made by management in the preparation of the Selected Sustainability Information.
• Performed limited substantive testing on a selective basis of the total CO₂ emissions information at corporate head offices and three reporting locations to check that data had been appropriately measured, recorded, collated and reported.
• Evaluated whether the Selected Sustainability Information presented in the integrated report is consistent with our overall knowledge and experience of sustainability management and performance at Harmony.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

Conclusions
Reasonable assurance
In our opinion the Selected Sustainability Information for the year ended 30 June 2017, which has been subject to our reasonable assurance procedures, has in all material respects, been prepared in accordance with the reporting criteria.

Basis for Qualified Limited Assurance Conclusion
Inconsistencies were found in man hours worked used as input for the calculation of the Lost Time Injury Frequency Rate. This was due to not having adequate processes and systems in place to ensure validity, accuracy and completeness of man-hours reported. Furthermore we could not obtain sufficient audit evidence that the number of man hours worked is valid, accurate and complete. These issues were predominant in the operations that make up 27% of the total man hours worked for the Harmony Group.

Qualified Limited Assurance Conclusion
In our opinion, except for the effects of the matters described in the Basis for Qualified Conclusion section of our report, nothing has come to our attention that causes us to believe that the Selected Sustainability Information for the year ended 30 June 2017, has not been prepared and presented, in all material respects, in accordance with the reporting criteria.

Other matters
The scope of our work has been limited to the aforementioned KPIs. Our conclusions above cover only these Indicators and not all indicators presented or any other information included in the Report. The maintenance and integrity of the Harmony’s website is the responsibility of Harmony’s directors. Our procedures did not involve assurance on the maintenance and integrity of the website, including controls used to achieve this and, accordingly we accept no responsibility for any changes to either the information in the Report or our independent assurance report that may have occurred since the initial date of its presentation on the Harmony website.

Restriction of liability
Our work has been undertaken to enable us to express the conclusions on the Selected Sustainability Information to the directors of Harmony in accordance with the terms of our engagement and for no other purpose. We do not accept or assume liability to any party other than Harmony, for our work, for this report, or for the conclusion we have reached.

SizweNtsalubaGobodo Inc.
Registered Auditor
Per BF Zwane
Chartered Accountant (SA)
Director
26 October 2017
Johannesburg
DIRECTORS’ REPORT

OUR BUSINESS
The Harmony group of companies has underground and surface operations and conducts gold mining and exploration in South Africa and Papua New Guinea. A general review of the group’s business and operations is provided in Operational Performance.

The company does not have a controlling shareholder and is managed by its directors on behalf of all of its shareholders. The company’s primary listing is in South Africa on the securities exchange operated by the JSE Limited. Harmony’s ordinary shares are also listed in the form of American Depositary Receipts on the New York Stock Exchange and as International Depositary Receipts on the Berlin Exchange.

Annual integrated report 2017
As required by the King IV Report on Governance for South Africa, 2016 (King IV report) and the JSE Listings Requirements, the board has reviewed and approved the Integrated Annual Report 2017 on the recommendation of the audit and risk committee, supported by the social and ethics committee.

Statement by the board
The board of directors is of the opinion that the Integrated Annual Report 2017 and the accompanying consolidated financial statements fairly reflect the true financial position of the group at 30 June 2017 and its performance for the year.

Company secretary
The company secretary is Riana Bisschoff. Her business and postal addresses appear on the inside back cover of this report. The company secretary’s certificate is found overleaf.

Board of directors
Cathie Markus resigned as an independent non-executive director on 9 February 2017. Peter Steenkamp was reappointed as director by the board and will be presented to the shareholders for appointment at the company’s 2017 annual general meeting.

There were no further changes to the board during FY17.

Directors’ shareholdings
At 30 June 2017, the financial director, Frank Abbott held 606,742 shares and executive director, Mashego Mashego, held 593 shares in Harmony while non-executive directors André Wilkens and Ken Dicks, held 101,303 and 35,000 shares in Harmony respectively. None of the directors’ immediate families and associates held any direct shareholding in the company’s issued share capital. No other director held or acquired any shares in the company, other than through share incentive schemes (executive directors only), during FY17. Refer to the Remuneration report for details of share incentives awarded to executive directors.

Going concern
In accordance with the solvency and liquidity test in terms of section 4 of the Companies Act, the board is of the opinion that the company has adequate resources and that the:

- company’s assets, fairly valued, exceed the fair value of its liabilities
- company will be able to pay its debts as they become due in the ordinary course of business for the 12 months following 30 June 2017

Financial results
Details of the group’s financial performance are discussed in the Financial Director’s Report. The audited consolidated and company annual financial statements are included in the Financial Report 2017 which is available online at www.har.co.za/17/download/HAR-FR17.pdf.

Share capital
Full details of the authorised, issued and unissued share capital of the company as at 30 June 2017 are set out in the consolidated statements of changes in shareholders’ equity in the Financial Report 2017 (www.har.co.za).

Shareholders
Information on shareholder spread, the range of shareholdings and public shareholders, as well as major shareholders, is presented in the Shareholders’ information section in this Integrated Annual Report 2017.

Investments

Contingencies
None of Harmony’s properties is the subject of pending material legal proceedings. We are involved in legal and arbitration proceedings that are incidental to the normal conduct of our business. Refer to note 35 of the consolidated financial statements for further discussion.

Borrowings
(i) Movement in borrowings: see note 29 to the consolidated financial statements
(ii) Borrowing powers are detailed in the company’s memorandum of incorporation

Disposals
There were no material disposals during FY17.
Acquisitions
On 19 September 2016 Harmony announced the agreement to purchase Newcrest PNG 1 Ltd, the wholly owned subsidiary of Newcrest which holds Newcrest’s 50% interest in the Hidden Valley joint venture, for a cash consideration of US$1. As part of the transaction, Newcrest made a once-off contribution of US$22.5 million (R309 million) towards Hidden Valley’s future estimated environmental liability. The transaction was conditional upon certain regulatory approvals which were obtained on 25 October 2016 and Harmony gained control over Hidden Valley from this date.

Related party transactions
None of the directors or major shareholders of Harmony or, to Harmony’s knowledge, their families, had an interest, directly or indirectly, in any transaction during the period under review or in any proposed transaction that has affected or will materially affect Harmony or its subsidiaries, other than as discussed below.

Modise Motloba, Harmony’s deputy chairman, is a director of Tysys Limited. Tysys Limited entered into a contract with the group in February 2017 to provide services relating to the group’s small and medium enterprise development projects. The contract has a value of up to R4.8 million (US$0.4 million) per annum, with approximately R1 million having been paid during FY17. The contract has a 30-day notice period.

Material transactions with associates, joint arrangements and structured entities
Refer to note 34 of the consolidated financial statements for details on transactions conducted during the period under review.

Recent developments
After 30 June 2017, a new increased US$350 million, three-year facility was negotiated on similar terms to the previous facility of US$250 million. The new facility matures on 15 August 2020. The syndicate consists of Nedbank Limited, ABSA Bank Limited, JP Morgan Chase Bank, Caterpillar Financial Services Corporation, HSBC Bank plc, State Bank of India, Citibank as well as the Bank of China.

On 15 August 2017, the board declared a final dividend for the 2017 year of 35 SA cents per share, payable on 16 October 2017.

On 19 October 2017, Harmony announced that it would acquire AngloGold Ashanti Limited’s Moab Khotsong and Great Noligwa mines together with other assets and related infrastructure for a cash consideration of the rand equivalent of US$300 million. The transaction is subject to approval from Harmony’s shareholders and other conditions precedent, including regulatory approvals. The board has unanimously approved the transaction and has resolved to recommend the transaction to shareholders.

COMPANY SECRETARY’S CERTIFICATE

In accordance with the Companies Act No 71 of 2008 (the Act), I certify that for the year ended 30 June 2017, Harmony Gold Mining Company Limited, to the best of my knowledge and belief, has lodged with the Companies and Intellectual Property Commission all such returns and notices as are required of a public company in terms of the Act, and that all such returns and notices appear to be true, correct and up to date.

Riana Bisschoff
Company secretary
26 October 2017
SHAREHOLDER INFORMATION

OUR INVESTMENT CASE

A SOLID INVESTMENT CASE

- Safe, predictable production
- Maintain increase in grade
- Low net debt allows for growth
- Hedging strategy protects margins
- Wafi-Golpu, a world-class asset
- Organic growth, exploration, value-accretive acquisitions
- Rand hedge gearing
- Emerging market exposure, undervalued

STOCK EXCHANGE LISTINGS AND Ticker CODES
Harmony’s primary listing is on the Johannesburg Stock Exchange. It is also quoted in the form of American depositary receipts on the New York Stock Exchange.

Harmony’s ticker codes on these exchanges are as follows:
- Johannesburg Stock Exchange: HAR
- New York Stock Exchange Euronext: HMY

SHARE INFORMATION

<table>
<thead>
<tr>
<th>Sector</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-sector</td>
<td>Gold</td>
</tr>
<tr>
<td>Issued share capital as at 30 June 2017</td>
<td>439,957,199 shares in issue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market capitalisation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>at 30 June 2017</td>
<td>R9.5 billion or US$728 million</td>
</tr>
<tr>
<td>at 30 June 2016</td>
<td>R22.9 billion or US$1.6 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Share price statistics – FY17</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Johannesburg Stock Exchange:</td>
<td>12-month high: R66.65</td>
</tr>
<tr>
<td></td>
<td>12-month low: R20.68</td>
</tr>
<tr>
<td></td>
<td>Closing price as at 30 June 2017: R21.68</td>
</tr>
<tr>
<td>New York Stock Exchange:</td>
<td>12-month high: US$4.81</td>
</tr>
<tr>
<td></td>
<td>12-month low: US$1.59</td>
</tr>
<tr>
<td></td>
<td>Closing price as at 30 June 2017: US$1.65</td>
</tr>
<tr>
<td>Free float</td>
<td>100%</td>
</tr>
<tr>
<td>ADR ratio</td>
<td>1:1</td>
</tr>
</tbody>
</table>
Geographic distribution of shares (%)  
as at 30 June 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>14</td>
</tr>
<tr>
<td>United States of America</td>
<td>8</td>
</tr>
<tr>
<td>Europe</td>
<td>31</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>38</td>
</tr>
</tbody>
</table>

Shareholder spread as at 30 June 2017

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>Number of shareholders</th>
<th>% of shareholders</th>
<th>Number of shares</th>
<th>% of issued share capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>9 142</td>
<td>99.92%</td>
<td>375 504 751</td>
<td>85.26%</td>
</tr>
<tr>
<td>Non-public</td>
<td>7</td>
<td>0.08%</td>
<td>819 526</td>
<td>0.19%</td>
</tr>
<tr>
<td>Share option scheme</td>
<td>2</td>
<td>0.03%</td>
<td>75 553</td>
<td>0.02%</td>
</tr>
<tr>
<td>Holding 10% +</td>
<td>1</td>
<td>0.00%</td>
<td>63 632 922</td>
<td>14.55%</td>
</tr>
<tr>
<td>Directors*</td>
<td>4</td>
<td>0.05%</td>
<td>743 638</td>
<td>0.17%</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>1</td>
<td>0.00%</td>
<td>335</td>
<td>0.00%</td>
</tr>
<tr>
<td>Totals</td>
<td>9 150</td>
<td>100.00%</td>
<td>439 957 199</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

* Held by Frank Abbott, Ken Dicks, Mashego Mashego and André Wilkens

Analysis of ordinary shares

<table>
<thead>
<tr>
<th>Range</th>
<th>Number of shareholders</th>
<th>% of shareholders</th>
<th>Number of shares</th>
<th>% of issued share capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 10 000</td>
<td>8 639</td>
<td>94.42%</td>
<td>5 652 924</td>
<td>1.28%</td>
</tr>
<tr>
<td>10 001 – 100 000</td>
<td>373</td>
<td>4.08%</td>
<td>11 638 648</td>
<td>2.65%</td>
</tr>
<tr>
<td>100 001 – 1 000 000</td>
<td>107</td>
<td>1.17%</td>
<td>31 770 862</td>
<td>7.22%</td>
</tr>
<tr>
<td>1 000 001 – And more</td>
<td>31</td>
<td>0.33%</td>
<td>390 894 765</td>
<td>88.85%</td>
</tr>
<tr>
<td>Totals</td>
<td>9 150</td>
<td>100.00%</td>
<td>439 957 199</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Ownership summary as at 30 June 2017 – top 10 shareholders

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>% Total shares outstanding 30 June 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>African Rainbow Minerals Ltd</td>
<td>14.55</td>
</tr>
<tr>
<td>2</td>
<td>VanEck Global</td>
<td>8.96</td>
</tr>
<tr>
<td>3</td>
<td>Public Investment Corporation of South Africa</td>
<td>5.91</td>
</tr>
<tr>
<td>4</td>
<td>Dimensional Fund Advisors, Inc.</td>
<td>3.77</td>
</tr>
<tr>
<td>5</td>
<td>The Vanguard Group, Inc.</td>
<td>2.70</td>
</tr>
<tr>
<td>6</td>
<td>BlackRock Investment Management – Index</td>
<td>2.40</td>
</tr>
<tr>
<td>7</td>
<td>Acadian Asset Management, LLC</td>
<td>2.02</td>
</tr>
<tr>
<td>8</td>
<td>RMB Morgan Stanley</td>
<td>2.02</td>
</tr>
<tr>
<td>9</td>
<td>BlackRock Investment Management (United Kingdom) Limited</td>
<td>1.55</td>
</tr>
<tr>
<td>10</td>
<td>Fairtree Capital</td>
<td>1.49</td>
</tr>
</tbody>
</table>
SHAREHOLDER INFORMATION CONTINUED

DIVIDEND POLICY
In considering the payment of dividends, the board will, with the assistance of the audit and risk, and the investment committees, take into account the following:

• The current financial status of the company and the payment of a proposed dividend subject to the successful application of the solvency and liquidity test as set out in section 4 of the Companies Act of 2008
• The future funding and capital requirements of the company

Dividends declared
FY17:
Interim: Dividend of 50 South African cents per share (4 US cents per share)
Final: Dividend of 35 South African cents per share (3 US cents per share)

FY16:
Final: Dividend of 50 South African cents per share (3 US cents per share)

SHAREHOLDERS’ DIARY

<table>
<thead>
<tr>
<th>Financial year-end</th>
<th>30 June</th>
<th>Results presentations FY18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual financial statements issued</td>
<td>26 October 2017</td>
<td>Interim results for the half-year</td>
</tr>
<tr>
<td>Form 20-F issued</td>
<td>26 October 2017</td>
<td>Full-year results</td>
</tr>
<tr>
<td>Annual general meeting</td>
<td>23 November 2017</td>
<td>15 August 2018</td>
</tr>
</tbody>
</table>

CONTACT
Telephone: +27 11 411 2314
E-mail: harmonyIR@harmony.co.za
Website: www.harmony.co.za
FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the safe harbour provided by Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended, 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 include all statements other than statements of historical fact, including, without limitation, any statements preceded by, followed by, or that include the words “targets”, “believes”, “expects”, “aims”, “intends”, “will”, “may”, “anticipates”, “would”, “should”, “could”, “estimates”, “forecast”, “predict”, “continue” or similar expressions or the negative thereof.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues and income, wherever they may occur in this report and the exhibits to this report, are essentially 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 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 gold and other metals prices, estimates of future gold and other metals production and sales, estimates of future cash costs, estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices, statements regarding future debt repayments, estimates of future capital expenditures, the success of our business strategy, development activities and other initiatives, 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, fluctuations in the market price of gold, the occurrence of hazards associated with underground and surface gold mining, the occurrence of labour disruptions, power cost increases as well as power stoppages, fluctuations and usage constraints, supply chain shortages and increases in the prices of production imports, availability, terms and deployment of capital, changes in government regulation, particularly mining rights and environmental regulation, fluctuations in exchange rates, the adequacy of the Group’s insurance coverage and socio-economic or political instability in South Africa and Papua New Guinea and other countries in which we operate.

For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the company’s latest Integrated Annual Report and Form 20-F which is on file with the Securities and Exchange Commission, as well as the company’s other Securities and Exchange Commission filings. The company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events, except as required by law.
DIRECTORATE AND ADMINISTRATION

HARMONY GOLD MINING COMPANY LIMITED
Harmony Gold Mining Company Limited was incorporated and registered as a public company in South Africa on 25 August 1950
Registration number: 1950/038232/06

Corporate office
Randfontein Office Park
PO Box 2
Randfontein, 1760
South Africa
Corner Main Reef Road and Ward Avenue
Randfontein, 1759
South Africa
Telephone: +27 11 411 2000
Website: www.harmony.co.za

DIRECTORS
PT Motsepe* (chairman)
FFT De Buck** (lead independent director)
JM Motloba** (deputy chairman)
PW Steenkamp (chief executive officer)
F Abbott (financial director)
JA Chissano***
KV Dicks**
Dr DSS Lushaba**
HE Mashego**
KM Msimang**
KT Nondumo**
VP Pillay**
JL Wetton**
AJ Wilkens*

* Non-executive
** Executive
*** Mozambican

INVESTOR RELATIONS
E-mail: harmonyIR@harmony.co.za
Telephone: +27 11 411 2314
Website: www.harmony.co.za

COMPANY SECRETARY
Telephone: +27 11 411 2094
E-mail: companysecretariat@harmony.co.za

TRANSFER SECRETARIES
Link Market Services South Africa (Proprietary) Limited
(Registration number 2000/007239/07)
13th Floor, Rennie House, Ameshoff Street, Braamfontein
PO Box 4844
Johannesburg, 2000
South Africa
Telephone: +27 11 713 0800
E-mail: info@linkmarketservices.co.za
Fax: +27 86 674 2450

ADR* DEPOSITARY
Deutsche Bank Trust Company Americas c/o American Stock Transfer and Trust Company
Peck Slip Station
PO Box 2050
New York, NY 10272-2050
E-mail queries: db@amstock.com
Toll free: +1-800-937-5449
Int: +1-718-921-8137
Fax: +1-718-765-8782

*Sponsor: American Depositary Receipts

SPONSOR
JP Morgan Equities South Africa (Pty) Ltd
1 Fricker Road, corner Hurlingham Road
Illovo, Johannesburg, 2196
Private Bag X9936
Sandton, 2146
Telephone: +27 11 507 0300
Fax: +27 11 507 0503

TRADING SYMBOLS
JSE: HAR
New York Stock Exchange: HMY
Berlin Stock Exchange: HAM1
ISIN: ZAE 000015228