



**GOLD FIELDS**

# Integrated Annual Review 2012

For the year ended 31 December 2012



# “If we cannot mine safely, we will not mine”

Gold Fields Safety Value

150 Helen Road  
Sandown  
Sandton, 2196  
Johannesburg  
Gauteng

Private Bag X30500  
Houghton, 2041  
South Africa

Telephone: (+27) (11) 562 9700  
Email: [media@goldfields.co.za](mailto:media@goldfields.co.za)

#### Acknowledgments

Prepared and produced by Gold Fields  
in partnership with Maplecroft  
Laid out by: Bastion Graphics  
© Gold Fields 2012. All rights reserved



Figure 1: Key operating statistics (pre-unbundling)

Mine	Managed production (Au-Eq '000oz)	Attributable production (Au-Eq '000oz)	Total cash cost (US\$/oz)	NCE margin (%)	Mineral Reserves (million Au oz) <sup>1</sup>	Mineral Resources (million Au oz) <sup>1</sup>	Mine employees <sup>2</sup>	Lost-time injury frequency rate
<b>Australasia</b>								
Agnew	177	177	827	29	1.15	3.50	256	3.93 <sup>3</sup>
St Ives	450	450	931	4	2.19	4.72	652	3.49 <sup>4</sup>
<b>South Africa</b>								
Beatrix	289	289	1,118	16	3.36	8.43	9,222	3.54
KDC	935	935	1,076	16	10.17	65.81	26,159	8.10
South Deep	270	270	1,105	(37)	36.02	73.03	3,540	1.95
<b>South America</b>								
Cerro Corona	342	337	492	52	2.74	3.65	373	0.00
<b>West Africa</b>								
Damang	166	149	918	2	3.68	7.59	1,132	0.36
Tarkwa	719	647	673	37	9.07	13.11	2,769	0.15

<sup>1</sup> Attributable

<sup>2</sup> Includes permanent employees and temporary employees (i.e. contractors on the payroll) at the mining operations

<sup>3</sup> Excluding restricted work cases; 16.69 if restricted work cases are included

<sup>4</sup> Excluding restricted work cases; 23.17 if restricted work cases are included

## Further resources

The Integrated Annual Report 2012 is made up of the following three volumes:

- Integrated Annual Review 2012
- Annual Financial Report 2012
- Mineral Resources and Mineral Reserves Overview 2012 (available end-April 2013)



For the GRI Table accompanying the Integrated Review go to [www.goldfields.co.za](http://www.goldfields.co.za)

For further details click below or visit our website at:

**[www.goldfields.co.za](http://www.goldfields.co.za)**



# Contents

<b>Introduction</b>	<b>Page 2</b>
<b>1. Our business</b>	<b>Page 8</b>
1.1 Adding value through exploration, development and mining	Page 10
1.2 Global footprint	Page 11
1.3 Restructuring	Page 14
1.4 Vision, values and stakeholder promises	Page 16
1.5 Strategy for the new Gold Fields	Page 17
1.6 Financial overview	Page 18
<b>2. Leadership</b>	<b>Page 22</b>
2.1 Vision of the Chair	Page 24
2.2 CEO report	Page 26
<b>3. Strategic analysis</b>	<b>Page 36</b>
3.1 External environment	Page 38
3.2 Group risks and opportunities	Page 48
3.3 Stakeholder engagement	Page 52
<b>4. Transparency and accountability</b>	<b>Page 56</b>
4.1 Corporate governance	Page 58
4.2 Remuneration and performance	Page 70
<b>5. Pillar: Optimising our operations</b>	<b>Page 72</b>
5.1 Ensuring our mines deliver	Page 75
5.2 Pursuing Zero Harm	Page 86
5.3 Promoting environmental stewardship	Page 90
<b>6. Pillar: Growing Gold Fields</b>	<b>Page 96</b>
6.1 Linking growth, diversification and sustainability	Page 98
6.2 Expanding our growth pipeline	Page 108
6.3 Moving from exploration to production	Page 112
6.4 Mineral Resource and Mineral Reserve Statement	Page 120
<b>7. Pillar: Securing our future responsibly</b>	<b>Page 128</b>
7.1 Becoming the employer of choice	Page 130
7.2 Delivering shared value	Page 141
7.3 Practicing strong business ethics	Page 150
<b>8. Assurance</b>	<b>Page 154</b>
8.1 First party assurance	Page 156
8.2 Second party assurance	Page 157
8.3 Third party assurance	Page 159
8.4 Assured data	Page 164
8.5 Corporate information	Page 166

# About Gold Fields

Gold Fields (following the unbundling of Sibanye Gold) is a large unhedged producer of gold with **attributable annual production of approximately 2 million gold ounces** from six operating mines in Australia, Ghana, Peru and South Africa. The new Gold Fields also has an extensive and diverse global growth pipeline with four major projects in resource development and feasibility.

The new Gold Fields has total **attributable gold Mineral Reserves of 54.9 million ounces and Mineral Resources of 125.5 million ounces**. Gold Fields is listed on the JSE Limited (primary listing), the New York Stock Exchange (NYSE), NASDAQ Dubai Limited, Euronext in Brussels (NYSE) and the Swiss Exchange (SWX).

In February 2013, Gold Fields unbundled its KDC and Beatrix mines in South Africa into a separately listed company, Sibanye Gold.

## Forward looking statements

Certain statements in this document constitute “forward looking statements” within the meaning of Section 27A of the US Securities Act of 1933 and Section 21E of the US Securities Exchange Act of 1934.

Such forward looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such forward looking statements.

Such risks, uncertainties and other important factors include among others: economic, business and political conditions in Australia, Ghana, Peru, South Africa and elsewhere; the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, exploration and development activities; decreases in the market price of gold and/or copper; hazards associated with underground and surface gold mining; labour disruptions; availability, term and deployment of capital or credit; changes in government regulations, particularly environmental, and new legislation affecting mining and mineral rights; changes in exchange rates; currency devaluations; inflation and other macro-economic factors; industrial action; temporary stoppages of mines for safety and unplanned maintenance; and the impact of the HIV/AIDS crisis in South Africa.

These forward looking statements speak only as of the date of this document. 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 document or to reflect the occurrence of unanticipated events.

Figure 2: Average exchange rates and commodity prices

	2012	2011	2010
R/US\$	<b>8.19</b>	7.22	7.32
US\$/A\$	<b>1.04</b>	1.03	0.92
Gold (US\$/oz)	<b>1,654</b>	1,569	1,220
Gold (R/kg)	<b>435,584</b>	364,216	287,150
Gold (A\$/oz)	<b>1,613</b>	1,541	1,323

# About this report

Our Integrated Annual Report 2012, which covers the year to end-December 2012 is made up of the following three volumes:

- The **Integrated Annual Review 2012**, which examines the integrated nature of our operational and sustainability performance
- The **Annual Financial Report 2012**, which fulfils our statutory financial reporting requirements. The financial results of Sibanye Gold are treated as 'discontinued operations' in the financial statements
- The **Mineral Resources and Mineral Reserves Overview 2012**, which provides detailed technical and operational information on our mines and growth projects

This Integrated Annual Review provides an overview of Gold Fields six global operations on a Group and mine-by-mine basis – as well as the two discontinued operations now under Sibanye Gold (which is also producing its own separate 2012 Annual Report). The report also describes our exploration and business development activities. We do this using an integrated approach to reporting that examines our operational, sustainability and financial performance.

The aim of our integrated approach is to enable investors and other stakeholders – including host governments, local communities and our employees – to make a more informed assessment of the value of Gold Fields and our ability to flourish in the new growth environments of tomorrow.

We believe the Integrated Annual Review, together with additional documents held online, represents an A+ application of the Global Reporting Initiative (GRI) G3.1 Sustainability Reporting Guidelines, which is the widely recognised best-practice benchmark for corporate reporting.

Our auditors KPMG have provided assurance on selected sustainability information in this report. As a member of the International Council on Mining & Metals (ICMM) we are committed to obtain assurance in line with the ICMM Sustainable Development Framework: Assurance Procedure. KPMG has provided assurance on all five subject matters of the ICMM, which include our GRI A+ self-declaration as well as our selected sustainability performance data. The assured data and KPMG's Assurance opinion are on pages 164 and 159 respectively.

This Integrated Annual Review also forms part of our Communication on Progress to the United Nations Global Compact. A summary of our compliance with the GRI and the 10 Principles of the United Nations Global Compact – as well as our alignment with related standards including the Millennium Development Goals (MDGs) and the ICMM 10 Principles – is presented online.

 [www.sibanyegold.co.za](http://www.sibanyegold.co.za)

 [www.globalreporting.org](http://www.globalreporting.org)

 [www.unglobalcompact.org](http://www.unglobalcompact.org)

 [www.un.org](http://www.un.org)

 [www.icmm.com](http://www.icmm.com)

*"Integrated Reporting brings together the material information about an organisation's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. It provides a clear and concise representation of how an organisation demonstrates stewardship and how it creates value, now and in the future."*

International Integrated Reporting Committee, Towards Integrated Reporting – Communicating Value in the 21st Century.

## Navigation icons



External web link provides reference to online disclosure



Further content online

## Names

Unless otherwise indicated, all references to **'Gold Fields'** refers to Gold Fields as at 31 December 2012 (i.e. includes Sibanye Gold assets). All references to **'New Gold Fields'** refers to Gold Fields following the unbundling of Sibanye Gold.

# Gold Fields in numbers

Figure 3: Group operating statistics (pre-unbundling and broken-down)

Category	2012	2011	2010	2009	2008
<b>Gold produced – attributable (kg)</b>	<b>101,216</b>	108,408	108,802	111,421	103,541
Discontinued operations (Sibanye Gold)	<b>38,059</b>	45,005	–	–	–
Continuing operations (New Gold Fields)	<b>63,157</b>	63,403	–	–	–
<b>Gold produced – attributable ('000oz)</b>	<b>3,254</b>	3,485	3,497	3,582	3,329
Discontinued operations (Sibanye Gold)	<b>1,224</b>	1,447	–	–	–
Continuing operations (New Gold Fields)	<b>2,030</b>	2,038	–	–	–
<b>Total cash cost (R/kg)</b>	<b>235,451</b>	184,515	165,526	146,456	138,665
Discontinued operations (Sibanye Gold)	<b>285,851</b>	220,224	–	–	–
Continuing operations (New Gold Fields)	<b>206,531</b>	161,548	–	–	–
<b>Total cash cost (US\$/oz)</b>	<b>894</b>	795	703	540	526
Discontinued operations (Sibanye Gold)	<b>1,086</b>	949	–	–	–
Continuing operations (New Gold Fields)	<b>784</b>	696	–	–	–
<b>Notional Cash Expenditure (NCE) (R/kg)</b>	<b>362,331</b>	272,224	239,796	210,215	210,827
Discontinued operations (Sibanye Gold)	<b>367,338</b>	284,055	–	–	–
Continuing operations (New Gold Fields)	<b>359,448</b>	264,615	–	–	–
<b>Notional Cash Expenditure (NCE) (US\$/oz)</b>	<b>1,376</b>	1,173	1,019	776	800
Discontinued operations (Sibanye Gold)	<b>1,395</b>	1,224	–	–	–
Continuing operations (New Gold Fields)	<b>1,365</b>	1,140	–	–	–
<b>Gold price (R/kg)</b>	<b>435,584</b>	364,216	287,150	261,517	228,160
<b>Gold price (US\$/oz)</b>	<b>1,654</b>	1,569	1,220	965	865
<b>Operating costs (Rm)</b>	<b>24,674</b>	21,312	20,082	18,368	16,026
Discontinued operations (Sibanye Gold)	<b>10,874</b>	9,861	–	–	–
Continuing operations (New Gold Fields)	<b>13,800</b>	11,451	–	–	–
<b>Operating costs (US\$m)</b>	<b>3,013</b>	2,952	2,743	2,174	1,954
Discontinued operations (Sibanye Gold)	<b>1,328</b>	1,366	–	–	–
Continuing operations (New Gold Fields)	<b>1,685</b>	1,586	–	–	–
<b>Operating profit (Rm)</b>	<b>20,976</b>	21,112	14,469	13,589	9,427
Discontinued operations (Sibanye Gold)	<b>5,680</b>	6,752	–	–	–
Continuing operations (New Gold Fields)	<b>15,296</b>	14,360	–	–	–
<b>Operating profit (US\$m)</b>	<b>2,561</b>	2,924	1,977	1,608	1,150
Discontinued operations (Sibanye Gold)	<b>693</b>	935	–	–	–
Continuing operations (New Gold Fields)	<b>1,868</b>	1,989	–	–	–
<b>Operating margin (%)</b>	<b>46</b>	50	42	43	37
Discontinued operations (Sibanye Gold)	<b>34</b>	41	–	–	–
Continuing operations (New Gold Fields)	<b>53</b>	57	–	–	–
<b>NCE margin (%)</b>	<b>17</b>	25	16	20	8
Discontinued operations (Sibanye Gold)	<b>16</b>	23	–	–	–
Continuing operations (New Gold Fields)	<b>18</b>	27	–	–	–



Figure 4: Group financial statistics (pre-unbundling and broken-down)

Category	2012	2011	2010	2009	2008
<b>Revenue (Rm)</b>	<b>45,469</b>	41,877	34,391	31,772	25,360
Discontinued operations (Sibanye Gold)	<b>16,553</b>	16,613	–	–	–
Continuing operations (New Gold Fields)	<b>28,916</b>	25,264	–	–	–
<b>Basic earnings – cents per share</b>	<b>778</b>	973	161	492	400
Discontinued operations (Sibanye Gold)	<b>433</b>	348	–	–	–
Continuing operations (New Gold Fields)	<b>345</b>	625	–	–	–
<b>Headline earnings – cents per share</b>	<b>816</b>	970	177	611	406
Discontinued operations (Sibanye Gold)	<b>434</b>	348	–	–	–
Continuing operations (New Gold Fields)	<b>382</b>	622	–	–	–
<b>Dividends declared – cents per share</b>	<b>235</b>	330	140	130	215
<b>Total assets (Rm)</b>	<b>95,046</b>	83,352	71,061	66,276	66,402
Discontinued operations (Sibanye Gold)	<b>20,413</b>	n/a	–	–	–
Continuing operations (New Gold Fields)	<b>74,632</b>	n/a	–	–	–
<b>Shareholders' equity (Rm)</b>	<b>53,157</b>	48,062	46,623	44,725	43,282
<b>Cash and cash equivalents (Rm)</b>	<b>5,619</b>	6,049	5,464	1,828	1,054
Discontinued operations (Sibanye Gold)	<b>423</b>	n/a	–	–	–
Continuing operations (New Gold Fields)	<b>5,196</b>	n/a	–	–	–
<b>Cash flows from operating activities (Rm)</b>	<b>8,864</b>	14,213	12,373	8,597	7,362
Discontinued operations (Sibanye Gold)	<b>3,937</b>	6,145	–	–	–
Continuing operations (New Gold Fields)	<b>4,927</b>	8,068	–	–	–
<b>Cash generated/(utilised) (Rm)</b>	<b>(769)</b>	(80)	3,867	852	(533)
Discontinued operations (Sibanye Gold)	<b>5,030</b>	3,141	–	–	–
Continuing operations (New Gold Fields)	<b>(5,799)</b>	(3,221)	–	–	–
<b>EBITDA (Rm)</b>	<b>20,976</b>	21,112	14,469	13,589	9,427
Discontinued operations (Sibanye Gold)	<b>5,680</b>	n/a	–	–	–
Continuing operations (New Gold Fields)	<b>15,296</b>	n/a	–	–	–
<b>Net debt (Rm)</b>	<b>14,617</b>	9,460	3,974	6,669	9,354
Discontinued operations (Sibanye Gold)	<b>3,797</b>	n/a	–	–	–
Continuing operations (New Gold Fields)	<b>10,820</b>	n/a	–	–	–
<b>Net debt: EBITDA</b>	<b>0.70</b>	0.45	0.27	0.49	0.99
Discontinued operations (Sibanye Gold)	<b>0.67</b>	n/a	–	–	–
Continuing operations (New Gold Fields)	<b>0.71</b>	n/a	–	–	–



# Gold Fields in numbers continued

Figure 5: Group sustainability statistics (pre-unbundling and broken-down)<sup>1</sup>

Category	2012	2011	2010	2009	2008
<b>Total economic contribution (Rm)</b>	<b>34,611</b>	26,629	25,658	22,794	20,557
<b>Total economic contribution (US\$m)</b>	<b>4,226</b>	3,688	3,506	2,704	2,506
<b>Socio-economic development spend (US\$m)</b>	<b>136<sup>2</sup></b>	54	67	11	14
Discontinued operations (Sibanye Gold)	<b>111</b>	39	–	–	–
Continuing operations (New Gold Fields)	<b>24</b>	14	–	–	–
<b>Total employees</b>	<b>48,120<sup>3</sup></b>	46,378	47,268	51,122	49,325
Discontinued operations (Sibanye Gold)	<b>38,436</b>	38,263	–	–	–
Continuing operations (New Gold Fields)	<b>9,684</b>	8,115	–	–	–
<b>Employee wages and benefits (Rm)</b>	<b>8,790</b>	7,951	7,514	6,612	5,804
Discontinued operations (Sibanye Gold)	<b>5,791</b>	5,592	–	–	–
Continuing operations (New Gold Fields)	<b>2,999</b>	2,359	–	–	–
<b>Fatalities</b>	<b>16</b>	20	18	26	31
Discontinued operations (Sibanye Gold)	<b>16</b>	19	–	–	–
Continuing operations (New Gold Fields)	<b>0</b>	1	–	–	–
<b>Lost-time injury frequency rate (LTIFR)</b>	<b>5.16<sup>4</sup></b>	4.69	4.39	3.91	5.34
Discontinued operations (Sibanye Gold)	<b>6.90</b>	6.71	–	–	–
Continuing operations (New Gold Fields)	<b>0.91</b>	0.35	–	–	–
<b>CO<sub>2</sub> emissions ('000 tonnes)<sup>5</sup></b>	<b>5,112</b>	5,298	5,350	5,507	5,212
Discontinued operations (Sibanye Gold)	<b>3,878</b>	4,094	–	–	–
Continuing operations (New Gold Fields)	<b>1,234</b>	1,203	–	–	–
<b>Electricity consumption (MWh)</b>	<b>5,219,652</b>	5,469,784	5,580,332	5,465,628	5,185,927
Discontinued operations (Sibanye Gold)	<b>3,835,194</b>	4,070,499	–	–	–
Continuing operations (New Gold Fields)	<b>1,384,459</b>	1,399,285	–	–	–
<b>Water withdrawal (million liters)</b>	<b>88,477</b>	78,236	76,326	72,403	75,950
Discontinued operations (Sibanye Gold)	<b>64,788</b>	49,197	–	–	–
Continuing operations (New Gold Fields)	<b>23,688</b>	29,040	–	–	–

<sup>1</sup> Assured sustainability data for the year ended 31 December 2012 are provided on p164 and p165

<sup>2</sup> Higher figure reflects the inclusion of maintenance provisions and operating costs in 2012

<sup>3</sup> This number includes employees at Growth and International Projects for the first time

<sup>4</sup> Including restricted work cases for Australasia; 4.66 if Australasia restricted work cases are excluded

<sup>5</sup> Does not include fugitive mine methane emissions

Figure 6: Group currency and share price statistics

Category	2012	2011	2010	2009	2008
Closing rate US\$1 = R	8.57	8.13	6.75	7.51	9.65
Ordinary share price – high (R)	115.10	143.00	125.90	123.50	135.00
Ordinary share price – low (R)	84.16	95.60	83.80	77.37	54.00
Ordinary share price – year-end (R)	90.95	109.23	120.60	97.98	91.90
Average daily volume of shares traded in JSE (million)	2.3	2.2	2.3	2.9	3.1
American Depository Receipts (ADRs) (US\$) – high	14.56	18.55	18.49	15.82	17.61
American Depository Receipts (ADRs) (US\$) – low	9.74	13.80	11.08	7.94	4.90
American Depository Receipts (ADRs) (US\$) – year end	10.75	16.28	18.13	13.11	9.93
Average daily volume of shares traded in NYSE (million)	4.0	4.0	4.9	6.7	7.5
Number of shares in issue at year end (million)	729.5	723.7	720.8	705.4	653.4
Market capitalisation at year end (Rbn)	75.7	90.2	86.9	69.1	60.1
Total asset value per share (R)	129.76	115.17	98.59	93.96	101.62

Figure 7: Group attributable Mineral Resources and Mineral Reserves

Resources, including growth projects  
and Sibanye

Dec-12 Attributable Gold Resources (199.7 Moz)

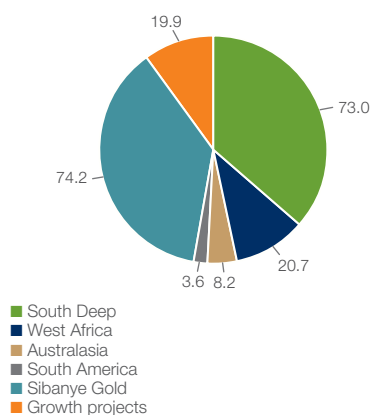
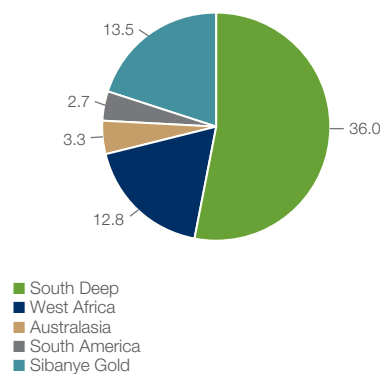
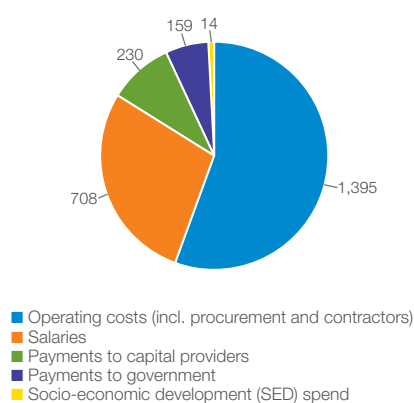
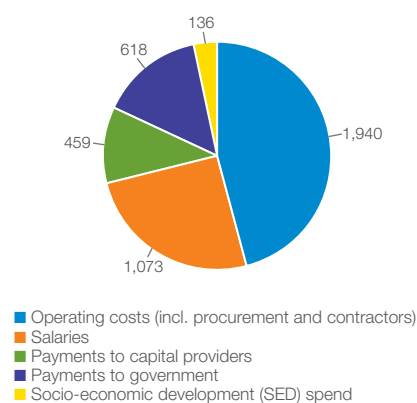
Reserves, including growth projects  
and SibanyeDec-12 Attributable Gold Reserves (68.4 Moz)  
pre-unbundling

Figure 8: Total economic contribution compared between 2008 and 2012 (US\$m – pre-unbundling)

2008 (US\$2,504 million)



2012 (US\$4,226 million)



# 1. Our business





# Contents

1.1 Adding value through exploration, development and mining	Page	10
1.2 Global footprint	Page	11
1.3 Restructuring	Page	14
1.3.1 Separation of mining portfolio	Page	14
1.3.2 Benefits of separation	Page	15
1.3.3 Strategic implications of the unbundling	Page	15
1.4 Vision, values and stakeholder promises	Page	16
1.5 Strategy for the new Gold Fields	Page	17
1.6 Financial overview	Page	18

## Highlights

**14%**

increase in revenue from continuing operations

**87%**

production (post-unbundling) from outside South Africa

**25%**


annual dividend yield for 2012

# 1.1 Adding value through exploration, development and mining

Gold Fields main value-adding activities include:

- **Exploration:** Exploration for gold bearing ore across the world
- **Analysis:** Identification and modelling of opportunities to extract gold bearing ore in an economic way
- **Development:** Design and construction of mines and related infrastructure
- **Mining:** Physical extraction of gold bearing ore from open pits and underground mines
- **Processing:** Physical and chemical processing of gold bearing ore into semi-pure gold doré and copper/gold concentrate. The gold doré is externally refined into gold bullion
- **Marketing:** The sale of refined gold to authorised bullion banks, which then sell it on to central banks, investors, the jewellery industry and technology sectors, as well as the sale of copper/gold concentrate to smelters

It is our aim to carry out these activities, whilst also creating shared value for our key stakeholders including our shareholders, host governments, employees and local communities (p141).

 **Case study:** Gold Fields celebrates 125 years as a leading global gold miner

Gold bullion from the Rand Refinery, South Africa



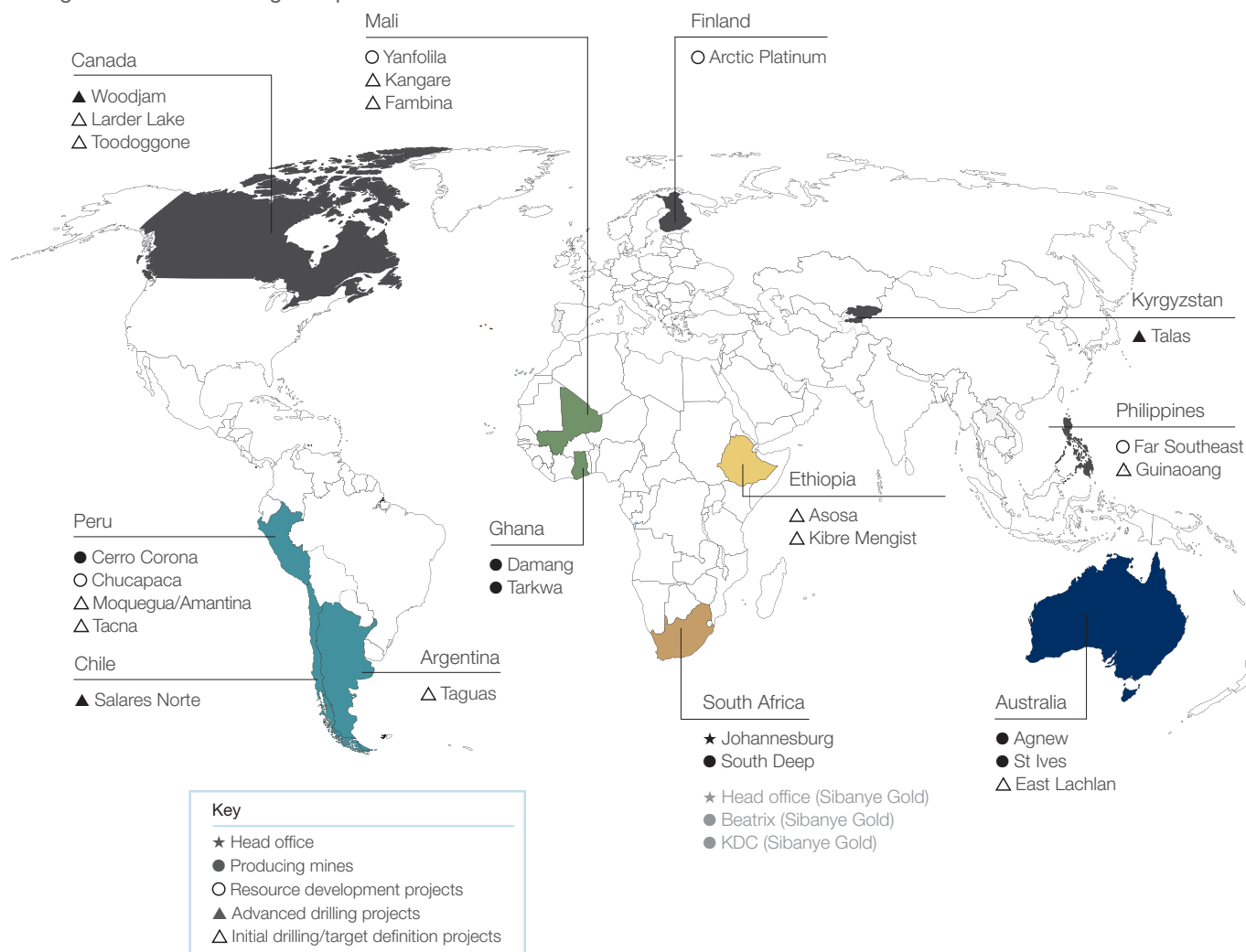
## 1.2 Global footprint

The new Gold Fields is a truly global mining company, with:

- Six producing mines in Australia, Ghana, South Africa and Peru
- Advanced resource development projects and growth projects in Finland, Mali, the Philippines and Peru
- Advanced drilling projects in Canada, Kyrgyzstan and Chile
- Greenfields exploration projects in Argentina, Australia, Canada, Ethiopia, Peru, Mali and the Philippines

In addition, two mines previously owned by Gold Fields – the mature, deep underground KDC and Beatrix mines in South Africa – belong to the now independent entity, Sibanye Gold (p14).

Figure 1.1: Gold Fields global presence





# Our business: Adding value throughout the gold lifecycle

## 2012 Inputs

### Optimising our operations

Operating costs: US\$3.01bn  
Capital expenditure: US\$1.24bn  
Energy: 25,304 TJ  
Water: 88,477ML

### Growing Gold Fields

Near-mine exploration costs: US\$65m  
Greenfields exploration costs: US\$129m (excludes Far Southeast)

### Securing our future

Total employees: 48,120  
Training spend: US\$50m  
Stakeholders engaged: Investors, unions and employees, governments, communities, NGOs (p52)

## The way forward for Gold Fields

- ➔ Safety and wellbeing of our employees
- ➔ Focus on cash generation
- ➔ Deliver South Deep
- ➔ Optimise financial gearing
- ➔ Implement a strong dividend policy
- ➔ Pursue sustainable development

## Exploration



### Discovering gold bearing ore across the world

#### Assets

- 11 early stage greenfields projects across 7 countries
- Exploration offices in 5 countries

#### Adding value

- Internal Greenfields Exploration team to identify, assess and develop opportunities
- Proprietary Global Business Area Rating System to provide in-depth analysis on prospective growth opportunities (p101)

## Analysis



### Identifying and modelling extraction opportunities

#### Assets

- 3 advanced stage greenfields projects
- 4 near-mine projects

#### Adding value

- Internal Concept and Studies team to manage projects through to pre-feasibility
- Proprietary Acquisition and Competitor Intelligence System. This is based on an extensive database to provide real-time information on trends and developments in the gold industry – and enhances our decision-making capabilities

## Development



### Design and construction of mines and infrastructure

#### Assets

- 4 major growth projects in Finland, Mali, Peru and the Philippines
- 'Steady-state' growth pipeline with new mine in construction (South Deep)

#### Adding value

- International Projects team to take projects from pre-feasibility to construction
- Well-established Capital Investment Framework
- Conservative economic hurdles and stringent stage gates



## 2012 Outputs

### Optimising our operations

Attributable profit: US\$691m  
Operating cash flow: US\$1.44bn  
Production: 3.25m ounces  
Tailings/waste rock: 188m tonnes  
CO<sub>2</sub>-e: 6.3m tonnes

### Growing Gold Fields

Change to attributable Mineral  
Reserves: -9 million oz  
Change to attributable Mineral  
Resources: 2 million oz

### Securing our future

Shared value creation:  
Local employment: US\$1.07bn  
Government: US\$618m  
Local suppliers: US\$3.45bn  
SED: US\$136m

## Mining



### Physical extraction of gold bearing ore

#### Assets (post-unbundling)

- 5 x open pit or shallow underground mechanised operations in Australia, Ghana and Peru
- 1 x deep-level, bulk underground mechanised operation in South Africa

#### Adding value

- A solid platform for international growth
- Focus on cash generation and returns to investors
- Fully mechanised, internationally diversified portfolio
- Management of all-in costs using Notional Cash Expenditure

## Processing



### Physical and chemical processing of ore

#### Assets

- Carbon in leach plants (CIL)
- Carbon in pulp plants (CIP)
- Heap leaching facilities

#### Adding value

- **CIL/CIP:**  
For higher grade ores due to higher capital and operating costs
- **Heap leaching:**  
For lower grade ores due to lower capital and operating costs
- **Smelting:**  
Production of doré bars (92% purity)
- **Refining:**  
Doré bars refined into gold bars (99.9% purity)

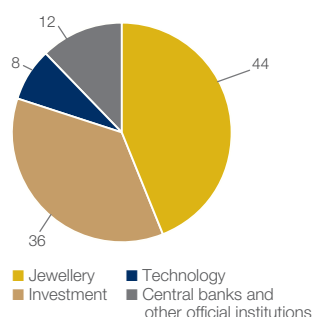
## Marketing

### The sale of refined gold

#### Gold uses

- Gold is sold on to authorised bullion banks
- Bullion banks sell-on to central banks, investors, the jewellery industry and technology sectors

Figure 1.2:  
Gold uses and demand  
(% of global gold demand in 2012)



Source:  
WGC

# 1.3 Restructuring

In February 2013, the previously 100%-owned subsidiary Sibanye Gold (formerly GFI Mining South Africa Proprietary) was launched as an independently managed entity and was listed on the JSE and NYSE. Sibanye Gold owns and manages two mature underground mines that previously fell within the Gold Fields Group – Beatrix and KDC – as well as a number of service companies, such as Gold Fields Protection Services, the Gold Fields Business Leadership Academy, Shared Services and related services.

Both Sibanye Gold and Gold Fields remain South African domiciled companies with primary listings on the JSE and secondary listings of American Depository Receipts on the NYSE. Gold Fields other existing secondary listings on the Dubai, Brussels and Swiss stock exchanges remain unchanged.

## 1.3.1 Separation of mining portfolio

The reorganisation formally separated Gold Fields mines into two distinct portfolios:

- The open pit and shallow underground mines in Australia, Ghana and Peru – as well as the deep underground mechanised South Deep mine in South Africa. These continue to be held by Gold Fields – along with all Growth and International Projects assets
- The mature, deep underground, narrow-vein Beatrix and KDC mines in South Africa, which are now held by Sibanye Gold

These two portfolios had hitherto been managed as part of a single corporate group.

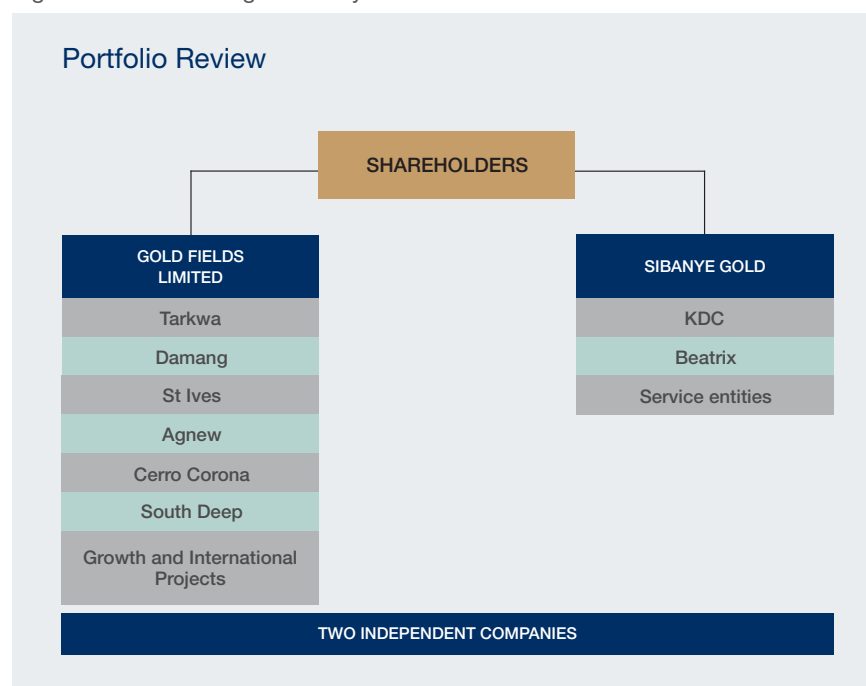
During the second half of 2012 the Group engaged in a comprehensive analysis of Gold Fields operating model and the assets in the portfolio – both producing mines and growth projects. This was in response to the ongoing under-performance of the gold industry, including Gold Fields, when measured against the higher gold price and was driven by Gold Fields commitment to enhancing shareholder returns through:

- Improved leverage to the price of gold
- Enhanced focus on cash flow generation
- Increased emphasis on the delivery of dividends

It was found that both portfolios would benefit from more focused and dedicated executive management (accountable to separate Boards of Directors), whilst also being freed from competing funding and management demands. This was on the basis that these two distinct mine portfolios:

- Are at different stages of their lifecycles
- Require different mining methods, mining skills and mining technology
- Have competing capital requirements

Figure 1.3: Unbundling of Sibanye Gold



The separation of Gold Fields and Sibanye Gold did not result in any significant job losses or changes to conditions of employment.



### 1.3.2 Benefits of separation

The split will enable the new Gold Fields to:

- Give greater attention to cash flow and margin per ounce
- Give greater attention to delivering South Deep and the international asset portfolio
- Create a portfolio that is more resilient to fluctuations in the gold price and exchange rates
- Establish a fit-for-purpose organisational structure given the smaller portfolio

Meanwhile, the separation was aimed at helping Sibanye Gold to:

- Establish its own fit-for-purpose and dedicated management team to focus on Beatrix and KDC
- Ringfence cash flows from its mature, deep underground mines to invest in related development projects or pay out in dividends
- Increase efforts to reverse declining production trends
- Optimise the extraction of its substantial Mineral Resources and Mineral Reserves – and so extend the life of both mines
- Pursue technological solutions to help meet the challenges posed by deep underground, narrow reef mining
- Explore potential synergies to be gained through the consolidation of the South African gold mining sector

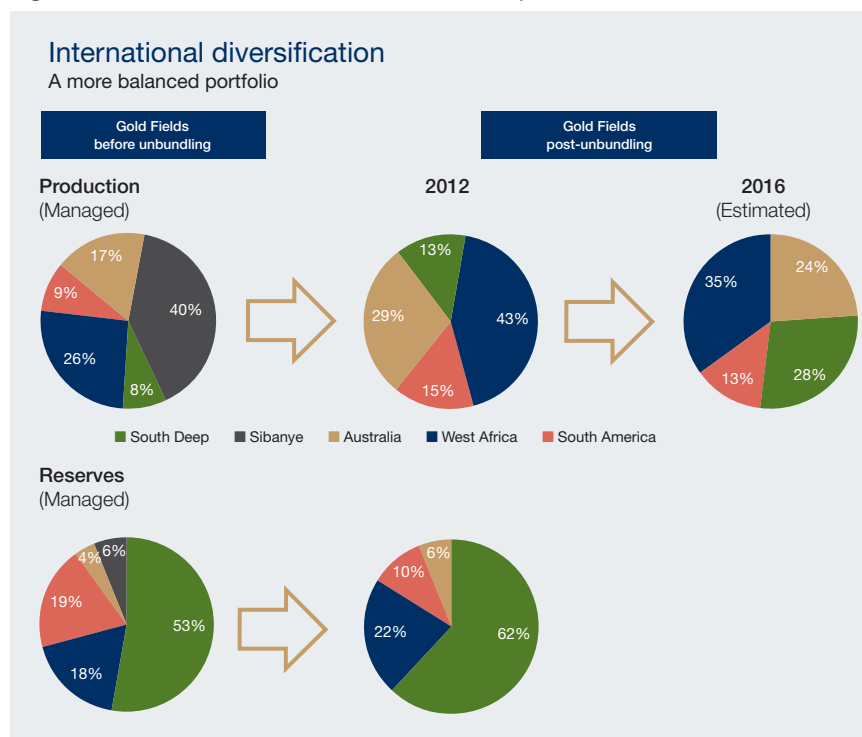
### 1.3.3 Strategic implications of the unbundling

The separation of New Gold Fields and Sibanye Gold will enable the two independently governed and managed companies to focus on their respective strategic goals and to operate more effectively as separate entities, to the benefit of shareholders, employees and communities.

The unbundling enables an initial focus on achieving stable and safe production at Beatrix and KDC. Should this be achieved, Sibanye would be in a position to use the significant cash flow generated by these mines to extend their operational lives – and increase the dividends paid to shareholders.

In addition, Sibanye Gold will seek to add profitable, stable and low-cost operations that provide a high degree of leverage to the gold price – through the selective pursuit of synergistic opportunities for consolidation within the broader South African gold mining sector.

Figure 1.4: New Gold Fields – a more balanced portfolio



## 1.4 Vision, values and stakeholder promises

Our Vision is to be the global leader in sustainable gold mining. We aim to achieve this by applying our six core Values to every decision we make and every action we take (see Figure 1.5).

Figure 1.5: Gold Fields Values

<b>Safety</b>	If we cannot mine safely, we will not mine
<b>Responsibility</b>	We act responsibly and care for the environment, each other, and our stakeholders – our employees, our communities and our shareholders
<b>Honesty</b>	We act with fairness, integrity, honesty and transparency
<b>Respect</b>	We treat each other with trust, respect and dignity
<b>Innovation</b>	We encourage innovation and entrepreneurship
<b>Delivery</b>	We do what we say we will do

In addition, our Vision is supported by our five related Stakeholder Promises:

- **A quest for Zero Harm:** If we cannot mine safely, we will not mine. We seek to eliminate all harm to our people and to all contractors working on our sites
- **A great place to work:** Motivated and loyal employees act as ambassadors for us. They enable safe production and exceptional value creation. Talent is scarce and the ability to attract and retain top talent is a key competitive advantage
- **The most trusted and valued mining partner:** We build strong relationships with key stakeholders in the societies in which we operate. We are committed to measuring the contributions we make and key stakeholders' satisfaction with us, and to creating and sharing value with them to ensure we leave an enduring, positive legacy
- **A quality portfolio of productive mines and assets under exploration and development:** The quality of our asset portfolio is key to our success – but what is most important is that we maximise the value that this can generate and that we pursue asset returns rather than ounces in production
- **The best return on gold:** In order to be an appealing long-term investment we must deliver leverage to the gold price and attractive returns relative to our peers

Figure 1.6: Dissecting our Vision

<b>“The global leader ...”</b>	<ul style="list-style-type: none"> <li>• We seek to create the greatest enduring value from gold – for our investors, employees, host governments and communities</li> <li>• We are the gold industry leader in understanding and shaping our stakeholders' needs</li> <li>• We consistently deliver what we promise across all our operations</li> </ul>
<b>“... in sustainable ...”</b>	<ul style="list-style-type: none"> <li>• If we cannot mine safely, we will not mine</li> <li>• We will enhance our operating environment wherever we can and avoid or rehabilitate significant mining-related damage</li> <li>• We will leave a legacy of shared value with our communities, our people and host governments – whilst measuring both our impact and stakeholder perceptions</li> </ul>
<b>“... gold mining.”</b>	<ul style="list-style-type: none"> <li>• We will remain a gold miner (whilst mining other gold-related metals)</li> <li>• We will continue to believe in the value and prospects of gold – and will not hedge</li> </ul>

Gold pouring at Tarkwa, Ghana



# 1.5 Strategy for the new Gold Fields

During 2012, Gold Fields undertook a major strategy review. This was marked by the replacement of our previous goal of having 5 million ounces in production or in development by 2015, to one focused on cash generation. Gold Fields thus aims to:

- Deliver improved leverage and exposure to the price of gold, through a profitable, globally diversified production portfolio
- Adopt a disciplined approach to growth and project development

Figure 1.7: The Way Forward for Gold Fields

Strategy	Implementation
<b>Focus on cash generation</b>	Review mine and project portfolio to optimise our current and future cash generation (Portfolio Review)
	Understand and manage all-in costs using Notional Cash Expenditure (NCE)
	Prioritise low risk, high return near-mine growth opportunities
	Pursue greenfields growth opportunities only if they offer attractive returns
<b>Deliver South Deep</b>	Transition from construction to ore body development and production ramp-up
	Achieve production of 700,000 oz a year by 2016
<b>Optimise financial gearing</b>	Leverage balance sheet for growth on a per share basis
<b>Implement a strong dividend policy</b>	Prioritisation of dividends so they have first call on cash flows
	Pay out 25% – 35% of normalised earnings in dividends
<b>Pursue sustainable development</b>	Pursue Zero Harm
	Focus on the long-term sustainability of the business
	Create shared value for the countries and regions in which we operate

This strategy will continue to be supported by three strategic pillars:

Figure 1.8: Strategic pillars





# 1.6 Financial overview

## Summarised financial statements

The summary of the financial statements following below comprises the consolidated income statement, statements of financial position and cash flow for the year to 31 December 2012 compared with the year to 31 December 2011. These statements represent the summarised financial performance of the Gold Fields Group for 2012, including those from the mines which were unbundled into Sibanye Gold post the 2012 year-end.

In our 2012 Annual Financial Report, which is contained on the CD attached to this Integrated Annual Review, as well as on our website ([www.goldfields.co.za](http://www.goldfields.co.za)), full details of the results are provided including the separation out into continuing operations (international operations and South Deep – the new Gold Fields) and discontinued operations (Sibanye Gold).

Some of the highlights from the consolidated statements include:

- Group attributable production decreased by 7% from 3.49 million ounces in 2011 to 3.25 million ounces for 2012. The continuing operations reported almost unchanged production of 2.03 million ounces (2011: 2.04 million ounces), while production at discontinued operations fell from 1.46 million ounces to 1.21 million ounces, largely as a result of the illegal strikes at KDC and Beatrix
- Group revenue (continued and discontinued operations) improved from R41.88 billion in 2011 to R45.47 billion in 2012, but in US dollar terms declined from US\$5.80 billion in 2011 to US\$5.55 billion in 2012. Revenue from continuing operations in 2012 increased by 14% to R28.92 billion (US\$3.53 billion), while revenue at the discontinued operations was virtually unchanged at R16.55 billion
- Net operating costs for the Group (continued and discontinued operations) increased from R20.77 billion (US\$2.88 billion) in 2011 to R24.49 billion (US\$2.99 billion) in 2012. Net operating costs for continuing operations increased by 25% from R10.90 billion (US\$1.51 billion) to R13.62 billion (US\$1.66 billion) in 2012, although half of this increase was attributable to the exchange rate effect of the weaker rand. At the discontinued operations costs rose by 10% to R10.87 billion (US\$1.33 billion)
- Total cash costs for continuing operations increased from R161,548/kg (US\$696/oz) in 2011 to R206,531/kg (US\$784/oz) in 2012 due to the drop in gold sales and increase in operating costs. At the discontinued operations they increased by 30% to R285,851/kg (US\$1,086/oz)
- The Notional Cash Expenditure (NCE) margin for the Group (continued and discontinued operations) declined from 25% in 2011 to 17% in 2012 comprising decreases in the margin for continuing operations to 18% (2011: 27%) and discontinued operations to 16% (2011: 23%)
- Group profit attributable to owners of the Company (continued and discontinued operations) decreased by 19% from R7.03 billion (or 973 SA cents per share) for 2011 to R5.66 billion (or 778 SA cents per share) for 2012. In US dollar terms the decrease for the Group was from US\$973 million in 2011 to US\$691 million in 2012
- Normalised earnings for the Group (continued and discontinued operations) declined from R7.24 billion (US\$1,00 billion) in 2011 to R6.83 billion (US\$834 million) in 2012. At the continuing operations normalised earnings amounted to R3.67 billion (US\$448 million) in 2012 compared with earnings of R4.59 billion (US\$636 million) in 2011, while at the discontinued operations they fell to R2.32 billion (US\$283 million) from R2.73 billion (US\$378 million)
- Group cash flow (continued and discontinued operations) from operating activities declined from R14.21 billion (US\$1.97 billion) in 2011 to R8.86 billion (US\$1.08 billion) in 2012 due to lower profitability, higher royalty and tax payments as well as an increase in working capital
- Total Group capital expenditure (continued and discontinued operations) rose from R9.99 billion (US\$1.38 billion) in 2011 to R13.06 billion (US\$1.59 billion) in 2012. At the discontinued operations it rose from R2.91 billion (US\$403 million) in 2011 to R3.07 billion (US\$375 million) in 2012, while at continuing operations it rose from R7.29 billion (US\$1.01 billion) to R9.95 billion (US\$1.21 billion) over the same period. At South Deep capital expenditure increased from R1.98 billion (US\$274 million) to R2.58 billion (US\$315 million)
- Net debt for continuing operations increased from R9.46 billion (US\$1.16 billion) at the end of 2011 to R10.82 billion (US\$1.26 billion) at the end of 2012. Net debt for discontinued operations amounted to R3.80 billion (US\$443 million) at the end of 2012

## Consolidated income statement

For the year ended 31 December 2012

Figures in millions unless otherwise stated

UNITED STATES DOLLAR			SOUTH AFRICAN RAND	
2011	2012		2012	2011
		<b>CONTINUING OPERATIONS</b>		
3,499.1	<b>3,530.6</b>	Revenue	<b>28,915.8</b>	25,263.7
(1,978.0)	<b>(2,162.8)</b>	Cost of sales	<b>(17,713.9)</b>	(14,281.2)
1,521.1	<b>1,367.8</b>	<b>Net operating profit</b>	<b>11,201.9</b>	10,982.5
11.7	<b>16.3</b>	Investment income	<b>133.9</b>	84.7
(57.8)	<b>(55.3)</b>	Finance expense	<b>(452.8)</b>	(417.3)
4.2	<b>(0.5)</b>	(Loss)/gain on financial instruments	<b>(4.5)</b>	30.3
9.1	<b>(13.8)</b>	(Loss)/gain on foreign exchange	<b>(112.7)</b>	65.8
(27.0)	<b>(15.6)</b>	Other costs	<b>(126.7)</b>	(195.7)
(33.4)	<b>(45.5)</b>	Share-based payments	<b>(372.5)</b>	(241.3)
(115.2)	<b>(128.5)</b>	Exploration expense	<b>(1,052.7)</b>	(832.1)
(17.4)	<b>(44.1)</b>	Feasibility and evaluation costs	<b>(361.2)</b>	(125.6)
(0.8)	<b>(49.7)</b>	Share of results of associates after taxation	<b>(407.4)</b>	(5.9)
(24.0)	<b>(50.8)</b>	Restructuring costs	<b>(416.3)</b>	(173.1)
(10.0)	<b>(98.2)</b>	Impairment of investments and assets	<b>(803.9)</b>	(71.9)
12.8	<b>27.6</b>	Profit on disposal of investments	<b>225.9</b>	92.6
(1.0)	<b>0.3</b>	Profit/(loss) on disposal of property, plant and equipment	<b>2.1</b>	(7.1)
1,272.3	<b>910.0</b>	<b>Profit before royalties and taxation</b>	<b>7,453.1</b>	9,185.9
(109.6)	<b>(116.7)</b>	Royalties	<b>(955.9)</b>	(791.5)
1,162.7	<b>793.3</b>	<b>Profit before taxation</b>	<b>6,497.2</b>	8,394.4
(429.5)	<b>(454.0)</b>	Mining and income tax	<b>(3,718.2)</b>	(3,100.6)
733.2	<b>339.3</b>	<b>Profit from continuing operations</b>	<b>2,779.0</b>	5,293.8
		<b>DISCONTINUED OPERATIONS</b>		
348.0	<b>384.9</b>	<b>Profit from discontinued operations, net of tax</b>	<b>3,152.1</b>	2,512.5
1,081.2	<b>724.2</b>	<b>Profit for the year</b>	<b>5,931.1</b>	7,806.3
		<b>Profit attributable to:</b>		
973.2	<b>690.9</b>	<b>Owners of the parent</b>	<b>5,658.1</b>	7,026.7
625.1	<b>306.1</b>	– Continuing operations	<b>2,506.6</b>	4,513.3
348.1	<b>384.8</b>	– Discontinued operations	<b>3,151.5</b>	2,513.4
108.0	<b>33.3</b>	<b>Non-controlling interest holders</b>	<b>273.0</b>	779.6
108.1	<b>33.2</b>	– Continuing operations	<b>272.4</b>	780.5
(0.1)	<b>0.1</b>	– Discontinued operations	<b>0.6</b>	(0.9)
1,081.2	<b>724.2</b>		<b>5,931.1</b>	7,806.3
		<b>Earnings per share attributable to ordinary shareholders of the Company:</b>		
87	<b>42</b>	Basic earnings per share from continuing operations – cents	<b>345</b>	625
48	<b>53</b>	Basic earnings per share from discontinued operations – cents	<b>433</b>	348
86	<b>42</b>	Diluted basis earnings per share from continuing operations – cents	<b>343</b>	618
47	<b>53</b>	Diluted basis earnings per share from discontinued operations – cents	<b>431</b>	344

Exchange rate: R8.19/US\$ (2011: R7.22/US\$).

# Financial overview continued

## Consolidated statement of financial position

At 31 December 2012 (pre-unbundling)

Figures in millions unless otherwise stated

UNITED STATES DOLLAR			SOUTH AFRICAN RAND	
2011	2012		2012	2011
8,635.4	<b>7,215.2</b>	<b>ASSETS</b>		
		<b>Non-current assets</b>	<b>61,832.7</b>	70,206.0
7,710.1	<b>6,276.5</b>	Property, plant and equipment	<b>53,789.1</b>	62,682.8
548.5	<b>520.3</b>	Goodwill	<b>4,458.9</b>	4,458.9
–	<b>96.3</b>	Heap leach inventories	<b>825.3</b>	–
18.4	<b>232.1</b>	Investment in associates	<b>1,988.9</b>	149.6
82.5	<b>38.4</b>	Investments	<b>329.2</b>	671.0
161.5	<b>10.0</b>	Environmental trust funds	<b>85.3</b>	1,313.3
114.4	<b>41.6</b>	Deferred taxation	<b>356.0</b>	930.4
1,731.3	<b>3,875.5</b>	<b>Current assets</b>	<b>33,212.9</b>	14,076.0
471.1	<b>427.8</b>	Inventories	<b>3,666.4</b>	3,830.1
365.1	<b>450.5</b>	Trade and other receivables	<b>3,861.0</b>	2,968.5
32.9	<b>2.0</b>	Deferred stripping costs	<b>16.7</b>	267.4
118.2	<b>7.0</b>	Financial instruments	<b>60.0</b>	961.0
744.0	<b>606.3</b>	Cash and cash equivalents	<b>5,195.6</b>	6,049.0
–	<b>2,381.9</b>	Assets held for distribution	<b>20,413.2</b>	–
10,366.7	<b>11,090.7</b>	<b>Total assets</b>	<b>95,045.6</b>	84,282.0
		<b>EQUITY AND LIABILITIES</b>		
5,767.1	<b>5,992.3</b>	Equity attributable to owners of the parent	<b>51,353.5</b>	46,886.9
55.5	<b>55.9</b>	Share capital	<b>364.8</b>	361.9
4,542.4	<b>4,544.0</b>	Share premium	<b>31,177.5</b>	31,164.4
(605.5)	<b>(700.7)</b>	Other reserves	<b>3,773.2</b>	2,065.5
1,774.7	<b>2,093.1</b>	Retained earnings	<b>16,038.0</b>	13,295.1
144.5	<b>210.5</b>	Non-controlling interest	<b>1,803.9</b>	1,174.6
5,911.6	<b>6,202.8</b>	<b>Total equity</b>	<b>53,157.4</b>	48,061.5
2,971.3	<b>2,687.3</b>	<b>Non-current liabilities</b>	<b>23,029.9</b>	24,156.9
1,202.6	<b>595.8</b>	Deferred taxation	<b>5,106.4</b>	9,777.5
1,360.7	<b>1,828.8</b>	Borrowings	<b>15,672.9</b>	11,062.3
408.0	<b>262.7</b>	Provisions	<b>2,250.6</b>	3,317.1
1,483.8	<b>2,200.6</b>	<b>Current liabilities</b>	<b>18,858.3</b>	12,063.6
672.4	<b>538.4</b>	Trade and other payables	<b>4,614.4</b>	5,467.4
264.4	<b>180.9</b>	Taxation and royalties	<b>1,549.7</b>	2,149.1
547.0	<b>40.0</b>	Current portion of borrowings	<b>342.8</b>	4,447.1
–	<b>1,441.3</b>	Liabilities held for distribution	<b>12,351.4</b>	–
10,366.7	<b>11,090.7</b>	<b>Total equity and liabilities</b>	<b>95,045.6</b>	84,282.0

Exchange rate: R8.57/US\$ (2011: R8.13/US\$).

## Consolidated statement of cash flows

For the year ended 31 December 2012

Figures in millions unless otherwise stated

UNITED STATES DOLLAR			SOUTH AFRICAN RAND	
2011	2012		2012	2011
1,947.9	<b>1,065.6</b>	<b>Cash flows from operating activities</b>	<b>8,864.2</b>	14,213.3
1,827.1	<b>1,583.6</b>	Cash generated by operations	<b>12,969.6</b>	13,191.9
10.7	<b>15.8</b>	Interest received	<b>129.8</b>	77.6
0.5	–	Dividends received	<b>0.4</b>	3.4
(0.1)	–	Post-retirement healthcare payments	–	(0.9)
(50.2)	<b>(120.0)</b>	Change in working capital	<b>(983.2)</b>	(362.4)
1,788.0	<b>1,479.4</b>	Cash generated by operating activities	<b>12,116.6</b>	12,909.6
(60.9)	<b>(68.6)</b>	Interest paid	<b>(561.9)</b>	(439.7)
(97.2)	<b>(112.4)</b>	Royalties paid	<b>(922.5)</b>	(701.6)
(299.3)	<b>(334.1)</b>	Taxation paid	<b>(2,742.4)</b>	(2,148.6)
1,330.6	<b>964.3</b>	Net cash from operations	<b>7,889.8</b>	9,619.7
(219.8)	<b>(378.2)</b>	Dividends paid	<b>(2,963.0)</b>	(1,552.0)
(174.9)	<b>(364.2)</b>	– Ordinary shareholders	<b>(2,846.3)</b>	(1,229.4)
(41.9)	<b>(11.5)</b>	– Non-controlling interests holders	<b>(96.7)</b>	(301.2)
(3.0)	<b>(2.5)</b>	– South Deep BEE dividend	<b>(20.0)</b>	(21.4)
1,110.8	<b>586.1</b>	Cash generated by continuing operations	<b>4,926.8</b>	8,067.7
837.1	<b>479.5</b>	Cash generated by discontinued operations	<b>3,937.4</b>	6,145.6
(2,539.1)	<b>(1,680.2)</b>	<b>Cash flows from investing activities</b>	<b>(13,705.3)</b>	(17,956.7)
(1,008.4)	<b>(1,240.1)</b>	Additions to property, plant and equipment	<b>(10,156.3)</b>	(7,280.6)
3.1	<b>1.3</b>	Proceeds on disposal of property, plant and equipment	<b>10.6</b>	22.7
(382.3)	<b>(0.8)</b>	La Cima non-controlling interest buy-out	<b>(7.3)</b>	(2,612.5)
(667.0)	–	Ghana non-controlling interest buy-out	–	(4,519.7)
(6.3)	–	South Deep non-controlling interest buy-out	–	(50.7)
–	<b>(10.0)</b>	Talas non-controlling interest buy-out	<b>(83.1)</b>	–
(66.0)	<b>(110.0)</b>	Payment for FSE	<b>(833.8)</b>	(534.6)
(7.0)	–	Payment for Bezant	–	(55.4)
(0.1)	<b>(0.8)</b>	Purchase of investments	<b>(6.5)</b>	(0.7)
13.7	<b>65.4</b>	Proceeds on disposal of investments	<b>525.6</b>	98.9
(2.7)	<b>(3.4)</b>	Environmental trust funds and rehabilitation payments	<b>(27.4)</b>	(19.2)
(2,123.0)	<b>(1,298.4)</b>	Cash utilised in continuing operations	<b>(10,578.2)</b>	(14,951.8)
(416.1)	<b>(381.8)</b>	Cash utilised in discontinued operations	<b>(3,127.1)</b>	(3,004.9)
550.8	<b>504.8</b>	<b>Cash flows from financing activities</b>	<b>4,072.1</b>	3,663.0
31.0	<b>27.7</b>	Loans received from non-controlling interest holders	<b>229.6</b>	225.4
1,111.2	<b>936.3</b>	Loans raised	<b>7,351.9</b>	7,786.1
(597.9)	<b>(975.9)</b>	Loans repaid	<b>(7,745.4)</b>	(4,395.6)
6.5	<b>2.0</b>	Proceeds from the issue of shares	<b>16.0</b>	47.1
550.8	<b>(9.9)</b>	Cash (utilised in)/generated by continuing operations	<b>(147.9)</b>	3,663.0
–	<b>514.7</b>	Cash generated by discontinued operations	<b>4,220.0</b>	–
(40.4)	<b>(109.8)</b>	Net cash utilised	<b>(769.0)</b>	(80.4)
(25.1)	<b>21.4</b>	Effect of exchange rate fluctuation on cash held	<b>338.5</b>	665.6
809.5	<b>744.0</b>	Cash and cash equivalents at beginning of the year	<b>6,049.0</b>	5,463.8
744.0	<b>655.6</b>	<b>Cash and cash equivalents at end of the year</b>	<b>5,618.5</b>	6,049.0



# 2. Leadership



Hauling ore at Cerro Corona, Peru

# Contents

2.1 Vision of the Chair	Page	24
2.1.1 Company performance	Page	24
2.1.2 External impacts on the mining sector	Page	24
2.1.3 Appreciation	Page	25
2.2 CEO report	Page	26
2.2.1 Introduction	Page	26
2.2.2 2012 performance review	Page	26
2.2.3 A new strategic paradigm for Gold Fields	Page	30
Principle 1: Focus on cash returns, not ounces	Page	30
Principle 2: Prioritising near-mine growth opportunities	Page	31
Principle 3: Pursue greenfields projects only for superior returns	Page	31
Principle 4: 'Dividend first' policy	Page	32
Principle 5: Enduring commitment to business sustainability	Page	32
2.2.4 A message of thanks	Page	33

## Highlights

# '24/7/365'

New operating model at South Deep

# 3<sup>rd</sup>

Place in the mining category of the 2012  
Dow Jones Sustainability Index

## 2.1 Vision of the Chair

Dear Shareholders,

This is my first report as Chair of Gold Fields after four years as a non-executive independent director of the company. I am in an extremely privileged position to lead this company at a time when it is embarking on the next critical phase of its rich and eventful 125 year history.

The Gold Fields board and its management spent much of last year analysing, debating and committing to a new way forward for the company. This was in response to the ongoing underperformance of gold industry share prices, including Gold Fields, against the gold price – and the inability of the industry to deliver the full benefits of the decade-long gold bull market.

This was illustrated in Gold Fields share price performance last year. Continuing the trend from previous years the price declined from around R111/share in the beginning of 2012 to R91 by year-end. It reflected similar price movements of our peers, despite a stable gold price during 2012. The bearish sentiment towards gold counters continued into early 2013.

I believe that CEO Nick Holland's analysis of the state of gold mining at the Melbourne Mining Club in July 2012 has marked a critical juncture in the development of the sector and, more particularly, in that of Gold Fields. What followed was a critical analysis of all aspects of Gold Fields business through a substantive portfolio review of our operational and growth assets.

The unbundling of the KDC and Beatrix mines into Sibanye Gold – and its subsequent listing on the JSE and New York Stock Exchange – is the most obvious consequence of the review. But all areas of the business have been impacted, which are outlined in detail in this Integrated Annual Review. What is emerging is a more focused, leaner mid-tier operator dedicated to the generation of solid cash returns. The new driver is to offer current and future investors a healthy return on their risk capital.

We believe this deal offers significant benefits to Sibanye Gold too. Its destiny is now in its own hands, determined by its dedicated and specialised management team.

This management will now have access to the substantial cash flows generated by Beatrix and KDC, and will be unencumbered by the demands of a globally-focused holding company. Sibanye Gold also represents a suitable and willing catalyst for the long-overdue consolidation of the South African gold mining sector – something I believe is essential for the industry's long-term survival.

Critically, Gold Fields emerged from the review with a commitment to five key guiding principles, which will underpin the company's strategy going forward. The principles, which are detailed by our CEO in his report, are:

- Focus on cash generation by reviewing the portfolio to optimise cash generation; prioritise low risk, high return near-mine growth opportunities; and pursue only high yielding greenfields projects
- Deliver the South Deep mine to full production of around 700,000 ounces a year by 2016
- Leverage the balance sheet for growth on a per share basis
- Pay-out 25% to 35% of normalised earnings in the form of dividends
- Focus on the long-term sustainability of the business which entails, inter alia, the health and safety of our people, respectful environmental stewardship, and the creation and equitable sharing of value for all our stakeholders

The Board believes that this strategy is the right one for Gold Fields. While the market has yet to reward this new focus, we believe investors will do so once it is reflected in Gold Fields bottom line performance.

### 2.1.1 Company performance

Last year offered one of the most difficult production environments confronted by the mining industry in South Africa, including Gold Fields. The aggregate decline of 30% in output experienced by Beatrix and KDC in the fourth quarter – amid a wave of illegal, nationwide strikes by mineworkers – was largely responsible for the company's reduced annual attributable production of 3.25 million ounces, as well as a slight decline in earnings. It masked what was otherwise a strong second-half of the year in terms of the production and

cost performance of our operations outside of South Africa, with strong margins achieved at our Agnew and Cerro Corona mines in particular.

I would also like to single out some significant achievements at South Deep. First, the mine completed – within budget and on time – the installation of the fixed infrastructure required to support the build-up to full production of 700,000 ounces a year by 2016. Secondly, Gold Fields signed a landmark agreement with its trade unions to launch a new '24/7/365' operating model, in line with best practice mechanised underground operations across the world.

### 2.1.2 External impacts on the mining sector

Each country's mineral resources are finite; governments justifiably want to see a fair proportion of the benefits of the extraction of these resources before they are exhausted. Communities in the vicinity of mining operations want to see that mining delivers development, employment and indirect economic multiplier effects – including the creation of new businesses and markets. We understand this – and have become a lot more transparent about what we are doing in these respects – and how we are doing it.

Matching the demands of our host governments and societies with the need to provide investors with a healthy return requires a delicate balancing act. Given the rise of resource nationalism and anti-mining sentiment in many high-profile mining geographies, this balancing act is becoming increasingly difficult. Indeed I fear that the pendulum has swung too far against the industry as a result of rising taxes, tougher ownership regulations, heightened community activism as well as a more radical labour relations environment – just to mention a few. Investors are shying away from the sector, as demonstrated by the poor performance of mining equities over the past few years.

Gold Fields is facing these issues in most of the jurisdictions it operates in and has developed a number of strategies to counter them. These range from extensive stakeholder engagement strategies with governments, labour and communities, to substantive sustainable development programmes.



The situation in South Africa, where we are domiciled and which is home to our South Deep mine, deserves particular attention.

South Africa has among the richest mineral resources in the world and yet more than half of the country's platinum mines and about a third of its gold mines are operating at a loss. This is partly due to the cyclical nature of demand and relatively stagnant precious metal prices. But it is the underlying, structural changes to the business that the mining industry is most concerned about. Over the past four years, costs in South Africa's mining sector have risen at twice the pace of inflation. For example, average wages in the industry have risen by 12% a year since 2007. Over the same period other commodity input costs have also escalated sharply, led by a 237% increase in electricity prices since 2009.

In this context, the illegal and violent strikes by mineworkers last year had an impact that went beyond lost production and earnings. They led to a significant loss of life, as well as a breakdown of trust and common purpose between employees and employers, which will require significant effort to restore. Likewise, it had a significant impact on the South African economy, which suffered not only from a marked loss of investor confidence, but also from a decline in tax revenue. The mining sector historically contributes nearly one-fifth of South Africa's corporate tax receipts, which are essential to fund government services and expand social welfare.

What we need now is sound leadership from government, industry and organised labour, based on a sober review of last year's events and the charting of a clear, sustainable future for the industry. We in the mining industry cannot achieve this on our own. Labour and government need to work with us to put South Africa back on track to being a competitive investment destination. But such collaboration needs to take place on the basis of a common understanding of the economic realities facing the sector, namely increasing depth, declining grades, productivity declines, as well as unaffordable increases in input costs.

Should the industry have to continue to solely bear the brunt of the collective impact of these headwinds, further declines in mining output and unavoidable job losses are inevitable. If mining companies are to continue to offer benefits to communities, employees and the fiscus, they will require new investment. This will not be forthcoming in the current environment.

In summary, the key stakeholders in the mining industry – both in South Africa and in the other mining jurisdictions in which we operate – need to do the following for mining to thrive:

- Governments worldwide need to provide an effective, clear and consistent policy and regulatory framework, adequate infrastructure and the rule of law
- Our workforce and their trade unions need to ensure that their demands are in line with inflation and are supported by improved productivity
- The mining industry must honour its commitment to all stakeholders in terms of sustainable development, transformation and, in South Africa, the delivery of its social and labour plans. As companies, we need to create shared value for communities, governments and other key stakeholders in the areas in which we operate

Gold Fields is fundamentally dedicated to fulfilling obligations outlined above and will play its role in driving co-operation forward, but we can only do so in an honest, constructive partnership with our host governments, communities and trade unions.



Chair Cheryl Carolus

### 2.1.3 Appreciation

I want to pay tribute to my predecessor Dr Mamphela Ramphela, whom I replaced in mid-February 2013. We thank Dr Ramphela for her sterling work that ensured that Gold Fields optimises value for shareholders, and that we are a good employer and a solid corporate citizen.

I would also like to express my sincere appreciation to my other fellow directors for their energetic and valuable contributions to Board deliberations. We owe a special thanks to Sello Moloko, who retired from the Board on 31 December 2012 to chair the Sibanye Gold Board. We wish him and Sibanye Gold the very best.

Finally, I would like to thank our CEO Nick Holland, his management team and all Gold Fields and Sibanye Gold employees for their hard work in what was an extremely difficult year. But we emerged from it in a stronger position – and with our unwavering commitment to Gold Fields and its Values intact.

Cheryl Carolus  
Chair

26 March 2013



## 2.2 CEO report

### 2.2.1 Introduction

The last year has seen a great deal of change, much of which will play an instrumental role in the future success of Gold Fields – both in the short- and long-term. The first of these has been the implementation of a new strategy that is firmly focused on cash generation – and providing investors with leverage to the price of gold. This was the core message in my keynote speech to the Melbourne Mining Club on 31 July 2012 – and marks a departure from our previous goal of having 5 million ounces of gold in production or development by 2015. It also marks our determination to only pursue production growth where it is supported by attractive cash returns.

This shift in focus has had a major operational and strategic impact. It has meant that we have phased out marginal production at our mines in Australia and Ghana and are focusing on the pursuit of low-risk, high-return near-mine growth opportunities principally at our Cerro Corona, Damang and Tarkwa mines. Beyond this, all greenfields growth opportunities will be subject to strict commercial stage-gates to ensure the potential is robustly assessed.

Strategically it has led us to unbundle our mature underground mines in South Africa. These will now be managed by the newly independent Sibanye Gold, which I believe will be in a strong position to ensure a positive and sustainable future for the Beatrix and KDC mines.

Our links to, and foundation in, South Africa remain strong. It is home to our most important growth asset: the developing South Deep gold mine. During 2012, we marked two major milestones in the development of this world-class, deep underground mechanised mine.

The first was the completion of all the major infrastructure installations required to take this mine to its full production target of 700,000 ounces by 2016.

The second was the agreement – after long negotiations – of a new, landmark ‘24/7/365’ operating model, backed by a range of high-impact and progressive incentives for employees. Other than the need to continue to de-stress and develop the underground workings, South Deep now has everything in place to ensure that it fulfils its potential – not only as the model for the industry in terms of production, technology, safety and transformation, but also as the jewel in Gold Fields crown.

### 2.2.2 2012 performance review

If one looks at the results for 2012, you will find that this was indeed a year of two contrasting halves.

During the first half the South African mines had a very steady performance, but in the second half they faced two significant challenges which, in a large part, caused Group attributable production to decline by 7% to 3.25 million gold equivalent ounces – below where we wanted to be.

The first significant challenge was a tragic fire that took place at the Ya Rona shaft at KDC during the third quarter – which resulted in the death of five employees and accounted for 30,000 ounces in lost production. The second was the industry wide illegal strikes in the South African mining industry which affected both KDC and Beatrix gold mines during the third and fourth quarters – accounting for 145,000 ounces in lost production. Had these two events not taken place, our production would have been similar to our 2011 performance (3.49 million ounces).

It is also frustrating to note that the events in South Africa in the second half of the year have obscured what was looking to be one of our key achievements for 2012 – the hard-won stabilisation of production at Beatrix and KDC during the first half of the year, when the production decline at these operations was arrested for the first time in eight years.

Our international operations reported a decline in attributable production for 2012 of 1% to 2.03 million gold-equivalent ounces from 2.04 million ounces in 2011. This was partly due to an expected decline in grade at Cerro Corona, as well as a reduction in production of Damang, as the mine transitions to new ore sources. But significant remedial actions saw a strong turnaround in operational performances during the second half of the year with the international operations increasing their combined managed production by 11% to 496,000 ounces in the December quarter.

Although our total cash cost rose from US\$795/oz to US\$894/oz, this reflected the impact of both the strikes and the fire – which reduced our production without having a commensurate impact on our fixed operational costs. Nonetheless, our cost controls have been strong in all of our regions, somewhat mitigating the impact of the events referred to above as well as the effect of general mining cost inflation.

These events also partly account for an increase in our Notional Cash Expenditure (NCE) from US\$1,173/oz to US\$1,376/oz and a decrease in our NCE margin from 25% to 17% – although we can also take into consideration the fact that 2012 marked the apex of our planned capital expenditure on our major South Deep project at R2.58 billion (US\$315 million). From now on, this figure can be expected to fall.

Other factors that contributed to the lower NCE margin included an increase in the strip ratio at Tarkwa along with significant pre-stripping at Damang as we bring to account the mine's Mineral Resource potential. In addition, significant capital was expended on the acquisition of a mining fleet linked to the conversion to owner-mining at the open pits at the St Ives mine.

Net attributable earnings for the Group amounted to R5.66 billion (US\$691 million) in 2012, compared with net earnings of R7.03 billion (US\$973 million) in 2011, while normalised earnings declined to R6.83 billion (US\$834 million) for 2012 from R7.24 billion (US\$1.00 billion) in 2011. A total dividend for the year of 235 SA cents was declared, compared with 330 SA cents in 2011.

The benefits of our performance go beyond the bottom line. Our total economic contribution in 2012 was US\$4.23 billion (2011: US\$3.77 billion), while we raised our socio-economic development spending from US\$54 million to US\$136 million in 2012.

## Significant challenges during 2012

### *Labour unrest in South Africa*

As with many mining companies operating in South Africa, 2012 has not been an easy year. The defining event was the wave of illegal strikes that struck the sector during the second part of the year – and the deadly confrontation between striking workers and the police at Lonmin's Marikana platinum mine on 16 August 2012. This raised serious concerns about underlying social tensions and labour relations frameworks, not only within the mining sector – but in South Africa as a whole. As noted above, related strikes at our Beatrix and KDC mines resulted in the loss of around 145,000 ounces in production, raised the spectre of serious violence, and threatened to seriously undermine the existing Collective Wage Agreement (CWA) for the gold mining industry.



CEO Nick Holland

If there is a silver lining we can take away from these events, it is this: there were no fatalities, very few violent incidents and no damage to mine property at Gold Fields operations. Likewise, CWA endured without capitulation by the gold sector and everyone got back to work safely. This bears testament to the positive approach adopted by the majority of our employees, as well as the courage and sensitivity of our security personnel, for which they deserve our high praise.

It also reflects our consistent and clear message that, while the status quo clearly needs to change, such change can only take place on the basis of respect for the law, constructive engagement and the honouring of all existing labour arrangements.

We look forward to playing a part in this process – and to supporting the future of South African mining. We will do so by engaging positively and seriously with our employees, peers, unions and government – and by pressing ahead with our ongoing efforts to support transformation in South Africa. Importantly, we intend to use South Deep to demonstrate how modern labour models and employee engagement, advanced technology along with progressive remuneration and incentive arrangements can help secure a bright future for South African mining.

### *Safety and health*

In addition to the strikes, the Ya Rona fire highlighted the ongoing nature of our struggle to achieve Zero Harm at our operations. The fire, which took place on 30 June 2012 in a worked-out area of the Ya Rona shaft and for which the circumstances and causes are still being established, resulted in the tragic death of five people. The cause of the fire may never be established due to the extensive damage.

The fire accounted for almost a third of our fatalities for the year taking our total fatalities for 2012 to 16. While this is still unacceptable, it is lower than the 20 fatalities we experienced in 2011.

I am pleased to say that we are making significant progress around our five key safety interventions which we launched in 2011, namely Engineering-out risk; Compliance with standards and procedures; Cultural transformation; Alignment with stakeholders, particularly government and trade unions; and, Embedding our health and wellness programme (p87). As a result there have been some notable achievements at the South African operations during different points of 2012, including 3.5 million fatality free shifts (FFS) at the KDC East underground section, 2 million FFS for the whole of KDC and 3.5 million FFS at South Deep, which has gone over two years without a fatality. In addition, South Deep also achieved 6 million fall-of-ground (FOG) FFS.

## 2.2 CEO report continued

During 2012, the prospect of a potential class action linked to silicosis and other occupational diseases became more real for a number of South African mining companies. In August 2012, a court application was served on a group of respondents that included both Gold Fields and Sibanye Gold, followed by a further court application in December 2012. These were made on behalf of mine workers, former mine workers and their dependants who allegedly contracted silicosis and/or other occupational lung diseases while working at the respondents' operations (p137).

Although the legal process is at a relatively early stage, it highlights both the potential liability faced by Gold Fields, Sibanye Gold and other mining operators in South Africa – as well as the need to ensure that we continue to make every effort we can to eliminate employee health risks. During 2012, we continued to install underground tip filters and tip doors to reduce dust generation and to carry out chemical spraying to suppress dust on the foot walls. In addition, we initiated mist-spraying along haulage routes to minimise the transit of dust, as well as real-time dust monitoring to enhance our risk management measures.

However, it is unlikely that we – or indeed the mining sector – can completely eliminate all risks. As a result, I continue to believe that where occupational health issues do occur, we in the mining sector should address them in a fair, transparent and supportive way.

### *Rising input costs*

While our operations are making significant headway in controlling their costs, cost inflation caused mostly by external factors was a major challenge for our operations in all our regions. Net operating costs for the Group increased by 18% to R24.49 billion (US\$2.99 billion) in 2012 from R20.77 billion (US\$2.88 billion) in 2011, while Group Notional Cash Expenditure (NCE – which measures operating cost plus capital expenditure) was up by 33% to R362,331/kg (US\$1,376/oz) from R272,224/kg (US\$1,173/oz) in 2011.

Cost inflation was particularly noteworthy at our West African operations where net operating costs rose by 38% and at the South African mines where they increased by between 10% at KDC and Beatrix to 16% at South Deep, though the latter increase at South Deep has to take cognisance of the extensive development and staffing at the mine in anticipation of future growth targets. Operating cost rises at our Australian and Peruvian operations were between 15% and 20% during the year.

Key drivers behind cost inflation and reduced cash flow include:

- A global mining and engineering skills shortage, resulting in higher labour costs. Wage inflation at Gold Fields last year was around 10.5% (p130)
- General cost inflation around inputs, particularly energy, but also other materials
- Rising tax burdens driven by resource nationalism (p151)
- Declining ore grades across the gold mining industry, requiring larger investments in exploration
- Unfavourable exchange rate conditions at our international operations

Higher costs are undermining much of the leverage gold mining companies would otherwise enjoy given higher gold prices. This is not always well communicated. In part, this is due to many companies reporting their operational cost rather than their 'all-in' costs (including, for example, expenditure on the ongoing replacement of finite Mineral Resources and Mineral Reserves). In reality, it is estimated that 'all-in' NCE for the industry has doubled over the last five years. As a result, the profits being made by most gold producers are relatively modest – and remain contingent on continued increases in the price of gold.

Our cost reduction efforts have been focused on continuing work on a shift to owner operations at our Australian and Ghanaian mines as well as the ongoing Business Process Re-engineering programme at our Australian, Ghanaian and South African operations. We also launched two new initiatives last year, namely the 'Fit-for-purpose structure' at our mines and regions as well as the Ore Flow Reconciliation Project. These programmes are aimed at improving the margins per ounce of gold produced through cost savings and driving improved management of metal loss and dilution along the mining value chain. Details of these programmes are on p43 and p78.

Nonetheless, after considerable success in addressing our operational costs, further cost-reduction opportunities are becoming rarer. As a result, we are also focusing on the quality of (i.e. the return from) our production and growth projects, which has resulted in some cases in the downscaling of marginal production – to ensure we are able to maintain healthy margins.

In addition, we have instituted a salary freeze for our top managers during 2013, including the executive leadership.

## Key achievements in 2012

### *Industry leadership on reporting transparency*

For several years, we have led our industry in reporting transparency through our focus on (NCE and NCE margin). This ensures that we report all costs associated with our mining operations, including all operating costs as well as all capital. As a result, our investors can readily assess the true contribution of each of our mines and the impact of the actions we are taking to improve their cash generating capacity. The industry is now starting to embrace such reporting and we are currently developing an industry standard in this regard through the World Gold Council. This will help us more properly reflect what it costs to produce an ounce of gold. It is hoped that we can produce something substantive by the end of 2013. For far too long the industry has reported an inflated perspective of our profitability, which has contributed to governments and other stakeholders seeking a greater share of profits, which don't necessarily exist.

### *South Deep*

At South Deep, several significant milestones were reached in support of the build-up to full production of 700,000 ounces by 2016.

The first of these milestones was the completion, within budget and on time, of the fixed infrastructure installations required to support full production. These installations include the new ventilation shaft which was completed in the fourth quarter. The additional rock hoisting capacity provided by this shaft is planned to ramp up to a nameplate capacity of 195,000 tonnes per month by December 2013. Combined with the 175,000 tonnes per month capacity of the existing Main shaft, this is sufficient to sustain the full-production mill-feed of 330,000 tonnes of ore per month. The simultaneous completion of the gold plant expansion increased South Deep's processing capacity from 220,000 tonnes per month to 330,000 tonnes per month.

Together with the new tailings facility, additional refrigeration capacity and backfill plant completed during 2012, South Deep now has the fixed infrastructure in place required to support full production.

The second major milestone at South Deep was the conclusion, in October 2012, of a landmark agreement with the National Union of Mineworkers (NUM), introducing a new operating model for the mine. At the core of the agreement is the introduction of a new 24/7/365 operational schedule which is in line with best practice mechanised underground operations worldwide. This is expected to provide an additional 23% face time which will drive the productivity improvements required for full production. The new operating model includes, inter alia, more competitive grading, remuneration and targeted incentives and seeks closer employee alignment with the mine's business objectives. The implementation process has commenced but it will take some months for the impact of the new operating model to be noticeable. From now on, the main focus is on de-stressing and developing the ore body, and ramping up production at this world-class gold mine.

Once it reaches its production target of 700,000 ounces in 2016, South Deep will be the bedrock of the Gold Fields Group – and a shining example of how, with the right mining methodologies, technology and labour models, deep underground gold mining can thrive and prosper in South Africa. Indeed, once it becomes cash-generative (which could be in the latter part of 2013 depending on the gold price), this mine should play a key role in supporting our strong dividend policy of paying out between 25% and 35% of normalised earnings, as well as future efforts to grow and diversify our profitable production base around the world.

### *Portfolio Review*

As an industry, gold miners have over the past few years had a poor track record in providing investors with a leveraged return over what they could attain from investing in gold directly. We are not materially growing ounces of production, despite spending billions of dollars on exploration as well as the development and acquisition of new mines. We are adding costs at a rate that detracts from gold price gains and we are not returning cash to shareholders at a rate that matches their expectations. As a result, gold industry share prices, including that of Gold Fields, have underperformed the gold price and have failed to reflect the decade-long gold bull market in their valuations.

This sobering analysis formed the foundation of my speech to the Melbourne Mining Club in July 2012, where I committed Gold Fields to a course of action to ensure we were doing everything within our control to generate greater cash returns for our investors. During the second half of 2012 we engaged in a comprehensive review and analysis of Gold Fields operating model as well as all of the assets in the portfolio – both producing mines and growth projects – to 'give teeth' to the principles I first put forward in the speech. The key outcomes of this review have fundamentally changed the structure of Gold Fields and the way in which it operates.



## 2.2 CEO report continued

### *Unbundling of Sibanye Gold*

The first and most significant outcome of the Portfolio Review was the decision to separate the Gold Fields portfolio of assets into two separate and independent companies, reflecting the diverse nature of the ore bodies, the relative maturity and profile of the assets as well as the different mining methods, management and operational skills, and technologies required to optimally and sustainably extract these ore bodies.

This decision led to the November 2012 announcement of the creation and unbundling to shareholders of the new Sibanye Gold as a totally independent company with its own dedicated executive management and Board of Directors, led by well-known and respected South African mining and business entrepreneurs, Neal Froneman (Chief Executive Officer) and Sello Moloko (Chairman).

The new Sibanye Gold, which comprises the KDC and Beatrix mines as well as the various South African service entities, was successfully listed on the JSE Limited on 11 February 2013 and the New York Stock Exchange on 18 February 2013.

Exploration at Salares Norte, Chile



I believe Sibanye Gold will be a strong, fit-for-purpose vehicle for the optimal and sustainable extraction of its substantial Mineral Resources and Mineral Reserves, as well as potentially a catalyst for the long overdue restructuring of the South African gold mining industry.

The unbundling of Sibanye Gold was not a quick or easy decision to make. Nonetheless, I believe that the decision to split our assets in this way will play an instrumental role in ensuring that Beatrix and KDC, as well as their respective workforces, continue to prosper well into the future. It was the right thing to do – for investors and employees.

However, despite the unbundling of Sibanye Gold, Gold Fields future remains firmly tied to that of South Africa through our world-class, developing South Deep mine.

### 2.2.3 A new strategic paradigm for Gold Fields

The second significant outcome of the 2012 Portfolio Review was a recognition and adoption of five key guiding principles which will underpin the Gold Fields strategy going forward.

#### Principle 1: Focus on cash returns, not ounces

The first principle is that our focus is no longer on ounce targets at any cost, but on the generation of cash returns. Central to this is a razor-sharp focus on understanding and managing the all-in costs of producing an ounce of gold, expressed as Notional Cash Expenditure (NCE), which we pioneered in the gold mining industry and implemented in Gold Fields over the past five years. To turn this principle into action we embarked on a review and repositioning of all of the producing mines in the Gold Fields portfolio to focus on the production of profitable ounces only and to curtail marginal production which does not contribute to meaningful cash generation, even if this results in a decline in ounces of production. Some of the key actions that followed were:

- The rationalisation of our corporate office and regional structures (including Growth and International Projects) to reflect the reality that the new Gold Fields is now a much smaller company with base production of approximately 1.8 million ounces to 1.9 million ounces per year
- A significant reduction in our greenfields exploration expenditure from US\$129 million in 2012 to approximately US\$80 million in 2013 and a refocusing of our exploration efforts onto smaller, higher grade and less capital intensive targets, mainly in the regions where we already have a presence
- At St Ives we completed the transition to owner-mining of the surface operations and mothballed the marginal heap leach operation. While this will result in a decline in annual production of between 30,000 and 40,000 ounces, it should lead to a lowering of costs and more profitable production overall

- At Agnew's Waroonga underground mine, we withdrew from the low-grade and marginal Main and Rajah lodes, re-focused only on the high-grade Kim Lode, and right-sized the mine accordingly. A more appropriate level of production for this mine is expected to be around 160,000 ounces per year compared with 176,600 ounces produced in 2012 and the 200,000 ounces initially targeted
- At Tarkwa we are targeting improved performance by stopping production at the marginal and high cost South Heap leach operation, which will result in a production decline of approximately 40,000 ounces per year to between 640,000 and 650,000 ounces per year
- At Damang we abandoned the "Super Pit" concept in favour of a smaller and more capital efficient strategy to sustain long-term production levels of between 200,000 to 250,000 ounces per annum at a minimum NCE level of 20%. This will entail the recapitalisation of the mine over the next two years, including remediation of the plant and increased stripping of the Huni and Juno deposits at the North and South extremities of the main Damang Pit, as well as a potential cut-back to the pit. Until this is achieved, production over the next two years is not expected to be more than 170,000 ounces per annum at an NCE of between US\$1,650/oz and US\$1,750/oz
- At Cerro Corona the emphasis will be to maintain the mine's consistently high performance and cash generation

While these measures will have a tangible impact in terms of reducing our overall production, they should help improve the overall profitability and cash-generation ability of our portfolio. This is what it's about from now on: cash, not just ounces.

As the effects of these interventions feed through – and as South Deep becomes cash-generative – we believe Gold Fields could become a more attractive investment vehicle.

## Principle 2: Prioritising near-mine growth opportunities

As we seek to further grow and diversify Gold Fields, it is this same principle of cash generation that will underpin every decision we make. Accordingly, we will continue to identify, assess and evaluate low-risk, high-return near-mine opportunities next to our existing mines. With the focus moving from production levels to cash generation, there are a number of opportunities at existing mines to raise production while simultaneously enhancing the Group's ability to generate cash. These opportunities are attractive not only because of their potential for competitive returns, but also because they are low risk given that they are extensions of existing assets that we know and understand well. We continue to evaluate these opportunities, which include:

- The proposed Tarkwa Expansion Phase 6 (TEP6) project through which we are investigating the possibility of replacing all or a proportion of the remaining North heap leach operations at Tarkwa with an expanded Carbon in Leach (CIL) capacity. This has become necessary as the pits become deeper, the ore harder, and the heap leach recoveries lower. Recoveries at the heap leach facilities are currently in the low 50% range while recoveries through the existing CIL plant are in the upper 90% range
- The review of options to expand our existing sulphide plant at Cerro Corona to bring production forward given the long life of the mine. There is also a potential opportunity to process – through a new heap leach facility – more than 300,000 ounces of gold captured in oxide surface stockpiles

## Principle 3: Pursue greenfields projects only for superior returns

The third key guiding principle that emerged from the review process is to pursue greenfields opportunities only if they offer truly attractive returns and will contribute to the cash generation objectives of the company. Our approach of not adding ounces for ounces sake will be rigorously applied to our greenfields portfolio and projects will have to be motivated on their ability to generate a return on capital invested. This means enforcing stringent stage-gating of each project to ensure that decisions to advance projects to the next level are based on a thorough understanding of all technical assumptions, economic parameters and financial viabilities.

In support of this new approach we will not provide long-term estimates of timelines and likely production levels on these projects until advanced pre-feasibility or feasibility information is available and approved. We also recognise that, from a technical and financial perspective, it is unlikely that we can advance all projects to the same extent simultaneously; prioritisation of projects will therefore become the norm. The status of our most significant growth projects is as follows:

- In late 2012 we took the decision to return the Chucapaca project in Peru to the drawing board after the feasibility study demonstrated inadequate returns. This does not mean we are abandoning the almost 8 million ounce Mineral Resource offered by the project. Far from it, as this is potentially one of the most significant discoveries in South America over the past five years. We are now investigating various ways of optimising the project, including different production levels, underground opportunities as well as additional exploration in the area of interest which we believe could result in a more robust project

## 2.2 CEO report continued

---

- Likewise, we have slowed down our burn-rate at the Far Southeast Project in the Philippines pending the outcome of our efforts to secure the Free, Prior and Informed Consent of local indigenous people – a pre-requisite for a Financial or Technical Assistance Agreement which would allow us to take a majority share in the project. We have completed most of the underground drilling programmes required for a pre-feasibility study. The focus now is on a surface geo-technical drilling programme to provide additional data for the pre-feasibility study, which is scheduled to commence in late 2013 or early 2014
- At the Arctic Platinum Project (APP) in Finland we are close to completing a pre-feasibility study with initial findings demonstrating a viable project. Our next steps are to initiate a full feasibility study once the results from the pre-feasibility study are evaluated and determine the optimal means through which to capture the inherent value in this project
- At the Yanfolila Project in Mali, we have managed to double the Mineral Resource declared in 2011 to 1.4 million ounces. The objectives for 2013 are to conduct additional exploration drilling to further de-risk the project and, if successful, fast-track the project from scoping through feasibility to a position where a development decision could be reached

### Principle 4: 'Dividend first' policy

We want to make sure investors benefit from our enhanced ability to generate cash. This means continuing our 'dividend first' policy, which we first articulated in 2012 and which prioritises dividends over other demands on our cash flows. This commits us to paying out 25% to 35% of our normalised earnings as dividends.

### Principle 5: Enduring commitment to business sustainability

The long term sustainability of our business, however, remains at the heart of what we do – cash generation is, after all, an important step towards securing the future of our business. Beyond this, our approach to the sustainability of our business can be broken down into the following key components:

The first is our approach towards our employees. The sustainability of our business demands that we provide the kind of remuneration, benefits, working conditions and development opportunities that means we can attract, motivate and retain the very best in mining talent amid intense competition in the labour market. Without the right people, our future is limited. Likewise, it is essential that we keep our employees safe and healthy. This is not only a moral imperative but – as demonstrated by our past experience of safety closures at our South African operations – a business imperative.

The second is our application of responsible operational practices. We will only ever be a 'partner of choice' for host governments and local communities if we can demonstrate a clear record of safe working practices and responsible environmental stewardship that goes beyond 'minimum standards'. This is particularly the case with respect to water management – an issue of particular sensitivity for many host communities.

The third is the basis of our relationships with our host communities. Unless our relationships with our stakeholders (including, our employees, suppliers and host communities, as well as our host governments) are based on the long-term, mutually beneficial generation of shared value – our social licence to operate will never be fully assured. This is why we will continue to prioritise (where possible and sustainable) the employment of local people, the use of local supply chains and the delivery of development benefits to host communities.

We are also proud of our significant public revenue contributions in all our countries of operation – helping to turn finite natural resources into lasting national development. I do want to add a note of caution though. In some jurisdictions the demands by stakeholders, in particular governments, on the mining sector, have reached uncompetitive levels and threaten to undermine the long-term profitability of the Group and the industry and thus its ability to deliver equitable economic value to investors, communities and governments.

The fourth is our ability to maintain strong business ethics – so that we can enhance rather than erode the business environments in which we operate. This means combating corrupt behaviour, maintaining transparent government relations, promoting the effective application of mineral resource revenues to broad-based national development, and supporting positive social transformation and human rights. Without trust, we would not have much of a future.

We are already making strong progress on our journey towards improved sustainability as reflected in the fact that in 2012 we were ranked third in the mining category of the worldwide Dow Jones Sustainability Index (moving from fourth place in 2011). This makes us the top-ranked gold mining company in the world and the top-ranked South African mining company.

## 2.2.4 A message of thanks

I would like to give my thanks to Dr Mamphela Ramphele, who tendered her resignation as Chair of Gold Fields in February 2013 to seek a different direction – including renewed activity in the political sphere. Dr Ramphele has been a source of valuable input and advice during her time on the Board – and, indeed, of personal guidance to myself during the year. We wish her well in the pursuit of her new endeavours.

At the same time, I would like to congratulate Cheryl Carolus on her new role as Chair of Gold Fields – and thank her for stepping in to take Dr Ramphele's place. Cheryl has been on the Board of Gold Fields since 2009, playing a number of key roles, particularly in relation to the sustainability of our business, safety issues and transformation. She knows the company extremely well – which will help ensure a seamless transition.

I would also like to thank the other directors on the Board for their sound advice and strong support to myself and the executive management team over the past year. I would also like to thank Sello Moloko, who stepped down from the Gold Fields Board to chair Sibanye Gold. His experience will prove invaluable as Sibanye Gold charts its new course.

As they embark on their new journey I want to once again thank my former colleagues at Sibanye Gold for their hard work over the years and the dedication they have shown to Gold Fields. I am confident that their new company will set new benchmarks for the South African gold mining industry.

Finally I would like to thank my fellow executives and employees for their support and hard work over the past year, and the last few months in particular. The portfolio review process and subsequent corporate transactions have required their utmost dedication in sometimes very difficult circumstances. But they persevered and the successful outcome of these efforts is testimony to their commitment and a credit to all of them. The last few months have really demonstrated to me the incredible capacity and commitment of Sibanye Gold and Gold Fields people, which bodes well for the future. After all, people are our business.

Yours in health and safety,



**Nick Holland**  
*Chief Executive Officer*

26 March 2013



# Portfolio Review

## Maximising new Gold Fields cash generation potential

### Overview

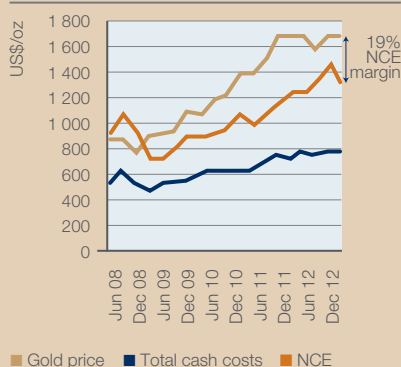
The unbundling of Sibanye means Gold Fields is now in a strong position to carve a new path – including a new, strong focus on cash generation. This is based on:

- **Portfolio Review:** A wide ranging review to ensure all of our operations and growth projects are fully geared towards cash generation
- **Notional Cash Expenditure (NCE):** Reporting our performance in terms of NCE, to ensure we understand and manage 'all-in' costs
- **Near-mine growth:** Prioritisation of low-risk, high-return near-mine growth opportunities
- **Commercially robust greenfields growth:** The pursuit of greenfields projects only if they offer truly attractive returns

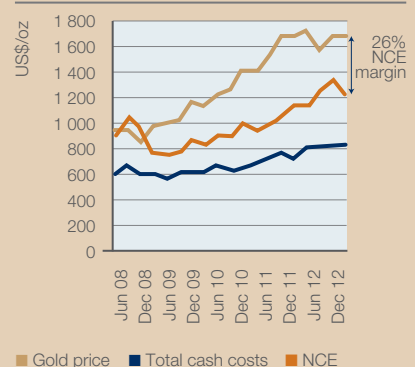
By applying these approaches, our aim is to achieve a long-term NCE margin of at least 25%. Gold Fields (excluding Sibanye Gold) already demonstrates an NCE margin of 26% excluding South Deep.

Figure 2.1: NCE margin

#### New Gold Fields including South Deep



#### New Gold Fields excluding South Deep



# US\$80m

Greenfields exploration budget for 2013

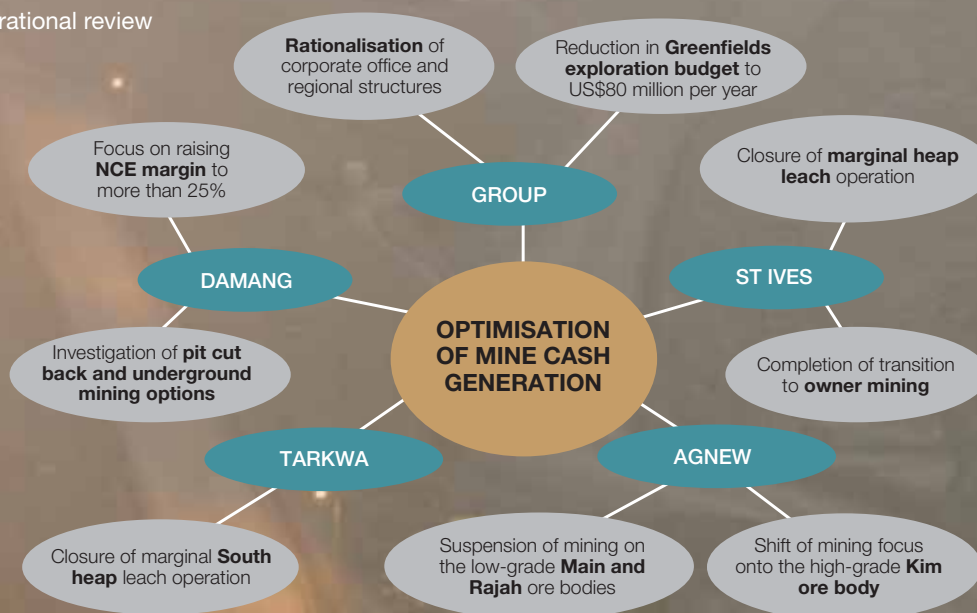
# 2 Moz

Added to Group attributable Mineral Resources

## ✓ 2012 Actions

During 2012, we initiated further measures to further support the optimisation of cash generation at our operations.

Figure 2.2 Operational review



## ✓ Short-term actions

In the short- to medium-term, our efforts to expand high-margin production are focused on near-mine opportunities at our Cerro Corona, Damang and Tarkwa mines. These are set out below.

Figure 2.3: Immediate focus on near-mine growth opportunities

### Low-risk, high-return near-mine growth opportunities

Cerro Corona	• Sulphides Expansion Project	• Oxides Project
Damang	• Optimisation of the extraction of the mine's 10 million ounce ore body	
Tarkwa	• Implementation of Tarkwa Expansion Phase 6 (TEP6)	

## ✓ Long-term actions

In the longer term, our growth efforts will be focused on the development of greenfields opportunities in Northern Europe, South America, South-East Asia, and West Africa – but only where they can demonstrate strong project returns. Our approach to the development of new projects will be characterised by:

- Starting small where possible
- The enforcement of stringent commercial stage gates
- The de-risking of projects (where appropriate) through financial or technical partnerships

# 3. Strategic analysis



Hauling ore at Cerro Corona, Peru



# Contents

3.1 External environment	Page	38
3.1.1 Issue 1: Industrial action in the South African mining sector	Page	38
3.1.2 Issue 2: Resource nationalism	Page	39
3.1.3 Issue 3: Recruitment and retention	Page	41
3.1.4 Issue 4: Cost pressures	Page	42
3.1.5 Issue 5: Challenging new growth environments	Page	44
3.1.6 Issue 6: Gold trends	Page	46
3.2 Group risks and opportunities	Page	48
3.2.1 ERM process	Page	48
3.2.2 Risk appetite and tolerance	Page	49
3.2.3 Group heat map	Page	50
3.3 Stakeholder engagement	Page	52
3.3.1 Approach	Page	52
3.3.2 Strategic performance dashboard	Page	54

## Highlights

**US\$236bn**

Demand for gold in 2012

**100%**

Mechanical mines in Gold Fields portfolio  
(post-unbundling)

**US\$5.3bn**

Shared value generated in 2012



## 3.1 External environment

Our business does not exist in isolation. Like many within the mining sector, we face a number of external strategic dynamics that will be affecting our business. In this context, it is important that we understand:

- The drivers behind these dynamics – and how they interact
- Their implications for our business
- How we can best navigate them in the short, medium and long term

Below, we set out six key issues that affected our business in 2012 – as well as our approach to managing the challenges and opportunities that they represent.

Gold pouring at Tarkwa, Ghana



### 3.1.1 Issue 1: Industrial action in the South African mining sector

#### Issue

Between August and November 2012, the South African mining industry was affected by a wave of illegal industrial action and associated violence – prompting growing international alarm at the broader implications for the South African mining sector as a whole. This included serious illegal strikes at the Beatrix and KDC mines that resulted in a substantial loss of production (p139).

#### Drivers

The wave of illegal strikes was triggered by an illegal strike at Lonmin's Marikana platinum mine in August 2012. This resulted in deadly violence culminating in the death of 34 strikers by the police on 16 August 2012. Strikes subsequently spread to mines operated by Anglo American Platinum, Gold Fields, AngloGold Ashanti, Gold One, Kumba and Harmony. This resulted in the mass retrenchment of striking workers by some operators – and further violence, albeit at a lower level than experienced at Marikana.

Although analysis of the root causes of the strikes is ongoing, certain key underlying themes have emerged that appear to have contributed to the unrest. At the societal level, there appears to be widespread frustration at a lack of meaningful post-apartheid economic transformation beyond that which has benefited what is increasingly seen as a 'Black Economic Empowerment elite'. Indeed, serious economic inequality is proving a persistent challenge in South Africa – and has been largely unaffected by the country's historical democratic transition. In this context, the South African mining industry faces a number of more specific challenges in terms of:

- **An unreformed migrant labour system:** Challenges persist around South Africa's long-established migrant labour system, which relies on workers from distant, poorly developed labour-sending areas within South Africa and from the broader Southern African Development Community. This requires workers to leave their families for long periods of time and to stay in what can be suboptimal on-mine accommodation – or to 'live out' in informal, near-mine settlements. Furthermore, many of those who do choose 'living out' have established second households – significantly increasing pressure on their wages and raising additional socio-economic challenges
- **Frustration amongst Rock Drill Operators:** Rock Drill Operators appeared to be at the vanguard of the illegal strike actions in the platinum mines. This is linked to the fact that they tend to come from the labour-sending areas described above, carry out the most physically arduous roles within mines and have limited opportunities for career advancement (due to both low levels of education and a lack of clear career development pathways)
- **The failure of existing labour structures:** The illegal and widespread nature of the strikes indicates a significant failure of the mining sector's established labour negotiation framework. In particular, there appears to be a growing perception that established union structures are no longer effectively protecting or promoting the interests of all rank and file members – including more junior, migrant workers in particular

## Implications

The strikes raised serious concerns amongst investors and other observers about the underlying social and economic fundamentals not only behind the South African mining sector but, in some respects, behind the country as a whole. In part, this was due to existing pre-conceptions about social tensions, inequality, crime and resource nationalism within South Africa. We believe such concerns have sometimes been exaggerated and that South Africa remains a strong destination for mining investment.

Nonetheless, the strikes (and associated violence) acted as a powerful reminder that despite the obvious cultural and legal transformation that has taken place since South Africa's democratic transition, there are significant socio-economic challenges that (for the majority of citizens) remain largely unchanged. As such, there is increasing consensus within South African society that genuine transformation of wider society is required – above and beyond the relatively narrow boundaries of existing Black Economic Empowerment legislation.

The implications for our own business are obvious – both in terms of our shorter-term ability to maintain optimal operational performance, as well as investor perceptions around the long-term risks relating to our operations in South Africa.

## Strategic approach

Our immediate response was based on responsible security provision, the maintenance of the gold mining sector's existing two-year Collective Wage Agreement (which is not due to expire until June 2013) and constructive engagement with the unions. This meant we were able to secure an end to the strike in a way that did not result in serious violence or undermine existing labour relations frameworks.

Nonetheless, we are aware that the status quo cannot continue. At a macro-level, we are working on a collaborative basis with our peers, the South African government, relevant mining unions and our employees to examine the root causes of the strikes – and to examine new, fit-for-purpose collective negotiation structures that will help avoid similar challenges in the future.

In addition, we are directly addressing more specific challenges within our own business – in many cases through existing transformation programmes. This includes:

- Promoting socio-economic development programmes within our labour-sending areas (p145)
- Developing projects in labour-sending areas in partnership with other mining companies
- Ongoing enhancement of employee accommodation that goes above and beyond Mining Charter requirements (p138)
- Examining enhanced employee incentivisation packages (similar to the new operating model agreed at South Deep in October 2012) to increase potential take home pay and advancement opportunities (p80, 140)

- Exploring new career structures for Rock Drill Operators and other junior operational personnel to ensure clearer avenues for professional development

The longstanding nature of the migrant labour system means it will take time to reform. Nonetheless, we hope to play a key role in this process through the development of our mechanised South Deep mine, which is characterised by a smaller, better qualified and more technically advanced workforce. We are also seeking to source more labour from in and around South Deep.

### 3.1.2 Issue 2: Resource nationalism

#### Issue

Resource nationalism remains one of the key risks for the global mining industry. At one end of the spectrum, it includes outright and/or creeping expropriation – at the other, the imposition of higher fiscal imposts (including 'windfall taxes'), interference in project management, mandatory social investment requirements and local content requirements. The fact that resource nationalism poses a genuine risk to mining companies is well recognised. For example:

- Ernst & Young identified resource nationalism as the number one risk facing the mining sector in 2012 to 2013<sup>1</sup>
- Deloitte identified resource nationalism as the number five issue facing the mining sector in 2013<sup>2</sup>
- KPMG identified resource nationalism as its number two risk facing the mining sector in 2012<sup>3</sup>

<sup>1</sup> Ernst & Young, Business risks facing mining and metals 2012 – 2013

<sup>2</sup> Deloitte, Tracking the trends 2013

<sup>3</sup> KPMG, Business risks facing the mining industry 2012

## 3.1 External environment continued

### Drivers

Current drivers of resource nationalism include, amongst other factors:

- **Mineral prices:** Consistently high mineral prices that give the impression that extracting companies are making excessive profits
- **Misperceptions around costs:** Related misconceptions around the costs involved in the extraction of gold. A failure by gold mining companies to report their 'true' costs in terms of Notional Cash Expenditure (NCE) margin has been detrimental in this respect
- **Macro-economic difficulties:** Economic shocks – whether caused by global economic conditions or government mismanagement – can create serious public revenue shortfalls. The mining sector represents an obvious source of additional income due to the national ownership of mineral assets, allegedly excessive profits, voter sentiment and inherently strong government leverage
- **Populism:** Populist politics can often focus on the short-term redistribution of wealth from mining operators to citizens. This can be intensified by recent democratisation, poor socio-economic conditions and perceptions that companies enjoy overly beneficial terms

At root, mining involves the removal of finite national resources. In this context, it is understandable that governments – and the people that they represent – want to benefit from this in a meaningful way. What is more questionable is the way in which some governments seek to benefit from the extraction of these resources and whether this is the best means by which to secure long-term, sustainable development and share the benefits of mining.

### Implications

Resource nationalism has the potential to introduce operational uncertainties and delay, escalate project costs, render project development or production targets unfeasible, and may even result in a loss of ownership or control.

Both governments and mining companies should pursue equitable and mutually beneficial contractual and fiscal arrangements that recognise the important role mining has to play in promoting development. But this should not be done in isolation from the economic and operational realities facing the mining sector. These include:

- The 'true' costs of extracting minerals (which many companies are poor at reporting)
- The need for predictable, stable fiscal arrangements for projects and removing uncertainties about ownership of mines
- The considerable challenges involved in project development – and the corresponding need to stick to highly detailed planning models and development schedules
- Investor uncertainty with respect to the impact of resource nationalism on extractive projects – and corresponding difficulties in the raising of capital finance

While policies driven by resource nationalism may generate short-term benefits for governments and (potentially) society, in the longer-term they can have the opposite effect. Poorly modelled government imposts have the potential to materially undermine the economics of existing or new operations. This can force the suspension or closure of production and/or development work – with serious impacts on local employment, revenue generation, socio-economic development programmes and other forms of shared value. Even if such imposts are commercially endurable in the short term, they can introduce a degree of uncertainty that investors will generally eschew – with long-term consequences for host countries.

### Strategic approach

We believe it is right that our host societies benefit from the gold in their ground. Indeed, we are proud of our role in converting national gold resources into meaningful development through the agreement of balanced, sustainable commercial and fiscal arrangements – as well as our ongoing delivery of shared value. This includes, for example, the economic contributions we make to our host societies through:

- The payment of wages and benefits to our employees – and the generation of related secondary economic impacts (p142)
- The payment of taxes and royalties to our host governments, which can then be used to pursue national socio-economic development objectives (p143)
- Our use of local suppliers, which helps establish thriving, diversified and sustainable local economies (p144)
- Ongoing delivery of our Socio-Economic Development contributions (p145)

Our total economic contribution is US\$4.23 billion (Figure 3.1). When we look at the total shared value (including capital expenditure) that we distribute in the countries in which we work, our impact is even more significant at US\$5.30 billion – or 95% of our total revenue (p141).

By generating – and effectively communicating – these contributions, we believe that we can address many of the drivers behind resource nationalism.

In many cases, it is not the extra costs associated with resource nationalism that necessarily have the largest deterrent effect on investors – but a lack of predictability about how major, long-term investments will be treated in future. As a result, we aim to work constructively with government to help find mutually beneficial outcomes based on the principles of predictability, sustainability and the optimal delivery of benefits.

In the longer term, we are pursuing an exploration-led growth strategy that – in addition to developing low risk, high-return growth opportunities:

- Helps diversify our overall asset portfolio – and so limit the risk posed by resource nationalism in any one country
- Develop new, cash-generating opportunities in lower-risk mining jurisdictions – to help reduce the overall risk profile of the Group at a time when the scarcity of known geological resources increasingly necessitates exploration in higher risk jurisdictions

### 3.1.3 Issue 3: Recruitment and retention

#### Issue

Recruitment and retention remains a challenge for all mining companies at both a regional and global level. Competition for skills is particularly intense, for example, in Western Australia – where mining companies not only compete with one another, but also the booming hydrocarbon sector.

#### Drivers

High-commodity prices (including gold prices) – as well as strong long-term prospects for the mining sector as a whole – have been driving the development of new projects and production ramp-ups in a variety of locations. Indeed, Ernst & Young suggest that 136 new mining projects were planned or announced in 2012.<sup>1</sup> This growth is being supported by a finite pool of mining skills that will take a long time to significantly expand.

More worryingly, the sector is facing significant demographic challenges as a significant proportion of its most skilled and experienced managers and technical specialists are becoming eligible for retirement – with no equivalent new cadre of younger workers to replace them.

This has been partly attributed to a 'generation gap' stemming from the 1980s and 1990s when the traditional skills pipeline was 'broken' in some places, due to increases in operational efficiency and a focus on maintaining rather than expanding production.<sup>2</sup> These challenges are currently compounded by the fact that the mining sector is not traditionally perceived to be an attractive employment destination (other than with respect to remuneration) for high-potential individuals looking to forge rewarding, long-term careers.

#### Implications

The main impacts of labour competition and a shrinking skills pool include:

- Increasing labour costs – feeding into a broader dynamic of higher input costs
- Absolute skills shortages – which can act as a 'brake' on production and growth, with potential for project delays, downsizing or even cancellation

Figure 3.1: Total economic contribution (US\$m – pre-unbundling)

	2012	2011	2010	2009	2008
Operating costs (procurement and contractors)	1,940	1,851	1,924	1,479	1,395
Salaries and benefits	1,073	1,101	1,027	784	708
Payments to capital providers <sup>3</sup>	459	282	243	181	230
Payments to government	618	478	312	249	159
Socio-economic development (SED) spend	136	54	67	11	14
<b>Total economic contribution</b>	<b>4,226</b>	<b>3,766</b>	<b>3,573</b>	<b>2,704</b>	<b>2,506</b>

<sup>1</sup> Ernst & Young, Business Risks Facing Mining and Metals 2012-2013, 2012 [http://www.ey.com/Publication/vwLUAssets/Business-risk-facing-mining-and-metals-2012-2013/\\$FILE/Business-risk-facing-mining-and-metals-2012-2013.pdf](http://www.ey.com/Publication/vwLUAssets/Business-risk-facing-mining-and-metals-2012-2013/$FILE/Business-risk-facing-mining-and-metals-2012-2013.pdf)

<sup>2</sup> KPMG, Business Risks Facing the Mining Industry, December 2011, [http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/6104\\_Top%20Risks%20in%20the%20Mining%20Industry\\_TL\\_web\\_v4%20\(FINAL\).pdf](http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/6104_Top%20Risks%20in%20the%20Mining%20Industry_TL_web_v4%20(FINAL).pdf)

<sup>3</sup> Dividend and interest payments



## 3.1 External environment continued

Although the recent slowdown in mining investment is likely to offer a degree of temporary respite in 'the war for talent', it is unlikely to last. There is a long-term 'skills gap' that will take time to address. Many mining and related specialist positions require substantial amounts of investment, training and development – and the fundamentals of the market are unlikely to change in the short to medium term.

In this context, the ability to attract, retain and effectively deploy mining and engineering talent remains a key competitive differentiator within the mining sector.

### Strategic response

The attraction, retention and effective deployment of top talent remains a company priority.

In the short term, this means creating and maintaining high-quality teams of skilled managers and specialists that can deliver immediate results. This is not just a matter of how much we pay. It is about presenting an integrated and holistic employee value proposition that truly distinguishes itself within the market (p130).

In the medium to long term, this means building and maintaining a solid, self-sustaining skills pipeline to ensure we have a constant feed-through of equally strong replacements – and that we maintain an employee base that can offer predictability and flexibility. In this context, we believe it is important to invest in education, training and talent management – both internally and externally. It is also one of the best ways to attract high-potential individuals who want to take their careers forward.

In light of these two approaches, we place particular emphasis on:

- Providing a more rounded employment offering that recognises the needs and aspirations of different individuals. This includes cash bonuses, share allocations, work-life balance initiatives, development opportunities and other approaches (p132)
- Carrying out regular market reviews to ensure our pay and benefits packages are competitive in each market in which we operate. This is supported by our communication of the full value of these packages to enable like-for-like comparisons
- Providing on-site and external training and development (p132)
- Promoting internal mobility within the Group to help highly skilled and high-potential individuals build on their expertise in a range of international locations (p131)
- Implementing our innovative '24 Hours in the Life of a Gold Fields Employee' wellness programme to ensure we maintain a fit, healthy and motivated workforce (p135)

In addition, we employ and develop nationals at all of our mines (p134) – and place great emphasis on investing in local education and training institutions in our countries of operation (p146 – 147). This supports the long-term development of a strong mining and engineering skills base at both local and national levels – and reduces our reliance on high-cost expatriate specialists and managers.

### 3.1.4 Issue 4: Cost pressures

#### Issue

Operational cost inflation is a major challenge for the global mining sector. For example, Deutsche Bank has estimated that cost inflation averaged between 5% and 7% a year over the last 10 years and accelerated to between 10% and 15% in 2011.<sup>1</sup> This trend is expected to continue over the next few years.

This is taking place within a broader context in which mining companies' capital expenditure (itself subject to strong inflationary pressure) is increasingly targeting the replacement of diminishing Mineral Resources and Mineral Reserves – instead of growth.

*"We've got to change the lens through which we and the world view this industry, and start talking about what it really costs to produce an ounce of gold. I don't care if we call it NCE or something else, but to talk about cash costs only is not telling the full story."*

**Nick Holland, CEO**  
Gold Fields at the Melbourne Mining Club on 31 July 2012

<sup>1</sup> Commodity Online, Cost Inflation is Major Theme for Metals Production: Deutsche Bank, 16 April 2012, <http://www.commodityonline.com/news/cost-inflation-is-major-theme-for-metals-production-deutsche-bank-47470-3-47471.html>

## Drivers

Key drivers behind cash cost inflation include:

- A global mining and engineering skills shortage, resulting in higher labour costs (p130 – 131)
- General cost inflation around inputs, including not only steel, concrete and associated materials, but also energy
- Currency volatility relative to the US dollar, which further impacts on local prices for equipment, input materials and labour<sup>2</sup>

Meanwhile, ore grades are falling across the gold mining industry – with average yields amongst major producers falling by around 5% a year over the last five years. At the same time, the industry has also faced an estimated increase in capital expenditure per ounce mined of 32% per year over the past ten years – driven by spending on sustaining greenfields exploration and development projects.

Put simply, the industry is having to mine more tonnes at lower grade to get the same gold output and it is costing more on a per-ounce basis to sustain existing operations and develop new projects.

## Implications

Higher costs are destroying much of the leverage gold mining companies would otherwise enjoy to higher gold prices. This is not always well communicated. In part, this is due to many companies reporting their operational cost rather than their 'all-in' costs (including, for example, expenditure on the ongoing replacement of finite Mineral Resources and Mineral Reserves).

This ultimately gives a false impression of the profits being enjoyed by the industry – and is helping drive resource nationalism (p151 – 152). In reality, it is estimated that 'all-in' Notional Cash Expenditure (NCE) for the industry has doubled over the last five years. As a result, the profits being made by most gold producers are relatively modest – and remain contingent on further increases in the price of gold. In this context – and amidst rising costs in general – many within the industry are reviewing their existing production portfolios, with more marginal mines likely to face divestment or even closure. Likewise, existing capital expenditure plans are being seriously undermined by ever-higher capital costs. As a result, a number of projects in the global development pipeline are likely to be put on hold or abandoned. In the medium- to long-term, this suggests that gold is becoming a scarce commodity and may help support higher gold prices.

## Strategic response

Our existing cost-reduction efforts are focused on a range of initiatives, including:

- **Owner operation:** This includes our transition to owner operation at our Australian and Ghanaian operations – supported by our new Heavy Mining Equipment Strategy, which is developing sector best practice and Group-wide guidance and protocol around fleet management systems, among others (p78). This helps ensure we are able to reap the maximum rewards from our own operations, without having to pay contractor premiums
- **Business Process Re-engineering (BPR):** Our ongoing BPR programme was initiated in the South Africa region in 2010 and subsequently rolled out to our Australasia and West Africa regions. This helps identify and exploit opportunities to improve the efficiency of – and the costs associated with – a wide range of operational and business processes
- **Fit-for-purpose structures:** After the unbundling of Sibanye Gold, the corporate and administrative functions of the Group have been adjusted to reflect Gold Fields reduced production platform

Figure 3.2: Portfolio Review – operations

Location	Cost reduction actions
<b>Group</b>	Rationalisation of our corporate office and regional structures Reduction in greenfields exploration to US\$80 million (2012: US\$129 million)
<b>Agnew</b>	Cessation of mining on low-grade Main and Rajah ore bodies Focusing of all mining activity on the high-grade Kim ore body
<b>St Ives</b>	Completion of the conversion to owner-mining at the open pit operations – with associated cost savings Closure of high cost heap leach operation
<b>Damang</b>	Restructuring the operation to achieve a long-term, sustainable NCE margin of at least 20% Evaluation of Damang pit cut-back and underground options
<b>Tarkwa</b>	Closure of the high cost South Heap Leach operation

<sup>2</sup> Deloitte, Tracking the Trends 2013: The Top 10 Issues Mining Companies May Face in the Coming Year, 2012, [http://www.deloitte.com/view/en\\_CA/ca/industries/energyandresources/mining/tracking-the-trends-2013/index.htm?id=gx\\_theme\\_TT13](http://www.deloitte.com/view/en_CA/ca/industries/energyandresources/mining/tracking-the-trends-2013/index.htm?id=gx_theme_TT13)

## 3.1 External environment continued

- **Mine reconciliation and ore flow accounting:** The project was initiated to analyse the effectiveness of existing ore flow and reconciliation processes across the Group – and provide operations with action plans to enhance their performance from the stope to the pouring of gold, including the minimisation of dilution. These outcomes are currently being implemented

Nonetheless, after considerable success in addressing our operational costs, further cost-reduction opportunities are becoming rarer. As a result, we are also focusing on the quality of (i.e. the return from) our production and growth projects, which, in some cases, has resulted in the downscaling of marginal production – to ensure we are able to maintain healthy margins.

Rising costs – and the resulting erosion of the gold mining sector's leveraging of the gold price – was a key theme in the much publicised speech by our CEO Nick Holland to the Melbourne Mining Club in July 2012.<sup>1</sup>

This included analysis on the rise of Exchange Traded Funds (ETFs), which have diverted investor attention away from gold mining stocks. This is largely due to their insulation from ever-higher extraction costs (as well as other challenges facing the industry) and their ability to offer better leverage to the gold price.

We are adopting a 'private equity' approach towards our operations to address this challenge – based on the maximisation of cash flow generation (p34). This includes the maximisation of the cash-generating potential of our current operations without compromising their long-term sustainability; i.e. we would not introduce short-term measures to improve cash flows whose benefits would evaporate quickly.

In this context, we undertook a major Portfolio Review to ensure that our existing operations and growth projects support this aim. Details of actions undertaken at our mines as part of this review can be found in Figure 5.5 on p78.

Furthermore, we plan to support this aim in future through a focus on low-risk, high-return near-mine growth opportunities, which includes evaluating potential at Cerro Corona, Damang, St Ives and Agnew (p108) – whilst taking a highly disciplined approach towards the development of greenfields projects (p110).

### 3.1.5 Issue 5: Challenging new growth environments

#### Issue

Gold mining companies are increasingly pursuing high-quality growth opportunities in locations that do not have an established history of industrial gold mining. As a result, they can face challenges in terms of:

- Effectively managing the social and political risks and opportunities such environments can pose. This includes establishing and maintaining a strong licence to operate amid challenges around (for example) unrealistic community expectations, civil activism, weak governance, public service vacuums, poor local operating standards, and insecurity
- Addressing additional operational and technical risks and opportunities, including challenging logistics, insufficient water and energy supply infrastructure, under explored geological environments and the need for increasingly sophisticated mining methodologies

#### Drivers

Aside from the well-established high-risk/high-reward equation that will always encourage certain operators to target more challenging opportunities – there are additional dynamics helping drive this issue. These include:

- The ongoing depletion of existing high-grade deposits – as well as a lack of new large, high-grade discoveries – in traditional gold mining areas
- The increasingly high costs associated with M&A activity in more established mining locations
- The availability of relatively prospective, but under-explored potential growth opportunities in 'frontier' locations
- The high price of gold which makes the additional risks associated with high-quality projects in such areas tolerable

Furthermore, some of these new operating environments – which can present a range of latent social, political and economic risks – are in some respects getting more challenging to operate in. This is due, for example, to:

- An increase in government interference in mining activity – ranging from local employment requirements to hardening fiscal regimes
- Increasingly well-organised and funded civil society groups ready to oppose mining projects, sometimes irrespective of whether or not they are perceived to fall short of expectations
- The increasing availability and communication of information (whether accurate or otherwise) relating to mining projects, which requires much more proactive and timeous management of stakeholder relations

<sup>1</sup> Gold Fields presentation, "What investors want", Melbourne Mining Club, July 2012

- Rising community – and local government – expectations around the benefits that should accrue to them as a result of mining activity in their area
- Evolving national and international regulatory regimes that are raising compliance costs (e.g. around issues ranging from carbon emissions through to mineral traceability)
- Emerging social pressures that are fuelling competition for land and water, and placing additional strain on existing infrastructure

### Implications

For mining companies operating in such environments, failure to effectively manage these challenges can result in additional costs or operational delays that undermine project viability at an early stage. Even companies that do successfully manage these challenges are likely to incur significantly higher costs (e.g. on extensive stakeholder engagement and risk mitigation programmes) – with commensurate impacts on project viability and profitability.

This dynamic is adding to existing investor concern over the ability of companies to execute major capital projects without significant cost overruns and/or delays. In turn, it is further reducing the willingness of investors and lenders to finance speculative long-term mining projects in non-traditional mining regions.

Companies that demonstrate their ability to operate profitably and responsibly in new operating environments through the effective management of these challenges will enjoy a marked competitive advantage in terms of:

- Winning new licences in these higher-risk areas, due to host government confidence that they can deliver revenue-generating projects where others would otherwise fail

- Raising capital for new, high-quality projects in higher risk areas
- Providing upfront assurance to local stakeholders, based on a strong track record of responsible practice, impact management, stakeholder engagement and the creation of lasting benefits
- Maintaining steady and profitable production in circumstances that would otherwise result in operational disruption, production delays or unviable costs associated with stakeholder opposition and activism
- Gaining a strategic, long-term advantage over other operators, by 'widening the field' in which they can operate

### Strategic approach

We believe that responsible practice, effective risk management and the ability to establish a social and political licence to operate in challenging circumstances represent genuine competitive advantages. In particular, we recognise that:

- Stakeholders are becoming better informed, more active and more demanding – and need to be closely and effectively engaged through highly developed stakeholder engagement programmes
- The management of key stakeholder issues and concerns need to be fully 'locked into the DNA' of each new mining project from the very start, to ensure long-term alignment
- Traditional 'philanthropic' interactions with local communities are no longer sufficient, with interactions instead needing to be based on mutual benefit and shared value creation through collective engagement
- We need to continue going 'beyond compliance' to minimise negative impacts and maximise positive impacts on local communities, generate trust and maintain our reputation

This is the primary reason we have put proactive stakeholder engagement (using dedicated teams of internal and external specialists) and the generation of shared value (managed by our well-resourced Growth and International Projects Sustainable Development function (p103)) at the heart of our exploration and development activities and beyond.

This is why we are focused on developing strong relationships based on open, honest and frequent dialogue – and the creation, measurement and delivery of shared value (p103). We have defined shared value to include local economic contributions based on contributions to:

- Local employees, including salaries, benefits and dividends (p142)
- Host governments, including taxes, royalties and dividends (p143)
- Local suppliers, including the local procurement of goods and services (p144)
- Local communities, including our Socio-Economic Development contributions around the environment, infrastructure, education and training, health and wellbeing, and economic diversification (p145)

In 2012, these contributions amounted to US\$5.30 billion.

In addition, we are committed to applying best practice with respect to the management of environmental, social and governance issues – and communicating this to our stakeholders. This includes, for example:

- Our ongoing application of the ISO 14001 international environmental management standard (p90) and the OHSAS 18001 international safety management standard (p87) at all our operations and exploration projects



## 3.1 External environment continued

- The benchmarking of our performance against our peers through our participation in the Dow Jones Sustainability Index (DJSI). In 2012, we increased our score from 81% to 84% putting us third amongst 144 participating mining companies from around the world, and within 2% of sector leader Anglo American. Furthermore, it means we are the top-ranked South African listed mining company on the DJSI.

### 3.1.6 Issue 6: Gold trends Issue

Gold prices have remained on a rising trend for years – from less than US\$300/oz in 2001 to an average of US\$1,669/oz in 2012.<sup>1</sup> During 2012 the gold price was trading in a narrow range of between US\$1,550/oz – US\$1,800/oz, ending the year 7% higher at US\$1,676. Despite current signs that they may now be stabilising, average gold prices in 2012 were 91% higher than in 2008.<sup>2</sup>

Nonetheless, the gold mining sector has not fully capitalised on historically strong gold prices due to its failure to deliver optimal leverage over the gold price to investors.

#### Drivers

We believe that the fundamentals behind the current gold price remain solid. For example, the World Gold Council reported that 2012 saw an all-time high in gold demand by value of US\$236 billion.<sup>3</sup> This reflects:

- Maintenance of the ‘safe haven’ status of gold due to the sovereign debt crisis in the Eurozone, low interest rates and monetary stimulus in the developed economies, instability in the Middle East, and strong central bank balance sheets

- Ongoing demand being created by Exchange Traded Funds (ETFs) – with investment demand estimated at 279 tonnes in 2012 (2011: 185 tonnes)
- Potential demand for gold from fund managers, as gold only accounts for around 1% of global funds under management
- Increased gold demand from central banks – with notable new buyers such as Brazil, Paraguay, Iraq and Venezuela adding to existing demand. According to the World Gold Council, central banks purchased 536 tonnes in 2012 – a 48-year high<sup>4</sup>
- Fundamentally firm and consistent consumer demand from China and India – despite signs of a short-term softening in the market

Furthermore, there appears to be little prospect of a significant expansion in supply in the short- to medium-term, due to the fact that:

- The discovery of large, high-quality new deposits is becoming increasingly rare – with ore grades from primary gold discoveries greater than 1 million ounces falling by 3% a year for the last 30 years, and by 4% a year between 1998 and 2008
- Existing production grades are falling – with average yields dropping by 5% a year over the last five years
- Costs are getting higher – with many of the major mining companies predicting an overall increase of 20% in 2013
- Capital expenditure requirements are rising – with capital spend per ounce increasing by 32% a year over the last 10 years (primarily driven by capital expenditure on greenfields projects, which showed further escalation of 50% a year on a per ounce basis between 2006 and 2011)

- Recycling of gold is becoming an ever-greater component of supply

In addition, gold mining companies face other pressures on production growth, including resource nationalism, skills shortages and more challenging socio-economic operating environments. Many companies are therefore putting planned growth projects on hold – restricting potential future supply.

In this context, the price of gold is more likely to either maintain or increase on its current levels. We believe the fundamentals for gold remain strong and promising. Even so, we are positioning our business to offer leverage to varying prices.

#### Implications

The gold mining sector is not delivering optimal leverage over the gold price to investors – primarily due to the high costs involved in extraction, Mineral Resource and Mineral Reserve replacement, and growth (p96).

As a result, investors are increasingly seeking to profit from Exchange Traded Funds (ETFs), which provide straightforward access to the gold price ‘upside’. Unfortunately, this is diverting away investment that would otherwise be targeted at gold mining companies.

<sup>1</sup> World Gold Council, Gold Demand Trends: Full Year 2012, February 2013, [http://www.gold.org/download/pub\\_archive/pdf/GDT\\_Q4\\_2012.pdf](http://www.gold.org/download/pub_archive/pdf/GDT_Q4_2012.pdf)

<sup>2</sup> PwC, 2013 Global Gold Price Report, [http://www.pwc.com/en\\_CA/ca/mining/publications/pwc-global-gold-price-survey-results-2013-01-15-en.pdf](http://www.pwc.com/en_CA/ca/mining/publications/pwc-global-gold-price-survey-results-2013-01-15-en.pdf)

<sup>3</sup> World Gold Council, Gold Demand Trends: Full Year 2012, February 2013, [http://www.gold.org/download/pub\\_archive/pdf/GDT\\_Q4\\_2012.pdf](http://www.gold.org/download/pub_archive/pdf/GDT_Q4_2012.pdf)

<sup>4</sup> World Gold Council, Gold Demand Trends: Full Year 2012, February 2013, [http://www.gold.org/download/pub\\_archive/pdf/GDT\\_Q4\\_2012.pdf](http://www.gold.org/download/pub_archive/pdf/GDT_Q4_2012.pdf)

The challenge – as identified by Gold Fields CEO Nick Holland in his July 2012 keynote speech to the Melbourne Mining Club<sup>5</sup> – is to prove to investors that gold mining companies can provide optimal gold price leverage. This means adding value by:

- Optimising operations, achieving sustainable production growth and expanding production margins
- Leveraging balance sheets, achieving positive 'multiplier' effects and returning free cash flow to investors via dividends

### Strategic response

We continue to 'believe in gold'. This means:

- **We are – and will remain – a gold miner:** We will not dilute our existing 'gold premium' by diversifying into base metal production
- **We believe in our product:** We believe that the fundamentals behind the price of gold remain strong – and will base our decision-making on this basis
- **We do not – and will not – hedge the price of gold:** Although we expect other operators to take up hedging again, we believe this is the wrong thing to do. Empirical data shows that in the long run, the spot price for gold will beat hedging – despite periodic shorter-term exceptions

Nonetheless, we recognise that we must offer investors true leverage against the gold price if we are to command the kind of share price that we believe our business warrants. This means we need to demonstrate our ability to generate and deliver cash.

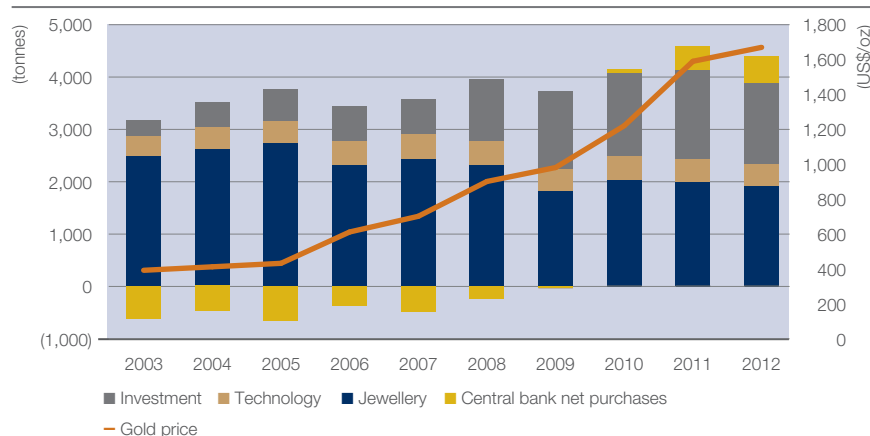
We will do so by:

- **Focusing on cash generation and pay-back:** This includes: (1) A review of our portfolio to optimise cash generation; (2) Ongoing management of our 'true' costs, using NCE; (3) Prioritisation of low-risk, high-return near-mine growth opportunities; and (4) The pursuit of greenfields growth opportunities only if they offer truly attractive returns
- **Delivering South Deep:** This includes: (1) The 2013 transition from the construction phase of the mine to the ore body development and production build-up phase; (2) The achievement of 700,000 oz/year production by 2016
- **Optimising our financial gearing:** This includes the leveraging of our balance sheet to ensure growth on a per share basis
- **Maintaining a strong dividend policy:** This includes: (1) The prioritisation of dividends to ensure they have first call on available cash flow; and (2) The paying out of between 25% and 35% of normalised earnings

Gold jewellery



Figure 3.3: World Gold Council: Gold demand by category (tonnes) and the gold price (US\$/oz)<sup>6</sup>



Source: LBMA, Thomson Reuter GFMS, World Gold Council

<sup>5</sup> Nick Holland, CEO Gold Fields, What do Investors Want from a Gold Mining Stock?, July 2012, <http://www.bullioninternational.com/images/uploads/images/powerpoints/Melbourne.pdf>

<sup>6</sup> LBMA, Thomson Reuters GFMS, World Gold Council (from World Gold Council, Gold Demand Trends: Full Year 2012, February 2013)

## 3.2 Group risks and opportunities

Our mature Enterprise Risk Management (ERM) process is aligned with the ISO 31000 international risk management standard and is subject to continuous improvement. For example, during 2012 we formalised and enhanced our scanning and analysis of the global risk environment – including the integration of expert external analysis from a variety of international sources.

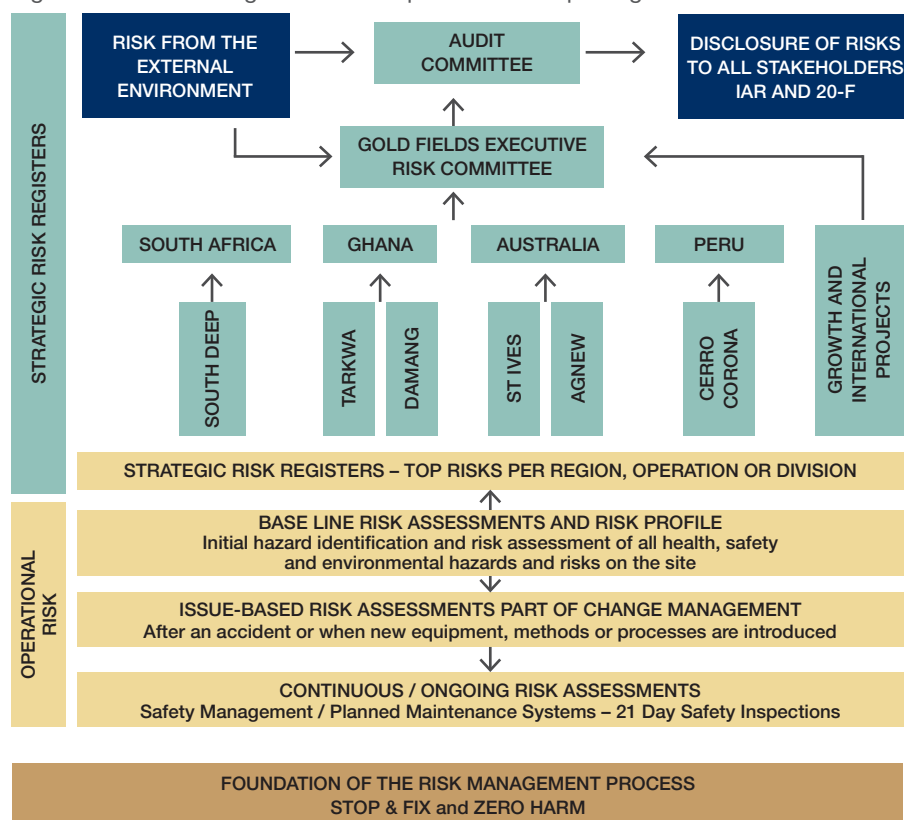
The overriding purpose of the ERM process is to help Gold Fields become more resilient in the global business environment and achieve its strategic objectives. It also supports our efforts to achieve the highest levels of corporate governance, as well as full compliance with the risk management requirements of South Africa's King III Code.

### 3.2.1 ERM process

The ERM is based on the following process:

- **Workplace risk assessments:** Line management carries out ongoing hazard identification and workplace risk assessments in accordance with international standards (e.g. AUS/ NZ4360 and SAMREC guideline)
- **Mine/region reviews:** The Executive Committee of each operation and region conducts a risk review of the top risks and mitigating strategies on a quarterly basis
- **Presentation to Exco:** The Mine Manager presents the top 10 risks and mitigation actions to members of the Exco during quarterly business reviews. The impacts of relevant mitigating actions are assessed in terms of their relevance and effectiveness
- **Compilation of Group Risk Register:** The Group Risk Manager extracts all of the top risks from the regional and operational registers in line with the tolerance levels set by the Board, and compiles the Group Risk Register
- **Assessment and moderation:** The risks are then assessed and moderated in a Group context by the relevant risk owners and Exco members
- **Exco Risk Meeting:** A top risk register review is conducted and Group-wide mitigation strategies are set and monitored during the Exco Risk Meeting
- **Audit Committee review:** A review of the top risks and mitigation strategies is conducted by the Audit Committee twice a year
- **Internal Audit review:** An audit of mitigation strategies is carried out by Internal Audit

Figure 3.4: Risk management review process and reporting structure



Early exploration at Salares Norte, Chile



### 3.2.2 Risk appetite and tolerance

Figure 3.5 indicates whether management are operating within the risk tolerance levels set for them by the Board. Tolerance levels are reviewed and reset every year as part of our annual risk management plan.

Figure 3.5: Risk performance (pre-unbundling)

	Risk area	Risk appetite	Tolerance level	Targets	C2009	C2010	C2011	C2012	x\√
OPTIMISING OUR OPERATIONS	Safety	Zero Harm	Zero Harm	FIFR <sup>2</sup> – Zero	0.16	0.11	0.12	0.11	x
				SIFR <sup>3</sup> – 25% less	2.29	2.22	2.64	2.40	x
				LTIFR <sup>4</sup> – 25% less	3.91	4.39	4.69	5.16 <sup>1</sup>	x
				DLIFR <sup>5</sup> – 25% less	180	198	208	227	x
	Health	Zero Harm	Zero Harm	Less than 5% 0.1 mg/m <sup>3</sup>	4.3%	3.2%	1.2%	4.7%	√
				All Machinery < (110 dB(A))	5.9%	3.0%	0.9%	0.8%	x
	Environment	Zero Harm	Zero – level 4 and 5 incidents	Zero	Zero	Zero	Zero	Zero	√
GROWING GOLD FIELDS	Gold delivery	5Moz/2015 Short-term NCE 20% Long-term NCE 25%	95% compliance	NCE <sup>6</sup> 20%	3.58 20%	3.50 16%	3.49 25%	3.25 17%	x x
	Capital Projects	Project delivered on time/budget as per current schedule	7 – 10% overrun	South Deep	√	√	√	√	√
				Chucapaca	√	√	√	√	√
				Far Southeast			√	√	√
				Arctic Platinum	√	√	√	√	√
	Mergers and Acquisitions	Proper assessment of risk returns commensurate with the risk	IRR 5% – Near-mine IRR 10% Greenfields	As per IRR <sup>7</sup>	On track	On track	On track	On track	√
	Exploration	Appropriate balance between geological potential and political risk	Leaning towards greater geological potential in higher risk areas	As per GBAR <sup>8</sup>	On track	On track	On track	On track	√
SECURING OUR FUTURE	Human Resources	Pipeline of scarce and critical skills	60% – successor cover ratio for top 250 employees	60%	54%	50%	70%	100%	√
	Licence to operate	Global leader in sustainable gold mining	Full compliance with all legal and community commitments	Full compliance	100%	100%	100%	100%	√
	Ethics and Corporate Governance	Full compliance – SOX and substantial compliance to King III	No material/ significant failures	Nil	Nil	Nil	Nil	Nil	√

<sup>1</sup> Including restricted work cases for Australia; 4.66 if work cases are excluded

<sup>2</sup> Fatal Injury Frequency Rate

<sup>3</sup> Serious Injury Frequency Rate

<sup>4</sup> Lost Time Injury Frequency Rate

<sup>5</sup> Days Lost Injury Frequency Rate

<sup>6</sup> Notional Cash Expenditure

<sup>7</sup> Internal Rate of Return

<sup>8</sup> Global Business Area Rating system

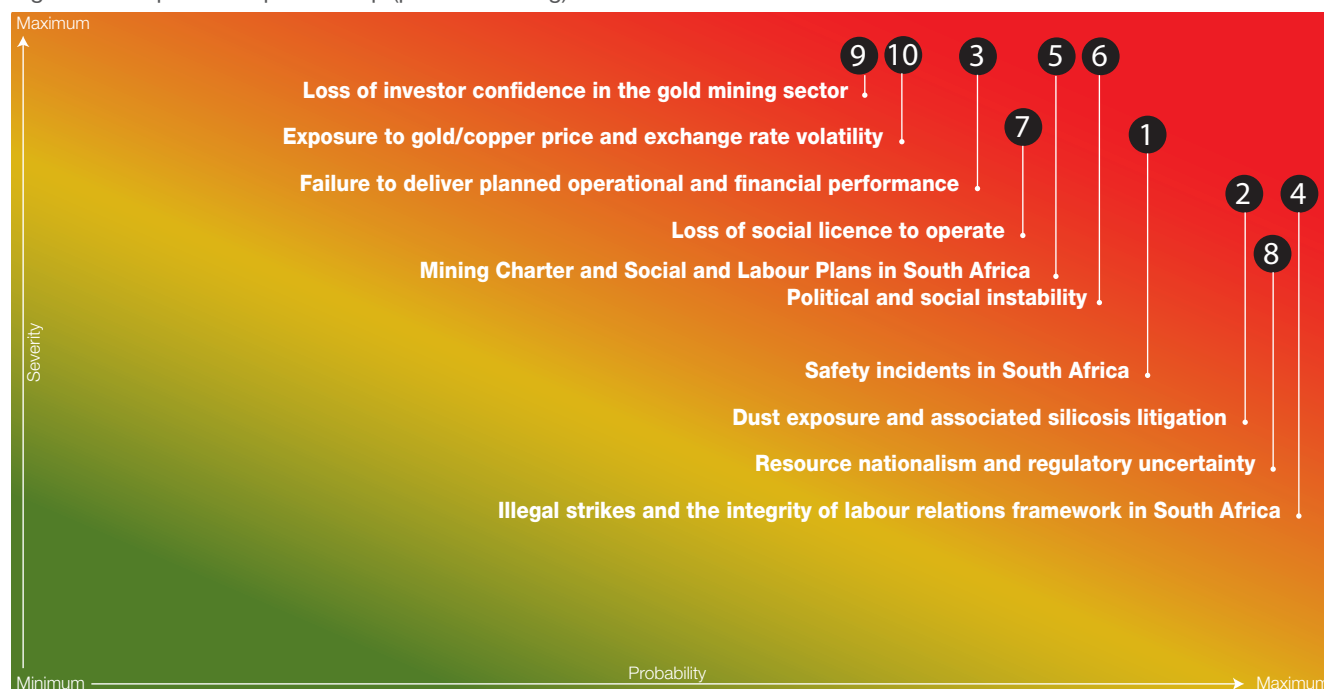


## 3.2 Group risks and opportunities continued

### 3.2.3 Group heat map

The heat map below sets out the top 10 Group risks, as identified through our Enterprise Risk Management (ERM) process (p48). This represents the Group's top operational and strategic risks, based on our operation- and region-level risk registers as at the end of 2012.

Figure 3.6: Top 10 Group heat map (pre-unbundling)



### 3.2.4 ERM Combined Assurance

We formalised a Combined Assurance approach following the approval of the Audit Committee in November 2012.

The approach is based on the application of three levels of assurance on all our significant risks:

- Level 1: Management self-assurance
- Level 2: Internal assurance
- Level 3: Independent assurance

Combined Assurance aims to:

- Provide appropriate levels of assurance on all significant risks facing the Company
- Demonstrate due diligence by management
- Monitor the relationships between various assurance providers and their activities

By adopting this approach, we are doing everything reasonably practical to give the Board assurance that we are executing effective control measures to avoid and/or mitigate our risks – thereby ensuring the continuity and sustainability of all our operations.

The process is monitored by our risk, internal control and compliance functions. Recommendations are made to management for additional assurance where required or to identify areas where assurance is duplicated.

The Combined Assurance approach is formally reviewed every year as part of our annual risk management plan.

Figure 3.7: Mitigation strategies for top 10 risks (pre-unbundling)

Risks	Mitigation strategies
1	<ul style="list-style-type: none"> <li>Reintegration of the cultural transformation and internal safety engagement pillars into the Safe Production Management Strategy (p87)</li> <li>Enhanced safety enforcement measures, including increased resourcing (p87)</li> <li>Introduction of a Safety, Health and Environment Committee at South Deep, chaired by the CEO</li> <li>Engineering-out of safety risks, including fall of ground hazards</li> <li>Establishment of a seismic task team and upgrading of secondary support standards</li> </ul>
2	<ul style="list-style-type: none"> <li>Engineering-out of health risks, including tip filters, mist sprays, settling agents and enhanced dust measurement</li> <li>Enhancement of personal protective equipment performance through our Respiratory Protection Programme</li> <li>Detailed preparation to determine potential litigation and liability – including consolidation of historical data</li> </ul>
3	<ul style="list-style-type: none"> <li>Portfolio Review to optimise cash generation and investment payback</li> <li>Acceleration of distress mining at South Deep to support production ramp-up targets</li> <li>New, high impact and strongly incentivised '24/7/365' operating model at South Deep and development of new training and maintenance facilities (p79 – 82)</li> <li>Stabilisation of production at Damang, through the upgrading of the processing plant and re-evaluation of existing Mineral Resource model</li> <li>Consolidation and optimisation of owner-mining at our Australian and West African operations</li> </ul>
4	<ul style="list-style-type: none"> <li>Firm defence of the gold mining sector's existing two-year Collective Wage Agreement – whilst bringing forward changes to job grades and entry level wages (p139)</li> <li>Increased engagement with unions at regional and national levels</li> <li>Strong emphasis on responsible security provision and the avoidance of violence (p140, 152)</li> <li>Close engagement with mining peers, unions and government to establish a mutually acceptable labour negotiation framework for the next formal wage negotiation in 2013</li> <li>Increased focus on enhanced, direct communication with our workforce</li> </ul>
5	<ul style="list-style-type: none"> <li>Submission of a new, enhanced 'second round' Social and Labour Plan (SLP) for South Deep, including accelerated distribution of funds from the South Deep Education and Community Trusts with greater involvement from relevant outside stakeholders (p147, 149)</li> <li>Implementation of a comprehensive programme to upgrade accommodation, with a strong focus on the construction of family units, promotion of home ownership and dismantling of legacy hostel issues</li> <li>Ongoing programmes addressing local procurement, broad-based transformation, training and skill development and enhanced community development programmes</li> <li>Establishment of grassroots Sustainable Development Forums and comprehensive stakeholder mapping/analysis in South Africa</li> </ul>
6	<ul style="list-style-type: none"> <li>Geographical diversification to broaden operational base and reduce overall risk (p96)</li> <li>Enhanced political monitoring and government engagement (direct and indirect)</li> <li>Establishment of Group-wide crisis management programme, including Corporate Crisis Management Support Team, Regional Incident Response Teams and Emergency Response Teams</li> </ul>
7	<ul style="list-style-type: none"> <li>Development of a new Community Handbook and community engagement tools by the Sustainable Development department to ensure consistent, best practice approach across all operations and projects (p148)</li> <li>Delivery of shared value through our Socio-Economic Development contributions (p145)</li> <li>Minimisation of negative environmental impacts – with a focus on water quality and availability under our new Water Strategy (p91)</li> <li>Review of the Ruggie Framework and other human rights standards to analyse human rights performance at Gold Fields and ensure best practice</li> </ul>
8	<ul style="list-style-type: none"> <li>More transparent communication with host governments on the state of the industry, cost structures and future outlook, with a view to fostering a better understanding of the sector's challenges and competitive position (p151)</li> <li>Enhanced measurement/communication of our local economic shared value contributions (p141)</li> <li>Ongoing and constructive engagement with host government on a bilateral and multilateral basis (p52, 150)</li> </ul>
9	<ul style="list-style-type: none"> <li>Prioritisation of cash generation with respect to both current production and future growth – including Gold Fields Portfolio Review and delivery of full run rate at South Deep (p34 – 35, p79 – 82)</li> <li>Focus on leveraging the gold price for investors through the payment of strong dividends (p15 – 17)</li> <li>Transparent measurement and communication of all-in costs using Notional Cash Expenditure (p17, 28, 30, 34)</li> </ul>
10	<ul style="list-style-type: none"> <li>Continuous business process re-engineering to maximise efficiency</li> <li>Portfolio Review to improve cash flow generation</li> <li>Increased geographical and currency diversification</li> <li>Strict application of stage-gate process to ensure future growth projects contribute to cash generation</li> </ul>

## 3.3 Stakeholder engagement

### 3.3.1 Approach

Proactive and frank stakeholder engagement sits at the heart of our efforts to maintain the sustainability of our business. This is carried out in line with the AA 1000 principles of:

- Inclusivity
- Materiality
- Responsiveness<sup>1</sup>


Our engagement activities fall into two types:

- Direct engagement, including organised dialogues, roundtable discussions, one-on-one meetings, internal surveys and regular engagement with local communities at each operation and project
- Indirect engagement, including the use of external benchmarks and standards that are designed to reflect and address societal expectations (p59)

At an operational level, all our mines identify, prioritise and directly engage stakeholder groups that have the potential to affect their operational, sustainability or financial performance.

At a strategic level, our corporate and regional management teams implement an ongoing programme of direct and indirect engagement.

Relevant outcomes from our operational and strategic stakeholder engagement are logged and communicated through our Enterprise Risk Management (ERM) process – and so form a vital part of the Group's risk management programme (p48).

 **Online information:** 2012 full tables on stakeholder engagement and stakeholder issues.

Chucapaca community member, Peru

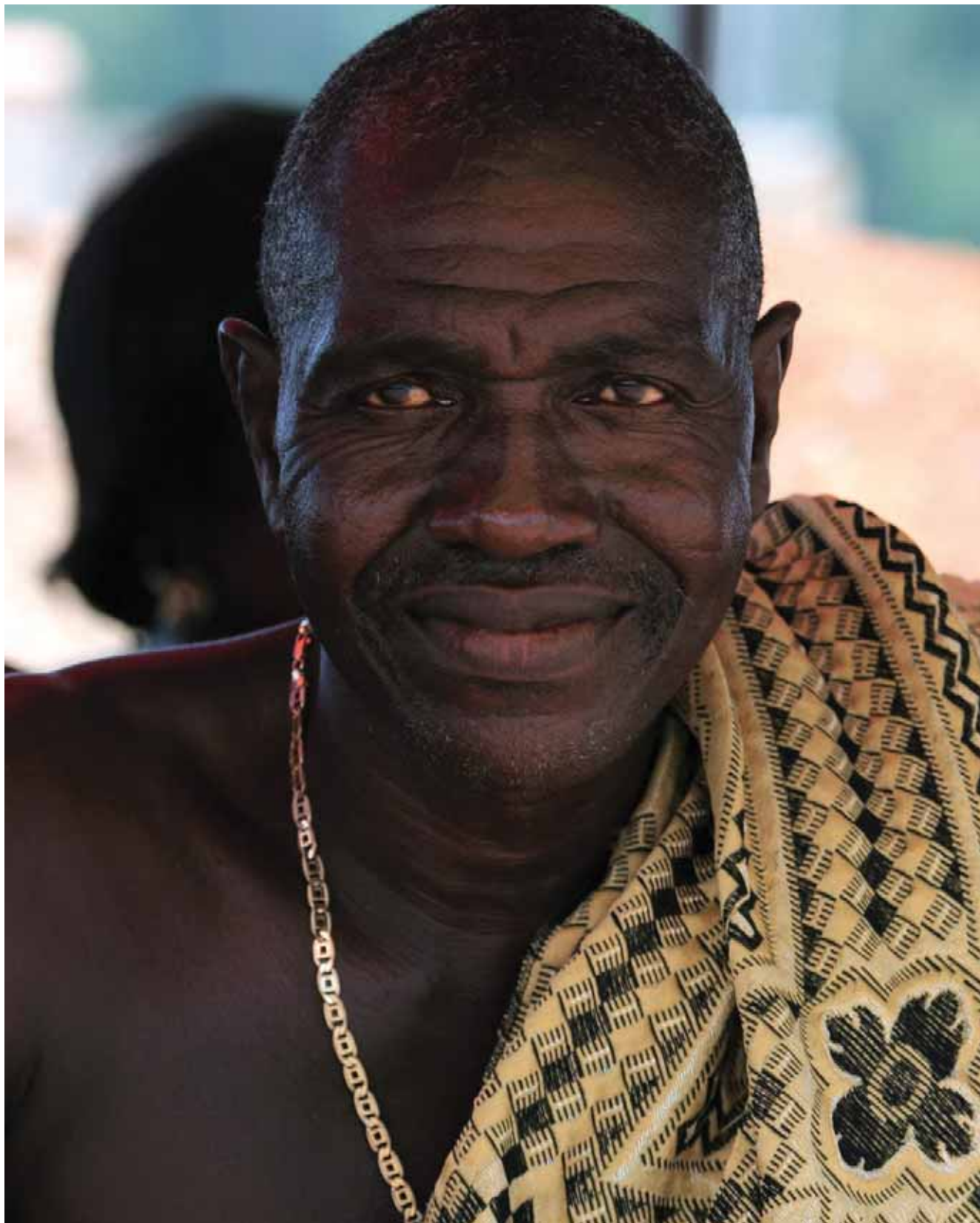


Figure 3.8: Stakeholder categories

<b>Investors</b>	• Current shareholders
	• Potential shareholders
	• Investment analysts
<b>Employees</b>	• Employees
	• Contractors
	• Employee and contractor dependants
	• Organised labour
<b>Society</b>	• Government
	• Regulatory authorities
	• Local and labour-sending communities
	• Media, NGOs and other opinion formers
	• Potential business partners
	• Gold consumers

<sup>1</sup> AA 1000 AccountAbility Principles Standard 2008

Traditional leader during negotiations with mine management at Tarkwa, Ghana





## 3.3 Stakeholder engagement continued

### 3.3.2 Strategic performance dashboard

Figure 3.9: Group strategic performance dashboard

Strategic requirement	Key stakeholders	Stakeholder risk/opportunity	What we measure	
<b>A winning, safe, healthy and productive team</b>	Employees/trade unions/ Regulators	<ul style="list-style-type: none"> <li>• Moral imperative to protect those who work for us</li> <li>• Protection of reputation</li> <li>• Avoidance of operational disruption</li> <li>• Potential for regulatory sanctions – including safety-related stoppages</li> <li>• Potential for future legal liabilities</li> <li>• Maintenance of a safe, healthy, motivated and productive workforce</li> </ul>	Lost Time Injury Frequency Rate (LTIFR)	
	Investors	<ul style="list-style-type: none"> <li>• Attraction and retention of the best talent in a competitive global labour market</li> <li>• Maintenance of a sustainable skills pipeline</li> <li>• Maintenance of constructive labour relations to avoid operational disruptions</li> </ul>	Culture and Climate ratings <sup>3</sup>	
<b>The most trusted and valued mining partner</b>	Local communities	<ul style="list-style-type: none"> <li>• Ability to secure new mining licences</li> <li>• Ability to meet legal and regulatory requirements</li> </ul>	Local Economic Contribution (US\$ billion)	
	Host governments	<ul style="list-style-type: none"> <li>• Ability to secure and maintain social licence to operate</li> <li>• Ability to access financing to grow the operational base</li> <li>• Access to high-potential, higher-risk growth opportunities</li> </ul>	Healthy drinking and productive water to employees and affected communities	
	Civil society	<ul style="list-style-type: none"> <li>• Maintenance of stable production at established operations</li> </ul>	Energy (GJ) per ounce of gold produced	
		<ul style="list-style-type: none"> <li>• Ability to maintain our energy and carbon emission reduction programme</li> </ul>	Environmental incidents greater than Category 3	
<b>A quality portfolio of productive mines and assets under exploration and development</b>	Employees	<ul style="list-style-type: none"> <li>• Creation and maintenance of employment positions</li> <li>• Generation of socio-economic development contributions to local communities</li> </ul>	NCE per ounce	
	Local communities	<ul style="list-style-type: none"> <li>• Generation of public revenue contributions</li> </ul>	Years of reserves at current rate of production	
	Host governments	<ul style="list-style-type: none"> <li>• Delivery of leverage against the price of gold to investors</li> </ul>	Acquisition and development costs (net of disposals)/ounce of resources added (US\$/oz)	
	Investors	<ul style="list-style-type: none"> <li>• Delivery of growth on a per share basis to investors</li> </ul>		
<b>The best return on gold</b>	Investors	<ul style="list-style-type: none"> <li>• Delivery of attractive returns relative to our peers</li> <li>• Ability to maintain and grow share value</li> <li>• Ability to finance operations and capital projects</li> </ul>	Free cash flow per share (R)	
	Employees	<ul style="list-style-type: none"> <li>• Ability to sustain the reserve ounce base and infrastructure to underpin future production</li> </ul>	Total Shareholder Return (TSR) relative to gold price appreciation over 3 years (%)  Performance against peer group	

<sup>1</sup> The CEO bonus performance is based on 65% Group objectives and 35% Personal objectives

<sup>2</sup> Including restricted work cases for Australasia; 4.66 if Australasia restricted work cases are excluded

<sup>3</sup> Assessment of organisational culture and climate

	Performance in 2011	Performance in 2012 (incl. Sibanye Gold)	Planning in 2013 (excl. Sibanye Gold)	Impact on CEO remuneration <sup>1</sup>
	4.69	5.16 <sup>2</sup>	<ul style="list-style-type: none"> <li>• Engineering-out of safety risks and health risks (p89)</li> <li>• Enhanced safety enforcement measures, including increased resourcing (p87)</li> <li>• Cultural/behavioural change (p88)</li> <li>• Preparation for potential silicosis litigation in South Africa (p137)</li> <li>• Maintenance of OHSAS 18001 certification</li> <li>• Development of a new Employee Charter</li> <li>• Ongoing competitive remuneration and benefits strategy (p70, 130)</li> <li>• Proactive leadership development and talent management programme (p132 – 133)</li> <li>• Delivery of world-class training (p133)</li> <li>• Ongoing, proactive engagement with unions and employees (p139)</li> </ul>	<ul style="list-style-type: none"> <li>• % of Group Objectives: 30%</li> <li>• % of Personal Objectives: 27%</li> </ul>
	n/a	Implementation starting 2013		
	Implementation started 2012	5.30	<ul style="list-style-type: none"> <li>• Development of a new Society Charter</li> <li>• Ongoing and constructive engagement with governments and communities</li> <li>• Maintenance of ISO 14001 certification</li> <li>• Delivery of shared value through our new Community Promises (p145)</li> <li>• Development of new Community Handbook (p148)</li> <li>• Review of the UN Ruggie Framework to analyse human rights performance and ensure best practice</li> <li>• Roll-out of our new Water Strategy (p91)</li> <li>• Ongoing minimisation of negative environmental impacts (p91)</li> <li>• Sustained focus on the integrated Energy and Carbon Management Strategy (p93)</li> </ul>	<ul style="list-style-type: none"> <li>• % of Personal Objectives: 18%</li> </ul>
	n/a	Implementation starting 2013		
	6.97	7.56		
	5	7		
	1,173	1,376	<ul style="list-style-type: none"> <li>• Geographical diversification to broaden operational base and reduce overall risk (p96)</li> <li>• Strict application of stage-gate process to growth projects (p98 – 100)</li> <li>• Acceleration of distress mining at South Deep (p79 – p82)</li> <li>• Roll-out of new, high-impact operating model at South Deep (p79 – 82)</li> <li>• Continuous Business Process Re-engineering to maximise efficiency (p43) and continuous focus on cost leadership</li> <li>• Focus on technology and innovation, where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• % of Group Objectives: 70%</li> <li>• % of Personal Objectives: 35%</li> </ul>
	23	20		
	46	32		
	5.55	-2.00		
	1.39	0.08	<ul style="list-style-type: none"> <li>• Development of a new Investor Charter</li> <li>• Prioritisation of cash generation with respect to current and future production (p14 – 15, 17, 30)</li> <li>• Ongoing operational and strategic Portfolio Review (p34 – 35, 43)</li> </ul>	<ul style="list-style-type: none"> <li>• % of Personal Objectives: 20%</li> </ul>
	n/a	Implementation starting 2013		

# 4. Transparency and accountability



Inspecting core samples at Cerro Corona, Peru





# Contents

4.1 Corporate governance	Page	58
4.1.1 Internal standards and principles	Page	58
4.1.2 External standards and principles	Page	59
4.1.3 Awards and external recognition	Page	60
4.1.4 Board of Directors	Page	61
4.1.5 Board committees	Page	66
4.2 Remuneration and performance	Page	70
4.2.1 Summary of Remuneration Report	Page	71



## 4.1 Corporate governance

Our achievement of global leadership in sustainable gold mining – and our ability to fulfil our stakeholder promises (p16) – requires ‘integrated’ corporate governance of the highest level. This means a governance framework that actively supports the proactive and effective management of those strategic dynamics that will ultimately determine our long-term sustainability – whether operational, economic, social, environmental or otherwise.

This approach is essential given the long-term, capital intensive nature of our mining projects – as well as the sometimes challenging contexts in which we need to operate. It not only requires us to ensure our business remains profitable, but that we also deliver clear economic, social and environmental benefits wherever we operate.

Our management approach is underpinned by our commitment to sound and robust corporate governance standards, which is essential to our ultimate operational and strategic success.

### 4.1.1 Internal standards and principles

Gold Fields has developed a comprehensive set of internal standards and principles that underpin how we do business. These include:


- **Our Vision and Values:** Everything that we do to achieve our Vision of becoming the global leader in sustainable gold mining is informed by our Values (p16). These are applied by our directors, as well as employees at every level of the Company
- **Board of Directors’ Charter:** This articulates the objectives and responsibilities of the Board (p63). Likewise, each of the Board committees operates in accordance with written terms of reference, which are regularly reviewed by the Board. These are available on our website or, on request, from our secretarial office
- **Sustainable Development Framework:** Gold Fields places particular emphasis on the ongoing development of its sustainable development systems and structures. This includes the establishment of a unified Sustainable Development Framework based on best practice, as well as our operational requirements. The framework, which is governed by an overall Sustainable Development Policy, is made up of the following pillars – each of which is underpinned by a formal corporate policy:
  - Energy and carbon management
  - Communities and indigenous people
  - Environment
  - Ethics and corporate governance
  - Human rights
  - Material stewardship and supply chain management
  - Occupational health and safety
  - Risk management
  - Stakeholder engagement


Effective management in each of these areas is integral to the achievement of our long-term, strategic objectives

- **Code of Ethics:** The Gold Fields Code of Ethics commits every employee, officer and director within Gold Fields to conducting business in an ethical and fair manner. The Board’s Audit Committee and Social and Ethics Committee is tasked with ensuring the consistent application of, and adherence to, the Code of Ethics

Inspecting core samples at Far Southeast, Philippines



 [www.goldfields.co.za/  
com\\_corp\\_gov.php](http://www.goldfields.co.za/com_corp_gov.php)

 [www.goldfields.co.za/  
com\\_ethics.php](http://www.goldfields.co.za/com_ethics.php)

#### 4.1.2 External standards and principles

Gold Fields adheres to a number of external standards and principles. These include:

##### Voluntary standards:

- Our Sustainable Development Framework is guided by the International Council on Mining and Metals' (ICMM) 10 Principles on sustainable development and the supporting position statements
- We support the principles and processes of the Extractive Industry Transparency Initiative (EITI) through our membership of the ICMM
- We support the principles advocated by the World Gold Council of which we are a member
- We are guided by the principles advocated by the United Nations Global Compact (UNGC), in which we are a participant. This includes implementation of the 10 Principles in our business activities and our annual submission of a Communication on Progress
- Our reporting is guided by the internationally recognised Global Reporting Initiative's (GRI) G3.1 Sustainability Reporting Guidelines, including the Mining and Metals Sector Supplement and Reporting Guidance on HIV/AIDS

- The Gold Fields Code of Ethics meets relevant requirements from a number of external standards including South Africa's King III Report on Corporate Governance. The code is also aligned with relevant US legislation (including the Sarbanes-Oxley Act (2002), Dodd-Frank Act (2010) and Foreign Corrupt Practices Act (1977)), the UK Bribery Act (2010), the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (1997), the UN Convention against Corruption (2003) and South Africa's Prevention and Combating of Corrupt Activities Act (2004)

##### Internationally recognised management system standards:

- All of our operations – as well as our exploration division – are certified to the ISO 14001 environmental management system standard
- All of our mines are certified to the OHSAS 18001 safety management system standard
- All of our mines identify, prioritise and engage relevant stakeholder groups in accordance with the AA 1000 stakeholder engagement principles
- All of our eligible operations are fully compliant with the requirements of the International Cyanide Management Code<sup>1</sup>

##### Listings requirements:

- Our primary listing on the JSE<sup>2</sup> Limited (JSE) means we are subject to the JSE Listings Requirements, including certain aspects of South Africa's King III Code of Corporate Governance (King III – see below)
- The trading of our shares on the New York Stock Exchange (NYSE) means we are subject to relevant NYSE disclosure and corporate governance requirements, as well as the terms of the Sarbanes-Oxley Act 2002
- Our secondary listings on NASDAQ Dubai Limited, Euronext in Brussels and the SWX Swiss Exchange means we are subject to each exchange's disclosure requirements

##### Application of King III within Gold Fields

The JSE has included certain aspects of South Africa's King III Report on Corporate Governance (King III) in its Listings Requirements. The Board has adopted the recommendations on good corporate governance contained in the King III Report, as well as the King Code of Governance Principles for South Africa.

We have implemented the King III principles and recommendations across Gold Fields. A full report of our compliance with each of the King III principles is available on the Gold Fields website.

Sustainability Services found that Gold Fields had a 94.9% compliance score to King III.



[www.goldfields.co.za](http://www.goldfields.co.za)

<sup>1</sup> i.e. excluding Cerro Corona, which produces a copper concentrate

<sup>2</sup> JSE Securities Exchange

## 4.1 Corporate governance continued

### New Memorandum of Incorporation

On 1 May 2011, South Africa's Companies Act No 71 of 2008 (as amended) came into force – replacing the Companies Act No 61 of 1973. Although already compliant with most of the terms of the Act prior to it coming into force, during 2012 we took additional actions to ensure full conformance with the Companies Act and the amended JSE Listings Requirements, including implementation of our new Memorandum of Incorporation (which replaces our previous Articles of Association). These were approved at our annual general meeting (AGM) in May 2012.

Gold Fields intends to propose some amendments to the new Memorandum of Incorporation at the annual general meeting scheduled for 9 May 2013, which amendments will inter alia relate to:

- The ability of the Board to create and issue debt instruments (in the form of bonds, notes, commercial paper, debentures or other similar securities that are, or are capable of being, listed or ordinarily dealt with on an exchange) without reference to shareholders, on such terms and conditions as the Board may from time to time determine, provided that no special privileges may be granted to secured and unsecured debt instruments as contemplated in the JSE Listings Requirements. Such ability shall in all circumstances be subject to and be in accordance with the JSE Listings Requirements and the Companies Act
- The retirement of directors by rotation, which amendment will, in line with international best practice, provide that all directors, and not only non-executive directors, are subject to retirement by rotation
- Recent changes to the JSE Listings Requirements


We are in the process of ensuring all the Memorandums of Incorporation of our subsidiary companies are similarly aligned. This process will be completed by the deadline of 1 May 2013.

### 4.1.3 Awards and external recognition

During 2012, Gold Fields won the following awards and recognition, among others:

- Third place among global mining companies in the 2012 Dow Jones Sustainability Index (DJSI) as evaluated by Sustainable Asset Management, making Gold Fields the top-ranked South African-listed mining company and the top-ranked gold miner on the DJSI. In 2011, Gold Fields was ranked fourth
- Ranked second in the JSE Top 100 Carbon Disclosure Leadership Index (CDLI) by the global Carbon Disclosure Project (CDP). Gold Fields was also among the top six (unranked) companies in the CDP's Carbon Performance Ratings
- First place in the Energy, Minerals and Industrial segment of South Africa's Climate Change Leadership Awards
- The John T Ryan Trophy for safety in the Peruvian open pit mining category – for the third consecutive year in 2012
- Inclusion in the JSE's Socially Responsible Investment Index, for the eighth year in succession
- First place in the Top 40 JSE category of the Institute of Chartered Secretaries (ICS)/JSE Annual Report Awards in South Africa for our 2011 Integrated Annual Report
- Second place in the Basic Materials category of the Nkonki Top 100 Integrated Reporting Awards for our 2011 Integrated Annual Report
- 'Prime Grade' under Oekom's classification of companies' social and environmental performance

- Runner-up in the 'Best Sustainability Reporting in the Resources Sector' category and overall winner of the 'Best Sustainability Reporting – Most Improved Report' category in the ACCA South Africa Sustainability Reporting Awards for our 2011 Integrated Annual Report
- Inclusion in the (unranked) top 10 in Ernst & Young's first-ever Excellence in Integrated Reporting awards (which evaluated the reports of the top 100 JSE listed companies and the top 10 state-owned entities in South Africa) for our 2011 Integrated Annual Report
- Global Reporting Initiative A+ compliance for our 2011 Integrated Annual Report
- Achievement of advanced-level reporting under the UN Global Compact

 **Case study:** Gold Fields recognised as one of the top-3 mining companies in the DJSI

 [www.icmm.com](http://www.icmm.com)

 [www.eiti.org](http://www.eiti.org)

 [www.gold.org](http://www.gold.org)

 [www.unglobalcompact.org](http://www.unglobalcompact.org)

 [www.globalreporting.org](http://www.globalreporting.org)

 [www.cyanidecode.org](http://www.cyanidecode.org)

 [www.sec.gov](http://www.sec.gov)

 [www.jse.co.za](http://www.jse.co.za)

#### 4.1.4 Board of Directors

The Board is the highest governing authority of the Company. The Board of Directors' Charter articulates the objectives and responsibilities of the Board (see below). Likewise, each of the Board subcommittees operates in accordance with written terms of reference, which are regularly reviewed by the Board. The Board takes ultimate responsibility for the Company's adherence to sound corporate governance standards and sees to it that all business decisions and judgements are made with reasonable care, skill and diligence.

In terms of the Memorandum of Incorporation, the number of directors shall not be less than four and not more than 15. As at 26 March 2013 the Board comprised 12 directors, of whom only two are executive directors and 10 independent non-executive directors. Advised by the Nominating and Governance Committee, the Board ensures that the election of independent directors falls on reputable persons of well-known competence and experience, who are willing to devote a sufficient part of their time to the Company.

The role of non-executive directors, who are independent of management, is to protect shareholders' interests, including those of minority shareholders. They are also intended to ensure that individual directors or groups of directors are subject to appropriate scrutiny in their decision-making.

The Board is kept informed of all developments at the Company, primarily through the executive directors and the Company Secretary. The Board is also kept informed through a number of other mechanisms, including employee climate surveys, newsletters and internal staff communication, among others.

The roles of the Chair of the Board and the Chief Executive Officer (CEO) are kept separate. Non-executive director Dr Mamphela Ramphela was the Chair of the Board until 13 February 2013 when she was replaced by non-executive director Cheryl Carolus. Nick Holland was the CEO of Gold Fields for all of 2012.

In 2012, there was a single change to the composition of the Board – marked by the departure of Matthews Sello Moloko on 31 December 2012.

The Board is required to meet at least four times a year. During 2012, it convened six times.

#### Monitoring of performance

The Chair is appointed on an annual basis by the Board, with the assistance of the Nominating and Governance Committee after a rigorous review of the Chair's performance and independence. In line with recommendations by King III, the Board carries out a rigorous evaluation of the independence of directors who have served on the Board for nine years or more. The Nominating and Governance Committee assesses the independence of non-executive directors annually.

In addition, a comprehensive annual work plan was developed to help ensure the Board discharged its duties in a structured manner. The work plans were approved by the Board committees in February 2013.

Open pit at Agnew, Australia





## 4.1 Corporate governance continued

Figure 4.1: Summary attendance table of Board and Board Committee meetings

	Board	Special Board	Audit	SHSD	Capital Projects	Remcom	Nominating and Governance	Social and Ethics
Number of meetings per year	4	2	7	5	4	4	4	5
MA Ramphele	4	2	–	5	–	4	4	5
K Ansah	4	2	–	5	–	–	4	–
CA Carolus <sup>1</sup>	3	2	–	5	–	–	–	–
R Dañino <sup>2</sup>	2	2	–	4	–	–	2	4
AR Hill	4	2	–	–	4	–	–	–
NJ Holland	4	2	–	–	–	–	–	–
DL Lazaro	4	2	–	–	4	–	–	–
RP Menell <sup>3</sup>	4	1	7	5	4	–	–	–
MS Moloko <sup>3</sup>	4	1	7	–	–	–	–	–
DN Murray	4	2	–	5	4	–	–	5
DMJ Ncube <sup>3</sup>	4	1	7	–	–	4	–	–
PL Pennant-Rea <sup>3</sup>	4	1	7	–	–	4	4	5
PA Schmidt	4	2	–	–	–	–	–	–
GM Wilson	4	2	7	–	4	4	–	5

<sup>1</sup>Apologies tendered for meeting of 16 May 2012 (was not able to attend the full meeting)

<sup>2</sup>Apologies tendered for the Board meetings of 15 February 2012 and 22 August 2012, the SHSD Committee meeting of 20 August 2012, the Nominating and Governance Committee meetings of 14 May 2012 and 20 August 2012 and the Social and Ethics Committee meeting of 21 August 2012

<sup>3</sup>Apologies tendered for special Board meeting of 12 December 2012

In 2012 a detailed assessment of the performance of the Board and its committees was conducted by the Company Secretariat, in line with the latest recommendations by King III (released in the form of practice notes). The assessments found the structures and processes governing the Board and its committees were well established and functioning satisfactorily. It also found that the Board had fulfilled its role and responsibilities and had discharged its responsibility to the Company, shareholders and other stakeholders in an exemplary manner. The size of the Board and Board composition were identified as potential areas for improvement.

A new mechanism for conducting individual director assessments was also introduced, which is appropriate for the level of seniority of the members of the Board and is aligned with the King III requirements. This will be implemented during the course of 2013.

### Rotation and retirement from the Board

In accordance with our Memorandum of Incorporation, one-third of the non-executive directors shall retire from office at each annual general meeting. The first to retire are those directors appointed as additional members of the Board during the year, followed by the longest serving members. Retiring directors can be immediately re-elected by the shareholders at the annual general meeting. The Board, assisted by the Nominating and Governance Committee, recommends the eligibility of retiring directors (subject to availability and their contribution to the business) for reappointment. A director who has served on the Board for more than three years since their last election or appointment is required under the Memorandum of Incorporation to retire at the next annual general meeting.

An amendment to the Memorandum of Incorporation will be proposed at the Company's next annual general meeting to the effect that executive directors will also be required to retire by rotation.

## Board of Directors' Charter

The Board reviewed and approved the Board of Directors' Charter to align it to the recommendation of King III. Our Board of Directors' Charter compels directors to promote the Vision of the Company, while upholding sound principles of corporate governance. Directors' responsibilities under the Charter include:

- Determining the Company's Code of Ethics and conducting its affairs in a professional manner, upholding the core values of integrity, transparency and enterprise
- Evaluating, determining and ensuring the implementation of corporate strategy and policy
- Determining compensation, development, skills development and other relevant policies for employees
- Developing and setting best-practice disclosure and reporting practices that meet the needs of all stakeholders
- Authorising and controlling capital expenditure and reviewing investment capital and funding proposals
- Constantly updating the risk management systems; including setting management expenditure authorisation levels and exposure limit guidelines
- Reviewing executive succession planning and endorsing senior executive appointments, organisational changes and general remuneration policies. In this the Board will be guided by the Remuneration Committee as well as the Nomination and Governance Committee



[www.goldfields.co.za/pdfs/charter.pdf](http://www.goldfields.co.za/pdfs/charter.pdf)

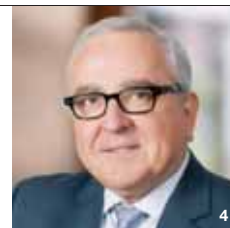
## Board statement

The Board considers that this Integrated Annual Review complies in all material respects with the relevant statutory requirements of the various regulations governing disclosure and reporting by Gold Fields and that the annual financial statements comply in all material respects with the Companies Act No 71 of 2008, as amended, as well as with IFRS. As such, the Board approves the content of the Integrated Annual Review 2012, including the annual financial statements.

Tarkwa mine, Ghana



## 4.1 Corporate governance continued



### Independent non-executive directors at 31 December 2012

#### 1. Dr Mamphela Ramphele (65)

##### Departing Chair

*MBCHB, University of Natal; PhD in Social Anthropology, University of Cape Town; BCom Admin, University of South Africa; Diploma in Tropical Health and Hygiene and a Diploma in Public Health, University of the Witwatersrand*

Dr Ramphele was appointed non-executive director and Deputy Chair of the Board of Gold Fields on 1 July 2010 and Chair of the Board with effect from 2 November 2010. She is the founder of Letsema Circle, a Cape Town-based specialist transformation advisory company as well as the Subject2Citizen movement. She was previously a director of Remgro, Anglo American Plc and Medi-Clinic. Dr Ramphele was Vice-Chancellor of the University of Cape Town, a post she took up in 1996, having joined the university as a research fellow in 1986. She served as Managing Director of the World Bank from May 2000 to July 2004 with responsibility for human development activities and the World Bank Institute. She was Co-Chair of the Global Commission for International Migration (GCIM) between 2004 and 2005.

Dr Ramphele resigned from the Board with effect from 13 February 2013 to start Agang, a political platform. Cheryl Carolus was appointed as the Chair with effect from 14 February 2013.

#### 2. Cheryl A Carolus (54)

##### New Chair

*BA Law; Bachelor of Education, University of the Western Cape*

Ms Carolus was appointed a director of Gold Fields on 10 March 2009 and was appointed as the Chair with effect from 14 February 2013. She is Executive Chair of Peotona Group Holdings, an empowerment consortium, and also holds directorship with Investec and De Beers, amongst others. She is a director of a number of other public and private companies, including the World Wildlife Fund, and served as South Africa's High Commissioner to the United Kingdom from 1998 to 2001. Ms Carolus was the CEO of South African Tourism from 2001 to 2004 and Chair of the South African National Parks board for six years.

#### 3. Kofi Ansah (68)

*BSc (Mechanical Engineering), UST Ghana; MSc (Metallurgy), Georgia Institute of Technology*

Mr Ansah was appointed a director of Gold Fields in April 2004. He is also a director of Ecobank Limited (Ghana).

#### 4. Roberto Dañino (62)

*Master of Law, Harvard Law School; Bachelor of Law, Pontificia Universidad Católica del Perú*

Mr Dañino has been a director of Gold Fields since 10 March 2009. A former Prime Minister of Peru and his country's ambassador to the United States, he serves on various corporate and non-profit boards in Peru, Canada, the United Kingdom and the United States, including Gold Fields La Cima and Hochschild Mining. He is the chair of Fosfatos del Pacífico S.A.

Mr Dañino has practiced for over 30 years as a partner of leading law firms in Lima and Washington DC, was Senior Vice-President and General Counsel of the World Bank as well as Secretary General of the International Centre for Settlement of Investment Disputes (ICSID).

#### 5. Alan R Hill (70)

*BSc (Hons); MPhil (Rock Mechanics), Leeds University*

Mr Hill joined the Board on 21 August 2009. On 2 October 2010, he was appointed the CEO and Chair of Teranga Gold Corporation and was appointed Executive Chair in September 2012. After graduating, Mr Hill worked for a number of mining firms before joining Barrick Gold in 1984. He spent 19 years with Barrick from which he retired in 2003 as Executive Vice-President: Development.

#### 6. Delfin Lapus Lazaro (62)

*BS Metallurgical Engineering, University of Philippines; MBA, Harvard Business School*

Mr Lazaro joined the Board on 1 June 2011. He also serves on the Board of Ayala Corporation, Insular Life Assurance Company Limited and Manila Water Company Inc., amongst other companies. He served as the President and CEO of Globe Telecom from 1996 to 1998. Prior to this, he was head of the Philippines Department of Energy and served as the chairman of various entities from 1992 to 1994. He started his working career at Benguet Corporation in 1975 as a treasurer and held various other positions in the organisation until he was appointed vice chairman. He served in this role from 1989 to 1992.



9



10



11



12



13



14

### 7. Richard P Menell (57)

*BA (Hons), MA (Natural Sciences Geology), Cambridge; MSc (Mineral Exploration and Management), Stanford University, California*

Mr Menell was appointed a director of Gold Fields on 8 October 2008. Mr Menell became a member of the Board of Sibanye Gold Limited with effect from 1 January 2013.

He has over 35 years' experience in the mining industry, including service as President of the Chamber of Mines of South Africa, President and CEO of Teal Exploration & Mining as well as Executive Chair of Anglovaal Mining and Avgold. He is a director of Weir Group Plc and Senior Adviser to Credit Suisse. He also serves as a director of a number of unlisted companies and non-profit organisations.

### 8. Matthews Sello Moloko (47)

*BSc (Hons) and Postgraduate Certificate in Education, University of Leicester; Advanced Management Programme, Wharton*

Mr Moloko was appointed a director of Gold Fields on 25 February 2011. Mr Moloko resigned from the Board with effect from 31 December 2012 in order to Chair the Board of Sibanye Gold Limited. He is the executive Chair, founder and shareholder of Thesele Group and non-executive Chair of Alexander Forbes Group. He has worked at a number of financial services companies, including Brait and Old Mutual, where he was CEO of Old Mutual Asset Managers until 2004. Other directorships include Acucap Limited and Sycom Property Fund and he chairs the Nelson Mandela Foundation Investment Committee.

### 9. David N Murray (68)

*BA (Hons) Econ; MBA, University of Cape Town*

Mr Murray was appointed a director of Gold Fields on 1 January 2008. He has more than 38 years' experience in the mining industry and has been CEO of Rio Tinto Portugal, Rio Tinto Brazil, TVX Gold Inc, Avgold and Avmin. He is also a non-executive director of Ivernia Inc.

### 10. Donald MJ Ncube (65)

*BA (Economics) and Political Science, Fort Hare University; Postgraduate Diploma in Labour Relations, Strathclyde University, Scotland; Graduate MSc (Manpower Studies), University of Manchester; Diploma in Financial Management; Honorary Doctorate in Commerce, University of the Transkei*

Mr Ncube was appointed a director of Gold Fields on 15 February 2006. Previously, he was an alternate director of Anglo American Industrial Corporation and Anglo American Corporation, a director of AngloGold Ashanti as well as non-executive Chair of South African Airways. He is currently Chair of Rare Holdings and Badimo Gas, and Managing Director of Vula Mining Supplies.

### 11. Rupert L Pennant-Rea (65)

*BA, Trinity College, Dublin; MA, University of Manchester*

Mr Pennant-Rea has been a director of Gold Fields since 1 July 2002. He is Chair of Henderson Group Plc and The Economist Newspaper Limited and a director of Hochschild Mining Plc, Go-Ahead Group, Times Newspaper Holdings and various other companies. Previously Mr Pennant-Rea was the editor of The Economist and Deputy Governor of the Bank of England.

### 12. Gayle M Wilson (68)

*BCom; BCompt (Hons); CA(SA)*

Mrs Wilson was appointed a director on 1 August 2008. She was previously an audit partner at Ernst & Young for 16 years, where her main focus was on listed gold and platinum mining clients.

### Executive directors at 31 December 2012

### 13. Nicholas J Holland (54)

**Chief Executive Officer (CEO)**

*BCom, BAcc, University of the Witwatersrand; CA(SA)*

Mr Holland was appointed an executive director of Gold Fields in 1997 and became CEO on 1 May 2008. Prior to that he was the Company's CFO. Mr Holland has more than 31 years' experience in financial management, of which 23 years were in the mining industry. Prior to joining Gold Fields, he was Financial Director and Senior Manager of Corporate Finance at Gencor.

### 14. Paul A Schmidt (45)

**Chief Financial Officer (CFO)**

*BCom, University of the Witwatersrand; BCompt (Hons), Unisa; CA(SA)*

Mr Schmidt was appointed CFO on 1 January 2009 and joined the Board on 6 November 2009. Prior to this, he held the positions of acting CFO from 1 May 2008 and Financial Controller from 1 April 2003. He has more than 17 years' experience in the mining industry.



## 4.1 Corporate governance continued

### 4.1.5 Board committees

The Board has established a number of standing committees with delegated authority from the Board. The committee members are all independent non-executive directors and the CEO is a permanent invitee to each committee meeting. Each Board committee is chaired by an independent non-executive director.

Committees operate in accordance with written terms of reference. In addition, the committees are required to evaluate their effectiveness and performance on an annual basis and to report the respective findings to the Board for consideration.

#### Nominating and Governance Committee

During 2012, the Nominating and Governance Committee reaffirmed its terms of reference. It is the responsibility of this committee, which has four independent directors, amongst other things, to:

- Develop the Company's approach towards corporate governance, including recommendations to the Board
- Identify successors to the posts of Chair and CEO, and make appropriate recommendations to the Board
- Consider the mandates of the Board committees, the selection and rotation of committee members and Chairs, and the performance of each committee on an ongoing basis
- Evaluate the effectiveness of the Board, its committees and management, and report the findings of this evaluation to the Board itself

The committee assessed its performance and effectiveness during the period under review and was found to be functioning satisfactorily and discharging its duties. Following feedback from members, additional focus on succession planning for the Chair of the Board was undertaken.

#### Audit Committee

The Audit Committee has updated, formal terms of reference which are set out in the committee's Board-approved Charter. The Board is satisfied that the committee has complied with these terms and with its legal and regulatory responsibilities as set out in the Companies Act No 71 of 2008, as amended, the King Report on Governance Principles for South Africa 2009 (King III) and the JSE Listings Requirements.

The committee consisted of five independent non-executive directors throughout the financial year and membership and attendance at meetings is set out on p62. The Board believes that the members collectively possess the knowledge and experience to exercise oversight of Gold Fields financial management, internal and external auditors, the quality of Gold Fields financial controls, the preparation and evaluation of Gold Fields financial statements and Gold Fields financial reporting.

The Board has established and maintains internal controls and procedures, which are reviewed on a regular basis. These are designed to manage the risk of business failures and to provide reasonable assurance against such failures but this is not a guarantee that such risks are eliminated.

It is the duty of this committee, among other things, to monitor and review:

- The effectiveness of the internal audit function
- Audit findings, audit reports and the appointment of external auditors
- Reports of both internal and external auditors
- Evaluation of the performance of the Chief Financial Officer
- The adequacy and effectiveness of the Company's enterprise-wide risk management policies, processes and mitigating strategies

- The governance of information technology (IT) and the effectiveness of the Company's information systems
- Quarterly and annual financial and operational reports, the annual financial statements and all other widely distributed documents
- The Form 20-F filing with the US Securities Exchange Commission (SEC)
- Accounting policies of the Group and proposed revisions
- Compliance with applicable legislation, requirements of appropriate regulatory authorities and the Company's Code of Ethics
- The integrity of the integrated annual report (by ensuring that its content is reliable and recommending it to the Board for approval)
- Policies and procedures for preventing and detecting fraud

Internal and external auditors have unrestricted access to the Audit Committee, the Audit Committee Chair and the Chair of the Board, ensuring that auditors are able to maintain their independence. Both the internal and external auditors report at Audit Committee meetings. The committee also meets with both internal and external auditors separately without other invitees being present.

The committee is responsible for recommending the appointment of a firm of external auditors to the Board who in turn will recommend the appointment to the shareholders. The committee is also responsible for determining that the designated appointee has the necessary experience, qualifications and skills and that the audit fee is adequate.

The committee reviewed and assessed the independence of the external auditor, including its confirmation in writing that the criteria for independence as set out in the rules of the Independent Regulatory Board for Auditors and international bodies have been followed. The committee is satisfied that KPMG is independent of the Group. An audit fee for the period of R27.9 million (US\$3.4 million) was approved, as well as R0.1 million (US\$0.02 million) for tax advisory compliance services and R13.9 million (US\$1.7 million) in assurance services on bonds, sustainability reporting, the unbundling of Sibanye Gold and other agreed upon services. The committee determines the nature and extent of non-audit services that the firm can provide and pre-approves all permitted non-audit assignments by the Company's independent auditor.

The committee approved the annual audit plan presented by the external auditors and monitors progress against the plan. The audit plan forms the basis of providing the committee with the necessary assurances on risk management, the internal control environments and IT governance. The committee recommends that KPMG is reappointed for the 2013 financial year with Mr Coenie Basson as the Group audit engagement partner.

The internal control systems of the Group are monitored by internal auditors who report their findings and recommendations to the Audit Committee and to senior management. The committee determines the purpose, authority and responsibility of the internal audit function in an Internal Audit Charter. The Internal Audit function is headed by the Vice-President, Internal Audit, who can be appointed or dismissed by the Audit Committee. The committee is satisfied that the Vice-President has the requisite skills and experience and that he is supported by sufficient staff with appropriate skills and training.

Gold Fields Internal Audit (GFIA) operates in accordance with the International Standards for the Professional Practice of Internal Auditing as prescribed by the Institute of Internal Auditors (IIA). The internal audit activities carried out during the year were identified through a combination of the Gold Fields Risk Management framework and the risk-based methodologies adopted by GFIA. The committee approves the annual Internal Audit assurance plan presented by GFIA and monitors progress against the plan.

GFIA reports deficiencies to the committee every quarter together with recommended remedial actions which are then followed up. Internal Audit provided the committee with a written report which assessed the internal financial controls, IT governance and the risk management process as adequate.

The Audit Committee is responsible for IT governance on behalf of the Board and reviews the report of the Vice-President, IT, at each meeting. During the year the Information and Technology team conducted a global ISO 27001 security standard gap analysis to determine areas of weakness which were then addressed by implementing an Information Security Management System aligned to the ISO 27001 standard.

The CFO's expertise was evaluated by the Audit Committee. The committee is satisfied that the CFO has the appropriate expertise and experience to carry out his duties as the financial director of the Company and is supported by qualified and competent senior staff.

## Audit Committee statement

Based on information from and discussions with management and external auditors, the Audit Committee has no reason to believe that there were any material breakdowns in the design and operating effectiveness of internal financial controls during the year and that the financial records can be relied upon as the basis for preparation of the annual financial statements.

The Audit Committee considered and discussed this Integrated Annual Review with both management and the external auditors. During this process, the committee:

- Evaluated significant judgements and reporting decisions
- Determined that the going concern basis of reporting is appropriate
- Evaluated the material factors and risks that could impact on the Integrated Annual Review
- Evaluated the completeness of the financial and sustainability discussion and disclosures
- Discussed the treatment of significant and unusual transactions with management and the external auditors

The Audit Committee considers that this Integrated Annual Review complies in all material respects with the statutory requirements of the various regulations governing disclosure and reporting of the annual financial statements and that the annual financial statements comply in all material respects with the Companies Act No 71 of 2008, as amended and IFRS. The Audit Committee has recommended to the Board that the annual financial statements be adopted and approved by the Board.

## 4.1 Corporate governance continued

### Remuneration Committee

It is the responsibility of this committee, amongst other things, to:

- Establish the Company's remuneration philosophy
- Establish the terms and conditions of employment for executive directors and other senior executives (which currently includes a short-term performance-linked bonus scheme and a long-term share incentive scheme)
- Review remuneration policies on a regular basis

The notice periods of the CEO and the CFO are two years and one year respectively. The Company has a maximum exposure of two-and-a-half years' remuneration in respect of the CEO and two years' remuneration for the CFO. These limits apply when their services are terminated as a result of a takeover or a merger.

Details of directors' fees and equity settled instruments are contained in the Remuneration Report on p70 – 71 and on p52 of the Annual Financial Report 2012.

### Safety, Health and Sustainable Development Committee

It is the responsibility of this committee, amongst other things, to assist the Board in its oversight of the Company's environmental, health and safety programmes – as well as its socio-economic performance. In particular, this includes the monitoring of the Company's efforts to minimise health, safety and environment-related incidents and accidents, and to ensure its compliance with relevant regulations around health, safety and the environment. All members of the committee have been selected on the basis of their considerable experience in the field of sustainable development.

The committee assessed its performance and effectiveness during the period under review and was found to be functioning satisfactorily and discharging its duties. The committee continues to monitor compliance by management to the Group's policies and procedures, as well as the implementation of any recommendations made by the committee.

### Capital Projects Control and Review Committee

It is the responsibility of this committee, among other things, to:

- Satisfy the Board that the Company has used correct, efficient methodologies in evaluating and implementing capital projects in excess of R1.5 billion or US\$200 million
- Ensure that adequate controls are in place to review such projects from inception to completion, and make appropriate recommendations to management and the Board

The committee assessed its performance and effectiveness during the period under review and was found to be functioning satisfactorily and discharging its duties. The committee continues to review the results attained on completion of each project against the authorised work undertaken.

Digging at Damang, Ghana



## Social and Ethics Committee

The recently established Social and Ethics Committee saw its first full year of operation over 2012 and was subject to an annual work plan to ensure it met all of its statutory requirements.

It is the responsibility of this committee, to ensure, among other things, that:

- Gold Fields discharges its statutory duties in respect of Section 72 of the Companies Act No 71 of 2008 (as amended), dealing with the structure and composition of board subcommittees
- Gold Fields adequately embeds the 10 Principles on Sustainable Development of the International Council on Mining and Metals and the 10 Principles of the United Nations Global Compact
- Gold Fields upholds the goals of the Organisation of Economic Cooperation and Development (OECD) recommendations regarding corruption
- Gold Fields complies with the Employment Equity Act (as amended), the Broad-Based Black Economic Empowerment Act (as amended) and the provisions of the 2014 Mining Charter
- Gold Fields directors and staff comply with the Company's Code of Ethics
- Gold Fields practices labour and employment policies that comply with the terms of the International Labour Organisation (ILO) protocol on decent work and working conditions
- Gold Fields ensures the continued training and skills development of its employees
- Gold Fields performs its responsibilities in respect of social and ethics matters and that these policies are reviewed on an annual basis, or as required

The Social and Ethics Committee comprises the chairs of the Audit Committee, Remuneration Committee, the Safety, Health and Sustainable Development Committee and the Nominating and Governance Committee. Current members of the committee are Ms Wilson, Mr Pennant-Rea, Mr Murray and Ms Carolus, in their respective capacities. Mr Dañino is the Chair.

In December 2012, the Board, via the Social and Ethics Committee, commenced a thorough independent investigation concerning Gold Fields Black Economic Empowerment (BEE) transactions. The committee took this action following press reports raising questions about those transactions.

The Board engaged an independent international law firm, Paul, Weiss, Rifkind, Wharton & Garrison, LLP (Paul Weiss), with extensive experience in such matters, to undertake the investigation. The Board directed Paul Weiss to determine the facts, and to provide recommendations to the Board. The Board also asked Paul Weiss to review the Company's relevant internal controls and to recommend any necessary improvements. The Board will report on this matter upon the conclusion of the investigation, which is being conducted with the full support of the Board and senior management.

## Executive Committee

The Executive Committee (Exco) is not a committee of the Board. It is primarily responsible for the implementation of Company strategy, as well as carrying out the Board's mandates and directives. Exco meets on a regular basis to review Company performance against set objectives and develops Company strategy and policy proposals for consideration by the Board.

Exco also assists the Board in the execution of the Company's disclosure obligations. A series of guidelines on disclosure have been disseminated throughout the Company. Furthermore, a disclosure coordinator has been appointed at each operation to ensure appropriate implementation throughout the Company.

Each of Gold Fields operating subsidiaries has established Board and Executive Committee structures to ensure sound corporate governance practices and standards. At least one of the Company's executive directors serves on the Boards of the operating subsidiaries.

 **Online information:** Full list of Exco members



## 4.2 Remuneration and performance

### 4.2.1 Summary of the Remuneration Report

This is a summary of the key points of the remuneration report published in the Annual Financial Report 2012, which is contained on the CD attached to this Integrated Annual Review 2012 as well as on our website ([www.goldfields.co.za](http://www.goldfields.co.za)).

#### Remuneration policy

The key principles of our remuneration policy are unchanged:

- Support the execution of the Group's business strategy
- Provide competitive rewards to attract, motivate and retain highly skilled executives
- Motivate and reinforce individual, team and business performance
- Ensure our remuneration arrangements are equitable and help the deployment of people across the Group's operations

The principle of performance-based remuneration is one of the cornerstones of the reward strategy. The reward strategy is also underpinned by sound remuneration management and governance principles.

The Gold Fields reward strategy includes the following elements:

- Salary
- Benefits
- Annual bonus
- Long-term incentive
  - Bonus shares
  - Performance shares

#### Remuneration mix

Gold Fields remuneration philosophy is aimed at attracting and retaining motivated, high-calibre employees aligned with the interests of shareholders. Such alignment is achieved through the right mix of guaranteed and performance-based remuneration (variable pay), which provides for differentiation between high, average and low performers. Generally, the more senior the employee, the higher the proportion of variable pay in their total package.

#### Salary

Gold Fields aims to reward its people fairly and consistently according to their role and individual contribution to the Company. To achieve external equity and competitive remuneration, Gold Fields uses surveys of peer-group mining companies. The benchmark for salaries is the market median for the relevant market, with a significant proportion of performance-related variable pay comprising short, medium and long-term incentives.

As a global company, with the majority of our operations now outside South Africa, we expect our senior executives to have experience in a number of different countries. We therefore compete for talent in a global marketplace. To achieve these goals, in 2012 the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO) were awarded significant increases in their salaries. For 2013, however, their salaries and those of other senior executives have been frozen due to the challenging economic times and in light of the revenue lost in 2012 due to the illegal strike action. Fees for non-executive directors in 2013 are also unchanged.

#### Annual bonus

Executive directors are able to earn bonuses of 60% (for the CFO) and 65% (for the CEO) of their salaries for on-target performance, which is a combination of Company and personal performance. The annual bonus could increase above 60% and 65% respectively if the stretch target is achieved. The maximum bonus is capped at twice the on-target bonus percentage.

Targets for annual bonuses are set by the committee. In the case of the CEO and CFO, 65% of the annual bonus is based on Group objectives and the remaining 35% on personal objectives. For the regional EVPs, bonuses are also judged against regional and operational objectives.

Operational objectives are measured against the operational plans approved by the Board and cover safety, production, costs and progress in developing long-term ore reserves. These operational objectives roll into the Regional objectives and subsequently into the Group objectives.

Aside from those four key drivers, the CEO and CFO were also assessed on personal objectives. Personal objectives are set every year for each executive based on key performance areas and are approved at the beginning of the year by the committee. The personal objectives are centred around three themes: Operational excellence, Growing Gold Fields and Securing our future.

Taking all these factors into account, the average bonus paid to members of the executive team in February 2013 was 47% of annual salary; for the CFO it was 61% of annual salary; and for the CEO 77% of annual salary.

The Group objectives for 2013 comprise five elements, weighted as follows:

- Safety: 30% (2012: 39%)
- Total gold production: 20% (2012: 23%)
- Notional cash expenditure: 20% (2012: 23%)
- Growth portfolio: 15% (2012: 0%)
- Development or waste mined: 15% (2012: 15%)

#### The share plan

The Company operates a long-term incentive share plan designed to:

- Encourage senior and key employees to identify closely with the long-term objectives of Gold Fields
- Align their interests with the continuing growth of the Company and delivery of value to its shareholders
- Allow them to participate in the future financial success of Gold Fields

Gold Fields 2012 Share Plan contains two equity instruments: Performance Shares and Bonus Shares. Share awards are made annually to senior and key staff, and any pay-out depends on outcomes independently reviewed by an external auditor.

**Performance Shares:** The actual number of Performance Shares awarded to a participant is determined by the Company's share price performance measured against the performance of a peer group.

A precondition for any award of Performance Shares is that gold production exceeds a minimum of 85% of the annual target over a three-year measurement period.

**Bonus Shares:** The size of the award of Bonus Shares depends on an employee's annual cash bonus, which is determined by actual performance against predetermined targets. Two-thirds of the cash bonus is awarded in Bonus Shares.

Last year the long-term share plan paid out considerable sums, largely because of the strength of Gold Fields share price in the three years 2009 to 2011. Gold Fields was ranked first in its peer group which resulted in a 300% settlement of the initial shares awarded in 2009. This outperformance accounts for more than 95% of share proceeds listed in the table below.

### Non-executive directors' fees, executive directors' and prescribed officers' remuneration

The directors and officers were paid the following remuneration for the year ended at 31 December 2012:

Names	Board fees		Performance pay			Pension scheme total contributions (R'000)	Expense allowances (R'000)	For the year ended 31 December 2012 <sup>3</sup> (R'000)	For the year ended 31 December 2011 (R'000)
	Directors' fees (R'000)	Committee fees (R'000)	Salary (R'000)	Annual bonus <sup>1</sup> (R'000)	Share proceeds <sup>2</sup> (R'000)				
<b>Executive directors</b>									
Nicholas J Holland <sup>3</sup>	–	–	9,310	8,460	25,389	1,573	600	<b>45,332</b>	32,699
Paul A Schmidt <sup>3</sup>	–	–	5,465	5,553	8,001	614	327	<b>19,960</b>	8,793
<b>Prescribed officers</b>									
Zakira Amra <sup>4</sup>	–	–	2,250	–	–	128	–	<b>2,378</b>	2,192
Naseem A Chohan	–	–	2,464	1,402	236	325	–	<b>4,427</b>	3,279
Jimmy Dowsley	–	–	3,115	3,298	4,110	765	–	<b>11,288</b>	7,208
Michael D Fleischer <sup>3</sup>	–	–	4,603	4,307	8,462	741	–	<b>18,113</b>	11,172
Juan L Kruger	–	–	4,753	5,726	5,455	916	–	<b>16,850</b>	13,933
Tommy McKeith	–	–	7,391	3,782	7,985	212	–	<b>19,370</b>	11,996
Kgabo FL Moabelo	–	–	3,499	3,102	321	467	–	<b>7,389</b>	4,412
Tim W Rowland	–	–	3,227	2,679	4,854	595	71	<b>11,426</b>	6,388
Peet van Schalkwyk <sup>3</sup>	–	–	4,827	2,771	113	–	–	<b>7,711</b>	3,609
Peter L Turner	–	–	5,032	3,394	4,521	798	–	<b>13,745</b>	10,197
Richard Weston	–	–	5,483	2,909	20	632	–	<b>9,044</b>	7,491
Willie Jacobsz <sup>5</sup>	–	–	2,102	3,325	3,551	–	–	<b>8,978</b>	–
<b>Non-executive directors</b>									
Kofi Ansah	758	214	–	–	410	–	–	<b>1,382</b>	908
Cheryl A Carolus	758	107	–	–	–	–	–	<b>865</b>	808
Roberto Dañino	758	364	–	–	412	–	–	<b>1,534</b>	866
Alan R Hill	758	107	–	–	–	–	–	<b>865</b>	808
Richard P Menell	758	418	–	–	–	–	–	<b>1,176</b>	1,096
David N Murray	758	371	–	–	411	–	–	<b>1,540</b>	966
Donald MJ Ncube	758	249	–	–	413	–	–	<b>1,420</b>	997
Mamphela Ramphela <sup>6</sup>	2,284	–	–	–	–	–	8	<b>2,292</b>	2,102
Rupert L Pennant-Rea	758	513	–	–	–	–	–	<b>1,271</b>	1,064
Gayle M Wilson	758	583	–	–	414	–	117	<b>1,872</b>	1,143
Delfin L Lazaro	758	107	–	–	–	–	–	<b>865</b>	454
Matthews S Moloko <sup>7</sup>	758	142	–	–	–	–	–	<b>900</b>	735
Chris von Christierson	–	–	–	–	–	–	–	<b>–</b>	404
<b>Total</b>	<b>10,622</b>	<b>3,175</b>	<b>63,521</b>	<b>50,708</b>	<b>75,078</b>	<b>7,766</b>	<b>1,123</b>	<b>211,993</b>	<b>135,720</b>

<sup>1</sup> The annual bonus relates to bonus accruals for the year ended 31 December 2012 paid in February 2013

<sup>2</sup> This relates to all share transactions for the year ended 31 December 2012 in terms of the Gold Fields Management Incentive Scheme and the Gold Fields 2005 and 2012 Share Plans. Mr Holland's 2009 share award resulted in a pay-out of R24.3 million and Mr Schmidt's 2009 share award resulted in a pay-out of R6.4 million in 2012

<sup>3</sup> These amounts reflect the full directors' emoluments in rand for comparative purposes. The portion of executive directors' emoluments payable in US\$ is paid in terms of agreements with the offshore subsidiaries for work done by directors offshore for offshore companies. The total US\$ amounts paid for 2012 were as follows: Mr NJ Holland US\$336,300, Mr PA Schmidt US\$90,300, Mr MD Fleischer US\$77,303 and Mr P van Schalkwyk US\$272,924

<sup>4</sup> Resigned 31 May 2012

<sup>5</sup> Appointed as a prescribed officer on 1 August 2012

<sup>6</sup> Resigned as Chair of the Board on 13 February 2013

<sup>7</sup> Resigned as non-executive director on 31 December 2012

# 5. Optimising our operations



Excavator and haul trucks at Damang, Ghana

# Contents

5.1 Ensuring our mines deliver	Page	75
5.1.1 Group operational performance	Page	75
5.1.2 Regional operational performance	Page	76
5.1.3 Enhancing Group mining performance	Page	78
5.1.4 Operational portfolio review	Page	79
5.1.5 Cutting-edge mining at South Deep	Page	79
5.1.6 Improving our energy performance	Page	83
5.1.7 Investing in efficient processing	Page	85
5.2 Pursuing Zero Harm	Page	86
5.2.1 Managing safety	Page	87
5.2.2 Promoting a safe mining mentality	Page	88
5.2.3 Delivering a safe mining environment	Page	89
5.3 Promoting environmental stewardship	Page	90
5.3.1 Managing our impacts across the mine lifecycle	Page	90
5.3.2 Using and discharging water responsibly	Page	91
5.3.3 Reducing our carbon and managing climate change	Page	92
5.3.4 Managing materials responsibly	Page	94

## Highlights

26%

Gold Fields NCE margin (post-unbundling), excluding South Deep

83%

Decline in Fall-of-Ground fatalities

23%

Additional face time as a result of new South Deep operating model





# Optimising our operations

Our Vision of global leadership in sustainable gold mining requires us to:

- **Create the greatest enduring value from gold**, by delivering optimal financial returns to our investors
- **Consistently deliver what we promise across all our operations**, by achieving and maintaining stability, predictability and consistency at our operations – and only providing guidance for what we know we can deliver
- **Adhere to our commitment that if we cannot mine safely, we will not mine**, which means demonstrating our real prioritisation of the safety and wellbeing of those at our operations above all other considerations
- **Seek to protect and enhance the environments in which we operate**, by achieving the kind of environmental and socio-economic performance that will enhance our stakeholder relationships and contribute to an enduring and positive legacy in the areas in which we operate

It is these requirements that sit behind our strategic objective of 'optimising our operations'.

Figure 5.1: Group operational performance (pre-unbundling)

Key operating statistics	2012	2011	2010	2009	2008
Gold produced – attributable (kg)	<b>101,216</b>	108,408	108,802	111,421	103,541
Gold produced – attributable ('000oz)	<b>3,254</b>	3,485	3,497	3,582	3,329
Total cash cost (R/kg)	<b>235,451</b>	184,515	165,526	146,456	138,665
Total cash cost (US\$/oz)	<b>894</b>	795	703	540	526
Notional Cash Expenditure (R/kg)	<b>362,331</b>	272,224	239,796	210,215	210,827
Notional Cash Expenditure (US\$/oz)	<b>1,376</b>	1,173	1,019	776	800
Gold price (R/kg)	<b>435,584</b>	364,216	287,150	261,517	228,160
Gold price (US\$/oz)	<b>1,654</b>	1,569	1,220	965	865
Operating profit (Rm)	<b>20,976</b>	21,112	14,469	13,589	9,427
Operating costs (Rm)	<b>24,674</b>	21,312	20,082	18,368	16,026
Operating margin (%)	<b>46</b>	50	42	43	37
NCE margin (%)	<b>17</b>	25	16	20	8

## Relevant stakeholder promises:

- **A winning, safe and productive team:** If we cannot mine safely, we will not mine. We seek to eliminate all harm to our people. Motivated and loyal employees act as our ambassadors. They enable safe production and exceptional value creation. Our ability to attract and retain top talent creates a key competitive advantage
- **The most trusted and valued mining partner:** We build strong relationships with key stakeholders in the communities and societies in which we operate. We measure the contributions we make as we create and share value to leave an enduring, positive legacy
- **A quality portfolio of productive mines and assets under exploration and development:** The quality of our asset portfolio is key to our success – but what is most important is that we maximise the value that this can generate and that we pursue 'full potential' asset returns
- **Superior return on gold:** To be an appealing long-term investment we must deliver leverage to the gold price and attractive returns relative to our peers

## 5.1 Ensuring our mines deliver

In July 2012, Gold Fields CEO Nick Holland made a keynote speech to the prestigious Melbourne Mining Club, titled "What do Investors want from a Gold Mining Stock?" In light of the rise of gold Exchange Traded Funds, as well as the underperformance of gold mining equities versus the gold price, he concluded that "the challenge for gold stocks is how to provide investors with leverage over the gold price and to attract some of the incremental investment into gold equity".

Amongst his conclusions, Mr Holland noted that a key requirement was to "focus on cash flow", meaning that all of the industry's efforts needed to:

- Focus on cash-based Key Performance Indicators (KPIs) over ounces produced and Mineral Reserves
- Measure total costs using Notional Cash Expenditure (NCE) instead of cash costs
- Avoid chasing marginal ounces to extend the lives of mines, instead of optimising cash returns – and base project feasibility on the optimisation of returns

It is these principles that will primarily inform Gold Fields approach to production and development – and that helped drive the decision in late 2012 to restructure the Group (p14 – 15).

This does not mean that production growth no longer matters – but growth will not be pursued for growth's sake and will always be focused on cash flow generation. As a result, while we will pursue quality, cash-generating growth where we can – our production goal of 5 million ounces no longer remains our primary point of strategic reference.

Figure 5.2: Attributable gold production (pre-unbundling)

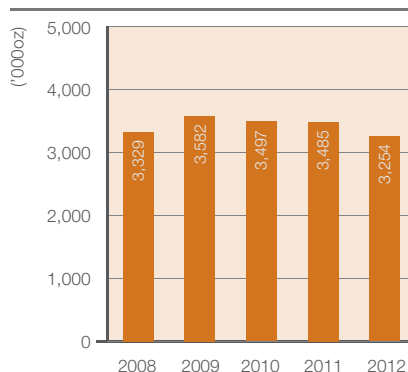


Figure 5.3: Total cash cost (pre-unbundling)

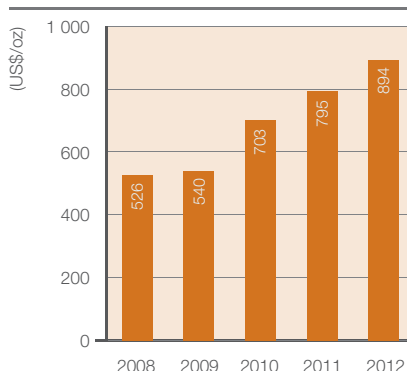
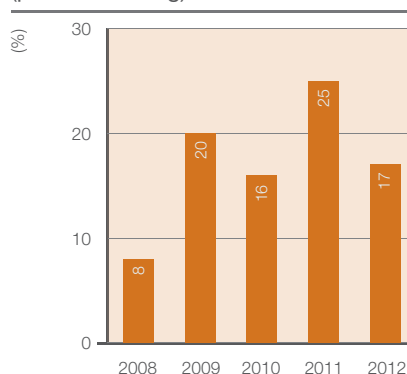


Figure 5.4: NCE margin (pre-unbundling)



### 5.1.1 Group operational performance

#### Production

During 2012, we saw a reduction in attributable production to 3.25 million ounces of gold (2011: 3.49 million ounces). This reflected a significant reduction in production in our South Africa region relating to:

- Extensive, illegal strikes in the second half of the year at the Beatrix and KDC mines, reflecting a wave of industrial action that affected the whole of the South African mining sector (p139). This resulted in approximately 145,000 ounces of lost production
- A fatal, large-scale underground fire at the Ya Rona shaft at KDC in June 2012 (p86), which resulted in approximately 30,000 ounces of lost production

In addition, the temporary suspension in July 2012 of our heap leach facilities at our Tarkwa mine by the Ghanaian Environmental Protection Agency (EPA) (p91) resulted in approximately 15,000 ounces in lost production.

We moved closer to our previous target of a 60:40 production ratio between our 'international' and South African regions, achieving a ratio of 54:46 (2011: 51:49), albeit with the change in the rate largely driven by the strikes in South Africa.

The impact of two months of illegal strike action (in which around 29,000 employees participated) has – in combination with above-inflation wage increases (p130), higher energy tariffs (p83 – 85) and other rising input costs (p42) – significantly pushed up our NCE in the South Africa region.



[www.bullioninternational.com/  
images/uploads/images/  
powerpoints/Melbourne.pdf](http://www.bullioninternational.com/images/uploads/images/powerpoints/Melbourne.pdf)

## 5.1 Ensuring our mines deliver continued

Despite this, a landmark October 2012 agreement with South Africa's National Union of Mineworkers to implement a new operating model at South Deep (p79 – 81) is expected to make a major contribution to the long-term success of this major mining project. In particular, it will help ensure that production and development is supported by a 24-hour, seven-day a week working schedule – in line with mechanised mining best practice – and underpinned by a progressive, uncapped production bonus system.

### Costs and NCE

Lower Group production also impacted our unit cash costs, which in 2012 rose to R235,451/kg (US\$894/oz) (2011: R184,515/kg (US\$795/oz)) – reflecting the relatively 'fixed' nature of many of our overhead costs.

This likewise affected our NCE margin, which fell to 17% (2011: 25%). Other key issues affecting our NCE included:

- Higher operating costs (including increases in fuel and energy costs, annual wage increases, increased development and support costs, and general inflationary increases), which rose to US\$24.7 billion (US\$3.01 billion) in 2012 from R21.3 billion (US\$2.95 billion) in 2011
- Capital expenditure (including ongoing and substantial development at South Deep (p79 – 82), which rose to R2.58 billion (US\$315 million) (2011: R1.98 billion (US\$275 million))

In 2012, Gold Fields initiated a project at the World Gold Council for the gold mining industry to adopt all-in cost reporting to provide stakeholders with a more accurate picture of the real costs of producing an ounce of gold. While this cost reporting may not mirror NCE exactly, a number of gold producers have already adopted a similar all-in cost reporting basis.

### 5.1.2 Regional operational performance

This section provides a high-level overview of regional performance. For comprehensive detail around performance at both regional- and operational level, please see our online Regional Overviews (accessible via the links marked below).

#### Australasia

During 2012, production in our Australasia Region declined by 32,200 ounces to 626,400 ounces (2011: 658,600 ounces). Key dynamics that accounted for this performance included:

- Lower-grade ore mined from the open-pits at St Ives
- Poor ground conditions at the Main Lode at Agnew impacting production

The regional NCE margin decreased to 11% (2011: 23%), primarily due to:

- Decreased mining volumes at St Ives open pits
- Poor ground conditions at Agnew that slowed the mining rate – partly off-set by a marked recovery in production in the second half of the year
- Higher costs relating to owner-mining conversion at St Ives' open pits

[Online information: Regional Overview – Australasia](#)

Causeway to the Invincible ore deposit at St Ives, Australia



#### South Africa

During 2012, production in our South Africa Region fell to 1,494,000 ounces (2011: 1,720,000 ounces). Key dynamics that accounted for this performance included:

- Stable production during the first half of the year (relating to improved grades) marking an end to the declining general production trend of previous years
- Illegal strike action at the KDC and Beatrix mines (p139), which resulted in 145,000 ounces of lost production
- A fatal, underground fire in worked-out areas at KDC's Ya Rona shaft, resulting in 30,000 ounces of lost production (p86)
- Slightly lower grade ore mined at South Deep

The regional NCE margin (excluding South Deep) decreased to 16% (2011: 23%), primarily due to:

- Decreased production
- Higher operating costs, including an effective 21% increase in electricity tariffs (p83)
- Other rising input costs, including wage rises that once again exceeded inflation and were not accompanied by labour productivity increases

[Online information: Regional Overview – South Africa](#)

Mechanised drilling at South Deep, South Africa



## South America

During 2012, managed production in our South America Region fell to 342,100 gold-equivalent ounces (2011: 383,100 gold-equivalent ounces). Key dynamics that accounted for this performance included:

- The negative impact of an unfavourable gold to copper price ratio in 2012 (4.77) compared to the previous year (5.66)

The regional NCE margin fell to 52% (2011: 60%), primarily due to:

- Anticipated lower gold and copper grades
- Increased plant repair costs
- Higher deferred stripping costs
- Higher capital expenditure relating to the construction of the tailings storage facility and plant optimisation



Online information: Regional Overview – South America

## West Africa

During 2012, managed production in our West Africa Region fell to 885,200 ounces (2011: 935,000 ounces). Key dynamics that accounted for this performance included:

- Temporary suspension of heap leach operations at our Tarkwa mine, following a directive from Ghana's Environmental Protection Agency (EPA) (p91)
- Mining restrictions imposed by safety concerns in the higher-grade parts of the Damang pit – including potential risks around the southern interface with the Juno pit and deteriorating ground conditions on the east wall
- Incidents of decreased Carbon in Leach (CIL) processing plant throughput, lower head grades and harder ore at Tarkwa
- Transition of Damang from the mature Damang pit into the developing Huni and Juno pits – including lower than expected grades despite aggressive waste stripping
- Unplanned plant stoppages at Damang

The regional NCE margin declined to 31% (2011: 39%), primarily due to:

- Lower gold production
- Lower ore stockpiles available for processing at the South Heap Leach facility at Tarkwa
- Gold in process valuation movements at our heap leach facilities at Tarkwa
- A 22% year-on-year increase in mining volumes, principally in waste volumes necessary to expose ore for the future



Online information: Regional Overview – West Africa

Mills at Cerro Corona, Peru



Digging at Tarkwa, Ghana





## 5.1 Ensuring our mines deliver continued

### 5.1.3 Enhancing Group mining performance

#### The role of Group Technical Services

Gold Fields Group Technical Services (GTS) function continued to play a leading role in improving the quality of our operational performance, innovation and technical management across the Group. In 2012, this included:

#### Heavy Mining Equipment

**(HME) Strategy:** Initiation of a new, medium-term HME Strategy to support Gold Fields shift towards owner-mining. The strategy is based on analysis and communication of sector best practice across the Group as well as through the development of Group-wide guidance and protocols – including around fleet management systems, enhancement of tyre life, road maintenance, condition monitoring and planned maintenance.

This is with the ultimate aim of optimising HME utilisation and availability – and of establishing internal benchmarking of performance, as well as the transferability of skills and equipment across the Group.

**Planning Handbook:** Development of a Group-wide Planning Handbook to ensure consistency of approach and to mitigate the potential impacts of personnel turnover.

**Mine Reconciliation and Ore Flow Accounting:** The project was initiated in late 2011 to analyse and assess mining process performance across the Group – and provide operations with action plans to enhance their performance from the stope to the pouring of gold, including the minimisation of dilution.

The findings from this project are currently being implemented by a dedicated, multidisciplinary team made up of internal and external experts, who have conducted extensive fieldwork at each of our operations. Full implementation of this medium-term project has the potential to positively impact our Group NCE margin.

#### Sponsorship of the Coalition for Eco-Efficient Comminution (CEEC):

The CEEC, of which our CEO is a patron, is a cross-sector initiative to improve blasting, crushing and grinding techniques to lower operating costs, and carbon emissions. This includes a focus on more efficient separation of waste rock, improved combinations of grinding technologies and the targeting of larger grind sizes where practicable. By establishing comminution baselines at our processing plants and applying CEEC methodologies, Gold Fields is targeting a 5% reduction in power consumption per tonne treated.

**Non-Entry Mining:** The Non-Entry Mining Project, which was initiated in 2012, is a collaborative, open-innovation research programme, involving our original equipment manufacturers (including Brokk, Sandvik and Atlas Copco), with input from Curtin University, Wits University, the University of Pretoria and the South African Council for Scientific and Industrial Research. The project is examining how existing equipment platforms can be adapted with advanced technology and tools to allow for their application in remote mining. As part of this process, Sibanye Gold is piloting three remote control demolition units to clear long-abandoned underground access tunnels at KDC East that were too unsafe to clear using conventional methods. This is with the ultimate aim of extending advanced mining technology to the safe extraction of 28 high-grade pillars at the mine.



[www.ceecthefuture.org](http://www.ceecthefuture.org)

Hauling ore at Tarkwa, Ghana



Figure 5.5: Operational portfolio review actions

Location	Actions
<b>St Ives</b>	<ul style="list-style-type: none"> <li>• Completion of owner-mining</li> <li>• Closure of high-cost heap leach operation</li> </ul>
<b>Agnew</b>	<ul style="list-style-type: none"> <li>• Cessation of work on low-grade Main and Rajah ore bodies</li> <li>• Focus on high-grade Kim ore body</li> </ul>
<b>Tarkwa</b>	<ul style="list-style-type: none"> <li>• Cessation of the high-cost South Heap Leach operation</li> </ul>
<b>Damang</b>	<ul style="list-style-type: none"> <li>• Stabilise production to between 200,000 oz and 250,000 oz at a minimum NCE margin of 20%</li> <li>• Exploration of pit cut-back and underground options</li> </ul>

### 5.1.4 Operational portfolio review

Following the July 2012 keynote speech by Gold Fields CEO Nick Holland to the Melbourne Mining Club (in which he declared the paramount need for the gold mining industry to pursue cash generation over ounces produced), we have undertaken a major operational portfolio review to ensure we are able to meet this challenge. Key actions taken to improve the ability of our operations to improve their free cash flow are set out in Figure 5.5.

These are in addition to our broader cost-saving initiatives, including:

- Rationalisation of headquarters and regional structures
- A reduction in our greenfields exploration budget to US\$80 million per year (p108)

### 5.1.5 Cutting-edge mining at South Deep

South Deep remains of key strategic importance to Gold Fields – and the broader South African gold mining sector – due to:

- The significant Mineral Resources and Mineral Reserves offered by its world-class ore body (the mine accounts for 69% of Mineral Resources and 65% of Mineral Reserves for the Gold Fields Group, excluding Sibanye Gold)
- Its long life of mine, which is estimated to extend beyond 2060
- Its application of deep-underground mechanised mining and advanced destress methodologies, which allows for safe, relatively low-cost and cash-generating production

In 2012, we continued development to underpin the production ramp-up at South Deep with a 75% improvement in destressing, setting the ground for improved production for the future.

### Production build-up

South Deep increased destress mining activity by 75% in 2012. Despite this excellent performance, we could have done more – but were hampered by:

- Ongoing evolution of our sophisticated destress mining methodology
- Lower productivity during the Section 189 labour process, which was later resolved
- Reduced equipment availability relating to skills availability and limited underground maintenance capacity
- An inadequate incentivisation framework for employees

Nonetheless, we are directly addressing three key factors that we believe will put progress back on track. These include:

**New operating model:** Implementation of a new '24/7/365' operating model (p80 – 81) – agreed between Gold Fields and both the UASA and National Union of Mineworkers (NUM) unions – from October 2012. Under the new model, our employees at South Deep receive considerably more leave days per year, receive a one-off compensatory payment, transfer onto 12-hour shifts and are subject to a new, uncapped bonus system that will account for a higher proportion of total earnings, whilst also offering much greater potential for reward. We are ensuring that this does not induce unsafe behaviour by making it a condition that teams will only receive full monthly bonuses in the absence of a single reportable safety incident (p88). In addition, we have implemented a comprehensive fatigue management programme focused on issues such as proper nutrition, prescribed rest periods and control of overtime.

**Improved training facilities:** Training at South Deep will improve markedly with the completion of our world-class, on-site Trackless Engineering Skills Training Centre in December 2012, as well as the planned completion of our new Operator Training Centre in the first half of 2013. The Operator Training Centre is being fitted with an advanced suite of operator, tele-remote load haul dump and drill rig mesh handling simulators – as well as surface driving and mining mock-up areas – to deliver the highest standards of practical mechanised training.

**Improved maintenance facilities:** With the commissioning of the new 93-level Main Workshop in mid-2013 we will have the capacity to provide ongoing maintenance to underground machines, working on a 24-hour, double-shift basis. The benefits of the new Main Workshop and planned supporting workshops are expected to become apparent from 2014 onwards.

Collectively, our efforts will make a significant contribution to getting production momentum back on track. In addition, we advanced our learning around the potential application of two mining methodologies that could further support future build-up at the mine:

- A new 'vertical slot' destress cut methodology, which is aimed at reducing horizontal stress and with it the need for additional horizontal destress cuts. It is estimated this will reduce the amount of destress cutting at South Deep by around 15% – accelerating the opening up of the ore body
- The use of 'crush pillars', which are themselves safely mined out once the rest of the area they support has been fully exploited, therefore reducing back-fill requirements, as well as dilution

*Continued on p82*

# New South Deep operating model:

## Securing the future of South African gold mining

In October 2012 – and after extensive negotiations – Gold Fields reached a formal agreement with the National Union of Mineworkers (NUM) to implement a new, landmark operating model at its South Deep mine in South Africa. The New Operating Model was also agreed to by UASA (the mine's other recognised union).

The new operating model, which was implemented from 21 November 2012, will significantly enhance productivity at Gold Fields most strategically significant operation – whilst also securing current jobs. Furthermore, it will immediately help create up to 400 new positions – and a further 1,500 additional new positions once the mine reaches full production.

South Deep is targeting a run-rate of 700,000 ounces per year by 2016 and has a life of mine of at least 50 years. Specific elements of the new operating model are shown on the next page.

## 10%-15%

Estimated increase in production at South Deep during 2013

## 23%

Estimated additional face time facilitated by new 12-hour shifts on full calendar operations

## 700,000oz

Targeted run-rate by 2016

**South Deep's Vision 2015:** Safe production of 330,000 reef tonnes per month by 2016

- A safe working environment
- A well-skilled, incentivised and appropriately remunerated workforce
- World-class infrastructure
- Best-in-class mining and productivity





### Full calendar operations

- New 12-hour shift arrangement on a '4-days-on, 4-days-off' rotation, allowing production on a 24-hour, 7-day a week basis – in line with best practice
- About four extra working hours per day between the two shifts (a 30% improvement), plus seven extra production days per year
- Fifty fewer working days per year for employees due to changes in shift cycles
- New fatigue management system, including focus on nutrition, rest periods and overtime management

### Total rewards scheme

- New, uncapped and progressive production bonus system – offering significant increases in potential take-home pay
- Operators and artisans are able to earn bonuses equal to previous market allowances for 'on-target' performance. 'Above-target' performance is rewarded by an even higher bonus
- Monthly bonus parameters include volume, quality and attendance – but payment is contingent on the absence of reportable safety incidents
- Discontinuation of market allowances for mechanised operators and artisans – in return for once-off upfront compensation

### New grading system

- New grading system for new employees to facilitate appropriate and consistent career progression
- Existing employees to remain on current grades

### Alignment to Gold Fields engagement structures and policies

Implementation of Group-wide engagement structures and policies, including:

- Health and Safety Committee
- Shaft Leadership Forum
- Operational Leadership Forum
- Skills Development Forum
- Employee Equity Forum

### Additional employee benefits

Gold Fields will work closely with the NUM and UASA to jointly develop and implement a range of additional employee benefits, including:

- Improved housing arrangements
- Medical and wellness benefits
- More efficient underground transport arrangements



## 5.1 Ensuring our mines deliver continued

*Continued from p79*

We plan to investigate the potential implementation of both methods during 2013.

As destressing continues to take place in the higher-grade lower levels, we concentrate ore extraction on the lower-grade, upper levels of the mine. As a result, in the longer term we can expect to see an increase in production as these hitherto unexploited high-grade areas are being mined. In the longer term, we will see head grades reflective of the reserve grade.

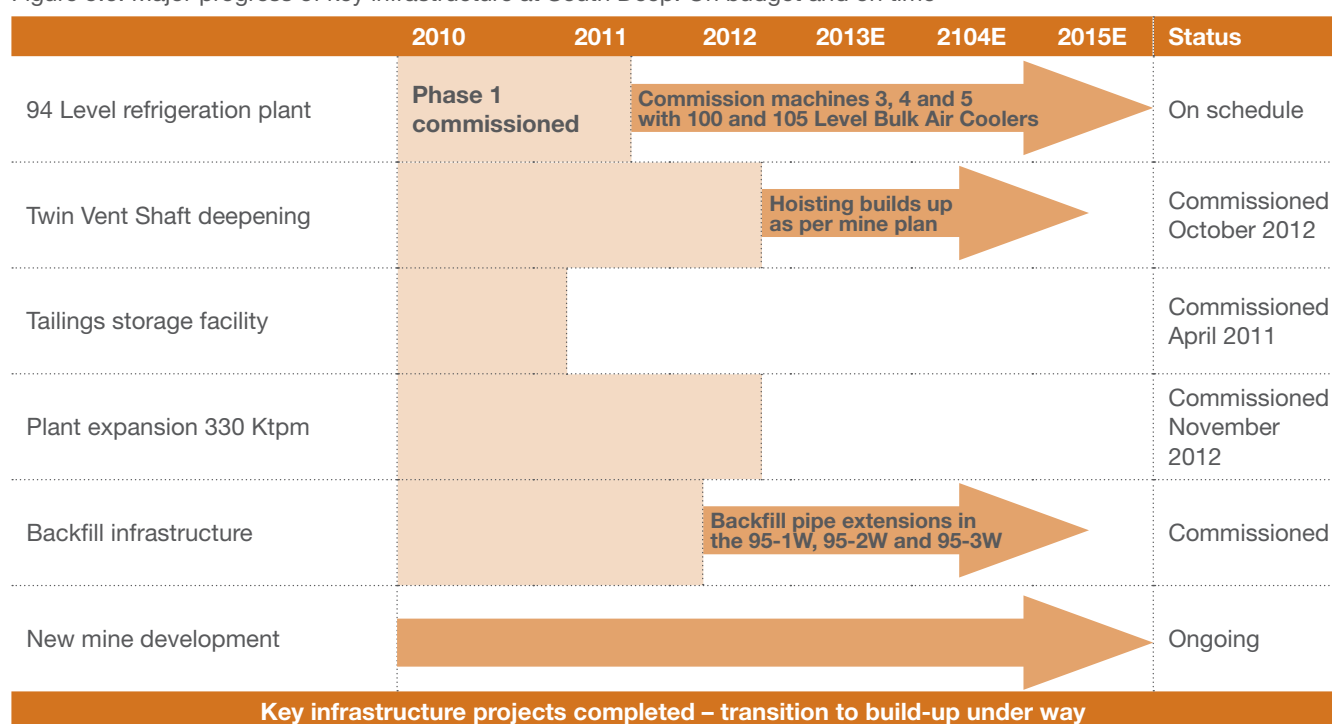
### Construction

Ongoing construction at South Deep remains broadly on budget and on target. During 2012, we achieved the following milestones:

- Commissioning of the metallurgical plant expansion (including the commissioning of the mill four months ahead of schedule)
- Completion of the Vent Shaft Deepening project
- Completion of the Temporary Ore Pass system
- Commissioning of the Full Plant Tailings back-fill plant

During 2012 we managed to remove all of the remaining mine infrastructure constraints – including hoisting, milling and back-fill restrictions – as production gradually exceeded the previous hoisting limit of 235,000 tonnes per month (t/m) (with 60,000 t/m via the South Shaft and 175,000 t/m via the Main Shaft). This leaves South Deep with sufficient infrastructure, ventilation and cooling to ultimately deliver to plan, namely 330,000 t/m to the mill and the production of 700,000 ounces per year by 2016.

Figure 5.6: Major progress of key infrastructure at South Deep: On budget and on time



### 5.1.6 Improving our energy performance

During 2012, we developed a fully integrated Energy and Carbon Management Strategy for the Group (p93). This is a direct strategic response to the fact that energy already makes up just over 21% of our cost base amid a global trend of rising energy prices and shortages of supply. Under this strategy, we are targeting a 10% energy saving over the baseline by 2016 – subject to capital expenditure restrictions. To support our achievement of this target, all new mine developments must now meet a minimum requirement of at least 20% renewable energy use.

Implementation will be driven at a regional level, subject to coordination and monitoring by our Group-level energy and carbon steering committee.

#### Energy efficiency in South Africa

Our future energy management efforts in South Africa are focused on South Deep, which accounts for 19% of Group energy consumption. This is due to the scale and nature of our deep-underground mines there, which makes them particularly heavy users of electricity.

Gold Fields regularly engages with South African state utility Eskom on issues around energy pricing and security, both directly and indirectly through the Energy Intensive User Group, the Chamber of Mines and Business Leadership SA. During 2012, Eskom increased electricity prices by 16% – significantly lower than the expected price rise of 25%, though this masks higher tariffs for industrial users.

This appeared to respond to concerns raised by Gold Fields and other large-scale electricity users around the potential commercial impacts of large price increases. Nonetheless, given that this new price follows two successive increases of 26% – and that there are planned general tariff hikes of 8% a year for the next five years (in addition to likely sector premiums) – the cost of energy poses a threat to the profitability and sustainability of our South Africa operations. Although we are currently supported by a historically high rand gold price, it remains imperative that we improve energy efficiency at these operations.

The Energy and Carbon Management Strategy builds on previous efforts at our South African mines. These include:

- Ongoing replacement of around 700, 45kW auxiliary fans at KDC with more efficient, 31.5kW units that provide the same airflow with less energy usage. The programme, which will result in electricity savings of 9 MW per hour, is partially funded through Eskom's Demand Side Management (DSM) programme and will also contribute to our generation of Certified Emissions Reductions (CERs) under the international Clean Development Mechanism
- Full commissioning of the Three Chamber Pump System (3CPS) at KDC East 4 shaft and KDC West 5 shaft, partially financed through the Eskom DSM programme. It is estimated that each of these systems deliver a 1.7MW per hour average energy saving

Cerro Corona plant, Peru



Methane flare at Beatrix, South Africa



Figure 5.7: Group direct and indirect energy consumption (TJ) (pre-unbundling)

Energy consumption	2012	2011	2010	2009	2008
Direct	6,514	6,081	5,529	5,239	5,224
Indirect	18,790	19,691	20,089	19,676	18,669
<b>Total</b>	<b>25,304</b>	<b>25,772</b>	<b>25,618</b>	<b>24,915</b>	<b>23,893</b>

## 5.1 Ensuring our mines deliver continued

- Implementation of our Compressed Air-Less Programme, to reduce underground compressed air pressure by utilising alternative power mediums – whilst maintaining sufficient pressure to provide safe working conditions. This is being implemented at South Deep
- Institution of Closed Loop Refrigeration (CLR) at South Deep, to reduce the need to recirculate water to the surface for cooling
- Piloting of a Waste Management Programme at KDC to address water and compressed air leaks. The programme, which is funded through Eskom's DSM programme, will be rolled out more widely in 2013 if it proves successful
- Ongoing load-shifting, with a focus on concentrating activity on the most efficient pumps during more expensive power phases

Despite such efforts, Gold Fields energy intensity (excluding Sibanye Gold) rose by 6% to 4.9 TJ/koz during 2012. This appears to reflect the impact of this year's strikes (p139). Although the affected operations did not produce gold during this period, we continued to utilise at least 55% of our normal power in order to maintain safe underground conditions. Likewise, the June 2012 underground fire at KDC's Ya Rona shaft further undermined energy intensity due to lost production and additional pumping requirements to support fire-fighting efforts.

Although energy intensity in the South Africa Region remains relatively high compared to the rest of the Group, we are confident of our ability to exploit further opportunities to reduce consumption through our new Energy and Carbon Management Strategy.



Figure 5.8: South Africa energy consumption (pre-unbundling)

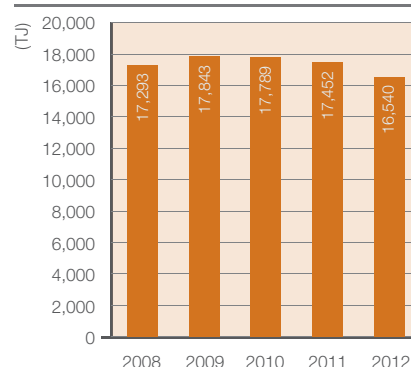


Figure 5.9: West Africa energy consumption

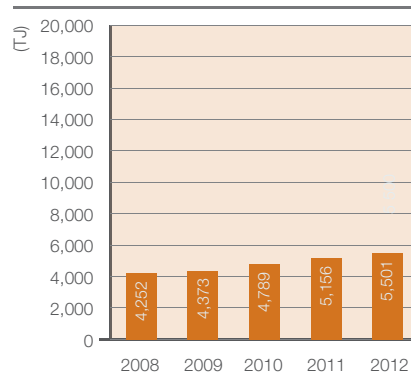
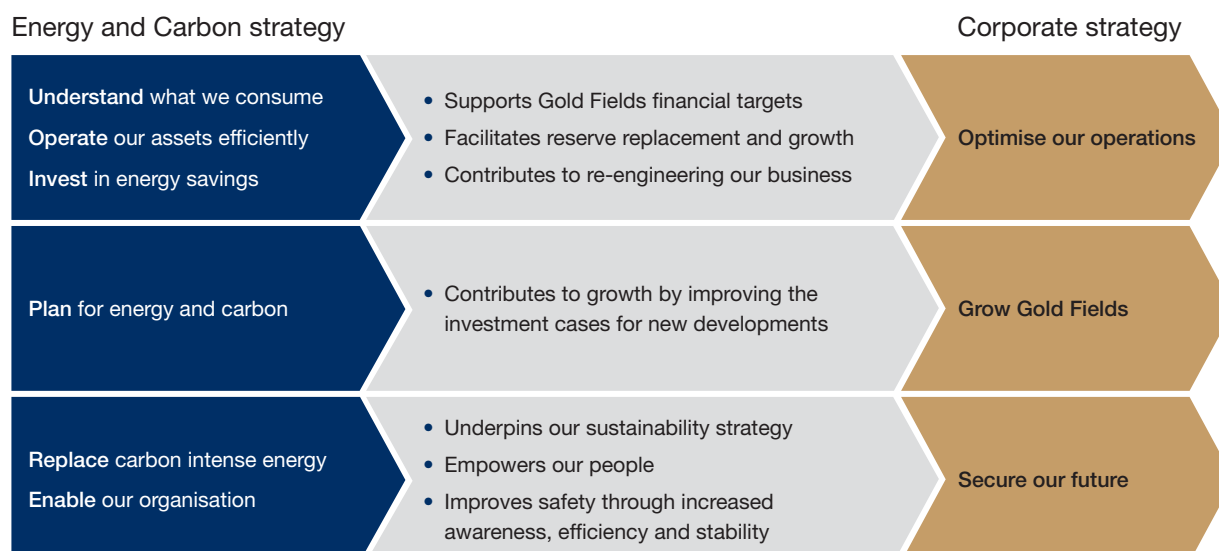


Figure 5.10: Alignment of Energy and Carbon strategy with overall Group strategy



## Energy security in the Australasia and West Africa regions

The remote, off-grid location of both our Agnew and St Ives mines means we have only limited options in terms of our power supply.

We are facing a significant increase in our electricity costs in Australia, due to higher gas prices and the ending of our current power purchasing agreement with BHP Nickel West, through whom we have historically sourced our power. We are currently negotiating a new power purchase agreement with BHP Nickel West for Agnew and St Ives for a 10-year term commencing in 2014. A separate gas-sourcing agreement is also being negotiated with third parties.

Our operations in Ghana have faced a significant increase in the price of electricity supplied by the Ghana Grid Company (GridCo) and the Volta River Authority (VRA). Because new gas supplies in Ghana have been relatively sporadic, both companies have needed to reconvert their energy towards diesel/thermal generation – which has resulted in higher costs. The situation became more acute in August 2012, when an incident off the coast of Togo (involving an unidentified vessel that was attempting to evade a local naval vessel) ruptured the sub-sea gas pipeline running from Nigeria to Ghana. The sub-sea gas pipeline is only expected to come back onstream by April 2013.

This – along with a refurbishment programme being carried out by the Electricity Company of Ghana (ECG) – has resulted in ongoing load-shedding across the country, impacting our Damang mine. During load-shedding, Damang has been able to meet its own power needs using on-site diesel generators. Whilst the impact on production has been limited, energy costs have been higher as a result of co-generation.

Despite these challenges, on 30 January 2013 we became the first mining company in Ghana to successfully negotiate upfront electricity tariffs with the VRA for 2013, which should result in future savings. Previously tariffs were predated and paid in arrears. Likewise, on 20 February we secured our 2013 tariffs with the ECG.

 [www.ecgonline.info](http://www.ecgonline.info)

 [www.gridcogh.com](http://www.gridcogh.com)


 [www.vra.com](http://www.vra.com)

## 5.1.7 Investing in efficient processing

Production at our Tarkwa mine has been supported by the exceptional performance of our Carbon-In-Leach (CIL) processing plant, which achieved recovery rates of up to 97% during 2012. This not only makes it one of the most efficient gold processing plants in the world, but, with 95% availability, also one of the most reliable. In addition, in early 2012, we commissioned a secondary crusher at Tarkwa, which lifted throughput by 5% at our CIL plant from 950,000 t/m to 1,000,000 t/m.

Furthermore, we are in the process of completing a definitive feasibility study for the Tarkwa Expansion Project Phase 6 (TEP6) initiative, which could supplement cost-effective production capacity to the mine – due to the ability of the new CIL plant to process increasingly hard ore at recovery rates of up to 95% (as opposed to recovery rates for heap leaching of around 52% for these harder types of ore).

At Damang, we have started the planned upgrading of our processing plant, including a partial upgrade of the secondary crushers and refurbishment of our plant steelwork. In addition, we reactivated the mine's gravity recovery circuit and installed an intensive leach reactor to improve throughput at the plant to 5 million tonnes per year and take the plant's hard ore recovery from 87% to 89% (close to our targeted 90% recovery rate) by the first half of 2014.

 **Online information:** ASTER™ and BIOX® Proprietary processing technology



## 5.2 Pursuing zero harm

Our promise that “if we cannot mine safely, we will not mine” reflects our prioritisation of employee safety and wellbeing above other management priorities. This is demonstrated by the fact that over the last four years, we have written off significant amounts of high-grade Mineral Reserves in South Africa due to safety concerns. In our West Africa Region, we have had to pursue a lower-grade mining plan at our Damang mine due to safety concerns over the potential instability of the wall between the Juno pit and the Damang Pit Cut-Back.

### Relevant stakeholder promise:

- **A quest for Zero Harm: If we cannot mine safely, we will not mine. We seek to eliminate all harm to our people and to all contractors working on our sites**

Our strong stance on this issue is not only driven by our obvious moral imperative, but also by the need to avoid operational disruption and damage to our reputation. Collectively, these motivations sit behind our determination to demonstrate that gold mining – and deep underground gold mining in particular – can, when managed effectively, be carried out safely.

Nonetheless, our performance remains unacceptable – particularly in the higher-risk environments presented by our labour-intensive, deep underground operations in South Africa. During 2012, there were 16 workplace fatalities at Gold Fields (2011: 19) – all of them within the South Africa Region. Five of these took place in a single incident involving an underground fire in a worked-out area of KDC's Ya Rona shaft in June 2012. Operations were initially suspended across KDC to facilitate a review of existing safety systems – whilst nearby workplaces were affected by risk of exposure to toxic gases and seismic instability. Investigations by the regulators have been completed and the required corrective action has been implemented.

There is clearly no room for complacency. We are continuing to build upon a range of safety initiatives implemented in 2011, which are already starting to show results. This includes a marked reduction in fall of ground (FOG) fatalities to two in 2012 (2011: 12) – which primarily relates to our extensive programme on fall of ground prevention. This includes more detailed planning and enhanced inspections to ensure compliance to standards – as well as the fitting of safety netting and roof bolting to all stope panels in South Africa (p89).

Gold Fields management are regular participants in the South African Chamber of Mines' newly formed CEO Elimination of Fatalities Team – a cross-sector initiative to share experiences and help one another address key safety challenges. This includes a specific focus on cultural transformation, which was re-introduced into the South Africa Region's safety strategy (p88).

Figure 5.11: Group safety performance (pre-unbundling)

Group	2012	2011	2010	2009	2008
Fatalities	<b>16</b>	20	18	26	31
LTIFR (Lost Time Injury Frequency Rate)	<b>5.16<sup>1</sup></b>	4.69	4.39	3.91	5.34
FIFR (Fatal Injury Frequency Rate)	<b>0.11</b>	0.12	0.11	0.16	0.16
MTIFR <sup>2</sup> (Medically Treated Injury Frequency Rate)	<b>5.21</b>	5.68	7.16	8.91	13.50

<sup>1</sup> Including restricted work cases for Australasia; 4.66 if Australasia restricted work cases are excluded

<sup>2</sup> In South Africa, due mainly to the additional safety risk associated with deep-level mining, a conservative approach has been adopted whereby first aid cases are included in the MTIFR

Figure 5.12: Breakdown of fatalities in the South Africa Region (pre-unbundling)

Calendar year	2012	2011	2010	2009	2008
FOG <sup>3</sup> (gravity) fatalities	<b>1</b>	7	9	3	3
FOG (seismic) fatalities	<b>1</b>	5	0	10	11
Non-FOG fatalities	<b>14</b>	7	8	13	17
Total fatalities	<b>16</b>	19	17	26	31

<sup>3</sup> Fall-of-Ground

### 5.2.1 Managing safety

During 2012, we revamped our safety strategy in the South Africa Region by introducing two further elements. It is now based on:

- Engineering-out risks
- Compliance
- Wellbeing
- Cultural transformation (reintroduced in 2012)
- Stakeholder engagement (reintroduced in 2012)

This was due to the realisation that the working culture within our South African operations was starting to hamper our efforts to improve our health and safety performance – and that self-discipline, responsibility and a sense of mutual respect are essential components of any safety management programme.

Likewise, we placed increased emphasis on engagement with our employees' unions as essential interlocutors and stakeholders in the safety management process, as well as the Department of Mineral Resources (DMR) as the key regulator and source of guidance.

In this context, in February 2012 we held a Health and Safety Summit involving representatives from the national, regional and branch levels of the Solidarity, UASA and NUM trade unions, as well as representatives from the DMR. This confirmed strong consensus around our updated safety strategy – as well as collaborative work on key initiatives such as our management of:

- FOG incidents (p89)
- Rail-related (tramming) accidents (p89)
- Dust and noise exposure (p136)

Furthermore, it was agreed that all parties would cooperate in our efforts to carry out social surveys across all of our South African operations to help inform and improve our future safety and health management efforts. As a result, the summit established a strong and broad mandate for our safety management efforts in 2012.

In addition, we have implemented enhanced safety enforcement measures across the South Africa Region. Our safety officers, who are independent and are not involved in day-to-day production and associated targets, have typically visited each workplace every 45 days. We have now brought this down to just 21 days through employment of a total of 65 additional safety officers at Beatrix and KDC.

All our operations are certified to the OHSAS 18001 international safety management standard.

Figure 5.13: LTIFR, FIFR and MTIFR performance (pre-unbundling)

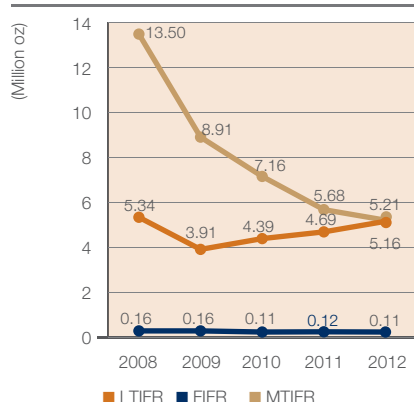
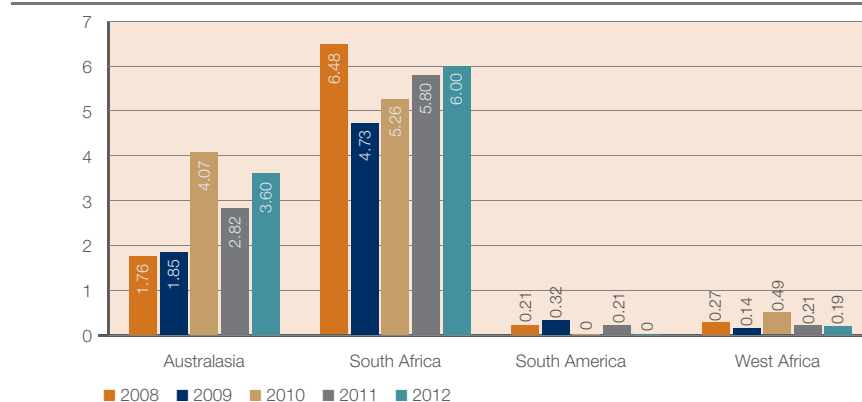


Figure 5.14: LTIFR by region (pre-unbundling)<sup>4</sup>



<sup>4</sup> The 2012 figure for Australasia excludes restricted work cases; 21.59 if restricted work cases are included

## 5.2 Pursuing zero harm continued

### Ensuring a safe return to work

We have proactively managed the potential safety impacts of strikes at our operations during 2012, which resulted in a significant amount of disruption, temporarily impacted working relationships and interrupted routine maintenance work. Nonetheless, our supervisors have played a strong role in maintaining constructive safety engagement between our management and crews, whilst roof-bolting at the stope faces has minimised the potential deterioration of our workplaces during the strike. In addition, we instituted special temporary procedures to ensure the safe resumption of work, including a slower rate of advance per blast and the installation of support structures right up to the work-face. This approach was well-adhered to and implemented by all parties and helped us return to full production within two weeks of the strike, with no evidence of a 'spike' in safety incidents.

### 5.2.2 Promoting a safe mining mentality

During 2012, we implemented a cultural survey at our Beatrix and KDC mines, which was completed by around 30% of the workforce (equivalent to 12,184 employees). The survey, which is aimed at assisting cultural transformation around safety, has helped us understand the key determinants of workplace culture across all levels and functions. This includes the examination of national and regional cultural dynamics, specific human dynamics and collective engagement relationships.

Key findings from the survey include opportunities for improvement around:

- The ability of supervisors to interact effectively and constructively with workers
- Vertical and horizontal communication between employees
- Culturally sensitive performance management with respect to the treatment of under- and over-performers

The results of the survey will help our efforts as we continue to implement relevant interventions under South Africa's sector-wide Cultural Transformation Framework. The framework, which is being implemented over a two-year timeframe, aims to enhance our collective leadership performance, risk management, incentivisation, implementation of best practice, and promotion of respect in the workplace – and ensure we meet all relevant standards articulated by the Chamber of Mines and agreed to by stakeholders.

At South Deep a new bonus scheme, which was implemented as part of the New Operating Model in October 2012, incentivises safe performance across the mine. Teams are expected to deliver their targets without injury to team members. If they achieve this a full performance-related bonus will be paid to teams who are injury-free. If a team suffers one lost-time injury (LTI) within the measurement month, all members of that team will lose 50% of their performance-related bonus, while two or more lost-time injuries in a month will result in a 75% penalty being applied. For LTI purposes, teams are defined as all members within a Mine Overseer's or Engineering Overseer's section. In the case of a fatality, all members within that Unit Manager's or Engineer's department will be paid no incentives for that measuring month, irrespective of their performance.

Safety gear for employees working underground in South Africa



### 5.2.3 Delivering a safe mining environment

The 'engineering out' of safety risks at our deep underground mines in South Africa is a key management priority – as reflected by a rigorous system of safety environment reporting to the Safe Production Management Task Team, the Board's Safety, Health and Sustainable Development Committee and the Board of Directors.

#### Reducing seismic risks

During 2012, we completed the fitting of removable safety nets during drilling shifts and the installation of roof bolting on all stope panels throughout the South Africa Region except where hanging wall rock conditions do not allow this, in which case alternative solutions are devised. This marks a major step forward in our delivery of a safe working environment and in terms of addressing what has traditionally been one of our most problematic areas. Indeed, completion of this initiative appears to have made a real contribution to a sharp fall in Fall-Of-Ground (FOG) accidents during 2012. This includes a fall in FOG-related fatalities from 12 in 2011 to two in 2012, of which one was gravity and the other seismic-related.

It also suggests the 'feed-through' of benefits from ongoing and extensive seismic risk management initiatives, including:

- Enhanced pre-conditioning of rock before it is worked on (destressing) at all three South African mines, including South Deep
- Ongoing mine planning reviews to ensure the minimisation of a high risk concentration of mining
- Centralised blasting during a narrow time window to minimise the exposure of crews to seismicity during shift times at Beatrix and KDC
- The cessation of night-shift working in isolated areas that have a high night-time seismic risk profile
- Delivery of regular seismic hazard assessments by our Seismic Task Team, allowing for the temporary withdrawal of crews as necessary

- Mechanised flat-end development at KDC and Beatrix
- The use of galvanised mesh and bolts at South Deep

Furthermore, we are implementing additional measures to enhance the performance with respect to FOG accidents, including:

- Testing of a new generation of 'yielding' rock bolts at South Deep, which are better able to withstand seismic energy
- A trial study at KDC to investigate the use of steel mesh to provide enhanced aerial support between support units (i.e. beyond the stope panel)

#### Reducing tramming risks

Tramming incidents were responsible for five of our 16 fatalities during 2012. In response to this, we continued to initiate a new Guard Communications System programme. Under the programme we have started a major overhaul of our 1,200 underground locomotives in the South Africa Region, including improved cab designs, enhanced braking systems, electronic data recording, hand-held controls with 'pivot-based' safety systems and enhanced communications. This includes a 'fail-safe' command system that in effect requires both the driver (at one end of the locomotive) and the guard (at the other end) to issue the same instructions to the locomotive before it will function – as well as an emergency stop function that can be instigated by either individual. This programme has been completed at South Deep and is due for completion at Beatrix and KDC in mid-2014 – and will be supported by additional, related measures – such as training for locomotive operators and the implementation of safer alternatives to the manual coupling of rolling stock.

#### Improved fire safety procedures

Following the major fire at the KDC Ya Rona Shaft in June 2012 (p86), Gold Fields has reviewed safety measures to minimise the risk of such an event re-occurring. These include:

- Revision of our fire and explosion guidelines and enhanced training for operators
- Implementation of dedicated, dual-oversight of our Fire Detection Systems
- Additional oversight of our electronic Fire Detection System by our shaft-based control rooms

Although the exact circumstances and causes of the fire are still under investigation by the Department of Mineral Resources, we believe these measures will help avoid such an event re-occurring or mitigate the impacts of such an event.

Underground locomotive drivers at transport KDC, South Africa





## 5.3 Promoting environmental stewardship

Our Vision, Values and risk management strategy – as well as increasingly stringent environmental regulations – means we remain highly committed to the continuous improvement of our environmental performance.

A significant proportion of our efforts are focused on the prevention of post-closure acid mine drainage (AMD), the prevention of leaching from our tailings and the minimisation of our carbon emissions.

### 5.3.1 Managing our impacts across the mine lifecycle

Our approach to managing the environmental impacts of our operations and exploration activities is defined by our sustainable development framework, as well as the ISO 14001 international environmental management standard. In 2012, we spent a total of US\$152 million on environmental management.

All of our operations are certified to the ISO 14001 international environmental management standard and the International Cyanide Management Code.

During 2012, we initiated an Environmental and Legal Due Diligence exercise across all of our regions using a team of independent internal and external environmental and legal experts. The task was to:

- Reassess our understanding of the environmental baseline conditions at each of our operations
- Identify potential legal/permitting and environmental related liabilities and risks (if any) that may have arisen since the last due diligence exercise
- Identify potential opportunities for improving our existing environmental management practices

Figure 5.15: Group environmental performance (pre-unbundling)

Group	2012	2011	2010	2009	2008
Environmental incidents (Level 2 and 3)	<b>69</b>	56	143	235	330
Water withdrawal (Ml)	<b>88,477</b>	78,236	76,326	72,403	75,950
Water discharge (Ml)	<b>45,911</b>	42,482	<b>48,080</b>	n/a	n/a
Closure costs (US\$m)	<b>492</b>	440	443	366	304
CO <sub>2</sub> emissions (scope 1 and 2) ('000 tonnes) <sup>1</sup>	<b>5,112</b>	5,298	5,350	5,507	5,212
CO <sub>2</sub> emissions (scope 3) ('000 tonnes) <sup>2</sup>	<b>1,172</b>	792	782 <sup>3</sup>	458	n/a
Carbon intensity (tonnes CO <sub>2</sub> -e/oz) <sup>4</sup>	<b>1.68</b>	1.43	1.39	1.41	1.49
NO <sub>x</sub> , SO <sub>x</sub> and other emissions (tonnes)	<b>5,892</b>	5,358	5,871	5,379	5,528
Ozone depleting emissions <sup>5</sup>	<b>n/a</b>	n/a	n/a	n/a	n/a
Cyanide consumption (tonnes)	<b>19,662</b>	23,750	21,487	22,165	18,922
Mining waste ('000 tonnes)	<b>188,120</b>	189,409	193,577	167,569	103,856
Materials ('000 tonnes)	<b>314</b>	336	325	269	264

<sup>1</sup> Figures exclude fugitive mine methane emissions

<sup>2</sup> The increase in Scope 3 emissions is mainly attributable to an increased range of materials included in the 'purchased goods and services category', as well as changes in operating conditions, which increased emissions from 'fuel and energy-related' activities

<sup>3</sup> Enhanced calculation methodology implemented in 2010, meaning 2010 – 2012 figures are not comparable with 2009 figure

<sup>4</sup> Scope 1 and 2 emissions only

<sup>5</sup> Although no data exists for ozone-depleting emissions by weight, this has not been identified as a relevant/material issue under our ISO 14001-compliant Environmental Management Systems

### 5.3.2 Using and discharging water responsibly

Water management represents a key potential risk in all of the regions in which we operate. It forms a key component of each of our operations' Environmental Management System (EMS) – through which water use and quality is assessed, managed, monitored and reported on.

#### Water strategy

In 2012, our Group Technical Services (GTS) function started scoping activities for the development of a Group-wide water strategy. This is being supported by a newly formed, world-class team of water experts at Group-level headed by a new Group Head of Water Management to ensure we address heightened levels of scrutiny from national water regulators and other stakeholders in an early and proactive way. This included a prioritised review of water management at our Tarkwa mine, which produced a comprehensive action plan to further enhance:

- Water management plans and systems
- Water balances
- Operational procedures
- Roles and responsibilities
- Laboratory standards

This will act as a model for similar water management reviews to be rolled out across the Group.

 **Case study:** Driving best practice across the Group through the new water strategy

#### Tarkwa Heap Leach closure

In July 2012, Ghana's Environmental Protection Agency (EPA) directed us to suspend all discharges of water from our North and South Heap Leach facilities at Tarkwa. The EPA further required that instead of utilising longstanding dilution methods, which had ensured that we were discharging within regulated limits, all such discharges should be treated through a water treatment plant to reduce conductivity levels (i.e. the amount of dissolved salts rather than any indication of toxicity per se). Although the EPA had permitted the dilution method for several years, we nonetheless:

- Suspended discharges as part of our commitment to strong environmental stewardship and compliance with the EPA directive
- Commissioned the construction of two water treatment plants at the mine

In August 2012, the EPA lifted its suspension of activities at Tarkwa's Heap Leach facilities and – along with Ghana's Ministry of the Environment, Science and Technology – approved the continued dilution and discharge of excess water within existing legal limits, pending the completion of our two new water treatment plants by 31 December 2012. It is estimated that the 24-day suspension resulted in lost production of 15,000 ounces – less than 10% of the mine's quarterly production.

The water treatment plants were both operational by the end of March 2013.

In addition to implementing the action plan produced for Tarkwa through our water management review, we have also instituted enhanced water monitoring at the mine – on top of our existing joint water monitoring with local community members (p149). This includes an increase in the number of sampling points and more frequent testing.

#### Water use licences in South Africa

The Kloof mine (part of KDC) was issued a water use licence in December 2008 that expired in December 2011. The Group has applied for renewal of, and amendments to, this licence. Pending approval of the Kloof water use licence, a regulatory directive was obtained from the Department of Water Affairs (DWA) that permits the continuation of water uses at the Kloof operation. The Driefontein mine (also part of KDC) was issued a water use licence in October 2010. Discussions with the DWA are ongoing to revise the licence.

The DWA has advised the Beatrix operation, which had pre-existing water permits of indefinite length, that its current water usage remains authorised and that it need not apply for a new licence. However, Beatrix has nevertheless proactively submitted a water use licence application, which is currently being processed.

Gold Fields was issued a new water use licence for South Deep in December 2011 and has subsequently made an application for rectification and amendment of this water use licence to the DWA.

Figure 5.16: Group water withdrawal (pre-unbundling)

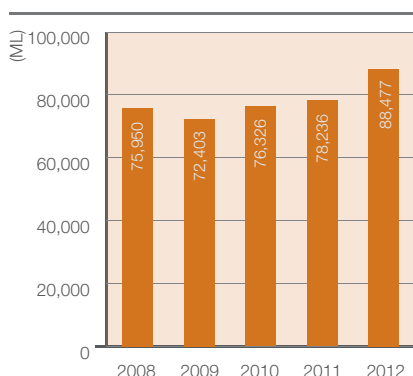
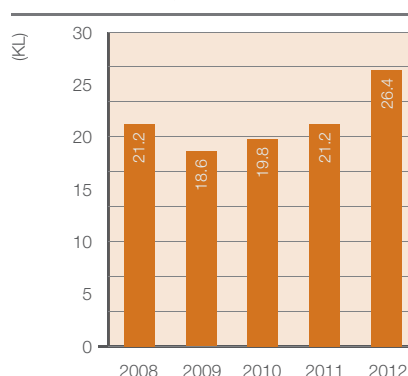


Figure 5.17: Group water withdrawal per ounce of gold produced (pre-unbundling)



## 5.3 Promoting environmental stewardship

### continued

#### Liquid Gold strategy

Liquid Gold is a joint Gold Fields/Sibanye Gold project to proactively prevent future acid mine drainage (AMD) from the deep underground KDC and South Deep mines (i.e. once they reach their respective mine lives – at least 10 to 20 years away in the case of KDC and more than 50 years away in the case of South Deep).

In 2012, we conducted a comprehensive scoping exercise to help move our Liquid Gold strategy towards feasibility stage in 2013. This includes moving beyond our previous focus on potential treatment options to materially advancing planning around a sustainable, reliable and integrated post-closure water strategy, which takes account of potential impacts within the wider Wonderfonteinspruit catchment area. In addition, we are integrating evolving water treatment methodologies to take account of relevant technological advances.

The strategy now envisages the provision of treated potable and industrial water pumped from closed operations – and using the revenues generated to finance AMD avoidance measures, such as ongoing separation of clean and dirty fissure water and selective water treatment.

Avoidance measures would be based on two separate pumping and treatment systems – one higher-volume system for AMD-affected water and a smaller volume system for clean fissure water – as well as the appropriate sealing of underground contact points between the two, to minimise potential mixing.

In addition, we are examining opportunities as to how Liquid Gold can also be used to support our Surface Treatment Strategy (p95), which is likely to require significant amounts of water.

#### AMD at Cerro Corona

AMD is considered both a short-term and long-term risk at our Cerro Corona mine. A number of controls have been successfully employed at the operation to ensure that AMD is well managed throughout the mining life cycle. These include:

- Implementation of a full life cycle risk mitigation strategy
- Full integration of AMD issues into the Environmental Management System
- Continuous and extensive leach testing, using methods that exceed industry best practices
- Integration of AMD mitigation measures into the design of all the components of the operation
- Continuous monitoring of the performance of these mitigation measures

As part of Cerro Corona's mine closure plan review, Gold Fields recently concluded studies required by Peru's Ministry of Energy and Mines (MEM) to analyse post-closure water treatment requirements. The MEM found that Cerro Corona will require post-closure water treatment, which represents a change to Cerro Corona's previous closure plan. Gold Fields is in the process of consulting with the MEM regarding its post-closure plans.

 **Case study: Why is AMD of such public interest in South Africa?**

#### 5.3.3 Reducing our carbon and managing climate change

Growing recognition around the risks linked to climate change, as well as the implementation and increasing likelihood of carbon regulation in a range of jurisdictions, means we place strong emphasis on carbon and climate change management.

In addition, rising energy costs mean that any success in reducing our energy consumption delivers important commercial benefits, whilst also cutting our emission levels. In our South Africa region (which accounted for the majority of our power consumption in 2012), 90.5% of electricity is derived from carbon-intensive coal generation. As a result, it accounts for the bulk of our Scope 2 CO<sub>2</sub> emissions.

Figure 5.18: Group CO<sub>2</sub>-e emissions – Scope 1, 2 and 3 (tonnes – pre-unbundling)

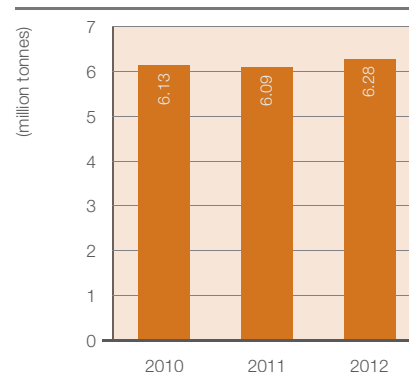
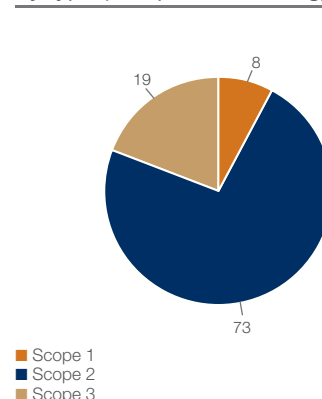


Figure 5.19: CO<sub>2</sub>-e emissions by type (% – pre-unbundling)



## Energy and Carbon Management Strategy

Under our newly developed and fully integrated Energy and Carbon Management Strategy, we are targeting:

- Carbon emissions reductions of 13% by 2016 against our 'business as usual' projections
- An average of 20% renewable energy generation on all new mine developments

Furthermore, we will now apply two key rules to all future energy investments:

- No operation should utilise a more carbon intense source unless security of supply or price makes it necessary
- All new mine developments must rely on renewable sources for at least 20% of their energy demands

Under this strategy, each of our regions in collaboration with the Group Technical Services function has developed a Carbon Management Plan (CMP), focusing on:

- Management and reporting
- Mitigation
- Adaptation

These plans will support the integration of energy and carbon pricing and reduction into our financial and operational planning – as well as the integration of energy and carbon targets into managers' balanced scorecards – from 2013 onwards.

## Carbon Pricing Mechanism in Australia

Australia's Carbon Pricing Mechanism commenced in July 2012 (p151), prompting our Australasia Region to implement impact mitigation measures, including:

- The locking-in of diesel prices through the application of a fuel hedge
- A study on potential vendor and contractor carbon price pass-through costs

We estimate that the removal of our diesel rebate under the new tax regime will increase our costs by A\$6 million (US\$6 million) a year.

## Beatrix Methane Project

Although the Beatrix Methane Project continued to operate during 2012, burning 250m<sup>3</sup> of methane a second, we have put on hold plans to install a second burner. This is due to a slump in the price of Certified Emissions Reductions (CERs), which has a material impact on the project's economics. Nonetheless, Beatrix started generating electricity from the project in March 2013 – accounting for around 3% of the mine's total energy needs.

The project was also registered under the UN's Clean Development Mechanism (CDM), helping it generate an initial batch of 9,643 CERs at the end of 2012, valued at a total of R280,000 (US\$35,000).

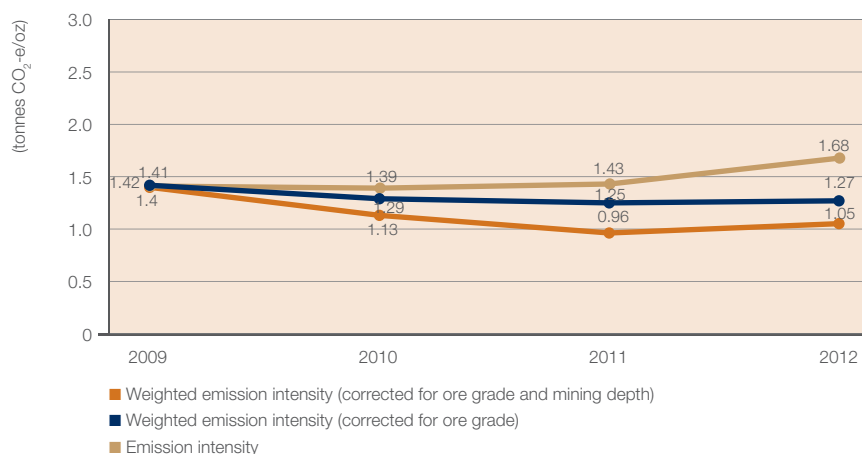
Total emissions reductions relating to the Beatrix Methane Project in 2012 amounted to 40,928 tonnes of CO<sub>2</sub>-e.

## Wider renewable energy projects

We have further enhanced plans for potential renewable energy projects in both the South Africa Region and the West Africa Region, including:

- The 30MW Tarkwa Biomass Power Plant project, with construction to potentially be undertaken by the Nollen Group. A construction decision is expected in 2013
- Completion of a prefeasibility study for a waste and biomass energy project at KDC and initiation of registration of the project with the CDM
- Ongoing collection of wind data at St Ives to assess potential for wind generation

Figure 5.20: Carbon intensity (pre-unbundling)<sup>1</sup>



<sup>1</sup> Scope 1 and 2 only



## 5.3 Promoting environmental stewardship

### continued

#### 5.3.4 Managing materials responsibly

We are committed to the safe and responsible management of our materials.

Our most significant input materials include timber, blasting agents, hydrogen chloride, lime, cement and caustic soda (sodium hydroxide). However, cyanide represents the most potentially hazardous input material, meaning we place particular emphasis on its management. All our eligible operations<sup>1</sup> have full certification under the International Cyanide Management Code (ICMC). This certification extends to our transport providers.

Our most significant output materials include tailings, waste rock, chemical waste and hydrocarbon waste.



[www.cyanidecode.org](http://www.cyanidecode.org)

#### Tailings and waste rock management

All of our operations have life of mine tailings management plans. Their Tailings Storage Facilities (TSFs) and associated pipeline and pumping infrastructure are subject to ISO 14001 certified, externally audited tailings management systems – as well as daily inspection and formal annual reporting. In addition, our TSFs are inspected for technical integrity by independent engineers at least once every three years (see below) – or more frequently where required by local circumstances or relevant permit or licence conditions.

In addition, our TSFs are subject to a range of measures to minimise the risks they pose to the environment, including robust physical modelling and engineering. Specific risk management measures include:

- Pollution containment facilities to capture any runoff
- Recycling systems to enable tailings water to be reused in metallurgical processes (including closed circuit systems)
- Dust and erosion control measures, including vegetation and/or dust suppressants on slope faces

Although most of our tailings are stored in TSFs, a proportion is recycled as paste fill (in combination with cement) in line with best practice rock engineering requirements. In South Africa we recycle a substantial proportion of our waste rock through reprocessing (p95) and its utilisation in construction projects. The remainder is kept in managed waste rock dumps (WRDs), which are subject to comprehensive rehabilitation.



**Case study:** New tailings storage facility at Cerro Corona – a major feat of innovative engineering

Land rehabilitation at Damang, Ghana



Figure 5.21: Group input materials (pre-unbundling)

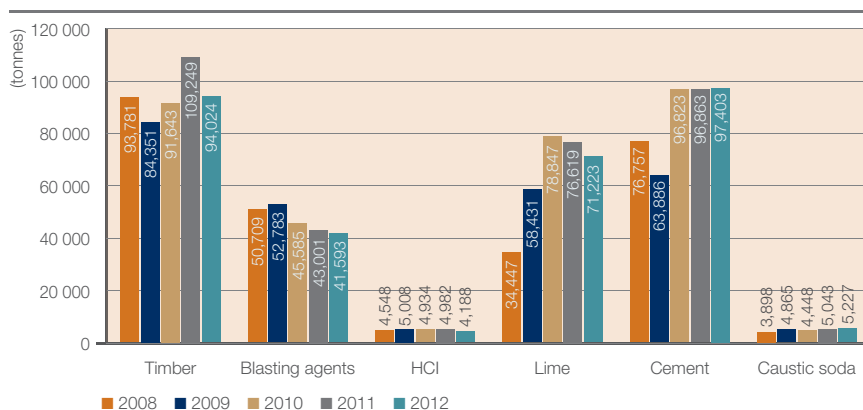
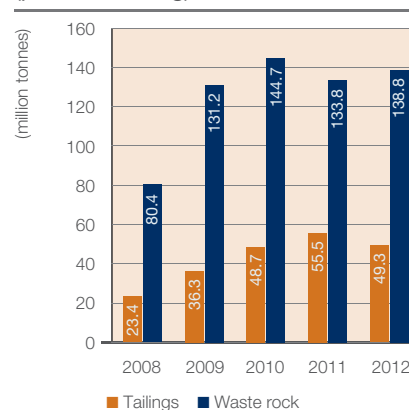


Figure 5.22: Group mining waste (pre-unbundling)



<sup>1</sup> i.e. excluding Cerro Corona, which produces a copper concentrate

## Audit of Tailings Storage Facilities

During 2012, we commissioned an external expert review of all our 'live' Tailings Storage Facilities (TSFs). This is built on a similar audit exercise carried out in 2009. The latest review found that all TSFs were generally stable, the management of freeboard is strong, and permits are in place and being complied with. Nonetheless, the review identified opportunities for improvement around:

- The existence of large bodies of water on TSFs at our Tarkwa and St Ives mines
- Rehabilitation and slope erosion in South Africa (in the context of our ongoing evaluation of our Surface Treatment Strategy (see below))
- Physical monitoring and management
- Groundwater modelling

## Surface Treatment Strategy in the South Africa Region

We are continuing to examine potential opportunities around the reprocessing and centralisation of our current and historical TSF and Waste Rock Dumps (WRDs) in the West Wits area into a new Centralised Tailings Storage Facility (CTSF) adjacent to South Deep's existing Doornpoort TSF, or equivalent arrangements at alternative locations. This work falls under the joint venture with Gold One. The project would not only produce additional gold (and potentially uranium) at an attractive NCE margin, but would also help reduce our long-term tailings management costs and minimise our future environmental liabilities.

For example (like South Deep's Doornpoort TSF), the CTSF would sit on non-dolomitic geological strata that minimises groundwater pollution risks. This compares to eight out of 13 current TSFs in the West Wits area, which sit on dolomitic rock that hosts naturally occurring aquifers. In addition, the CTSF (or equivalent facilities in alternative locations) would integrate similar design features as the Doornpoort TSF, which would help minimise any potential environmental impacts. These include pre-isolation of the most acidic water for treatment, on-site water treatment facilities, full plastic lining of the return water dam, extensive bunding (i.e. physical controls) and catchment paddocks.

Whilst we are now satisfied with our ability to meet the relevant technical requirements – including the integration of innovative Python processing plants to help concentrate WRD material (p94) – we are developing a portfolio of potential commercial options, both under our 2011 memorandum of understanding with Gold One and on a unilateral basis. We are likewise analysing the potential social and environmental requirements that would need to be satisfied for the project to proceed.

Should the requisite returns on investment be identified and development of the project proceed, joint surface resources (which amount to more than 700 million tonnes) – as well as the potential integration of neighbouring TSFs – could make a material contribution to Group production. The joint venture project with Gold One is now a responsibility of the Sibanye Gold management team.



[www.gold1.co.za](http://www.gold1.co.za)

## West Africa tailings capacity

During 2012, our Damang mine received approval from Ghana's Environmental Protection Agency (EPA) for three critical infrastructure projects required to sustain production at the mine. These include:

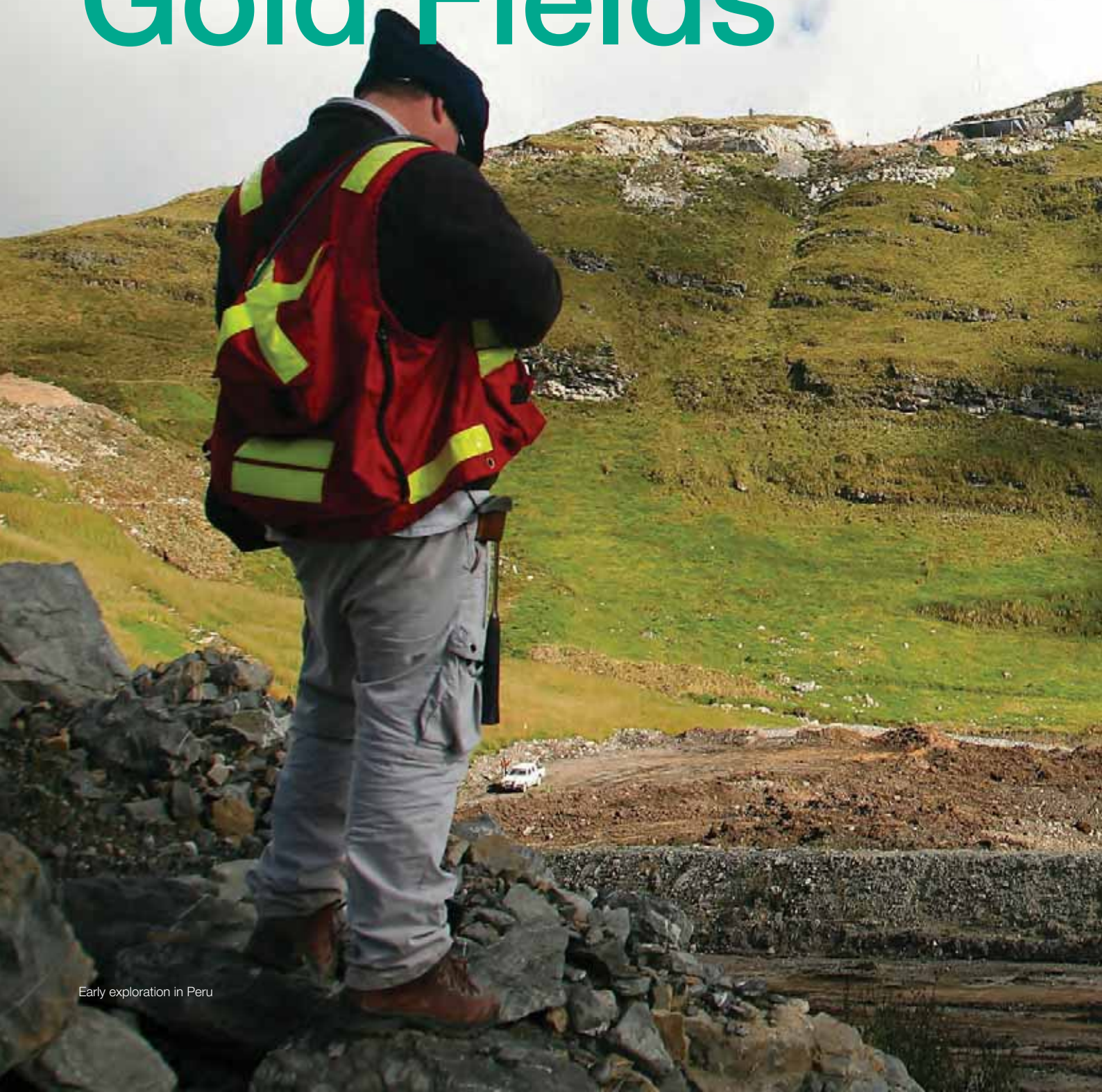
- The raising of its existing East TSF, which will offer sufficient capacity to 2014
- Construction of the mine's Far East TSF, which will be needed from 2014 onwards
- Construction of the new Huni WRD, which is due for completion by the end of 2013 and will have the capacity to hold 66 million m<sup>3</sup> of waste rock

This follows extensive negotiation with the EPA and removes a significant risk to future production capacity. Furthermore, it demonstrates the maintenance of constructive relations with the EPA, despite the suspension of our heap leach activities at our neighbouring Tarkwa mine (p91).

At Tarkwa, various options are being investigated to provide additional tailings storage capacity, including the upgrading of TSF1 and TSF2, as well as the possible construction of a new TSF5. A decision on these options is expected by mid-2013.



# 6. Growing Gold Fields





# Contents

6.1 Linking growth, diversification and sustainability	Page 98
6.1.1 Q&A with Tommy McKeith	Page 99
6.1.2 Growth and International Projects	Page 100
6.1.3 Top five heat map	Page 102
6.1.4 An integrated approach to growth	Page 103
6.1.5 Planning for the future	Page 105
6.2 Expanding our growth pipeline	Page 108
6.2.1 Near-mine exploration	Page 108
6.2.2 Greenfields exploration	Page 110
6.3 Moving from exploration to production	Page 112
6.3.1 Arctic Platinum Project, Finland	Page 112
6.3.2 Chucapaca, Peru	Page 114
6.3.3 Far Southeast, Philippines	Page 116
6.3.4 Yanfolila, Mali	Page 118
6.4 Mineral Resource and Mineral Reserve Statement	Page 120
6.4.1 Introduction	Page 120
6.4.2 Corporate governance	Page 120
6.4.3 Group summary	Page 121
6.4.4 Regional summary (post unbundling)	Page 124

## Highlights

10

Exploration countries

2m ounces

Increase in Attributable Mineral Resources

98%

Increase in Mineral Resource at Yanfolila in Mali



## 6.1 Linking growth, diversification and sustainability

Our Vision of being the global leader in sustainable gold mining requires us to:

- **Believe in gold:** This means we are – and will remain – a miner of gold (and other metals present with gold), and will not hedge against the gold price
- **Create the greatest enduring value from gold:** This means delivering optimal financial returns to our investors
- **Consistently deliver what we promise across all our operations:** This means achieving and maintaining stability, predictability and consistency at our operations – and only providing guidance for what we know we can deliver

It is these requirements that sit behind our strategic objective of ‘growing Gold Fields’.

During his July 2012 keynote speech to the Melbourne Mining Club, Gold Fields CEO Nick Holland, identified the key challenge for the global gold mining industry: To provide investors with attractive returns in absolute terms and relative to our peers. This is not only our guiding principle as we seek to ‘optimise our operations’ (p72), but also sits behind our approach to ‘growing Gold Fields’.

We have taken a hard look at our current growth portfolio – as well as our historical goal of having 5 million ounces in production or development by 2015 – to ensure we are well-positioned to meet the challenge. This has resulted in some tough decisions that, whilst potentially impacting on future production volumes, will ensure we invest in – and deliver – only high-margin, cash-generating growth projects.

Because of this, our previous 2015 goal is no longer our primary point of reference. Instead, our focus is on:

- Delivering superior growth in shareholder value and avoiding growth for growth's sake (and by implication, avoiding the development of marginal projects)
- Ensuring project development places particular emphasis on the optimisation of project returns
- Building a focused, steady pipeline of cash-generating projects that will, over time, further enhance Gold Fields overall cash returns

This approach will continue to help us diversify our production base – and secure the long-term sustainability of our business by adding to and upgrading the quality of our portfolio.

### Relevant stakeholder promises:

- **A quality portfolio of productive mines and assets under exploration and development:** The quality of our asset portfolio is key to our success – but what is most important is that we maximise the value this can generate and that we pursue asset returns rather than just ounces in production
- **The best return on gold:** In order to be an appealing long-term investment, we must deliver leverage to the gold price and attractive returns relative to our peers

Ground inspection at Salares Norte, Chile



## 6.1.1 Q&A with Tommy McKeith

*Executive Vice-President: Growth and International Projects*

**Q. How would you characterise Gold Fields approach to growth?**

A. Our growth focus is largely organic – and is based on proactive portfolio management. This includes the maintenance and development of our sector-leading, in-house exploration and development expertise. This is with the aim of maintaining an aggressive, geographically diversified and well sequenced exploration portfolio.

In particular, we aim to maintain a ‘steady-state’ growth pipeline, by managing the seamless transition between relevant Growth and International Project teams as opportunities advance through the development lifecycle – and by leveraging reliable and repeatable development models. This is with the aim of maintaining – at any one time – at least:

- Three advanced drilling projects (scoping)
- Two resource development projects (prefeasibility)
- One feasibility

This approach aims to ensure we are always in the process of constructing a new mine – in the current case, South Deep.

Finally, sustainability plays a core role in all our exploration and development activities – something that is particularly important that is potentially challenging new exploration locations. This includes – through structured stakeholder engagement as well as holistic operational and strategic management – the careful consideration of local social, economic and political issues in all our decision-making. By doing so, we are able to operate effectively, predictably and profitably ‘where others fear to tread’.

**Q. What do you consider to be the growth ‘highlights’ in 2012**

A. Key highlights in 2012 include:

- Discovery of the Suhanko North deposit at the Arctic Platinum Project
- Doubling of the Mineral Resource at Yanfolilla, completion of the project scoping study and acceleration of the derisking programme to fast-track development
- Declaration of a maiden Mineral Resource at the Far Southeast project
- Promoting sustainable development among local communities based on shared value

**Q. What are the implications of the proposed restructuring of Gold Fields?**

A. The Growth and International Projects function remains part of Gold Fields following the listing of Sibanye Gold on the JSE<sup>1</sup> Limited (JSE). The smaller size and turnover of the post-restructured Gold Fields has meant that we have reprioritised our exploration and project activity. The annual greenfields exploration budget has been reduced to US\$80 million and we will only advance projects that we believe will deliver optimal returns and cashflow generation (p17).

Although the restructuring will mean Gold Fields South African operations make up a smaller proportion of its Mineral Resources, Mineral Reserves and production, it will also reduce the total number of mines in its portfolio. As a result, Gold Fields will look to reduce its risk profile through further production diversification. This includes particular emphasis on supplementing our current project pipeline with new opportunities in lower-risk geographies – and reducing the risk profile of the Group as a whole.

Nonetheless, we will continue to ‘go where the gold is’ and remain open to exploring growth opportunities in potentially higher risk geographies. This will be underpinned by our ongoing commitment to implement an ‘integrated’ approach to risk management and sustainability (p103).

**Q. What are the implications of Gold Fields shift from its 2015 goal of 5 million ounces in production or development, towards the more disciplined and focused pursuit of cash-generating growth?**

A. Our focus has always been on cash-generating growth. The difference is that in light of the recent restructuring and our refocusing away from our previous 2015 goal, we now have more freedom to pursue only the highest-quality projects that will – over time – raise the profile of Gold Fields and enhance its status as a desirable investment target.

We will do so by imposing conservative economic hurdles to ensure only the best projects proceed – and to maintain a highly selective and disciplined growth portfolio. Inevitably, this will also result in the sale of some of our more marginal projects – but will also ensure that we live up to our philosophy that “all new projects will be better than what we have”.

**Q. Will you continue to eschew M&A-led growth?**

A. We continue to believe that the discovery and development of greenfields projects by our own Growth and International Projects function remains the best means of adding value to the Company. Nonetheless, taking projects from discovery to production takes time – and can require the costly navigation of a range of operational, social and environmental risks.

Because of this – as well as the need to continue diversifying Gold Fields from a smaller base to lower our overall risk profile – we are open to balancing our exploration activity with additional M&A activity, including in well-established, lower-risk jurisdictions, but only on an opportunistic basis where the path to value is clear. Nonetheless, ‘organic’ exploration growth will remain our main focus.

<sup>1</sup> Johannesburg Stock Exchange

## 6.1 Linking growth, diversification and sustainability continued

### 6.1.2 Growth and International Projects

Our Growth and International Projects portfolio covers five continents and is coordinated and supported from our main offices in Perth, Australia and in Denver, United States. These are supported by a network of local offices, from Santiago, Chile to Baguio in the Philippines.

Our Growth and International Projects function consists of three teams, with deliberately overlapping responsibilities to ensure the smooth and effective transition of growth opportunities through the development lifecycle:

- **Greenfields Exploration team:** Responsible for the identification, assessment and development of opportunities – including potential joint ventures and acquisitions
- **Concept and Studies team:** Conducts conceptual modelling to establish the strategic 'fit' of discoveries and implements scoping studies to take projects through to prefeasibility
- **International Projects team:** Responsible for 'physical' development, including pre-feasibility through to construction

#### Exploration strategy

Over the past two decades, the global gold mining sector has seen a tangible decline in high-quality discoveries – despite a substantial increase in collective exploration expenditure. Furthermore, existing high-quality ore bodies in traditional, lower-risk mining jurisdictions have been maturing – with extraction becoming more and more expensive. Likewise, high gold prices have meant that junior companies have been better able to raise money and compete for a shrinking number of advanced exploration projects. As a result, such projects at best tend to be fully valued, or at worst, overvalued.

It is this dynamic that sits behind our ongoing focus on creating our own high-quality opportunities through internally driven, aggressive greenfields exploration – including the pursuit of initial drilling projects, right through to construction and operation. It is also the rationale for our ongoing investment in the development of our in-house exploration team, which has already demonstrated both its technical excellence in area selection (to improve the likelihood of success and reduce project development timelines) and its ability to grow our Mineral Reserves on a per-share basis.

#### Group growth dynamics

In South Africa, Gold Fields new mechanised South Deep mine will produce an increased gold output at a relatively high margin.

Outside South Africa, growth will be built on the following three pillars:

- Development of low-risk, high-return near-mine growth opportunities to replace, bring forward and extend Mineral Resources and Mineral Reserves at our existing operations in Australia, Ghana and Peru (p108)
- Effective, well-resourced greenfields exploration in our established Australasia, South America and West Africa regions – and in highly prospective, under-explored locations in Canada, Kyrgyzstan, the Philippines and elsewhere (p110)
- Advancement – and ultimate execution – of our major advanced stage projects, where they can demonstrate superior returns (p112)

View from Salares Norte, Chile



## Targeting

We review and rank the most prospective areas in the world on an ongoing basis – having assessed the strategic suitability of targets, as well as a wide range of country risks.

We are assisted in this process by two key systems:

### *Global Business Area Rating (GBAR)*

This proprietary system provides quantitative and qualitative analysis of the 'prospectivity' (e.g. geology, exploration maturity, etc.) and 'mineability' (e.g. political risks, regulatory environment, etc.) of prospective growth opportunities – using both internal and external data.

### *Acquisition and Competitor Intelligence System (ACIS)*

This network-based system uses proprietary software to analyse and process extensive geophysical, project, mine and Geographical Information System databases – as well as internally derived intelligence – to guide our acquisition activities and interactions with other operators.

## Quality control and assurance

We maintain rigorous quality control and assurance protocols on all of our exploration programmes. These use industry best practice in data acquisition, laboratory verification and sign-off by qualified persons under the 2007 edition of the SAMREC Code.

This approach is already creating value for our shareholders by driving production and Mineral Reserve growth on a per share basis – and will continue to play a key role in the identification and development of cash-generating growth opportunities.

The considerable investment required to bring opportunities from discovery through to production takes place through our Gold Fields Project Management System. This provides a clear structure and process for the management of capital investment in projects, including the definition of roles and responsibilities, reporting and accountability.



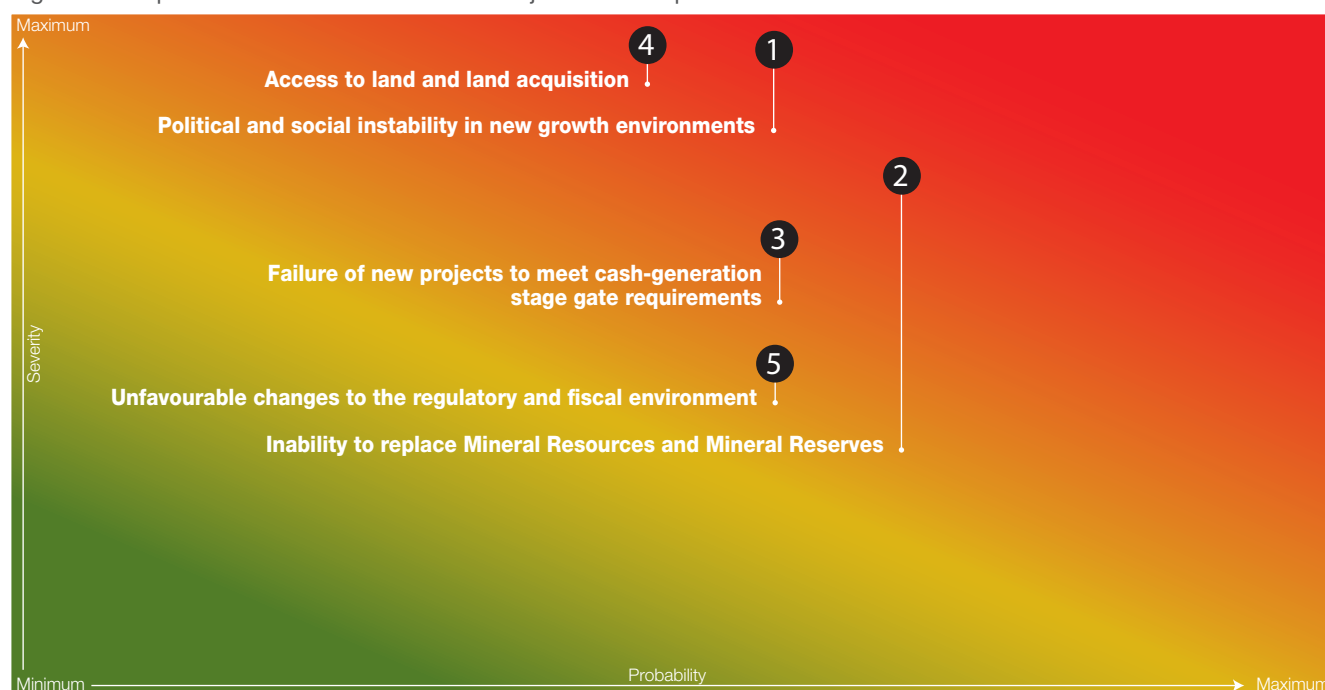


## 6.1 Linking growth, diversification and sustainability continued

### 6.1.3 Top five heat map

The heat map below sets out the top five Growth and International Project risks, as identified through our Enterprise Risk Management (ERM) process (p48).

Figure 6.1: Top five Growth and International Projects heat map



Risks	Mitigating strategies
1	<ul style="list-style-type: none"> <li>• Application of stringent geographic and socio-political risk analysis</li> <li>• Rollout of Crisis Management Plan across all projects</li> <li>• Implementation of extensive community relations and stakeholder engagement programmes</li> <li>• Delivery on all commitments made to communities</li> <li>• Piloting of our 'shared value' social approach to ensure lasting, mutual benefits</li> </ul>
2	<ul style="list-style-type: none"> <li>• Application of enhanced focus on low-risk, high-return near-mine growth opportunities</li> <li>• Establishment of formal Growth and International Projects Sustainable Development function to support higher risk projects in new growth environments</li> <li>• Examination of additional, low-risk greenfields growth in well-established mining locations</li> </ul>
3	<ul style="list-style-type: none"> <li>• Implementation of the new Gold Fields project management system</li> <li>• Concentration on smaller, less capital-intensive 'starter projects'</li> <li>• Value re-engineering of existing development models to optimise potential returns</li> </ul>
4	<ul style="list-style-type: none"> <li>• Ongoing engagement with communities</li> <li>• Investigation of alternative mining methodologies to minimise footprint/maximise flexibility</li> <li>• Planned development/implementation of land access standards and tools</li> </ul>
5	<ul style="list-style-type: none"> <li>• Stringent compliance with legal and non-legal obligations and commitments</li> <li>• Effective monitoring of political developments and regulatory changes</li> <li>• Engagement with government on a direct and indirect basis</li> </ul>

### 6.1.4 An integrated approach to growth

In 2012, we established a formal Sustainable Development function within Growth and International Projects. This has been supported through considerable investment in a highly experienced team of senior experts, drawn from both within the Group and externally – as part of our long-term commitment to in-house sustainability and risk management excellence.

This reflects our recognition that in many higher-risk, higher-return new growth environments (p44), sustainable development issues can determine the ultimate success or failure of a project – and thus our:

- Commitment to taking an ‘integrated management’ approach to our exploration and development projects – with sustainability and risk management actively addressed as a core project activity from the earliest stages
- Determination to apply common, best practice standards across all of our growth projects – whilst providing the requisite flexibility to allow local teams to deal effectively with local issues
- Desire to facilitate the seamless transition of growth projects through the exploration and development pipeline to production – including through close coordination with the Group Sustainable Development function
- Promotion of Gold Fields as the ‘partner of choice’ for governments and communities – based on a demonstrable and repeatable record of responsible and mutually beneficial project execution

*“... working together to assure a sustainable context for the timely delivery of our project pipeline ...”*

Growth and International Projects  
Sustainable Development Mission

Our Sustainable Development function has already implemented a number of key initiatives to help make our integrated management approach a reality. Key examples include:

- Development and rollout of common Growth and International Projects social management standards – addressing issues ranging from stakeholder engagement to grievance mechanisms
- Mapping and documentation of sustainable development risks and opportunities across all advanced drilling and resource development projects
- Development of an advanced Sustainable Development Risk Assessment Tool to facilitate the establishment of comparable benchmarking and monitoring across all of our exploration and development projects
- Rollout of our Crisis Management Plan across all of our exploration and development projects
- The ongoing rollout of our ‘shared value’ social approach (p141) – including implementation at Chucapaca, Far Southeast and Talas

In 2013, the Sustainable Development function plans to focus on:

- Completing the rollout of the ‘shared value’ social approach
- Developing and rolling out new Standards and Tools to assist with land access
- Developing an integrated Safety, Health, Environment and Community (SHEC) Management System
- Establishing formal Stakeholder Engagement Plans at every project using a common framework
- Aligning all sites with the Voluntary Principles on Security and Human Rights – a widely recognised international standard governing interactions between companies and public/private security forces – including the delivery of human rights training to security personnel

### Applying strong operational standards

Our overriding commitment to responsible health and safety practices, as well as environmental stewardship, is applied as strongly during the exploration and development process as it is at all of our producing mines – irrespective of location.

Indeed, in 2013 we plan to implement our Energy and Carbon Management Strategy throughout Growth and International Projects (p93) – including the development of related action plans for all our resource development projects.

By building in this philosophy from the start, we ensure best practice operational management is carried through each stage of the development pipeline – and into the ‘DNA’ of the new mine that will sit at the end of the development process.

Our Environment, Health and Safety Management System is certified to the ISO 14001 and OHSAS 18001 management system standards.

### Earning our social licence to operate

Gold mining companies increasingly have to pursue growth opportunities in higher-risk locations that do not have an established history of mining. This is largely because of:

- The ongoing depletion of high-grade deposits in traditional gold mining areas
- A legacy of global underinvestment in greenfields exploration

As a result, effective risk management – and the securing of a strong, long-term social licence to operate – has in many cases become the key determinant of project success.

## 6.1 Linking growth, diversification and sustainability continued

Our growth portfolio is not immune from the need to obtain a social licence to operate from local communities. As a result, we have put stakeholder engagement and the generation of shared value at the heart of our exploration and development activities – starting at the earliest stages of discovery. This helps ensure we can navigate the often complex social, political and economic challenges presented by some of our own growth environments – in a careful, sensitive and effective way.

Every one of our early exploration opportunities has the potential to develop into a full-scale mine – and to add quality production to long-term output of the Group. As such, we base our interactions and activities on the assumption that each project will be developed to the point of construction and operation – and place an appropriate value on the establishment and maintenance of our social licence to operate – no matter how small or early the exploration project is.

### *Stakeholder engagement*

Our approach to stakeholder engagement is based on the AA 1000 principles of inclusivity, materiality and responsiveness<sup>1</sup> – including extensive and ongoing engagement of community members, traditional representatives, local and national NGOs, government officials and others. More specifically, our approach is characterised by:

- Well-resourced Community Relations teams embedded within each project
- Comprehensive and ongoing stakeholder mapping, analysis and monitoring
- Detailed risk identification, assessment and analysis, using internal and external expertise – including local and international risk professionals
- The development of comprehensive, adaptable and effective risk management action plans based on monitoring, internal reporting and the pursuit of continuous improvement

This helps ensure that when we do identify those projects that can successfully be taken forwards, our teams:

- Are already fully aware of – and effectively managing – any related social, economic or political risks
- Have already established a strong social licence to operate – offering a strong foundation that can be built on as the project moves through the development pipeline
- Can provide the kind of confidence that facilitates rapid capital investment decisions

Examples of key interactions between Growth and International Projects and local stakeholders in 2012 include:

- **Mechanised ‘orpillage’ at Yanfolila:** In late 2012, small-scale artisanal miners (‘orpailleurs’) operating at the Komana West target began using mechanised crushing machines – posing a significant threat to project viability. Following constructive engagement with the local community consultation committee and the local authorities, the orpailleurs agreed to remove the crushers – and have continued to honour this commitment
- **Public consultation at the Arctic Platinum Project:** In October 2012, we carried out our first stage of public consultation at the Arctic Platinum Project as part of our Environmental Impact Assessment (EIA) process. This indicated a positive reaction from local community members
- **Removal of drill rig at Far Southeast:** In January 2012, we secured the safe and peaceful removal of a drill rig that had been stuck on-site at Madayman due to an ongoing boycott implemented by local activists. We secured the removal of the rig following detailed consultation and engagement between our community relations team, the local community and the activists

Ground inspection at Chucapaca, Peru



<sup>1</sup> AA 1000 Accountability Principles Standard 2008

### *Laying the foundations for shared value*

As with our existing operations, our interactions are aimed at the maintenance of sustainable stakeholder relationships based on the ongoing generation of shared value.

Unlike our mines, each exploration opportunity will not necessarily result in the long-term generation of revenues that can be leveraged in favour of community development. Because of this, our early stage exploration projects tend to focus on:

- Direct and/or indirect employment of local community members to assist with our drilling activities – and the transfer of skills that can support both their livelihoods and our project development activities
- Procurement of necessary materials and services from local suppliers where possible, including food, transport and accommodation for our exploration teams
- Targeted social investment that generates lasting community benefits – even after exploration activities have ceased. This includes the construction of local health, education and public utility infrastructure

As exploration opportunities move through the project development pipeline, we are able to commit ever-greater resources to the generation of shared value – including through our participation in formal community development agreements that ultimately link our contributions to project completion and productivity.

We communicate this commitment from the start of our activities (whilst carefully managing expectations around each project's prospects of success). This ensures there is a clear incentive for local communities to actively support our development of sustainable, profitable and long-term operations in their locale.

Growth and International Projects have started to pilot our shared value approach to local stakeholders from the early stages of project development.

### *Competitive advantage*

We believe our approach – as well as a corporate culture that has had to adapt and learn from a range of historical social, political and economic challenges within our traditional base of South Africa – gives us a long-term, strategic advantage over our peers. This is particularly the case in terms of our ability to:

- Successfully develop – and add value to – higher-risk, higher-return projects around the world
- Win new licences by demonstrating to host governments our ability to engage local communities in a constructive way, promote local development and take otherwise challenging projects to production

## 6.1.5 Planning for the future

Beyond 2013, we plan to ensure our growth activities are fully aligned with the Group's focus on cash generation, by continuing to:

- Prioritise low-risk, high-return near-mine growth opportunities
- Enforce stringent commercial stage gates on project development – and only pursuing greenfields projects if they offer attractive returns

In addition, we plan to reduce project development risks by seeking mutually advantageous financial and/or technical partnerships to support our growth activities.



# A truly global growth portfolio

“We are committed to growing our portfolio on a per share basis. We will pursue exploration opportunities only if we believe they will offer truly attractive returns and will contribute to the cash generation objectives of the Group.”

*Nick Holland, Chief Executive Officer of Gold Fields*

The future of our business is underpinned by a broad and deep growth pipeline – with exploration interests across five continents and 10 countries – and projects ranging from initial drilling through to construction.

In line with our high profile Portfolio Review (p17, 34 – 35, 43), our exploration growth strategy is focused on replacing – and growing – our Mineral Resources and Mineral Reserves on the basis of strong cash returns.

This includes a focus on:

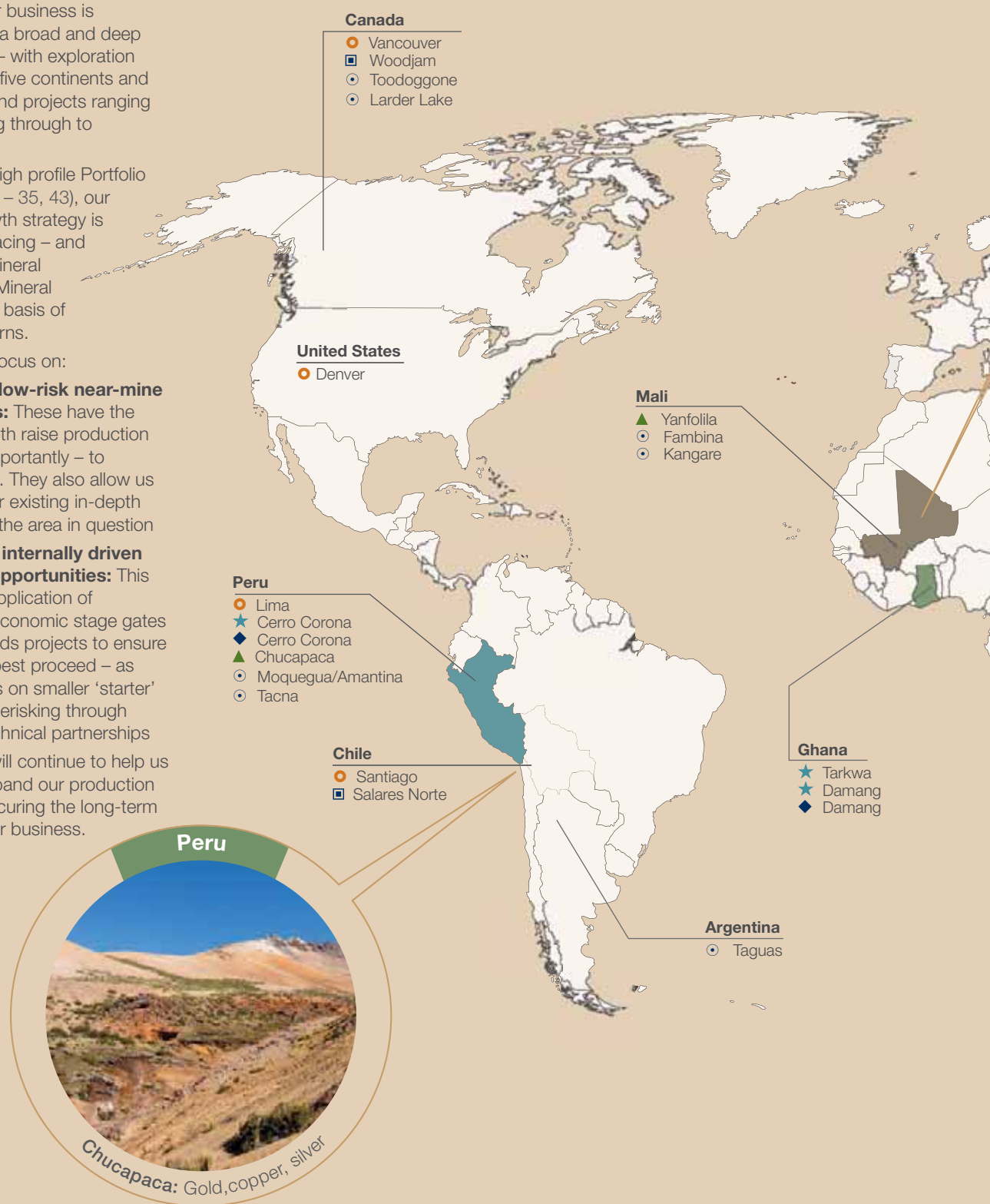
■ **High-return, low-risk near-mine opportunities:**

These have the potential to both raise production and – more importantly – to generate cash. They also allow us to leverage our existing in-depth knowledge of the area in question

■ **High-quality, internally driven greenfields opportunities:**

This includes the application of conservative economic stage gates for all greenfields projects to ensure only the very best proceed – as well as a focus on smaller ‘starter’ projects and derisking through financial or technical partnerships

This approach will continue to help us diversify and expand our production base – whilst securing the long-term profitability of our business.





## 6.2 Expanding our growth pipeline

In 2012, Gold Fields invested US\$415 million in exploration and growth, including:

- Near-mine exploration: US\$65 million (2011: US\$75 million)
- Greenfields exploration: US\$129 million (2011: US\$115 million)
- Feasibility and evaluation US\$44 million (2011: US\$17 million)
- Capital expenditure on growth projects: US\$56 million (2011: US\$70 million)
- Mergers and acquisitions: US\$121 million (2011: US\$1.06 billion)

During 2012, we saw the following net changes to our managed gold Mineral Resources and Mineral Reserves:

- Mineral Resources rose by 16 million ounces (excluding Sibanye Gold) to 149 million ounces
- Mineral Reserves fell by 1 million ounces (excluding Sibanye Gold) to 59 million ounces

### 6.2.1 Near-mine exploration

A significant proportion of the recent increase in our international regions' Mineral Resources and Mineral Reserves has been as a result of near-mine exploration.

Near-mine exploration forms the sustaining foundation of our overall growth strategy. As well as adding to our total Mineral Reserve base, near-mine exploration:

- Extends the life of our existing mines and maintains or increases their option value
- Ensures we can continue to leverage our existing infrastructure well into the future
- Provides a robust platform for regional growth

During 2012, we completed 374,830 meters of near-mine drilling – compared to 345,625 meters in 2011. In 2013, we expect to carry out a lower level of activity, due to the reduction in our near-mine exploration budget. This is due to our immediate prioritisation of lower-risk, higher-return near-mine growth projects to help support Group cash generation.

### Australasia Region

[Mineral Resources and Mineral Reserves Overview 2012 – Australasia Region](#)

#### Agnew

During 2012, we continued to explore the Waroonga Main Lode – including the down-plunge of its three associated high-grade ore shoots to the north of the Kim Lode – using directional surface diamond drilling. The programme, which is focused on confirming the continuity and extent of the Fitzroy, Bengal and Hastings shoots, is known as the High Grade Shoots Project.

The project also further defined the apparent intersection with the Porphyry Link target zone between the Kim and Main Lodes – as well as the identification of extensions to the Porphyry Link target zone itself (which appears to coalesce with the main Kim shoot at depth).

[Technical Short Form Report 2012 – Agnew](#)

Open pit at Agnew, Australia





## St Ives

The St Ives mine is a centre of excellence for near-mine exploration within Gold Fields, due to its sophisticated geology, range of underground and shallow deposits, and our long-term investment in its innovative near-mine exploration teams. In 2012, we carried out an extensive A\$40 million (US\$42 million) near-mine exploration programme at the mine. This was aimed at continuing to replace ore reserves as they get depleted.

As part of this programme, in the third quarter of 2012 we announced a new, high-grade shallow prospect at the Invincible ore deposit. Mineralisation was identified over a 1km strike and to a depth of 200 meters – and this was found to be open along the strike and at depth. Subsequent confirmation drilling resulted in the announcement of a maiden Mineral Resource estimate of 87,000 ounces, which brings the mine's total Mineral Resource to 4.7 million ounces. This has had a significant impact on the mine's overall Mineral Resources and will help underpin future production at the mine.

In addition, we carried out work to extend our Mineral Resources in the area between the Neptune and Revenge deposits – with positive results in the form of newly identified extensions, which added about 158,000 oz to the mine's Mineral Resources. Likewise, high-grade mineralisation continued to be intersected on depth extensions of the Eastern Lodes at Cave Rocks.

On top of such efforts, we carried out significant early stage near-mine exploration to identify entirely new deposits (in addition to Invincible) – and to help underpin the mine's medium-term production pipeline. This included the identification of Target X in the Leviathan area.

[Technical Short Form Report 2012 – St Ives](#)

## South America Region

[Mineral Resources and Mineral Reserves Overview 2012 – South America Region](#)

### Cerro Corona

In late 2012, we completed the first phase of a deep drilling programme under the Corona Deep Project, which has identified porphyry mineralisation at depths of 600 meters below the current pit design. This has potential similarities to a common form of gold-copper porphyry 'pencil' system that can extend to depths far greater than those currently identified at Cerro Corona. Although all six deep drill holes intersected porphyry-style copper-gold mineralisation below the current pit, assay results suggest a decreasing gold/copper ratio at depth.

We are carrying out a full evaluation of mining potential for the Corona Deep Project, which is due for completion in the first half of 2013. Depending on the results, this would potentially support plans for a first-pass deep drilling programme to support large-scale underground mining opportunities over the longer term.

[Technical Short Form Report 2012 – Cerro Corona](#)

Mills at Cerro Corona, Peru



## West Africa Region

[Mineral Resources and Mineral Reserves Overview 2012 – West Africa Region](#)

### Damang

In late 2012, we completed a framework drilling programme on highly prospective targets linked to the Bonga Hydrothermal Project. These were identified as part of a major, ongoing geological reinterpretation exercise. We are awaiting final assay results from the project. In addition, we focused on extending the previously lucrative Amoanda open pit to increase the mine's Mineral Reserves and to support the Damang expansion. This included the testing of concepts to define the pit's potential cut-back potential in the highly prospective mineralisation between Amoanda and Damang. Drilling results confirmed an extension to the north plunging Amoanda mineralisation.

[Technical Short Form Report 2012 – Damang](#)



## 6.2 Expanding our growth pipeline continued

### 6.2.2 Greenfields exploration

Our greenfields exploration team is one of the best in the industry – as a result of our long-term policy of investing in our in-house expertise and capabilities. In 2012, the team continued to perform strongly drilling 236,752 meters (2011: 227,344 meters), at an all-in direct drilling cost of US\$408/meter (2011: US\$350/meter).

Our greenfields exploration efforts are focused on developing new projects in:

- Our established Australasia, South America and West Africa regions, where we can leverage our existing knowledge, relationships, resources and infrastructure
- A small number of new, under-explored 'frontier' areas in prospective geological belts where we can establish ourselves as dominant players

At the end of 2012, our greenfields exploration portfolio (excluding our four major resource development projects (p112 – 119)), consisted of:

- 10 Initial drilling projects
- Three advanced drilling projects

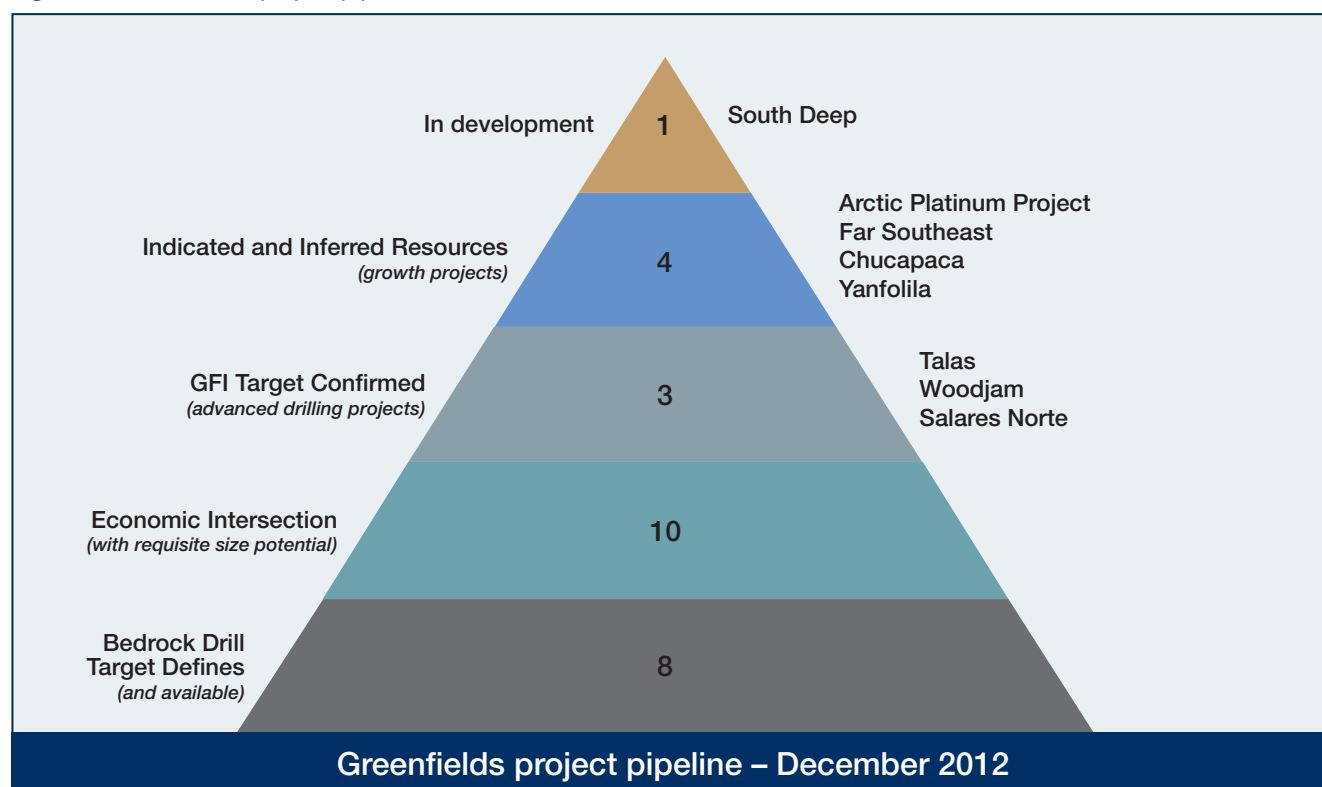
In 2013, we expect to focus on a smaller number of the most prospective and commercially attractive greenfields prospects. This reflects a relative reduction of 38% in our greenfields exploration budget (as against 2012 actual) – and the refocusing of Group strategy on immediate cash generation.

#### Initial drilling

We currently have 10 initial drilling projects (i.e. projects where a target has been successfully defined and drilling has commenced) in eight countries, ranging from Argentina to the Philippines. A full list of these projects can be found online.

[Mineral Resources and Mineral Reserves Overview 2012 – Initial drilling projects](#)

Figure 6.2: Greenfields project pipeline



## Advanced drilling

Our advanced drilling projects (i.e. projects where a discovery has been made and the target has the requisite size potential to develop a resource of material interest to Gold Fields) include the following:



Mineral Resources and Mineral Reserves Overview 2012 – Advanced drilling projects

### Canada: **Woodjam project** (51% attributable)

In early 2012, we announced a maiden Mineral Resource for the copper-rich South East Zone porphyry at Woodjam South in British Columbia. Since then, we have completed additional diamond drilling on the South-East Zone as well as four other porphyry copper-gold mineralised centres. Mineral Resource estimates are in progress and we expect to make a decision as to the future development of the project in the first half of 2013.

The local Horsefly community maintains a positive view of the project, whilst engagement with local First Nation groups has likewise indicated that development of the project would be welcomed. In addition, all relevant environmental permitting is in place.

### Chile: **Salares Norte project** (100%)

Based on encouraging results from an earlier drilling programme, we have moved our Salares Norte project to advanced drilling status. We also started a new drilling programme in late 2012, with the aim of completing a maiden Mineral Resource estimate and a scoping study by the end of 2013. Initial assay results have been encouraging.

The area is largely uninhabited – although there is limited potential for the presence of indigenous Colla ancestral lands within the project area. We are monitoring the implications of this – as well as Chile's recent ratification of ILO Convention 169 (which relates to indigenous people's rights).<sup>1</sup>

Given local water scarcity, we are implementing a short-term strategy to minimise water use during drilling – and are seeking to implement valuable lessons learnt at Cerro Corona and Chucapaca in Peru as we seek to manage our impact on local people. In addition, we are studying potential energy supply solutions, given the remote nature of the site and the lack of a nearby, reliable local power source.

In this context, we are currently implementing three key strategies at Salares Norte to assess:

- The long-term availability of ground water for any future mining operation and the environmental impact of our exploration activities
- Potential community and social issues
- Prospects for securing land access from the current owners (the National Chilean State) in the context of evolving indigenous rights and potential declaration of an indigenous reserve

### Kyrgyzstan: **Talas project** (100%)

During the third quarter of 2012, we purchased the remaining 40% interest in the Talas project in Kyrgyzstan from Orsu Metals Inc. We took this opportunity to consolidate our ownership of the project at a time when the political situation in the country showed strong signs of stabilisation and improvement. The project's Mineral Resources, at the end of December 2012 totalled 6.7 million gold ounces and 1,666 Mlb copper ounces.

We recommenced our diamond drilling programme in April 2012, following our withdrawal from the country in April 2010, amid political unrest. The latest drilling programme produced positive results, confirming high gold-copper grades associated with the central sheeted vein zone that cuts through the Taldybulak porphyry. Our drilling programme is still in progress – and we plan to update our Mineral Resource estimate and scoping study in the first half of 2013. This will inform our decision as to the future development of the project.

We are proactively managing certain community challenges in the area, including a history of disputes over land ownership amongst the local Aral community, a history of distrust of government and other institutions, and excessive stakeholder expectations. This includes sensitive and consistent stakeholder engagement – as well as the implementation of 'shared value' community development initiatives.

Community engagement takes place both directly and through the Aral Local Commission. There are no significant grievances and our social licence to operate remains strong.

We are in the process of implementing a comprehensive risk assessment review for the Talas project, with input from external experts. This is focused on environmental risks and permitting, security and socio-economic threats, land access and socio-political risks.

<sup>1</sup> C169: Indigenous and Tribal People's Convention, 1989, [http://www.ilo.org/indigenous/Resources/Publications/WCMS\\_100897/lang--en/index.htm](http://www.ilo.org/indigenous/Resources/Publications/WCMS_100897/lang--en/index.htm)

## 6.3 Moving from exploration to production

During 2012, we completed a detailed review of our major growth projects to ensure their alignment with Group priorities – and the prioritisation of cash generation in particular. As a result of this process, we have adapted our development strategy, which has contributed to a reduction in our capital expenditure.

Key changes include the following:

- **Arctic Platinum Project:** The pre-feasibility study is close to completion with initial findings demonstrating a viable project
- **Chucapaca:** Recent feasibility work has not produced the required project returns. As a result, we are now focusing on further exploration to increase resource flexibility, re-engineering to reduce capital expenditure and optimise the business case (including pit optimisation and underground mining potential), and continued compliance with our existing social commitments
- **Far Southeast:** We have reduced activity on our technical development programmes to allow additional time for securing land access, gaining community acceptance and the granting of a Financial or Technical Assistance Agreement (FTAA) that would allow us to gain a majority stake in the project
- **Yanfolila:** The inferred Mineral Resource at Yanfolila was doubled during 2012. The project is currently in scoping study phase, but further de-risking and gap filling could enable the project to move through feasibility to a development decision by end 2013.

 Mineral Resources and Mineral Reserves Overview 2012 – Gold Fields Exploration and Growth Projects

### 6.3.1 Arctic Platinum Project, Finland

#### Salient features

##### Overview

- Copper, nickel, gold, platinum and palladium project
- Located in northern Finland

##### Mineral Resources

209 million tonnes containing:

- 2.4 million oz platinum
- 9.8 million oz palladium
- 1,034 Mlb copper
- 438 Mlb nickel
- 0.8 million oz gold

##### Development stage

- Pre-feasibility

##### Scheduled start of production

- 2017

##### Ownership

- 100% Gold Fields owned

##### Material sustainability issues

- n/a

##### Key stakeholders

- Ranua, Tervola and Rovaniemi communities
- Finnish Safety and Chemicals Agency or “Tukes” (mining licensing authority)
- Ministry of the Environment

#### Greater Suhanko Project

In December 2012, we completed the Greater Suhanko prefeasibility study, which included the Suhanko North deposit – following the completion of a prefeasibility consolidation study in 2011 on the Konttijarvi and Ahmavaara deposits. The study was aimed at improving the overall financial profile of the project through the identification of additional resources, a full review of the process design and infrastructure, and the optimisation of mining schedules. With the study now fully completed we will evaluate the results to determine the optimal means through which, to capture the inherent value of the project.

As part of the prefeasibility study, by March 2012 we completed 30,000 metres of initial exploration drilling at Suhanko North. This successfully defined an additional 74 million tonnes of Mineral Resources at a grade of 1.63 g/t 2PGE+Au.

Geological and mine planning work at the Suhanko North deposit has confirmed that this substantial mineral resource can be added to the Greater Suhanko project. This has the potential to significantly increase the resource and mining flexibility of the project.

#### Progress in 2012

##### Key points:

- Confirmation of substantial new mineral inventory at Suhanko North
- Platsol® risk review completed and amenability tests ongoing
- Robust outlook for external platinum and palladium market
- Updated Mineral Resource and stage-gate decision for project scheduled for mid-2013

### Platsol®

During the year, we continued hydrometallurgical test work to assess the suitability of Platsol® processing technology for delivering enhanced onsite metal recovery. During the third quarter, an independent panel of experts completed a technical risk review on the amenability of Platsol® for treating the Suhanko project ore. This indicated the technology could be successfully implemented and that there were no serious flaws.

Marketing studies are under way to determine downstream product marketing strategies. During 2012, this included discussions with six major European base metal/PGE refiners to explore potential synergies and terms of business.

### External platinum and palladium market

During 2012, Gold Fields commissioned independent studies into the external platinum and palladium markets. Both studies confirmed strong external markets – as well as robust project economics.

The first study by South Africa-based Hochreiter found that – had the project already been in production – it would be the third cheapest producer on a cost-plus capital expenditure basis. The study also forecast a strong outlook for palladium (which constitutes approximately 75% of the production of the project) over the next five years.

The second study, by UK-based SFA Oxford, forecast that the platinum and palladium markets will be in deficit by 2015 and estimated that as a result, prices would be robust towards the end of the decade.

### Outlook

Following the evaluation of the pre-feasibility study during 2013, our next step is to decide on whether to proceed with a full feasibility study for the project.

### Licence to operate

#### Environment

In March 2012, we submitted our amendment to the valid Suhanko Environmental Permit (i.e. for the inclusion of the Platsol® hydro-metallurgical process and associated plant infrastructure) to the Finnish environmental authorities. In addition, we submitted an application for a new water permit which was subsequently approved by the authorities in Finland. It requires construction activities to commence in early 2015 and to be completed by 2018.

The final proposal for the Greater Suhanko project Environmental Impact Assessment (EIA) was submitted to the Finnish coordinating authority in December 2012. Baseline environmental data collection on Suhanko North for inclusion in the amended EIA is ongoing.

### Communities

Community issues relating to the project are limited – with the main concern of local communities being the desire for the deposit to be swiftly brought into production to the benefit of the local economy. Community engagement activities are limited to consultative meetings, in support of the EIA process. The first of these meetings (held in October 2012) did not result in any objections.

### Political context

The project is located in a traditionally strong and stable operating environment with a sound mining regulatory framework. We are monitoring the government's examination of a potential new tax on mining activities in 2013 – although early indications suggest this will not materially affect the project.

 Mineral Resources and Mineral Reserves Overview 2012 – Arctic Platinum Project, Finland

 Technical Short Form Report 2012: Exploration and Growth Projects



## 6.3 Moving from exploration to production

continued

### 6.3.2 Chucapaca, Peru

#### Salient features

##### Overview

- Planned open pit mine focused on the Canahuire gold-copper-silver deposit in southern Peru
- Large land holding in highly prospective region
- Well-established and largely supportive relations with local stakeholders

##### Mineral Resources

133 million tonnes containing:

- 6.1 million oz gold
- 46.1 million oz silver
- 254 million oz copper

##### Development stage

- Feasibility – downgraded to exploration and scoping

##### Scheduled start of production

- Not scheduled as yet

##### Ownership

- (Joint venture) Gold Fields 51%; Compania de Minas Buenaventura S.A. 49%

##### Material sustainability issues

- Addressing community sensitivity around water through innovative reservoir construction programme
- Commitment to honour all existing community development commitments
- Currently unaffected by community activism affecting other operators in region – with engagement suggesting largely positive attitudes
- High community expectations around property prices

##### Key stakeholders

- Corire, Santiago de Oyo Oyo and Chucapaca communities
- Local and national government
- National Society of Mining, Petroleum and Energy

#### Progress in 2012

##### Key points:

- Completion of feasibility study focused on Canahuire deposit – indicating insufficient project returns
- Downgrading from a feasibility stage to exploration/scoping as a result

##### Feasibility study

In November 2012, we completed a feasibility study for Chucapaca, focused on the gold-copper-silver Canahuire deposit. This aimed to assess the viability of a large open-pit operation capable of sustaining a 30,000 tonne/day throughput.

Feasibility work included the identification of alternative waste and tailings storage sites – as well as 7,000 meters of related geotechnical, geohydrological and sterilisation drilling for these new sites.

Overall, the resulting project economics were not sufficiently robust to warrant a development decision – primarily due to higher than anticipated capital required, as well as sub-optimal capital efficiency for the project given its expected nine-year life of mine and anticipated total ounces recovered relative to the capital of the project. As a result, in late 2012 we downgraded Chucapaca from a project stage back to an exploration/scoping stage. This has necessitated the short-term retrenchment of personnel otherwise earmarked for construction activities.

Nonetheless, we remain committed to unlocking the potential offered by Chucapaca – based on a revisiting of project fundamentals and the achievement of acceptable returns.

#### Outlook

We remain committed to realising the potential of this strategically significant project – which has a substantial declared Mineral Resource of 6.1 million oz gold, 46.1 million oz silver and 254 Mlb copper. We now plan to carry out additional work to deliver an enhanced economic profile for the project. This will focus on:

- **Mining methodology:** Analysis of different mine development options, including a standalone underground operation or a combined open pit and underground operation
- **Exploration:** Resumption of exploration drilling – on easily accessible, high-grade mineralisation across 35 drill sites – to provide additional flexibility and extend the current nine-year life of mine estimate. To date, we have already identified a number of prospective targets within close proximity to the Canahuire deposit
- **Cost profile:** Optimising capital and operating costs through, for example, moving to a lower throughput model and an associated adaptation of the process facilities to reduce initial capital costs

## Licence to operate

### *Community commitments*

Our activities in Chucapaca are supported by formal, five-year agreements (signed in 2010) with the Corire, Santiago de Oyo Oyo and Chucapaca communities – with whom we enjoy positive relations and who we have made aware of the project's status. Amongst other things, these agreements provide for the delivery of:

- Health and education programmes, in partnership with the local authorities
- Other socio-economic development (e.g. training, infrastructure and employment) programmes identified by the communities

Gold Fields will honour all existing community commitments. Beyond this, we are carefully managing community expectations with respect to the potential impact of the latest feasibility results on future commitments.

### *Community water provision*

We are applying an innovative public/private approach to water management, which remains a sensitive issue in this high-altitude agricultural area. It is anticipated that water will be provided to the project from a new 30 million cubic meter reservoir. As the mine only requires a 10 million cubic meter reservoir to sustain its needs, the majority of water from the reservoir will be used to supply local communities – whilst significant excess capacity will be maintained to avoid any supply disruptions.

Plans around the reservoir remain unaffected by the results of the latest feasibility study – although the scale of the initiative does mean its completion will be contingent on mine construction.

### *Land access and acquisition*

Despite strong initial progress, all further land acquisition has been postponed due to high community expectations around land prices – as well as the need for a more robust business case for the project.

Community co-operation around land access will remain essential as we carry out further exploration at the project – including through surface drilling.

### *Environment*

In light of the weak feasibility study results, we have decided not to submit the planned Environmental Impact Assessment (EIA) for the Chucapaca project (originally scheduled for December 2012).

Nonetheless, in December 2012, we submitted the EIA for the new exploration programme aimed at re-engineering the business case for the project – and anticipate approval in March 2013. We also plan to submit an EIA for the 30 million cubic meter reservoir in early 2013.

[Mineral Resources and Mineral Reserves Overview 2012 – Chucapaca, Peru](#)

[Technical Short Form Report 2012: Exploration and Growth Project](#)

Geology near the Chucapaca project, Peru



## 6.3 Moving from exploration to production

continued

### 6.3.3 Far Southeast, Philippines

#### Salient features

##### Overview

- Planned bulk underground gold-copper mine
- Located in northern Luzon, 250km north of Manila
- Based within existing mining camp – with access to established infrastructure

##### Mineral Resources

892 million tonnes containing:

- 19.8 million oz gold
- 9.921 mlb copper

##### Development stage

- Prefeasibility/data gathering

##### Scheduled start of production

- 2022

##### Ownership

- (Joint venture) Gold Fields 40%; Lepanto Consolidated Mining Company 60%

##### Material sustainability issues

- Negative legacy of historical mining in area relating to land stability, water quality and employment
- Some challenges around land access for surface drilling and other purposes
- Relatively challenging FPIC/FTAA processes (see below) – with an FTAA a prerequisite for majority Gold Fields ownership)

##### Key stakeholders

- Local communities (including majority Kankana-ey indigenous people)
- NGOs (including the Cordillera People's Alliance, the Benguet Mining Alert and Action Network and the Catholic Church)
- Local, provincial and national government and regulators

#### Progress in 2012

##### Key points

- 40% ownership following a third US\$110 million down payment under existing 60% option agreement
- Maiden Inferred Mineral Resource in September 2012
- Refocusing of strategy from pre-feasibility to data gathering

##### Third down payment

Following positive ongoing drilling results, we made a third down payment of US\$110 million in March 2012 under our option agreement with Lepanto and Liberty Express Assets to acquire a 60% interest in the Far Southeast project. To date, Gold Fields has paid US\$230 million for 40% of Far Southeast and we have retained the option to acquire the remaining 20% interest for a further payment of US\$110 million.

##### Maiden Inferred Mineral Resource

In April 2012, we commenced a significant 100,000 meter geological drilling programme focused on infill-drilling to a level appropriate for resource declaration – as well as significant levels of geotechnical drilling to determine the location of shafts, declines and surface infrastructure. Drilling activities were carried out in parallel with ongoing due diligence and scoping studies to assess various bulk underground mining options.

The success of the drilling programme – as well as positive data from 35,000 meters of historic third-party drilling – resulted in the declaration of a maiden Inferred Mineral Resource of 892 million tonnes at 0.7 g/t gold and 0.5% copper for a total of 19.8 million ounces of gold and 9.921Mlb of copper (effective 12 September 2012).

Additional underground geological drilling to increase Mineral Resource confidence and test potential high-value positions is on schedule. Surface geotechnical drilling is also ongoing, but faced a number of challenges during the year. This included drilling for a potential shaft site at the Crusher plant site stalling at approximately 500 meters in poor ground conditions, as well as ongoing delays to surface drilling at Madayman due to ongoing picketing by local activists.

##### New strategy

In August 2012, we postponed the prefeasibility study for Far Southeast in favour of a data collection phase, which is scheduled to run from January to June 2013. This decision was undertaken in recognition of the need to successfully conclude the Free Prior and Informed Consent (FPIC) and Financial and Technical Assistance Agreement (FTAA) processes (see below) before resource development activities can be ramped-up – as well as the need to ensure unrestricted access to drilling sites. As such, activities during this phase will focus on:

- Securing FPIC and conversion to the FTAA
- Negotiating land access to conclude geotechnical drilling for the tailings and overburden sites
- Completion of the geological drilling programme and resource model update
- Completion of a scoping study on a potential starter mine

## Outlook

We will continue to focus on obtaining surface access for drilling and community support for the project – as well as navigation of the relatively challenging FPIC/FTAA process. This includes plans for an extensive communication and engagement process. As a result, we will continue to scale back technical activity on the project – including both geotechnical surface drilling and underground drilling.

The current data collection phase will be completed during 2013, whilst the prefeasibility study will recommence in 2014 (subject to the securing of an FTAA).

## Licence to operate

### FPIC

A key focus of our efforts is on securing FPIC from local (indigenous) Kankana-ey people for our exploration activities. This will not only underpin our social licence to operate, but is also a regulatory prerequisite for obtaining an FTAA (which allows foreign entities to own a majority in a project of this nature – and is thus a prerequisite for the project to proceed).

In support of the National Commission on Indigenous People (NCIP), Far Southeast established a technical working group with the local community and other stakeholders. This has been successful in driving the FPIC process forward and ensuring alignment between all relevant stakeholders. The initiative is being adopted as best practice by the NCIP and Far Southeast is being used as a model to support the incorporation of the working group as a National Standard Practice.

A December 2012 meeting with the Chairperson of the NCIP suggested that there was general support for a successful outcome to the FPIC process.

## FTAA

In November 2011, we submitted an application for an FTAA in preparation for our acquisition of a majority stake in Far Southeast. In June 2012, however, the FPIC process was suspended at the national level pending the finalisation of new national mining legislation. The process recommenced in August following the release of new national guidelines, but this period of suspension delayed our FTAA application. Nonetheless, we anticipate completion of the FTAA process in 2013.

### Piloting of 'shared value' approach

We are piloting the 'shared value' approach adopted at Group level to support local community development – as well as the FPIC process. This is focused on the generation of shared benefits and leveraging our economic impact to support an integrated, strategic hub of socio-economic development – including through our legally mandated and well-integrated Community Development Programmes (required under the Mining Act). These include, for example, construction of farm-to-market roads, hog-raising programmes, fertiliser production, a coffee seedling project, improved water systems and many other linked initiatives.

Tailings dam near Far Southeast, Philippines



Mineral Resources and Mineral Reserves Overview 2012 – Far Southeast, Philippines



Technical Short Form Report 2012: Exploration and Growth Projects



## 6.3 Moving from exploration to production

continued

### 6.3.4 Yanfolila, Mali

#### Salient features

##### Overview

- Located in south-western Mali
- Multiple shallow pits
- Low-risk project with straightforward technical requirements and supportive community
- Unaffected by instability and military action in northern Mali

##### Mineral Resources

17 million tonnes containing:

- 1.46 million oz gold (50% indicated, 50% inferred)

##### Development stage

- Scoping

##### Scheduled start of production

- 2016

##### Ownership

- (Joint venture) Gold Fields 85%; government of Mali 10%; local vendor 5%

##### Material sustainability issues

- Traditional small-scale artisanal mining activity on concession
- Active conflict in the distant north of the country

##### Key stakeholders

- Traditional artisanal and small-scale miners

#### Progress in 2012

##### Key points

- Doubling of Mineral Resource from 720,000 ounces to 1.4 million ounces
- Updated scoping study
- Positive business case for a smaller, two million tonne per year operation
- Construction decision expected in 2013

##### Doubling of resource

During 2012, we focused on infilling previously defined anomalies and structures at the existing Gonka, Kosac, and Sanioumale West prospects – using reverse-circulation drilling. Preliminary resource modelling results have doubled the Mineral Resource to 1.4 million ounces – based on 17.4 million tonnes of ore at a grade of 2.6 g/t.

These results were used to update the scoping study for the project, which is now particularly comprehensive. The study recommends a less capital intensive, lower production rate of 2 million tonnes per year (with previous studies based on a 4 million tonne per year operation). Using this new model, the scoping study indicates potential production of 150,000 ounces a year over an eight-year life of mine, 2Mtpa processing rate and 95% gold recovery.

In addition, in the first quarter of 2013 we submitted a 'Term de Reference' (i.e. a project description for the Yanfolila Environmental and Social Impact Assessment (ESIA)) to the Malian authorities.

#### Outlook

##### Project acceleration

A de-risking programme is planned for the first half of 2013 which, if successful, would allow the project to be fast-tracked from its present scoping phase through feasibility to a development decision. The programme will include:

- A 93,500 meter drilling programme
- Completion of the ESIA
- A gap analysis to identify – and address – design and engineering information weaknesses

We aim to reach a construction decision in 2013, with first gold production scheduled for 2016.

##### Supporting factors

This 'fast-track' approach (i.e. that does not apply the normal prefeasibility and feasibility assessments) is not normally applied. Nonetheless, there are a number of factors that support this approach at Yanfolila (in addition to the already very comprehensive nature of our scoping study), including:

- Relatively low project capital requirements of approximately US\$340 million
- Relatively low levels of technical risk due to the existence of multiple shallow pits, straightforward recovery processes and limited infrastructure requirements
- Community support for development and production

In addition, the Yanfolila Exploration Permit lapses in 2013 and under Malian law must be converted to an Exploitation Permit.

## Licence to operate

### *Artisanal and small-scale mining*

The Yanfolila project area hosts a significant amount of traditional alluvial artisanal gold mining ('orpaillage') – including community participants and foreign artisanal miners. Should the project continue to be developed, its potential impacts on this activity (and vice versa) – as well as its wider impacts on the local economy – will require careful management.

We initiated an EISA (including a Social Action Plan) in November 2012 that will assist in this respect, whilst also identifying the potential environmental implications of this artisanal activity. This is due for completion in mid-2013.

## *Conflict and security*

A military coup in March 2012 resulted in the temporary interruption of exploration activity at Yanfolila – and the precautionary evacuation of our expatriate team. Drilling quickly resumed, however, when it became clear that the security situation within the surrounding southern region was stable. French military intervention against Islamist rebels in early 2013 means the risks posed to Bamako (and by extension our project logistics) remain limited.

We are monitoring the country closely to ensure ongoing conflict in the north does not pose a threat to our employees.



Mineral Resources and Mineral Reserves Overview 2012 – Yanfolila, Mali



Technical Short Form Report 2012: Exploration and Growth Projects

Area near Yanfolila, Mali



## 6.4 Mineral Resource and Mineral Reserve Statement

Following the unbundling process and recommendations from the portfolio review committee, the Gold Fields Mineral Resource and Mineral Reserve strategy has been realigned to focus primarily on the exploration and mining of quality ounces to provide appropriate returns for the shareholders and relevant stakeholders.

### 6.4.1 Introduction

This section will report the Mineral Resources and Mineral Reserves of Gold Fields and Sibanye Gold as two discrete entities; in addition, gold and other commodities will be reported separately.

Gold Fields has made a decision not to report other commodities as gold equivalents, as was done in the past. The December 2011 figures have therefore been restated accordingly.

Following a decision taken by the portfolio review committee, all producing mines that remain in the Gold Fields portfolio will focus on the production of profitable ounces, and curtail marginal production, which do not contribute to meaningful cash generation – even if this results in a decline in production ounces.

Gold Fields Mineral Resource and Mineral Reserve Overview and Technical Short Form Reports (TSFR), which will be released separately to the Integrated Annual Review, contain a comprehensive review of the Group's Mineral Resource and Mineral Reserve as at 31 December 2012. These include details pertaining to the location and mine infrastructure plans of all operations. They are also available on the Gold Fields website.



<http://www.goldfields.co.za>

### 6.4.2 Corporate governance

The Group's December 2012 Mineral Resource and Mineral Reserve statement is compliant with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code, 2007 edition) and Industry Guide 7 for reporting to the United States Securities and Exchange Commission (SEC). Other relevant international codes are recognised, where geographically applicable, such as the Australian Joint Ore Reserves Committee (JORC 2012) Code and Canadian National Instrument (NI) 43-101.

In line with our commitment to sound corporate governance, this statement has been internally reviewed by Group Technical Services (GTS) and, where applicable, by leading independent mining consultancies, and has been found to be compliant with the relevant codes. The procedure followed in producing the declaration is aligned to the guiding principles of the Sarbanes-Oxley (SOX) Act of 2002.

In Figures 6.5 and 6.6 the Mineral Resource and Mineral Reserve statement as at 31 December 2012 is compared to the 31 December 2011 declaration.

The Mineral Resource and Mineral Reserve figures are estimates at a point in time, and will be affected by fluctuations in the gold price, US Dollar currency exchange rates, costs, mining permits, changes in legislation and operating factors.

Although all permits may not be finalised and in place at the time of reporting, there is no reason to expect that these will not be granted. However, the length of the approval process for such permits may have an impact on the schedules stated. All financial models are based on current tax regulations at 31 December 2012.

All figures are managed unless otherwise stated and Mineral Resources are reported inclusive of Mineral Reserves and stability pillars, while production volumes are reported in metric tonnes (t).

The respective operation-based Mineral Resource Managers and relevant Project Managers have been designated as the Competent Persons in terms of SAMREC, and take responsibility for the reporting of Gold Fields Mineral Resources and Mineral Reserves. Corporate governance on the overall compliance of these figures has been overseen and consolidated by Kevin Robertson, Group Head of Mine Planning and Mineral Resource Management. He has 27 years' experience in the mining industry and is a permanent employee of Gold Fields Group Services.

Additional information regarding the teams involved with the compilation of the Mineral Resource and Mineral Reserve declaration is incorporated in the respective Technical Short Form Reports.

### 6.4.3 Group summary

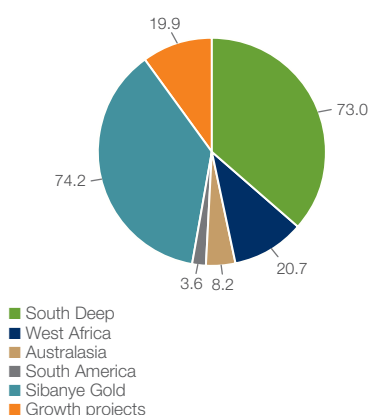
Prior to the unbundling of Sibanye Gold, Gold Fields had total attributable gold and copper Mineral Resources of 199.7 million ounces (December 2011: 198.0 million ounces) and 8,622 million pounds (December 2011: 3,607 million pounds) respectively. Gold and copper Mineral Reserves are 68.4 million ounces (December 2011: 77.6 million ounces) and 1,024 million pounds (December 2011: 1,109 million pounds) respectively, net of mined depletion. The respective gold and copper figures are inclusive of Arctic Platinum (APP), Chucapaca, Talas, Yanfolila, Woodjam and Far Southeast (FSE) projects. Other commodities and by-products (platinum, palladium, nickel, silver and molybdenum), which are reported as part of the Mineral Resource, are summarised in Figure 6.12.

Post-unbundling, Gold Fields has total attributable gold Mineral Resources of 125.5 million ounces (December 2011: 119.2 million ounces), and Mineral Reserves of 54.9 million ounces (December 2011: 56.1 million ounces), net of mined depletion. The figures for copper and the other commodities remain the same as stated above and summarised in Figure 6.11.

Figure 6.3: Group attributable Mineral Resources and Mineral Reserves (including Sibanye Gold and Projects)

#### Resources, including growth projects and Sibanye

Dec-12 Attributable Gold Resources (199.7 Moz)



#### Reserves, including growth projects and Sibanye

Dec-12 Attributable Gold Reserves (68.4 Moz) pre-unbundling

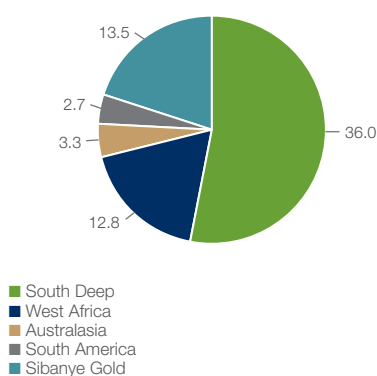
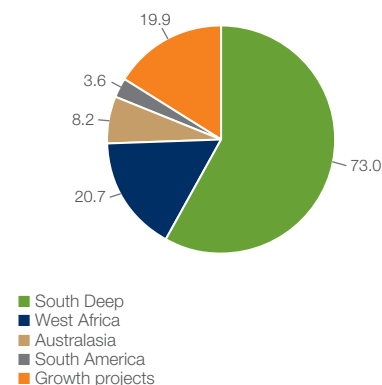


Figure 6.4: Group attributable Mineral Resources and Mineral Reserves (excluding Sibanye Gold)

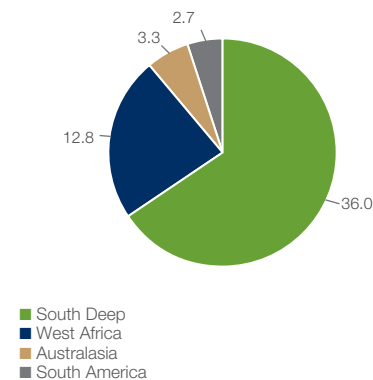
#### Reserves including growth projects excluding Sibanye

Dec-12 Attributable Gold Resources (125.5 Moz) post-unbundling



#### Reserves including growth projects excluding Sibanye

Dec-12 Attributable Reserves (54.9 Moz) post-unbundling





## 6.4 Mineral Resource and Mineral Reserve Statement continued

Figure 6.5: Gold Fields Mineral Resource and Mineral Reserve summary as at 31 December 2012 (including Projects and Sibanye Gold operations)

MINERAL RESOURCES					MINERAL RESERVES			
	31 December 2012		Dec 2011		31 December 2012		Dec 2011	
<b>Gold</b>	Tonnes (Mt)	Grade (g/t)	Gold (Moz)	Gold (Moz)	Tonnes (Mt)	Grade (g/t)	Gold (Moz)	Gold (Moz)
<b>Total operating mines and projects</b>								
GFL Managed (New Gold Fields)	1,104.8	3.22	114.211	119.669	728.1	2.54	59.402	60.505
GFL Attributable (New Gold Fields)	1,022.7	3.21	105.594	110.908	672.1	2.54	54.855	56.079
Sibanye Managed	606.7	3.81	74.246	78.772	89.2	4.72	13.530	21.535
Sibanye Attributable	606.7	3.81	74.246	78.772	89.2	4.72	13.530	21.535
Total Mines – Managed	1,711.5	3.42	188.457	198.441	817.3	2.78	72.932	82.040
Total Mines – Attributable	1,629.4	3.43	179.840	189.680	761.3	2.79	68.385	77.614
Projects – Managed	1,849.5	0.59	35.106	14.042	–	–	–	–
Projects – Attributable	1,175.1	0.53	19.904	8.305	–	–	–	–
Grand Total – Managed	3,561.1	1.95	223.563	212.482	817.3	2.78	72.932	82.040
Grand Total – Attributable	2,804.5	2.22	199.745	197.985	761.3	2.79	68.385	77.614
<b>Copper</b>	Tonnes (Mt)	Grade (%)	Copper (Mlb)	Copper (Mlb)	Tonnes (Mt)	Grade (%)	Copper (Mlb)	Copper (Mlb)
<b>Total operating mines and projects</b>								
Mines – Managed	138.8	0.43	1,302	1,386	103.6	0.45	1,039	1,126
Mines – Attributable	136.7	0.43	1,284	1,366	102.1	0.45	1,024	1,109
Project – Managed	1,832.1	0.34	13,935	3,606	–	–	–	–
Project – Attributable	1,160.3	0.29	7,338	2,241	–	–	–	–
Total – Managed	1,970.9	0.35	15,237	4,992	103.6	0.45	1,039	1,126
Total – Attributable	1,297.0	0.30	8,622	3,607	102.1	0.45	1,024	1,109
<b>Platinum Projects</b>	Tonnes (Mt)	Grade (g/t)	Platinum (Moz)	Platinum (Moz)	Tonnes (Mt)	Grade (g/t)	Platinum (Moz)	Platinum (Moz)
Managed	208.5	0.36	2.417	2.337	–	–	–	–
Attributable	208.5	0.36	2.417	2.337	–	–	–	–
<b>Palladium Projects</b>	Tonnes (Mt)	Grade (g/t)	Palladium (Moz)	Palladium (Moz)	Tonnes (Mt)	Grade (g/t)	Palladium (Moz)	Palladium (Moz)
Managed	208.5	1.47	9.842	9.162	–	–	–	–
Attributable	208.5	1.47	9.842	9.162	–	–	–	–
<b>Silver Projects</b>	Tonnes (Mt)	Grade (g/t)	Silver (Moz)	Silver (Moz)	Tonnes (Mt)	Grade (g/t)	Silver (Moz)	Silver (Moz)
Managed	132.7	10.80	46.093	46.093	–	–	–	–
Attributable	67.7	10.80	23.507	23.507	–	–	–	–
<b>Nickel Projects</b>	Tonnes (Mt)	Grade (%)	Nickel (Mlb)	Nickel (Mlb)	Tonnes (Mt)	Grade (%)	Nickel (Mlb)	Nickel (Mlb)
Managed	208.5	0.10	438	313	–	–	–	–
Attributable	208.5	0.10	438	313	–	–	–	–
<b>Molybdenum (Mo) Projects</b>	Tonnes (Mt)	Grade (%)	Mo (Mlb)	Mo (Mlb)	Tonnes (Mt)	Grade (%)	Mo (Mlb)	Mo (Mlb)
Managed	452.7	0.01	105	98	–	–	–	–
Attributable	452.7	0.01	105	59	–	–	–	–

Figure 6.6: Gold Fields Mineral Resource and Mineral Reserve summary as at 31 December 2012 (including Projects but excluding Sibanye Gold operations)

MINERAL RESOURCES					MINERAL RESERVES			
	31 December 2012		Dec 2011		31 December 2012		Dec 2011	
<b>Gold</b>	Tonnes	Grade	Gold	Gold	Tonnes	Grade	Gold	Gold
Total operating mines and projects	(Mt)	(g/t)	(Moz)	(Moz)	(Mt)	(g/t)	(Moz)	(Moz)
Managed	2,954.4	1.57	149.317	133.710	728.1	2.54	59.402	60.505
Attributable	2,197.8	1.78	125.499	119.213	672.1	2.54	54.855	56.079
<b>Copper</b>	Tonnes	Grade	Copper	Copper	Tonnes	Grade	Copper	Copper
Total operating mines and projects	(Mt)	(%)	(Mlb)	(Mlb)	(Mt)	(%)	(Mlb)	(Mlb)
Managed	1,970.9	0.35	15,237	4,992	103.6	0.45	1,039	1,126
Attributable	1,297.0	0.30	8,622	3,607	102.1	0.45	1,024	1,109
<b>Platinum Projects</b>	Tonnes	Grade	Platinum	Platinum	Tonnes	Grade	Platinum	Platinum
	(Mt)	(g/t)	(Moz)	(Moz)	(Mt)	(g/t)	(Moz)	(Moz)
Managed	208.5	0.36	2.417	2.337	–	–	–	–
Attributable	208.5	0.36	2.417	2.337	–	–	–	–
<b>Palladium Projects</b>	Tonnes	Grade	Palladium	Palladium	Tonnes	Grade	Palladium	Palladium
	(Mt)	(g/t)	(Moz)	(Moz)	(Mt)	(g/t)	(Moz)	(Moz)
Managed	208.5	1.47	9.842	9.162	–	–	–	–
Attributable	208.5	1.47	9.842	9.162	–	–	–	–
<b>Silver Projects</b>	Tonnes	Grade	Silver	Silver	Tonnes	Grade	Silver	Silver
	(Mt)	(g/t)	(Moz)	(Moz)	(Mt)	(g/t)	(Moz)	(Moz)
Managed	132.7	10.80	46.093	46.093	–	–	–	–
Attributable	67.7	10.80	23.507	23.507	–	–	–	–
<b>Nickel Projects</b>	Tonnes	Grade	Nickel	Nickel	Tonnes	Grade	Nickel	Nickel
	(Mt)	(%)	(Mlb)	(Mlb)	(Mt)	(%)	(Mlb)	(Mlb)
Managed	208.5	0.10	438	313	–	–	–	–
Attributable	208.5	0.10	438	313	–	–	–	–
<b>Molybdenum (Mo) Projects</b>	Tonnes	Grade	Mo	Mo	Tonnes	Grade	Mo	Mo
	(Mt)	(%)	(Mlb)	(Mlb)	(Mt)	(%)	(Mlb)	(Mlb)
Managed	452.7	0.01	105	98	–	–	–	–
Attributable	452.7	0.01	105	59	–	–	–	–

## 6.4 Mineral Resource and Mineral Reserve Statement continued

### 6.4.4 Regional summary (post-unbundling)

#### Australasia

The Australasia Region has a declared gold Mineral Resource of 8.2 million ounces (December 2011: 9.2 million) and a gold Mineral Reserve of 3.3 million ounces (December 2011: 4.1 million ounces). These figures are net of 0.66 million and 0.67 million ounces from mined depletion, respectively.

#### South Africa

The South Africa Region has a total declared gold Mineral Resource of 79.3 million ounces (December 2011: 81.4 million ounces). The region's gold Mineral Reserve amounts to 39.1 million ounces (December 2011: 39.6 million ounces). These figures are net of 0.29 million and 0.28 million ounces from mined depletion, respectively.

#### South America

The South America Region has a declared gold Mineral Resource of 3.7 million ounces (December 2011: 3.9 million ounces) and a gold Mineral Reserve of 2.8 million ounces (December 2011: 3.1 million ounces).

The copper Mineral Resource and Mineral Reserve are 1,302 million pounds (December 2011: 1,386 million pounds) and 1,039 million pounds (December 2011: 1,126 million pounds) respectively.

The South America Mineral Resource figures above are net of 0.33 million ounces gold and 123 million pounds copper, while the Mineral Reserve figures are net of 0.32 million ounces gold and 121 million pounds copper from mined depletion, respectively.

#### West Africa

The West Africa Region has a declared gold Mineral Resource of 23 million ounces (December 2011: 25.2 million ounces) and a gold Mineral Reserve of 14.2 million ounces (December 2011: 13.7 million ounces). These figures are net of 1.1 million ounces and 1.0 million ounces from mined depletion, respectively.

#### Growth Projects

The total Mineral Resource figures for the Growth Projects, which include APP, Chucapaca, Talas, Yanfolila, Woodjam and FSE projects are 35.1 million ounces Au (December 2011: 14.0 million ounces); 13,935 million pounds Cu (December 2011: 3,606 million pounds); 2.4 million ounces Pt (December 2011: 2.3 million ounces); 9.8 million ounces Pd (December 2011: 9.2 million ounces); 46.1 million ounces Ag (December 2011: 46.1 million ounces); 438 million pounds Ni (December 2011: 313 million pounds) and 105 million pounds Mo (December 2011: 98 million pounds).

Geological strata at early-stage exploration project



Figure 6.7: Attributable gold Mineral Resources per operation (pre-unbundling)

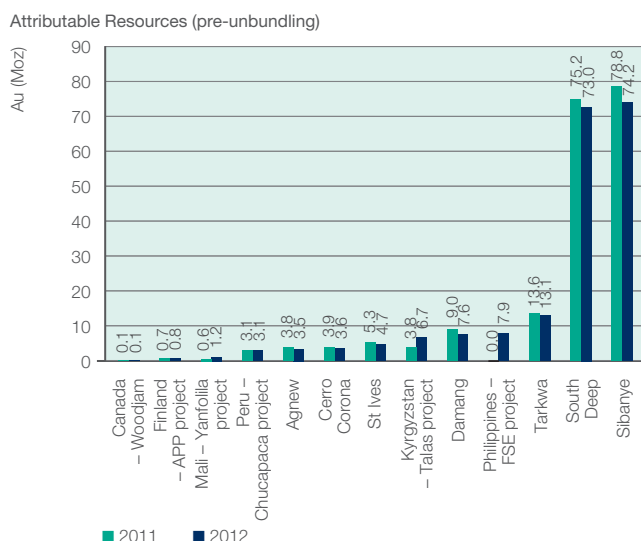


Figure 6.8: Attributable gold Mineral Resources per operation (post-unbundling)

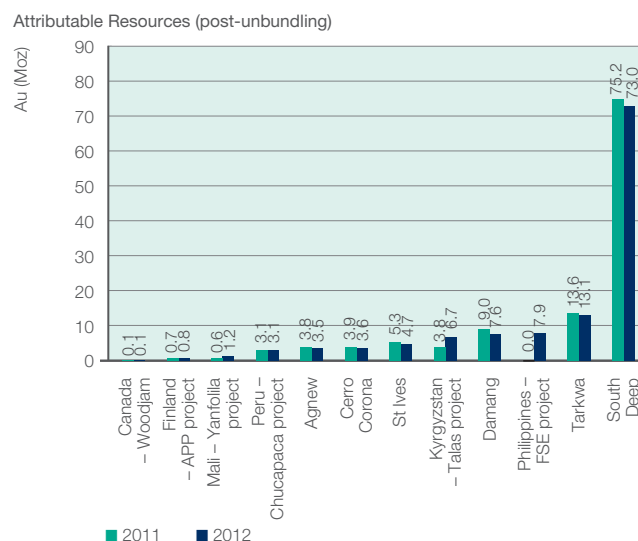


Figure 6.9: Attributable gold Mineral Reserves per operation (pre-unbundling)

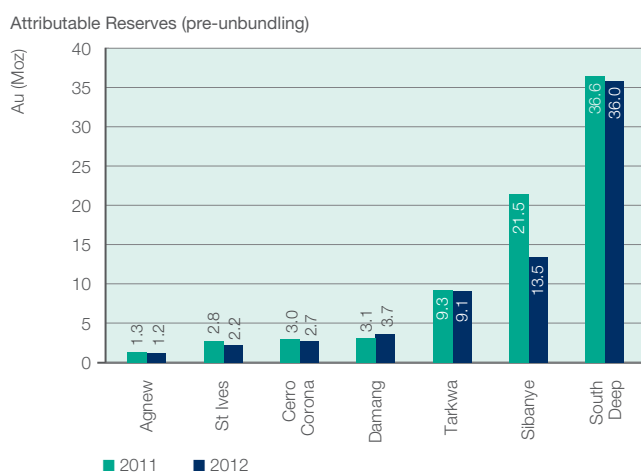
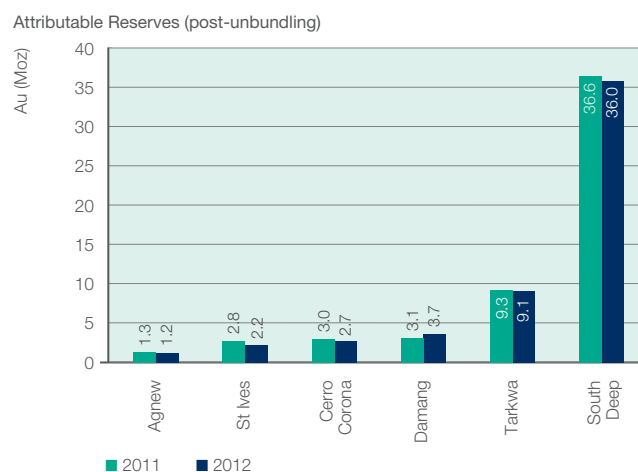


Figure 6.10: Attributable gold Mineral Reserves per operation (post-unbundling)





## 6.4 Mineral Resource and Mineral Reserve Statement continued

Figure 6.11: Gold Fields operating mines (excluding projects) – Mineral Resource and Mineral Reserve Statement as at 31 December 2012<sup>1</sup>

	MINERAL RESOURCES (100%)				MINERAL RESERVES (100%)				ATTRIBUTABLE R & R		
	31 December 2012		Dec 11		31 December 2012		Dec 11		31 December 2012		
	Tonnes (Mt)	Grade (g/t)	Gold (Moz)	Gold (Moz)	Tonnes (Mt)	Grade (g/t)	Gold (Moz)	Gold (Moz)	(%)	Resource (Moz)	Reserve (Moz)
<b>GOLD</b>											
Australia Operations											
Agnew <sup>2</sup>	23.2	4.69	3.501	3.838	6.0	5.98	1.154	1.302	100	3.501	1.154
St Ives	48.8	3.01	4.720	5.314	25.8	2.64	2.190	2.813	100	4.720	2.190
<b>Total Australasia Region</b>	<b>72.0</b>	<b>3.55</b>	<b>8.221</b>	<b>9.152</b>	<b>31.8</b>	<b>3.27</b>	<b>3.344</b>	<b>4.115</b>	<b>100</b>	<b>8.221</b>	<b>3.344</b>
South African Operation											
South Deep <sup>3</sup>	412.0	5.99	79.297	81.403	223.3	5.45	39.112	39.584	92.1	73.033	36.022
<b>Total South Africa Region</b>	<b>412.0</b>	<b>5.99</b>	<b>79.297</b>	<b>81.403</b>	<b>223.3</b>	<b>5.45</b>	<b>39.112</b>	<b>39.584</b>	<b>92.1</b>	<b>73.033</b>	<b>36.022</b>
Peru Operation											
Cerro Corona	146.2	0.79	3.702	3.946	103.6	0.83	2.775	3.072	98.6	3.649	2.735
<b>Total South America Region</b>	<b>146.2</b>	<b>0.79</b>	<b>3.702</b>	<b>3.946</b>	<b>103.6</b>	<b>0.83</b>	<b>2.775</b>	<b>3.072</b>	<b>98.6</b>	<b>3.649</b>	<b>2.735</b>
Ghana Operations											
Damang	129.6	2.02	8.429	10.044	76.1	1.67	4.090	3.390	90	7.586	3.681
Tarkwa	345.2	1.31	14.563	15.123	293.3	1.07	10.081	10.345	90	13.107	9.073
<b>Total West Africa Region</b>	<b>474.8</b>	<b>1.51</b>	<b>22.992</b>	<b>25.167</b>	<b>369.4</b>	<b>1.19</b>	<b>14.171</b>	<b>13.735</b>	<b>90</b>	<b>20.693</b>	<b>12.754</b>
Sibanye Gold Operations <sup>4</sup>											
Kloof (KDC East)	371.0	3.53	42.055	40.839	37.8	4.78	5.804	8.754	100	42.055	5.804
Driefontein (KDC West)	186.9	3.95	23.757	26.657	23.5	5.78	4.369	7.823	100	23.757	4.369
Beatrix	48.9	5.36	8.434	11.276	28.0	3.73	3.357	4.958	100	8.434	3.357
<b>Total Sibanye Gold Operations</b>	<b>606.8</b>	<b>3.81</b>	<b>74.246</b>	<b>78.772</b>	<b>89.3</b>	<b>4.71</b>	<b>13.530</b>	<b>21.535</b>	<b>100</b>	<b>74.246</b>	<b>13.530</b>
<b>Total Gold (including Sibanye Gold)</b>	<b>1,711.8</b>	<b>3.42</b>	<b>188.458</b>	<b>198.440</b>	<b>817.4</b>	<b>2.78</b>	<b>72.932</b>	<b>82.041</b>	<b>95.4</b>	<b>179.841</b>	<b>68.385</b>
<b>Total Gold (excluding Sibanye Gold)</b>	<b>1,105.0</b>	<b>3.21</b>	<b>114.212</b>	<b>119.668</b>	<b>728.1</b>	<b>2.54</b>	<b>59.402</b>	<b>60.506</b>	<b>92.5</b>	<b>105.595</b>	<b>54.855</b>

	Tonnes (Mt)	Grade (% Cu)	Copper (Mlbs)	Copper (Mlbs)	Tonnes (Mt)	Grade (% Cu)	Copper (Mlbs)	Copper (Mlbs)	%	Copper (Mlbs)	Copper (Mlbs)
<b>COPPER</b>											
Peru Operation											
Cerro Corona	138.8	0.45	1,302	1,386	103.6	0.51	1,039	1,126	98.6	1,284	1,024
<b>Total South America Region</b>	<b>138.8</b>	<b>0.45</b>	<b>1,302</b>	<b>1,386</b>	<b>103.6</b>	<b>0.51</b>	<b>1,039</b>	<b>1,126</b>	<b>98.6</b>	<b>1,284</b>	<b>1,024</b>
<b>Total Copper</b>	<b>138.8</b>	<b>0.45</b>	<b>1,302</b>	<b>1,386</b>	<b>103.6</b>	<b>0.51</b>	<b>1,039</b>	<b>1,126</b>	<b>98.6</b>	<b>1,284</b>	<b>1,024</b>

Mineral Resources are inclusive of Mineral Reserves. All tonnes relate to metric units. Rounding-off of figures may result in minor computational discrepancies – where this happens it is not deemed significant.

In Australia (Agnew and St Ives), a gold price of A\$1,650 and A\$1,500 was used to determine the Mineral Resources and Mineral Reserves respectively. Mineral Resources for the South Africa Region was determined at R420,000/kg, while the Mineral Reserves was determined at R380,000/kg.

In South America (Cerro Corona) and West Africa (Damang and Tarkwa), the Mineral Resources and Mineral Reserves were determined using a gold price of US\$1,650/oz and US\$1,500/oz, and a copper price of US\$3.90/lb and US\$3.50/lb respectively.

Growth projects are reported independently under the Growing Gold Fields section on p112 – 119 of the report.

<sup>1</sup> Managed, unless otherwise stated

<sup>2</sup> The Miranda deposit at Agnew is subject to a royalty agreement

<sup>3</sup> The BBBEE transaction concluded in December 2010 grants an empowerment consortium 10% of South Deep. Based on the relevant sliding scale of the vesting of the economic benefit attached to the 10%, and the current LoM profile, the Mineral Resources and Mineral Reserves portion attributable to Gold Fields is 92.1%

<sup>4</sup> Gold Fields mature (legacy) operations now part of independently listed Sibanye Gold

Figure 6.12: Gold Fields Growth Projects

PROJECTS ONLY	MINERAL RESOURCES (100%)				MINERAL RESERVES (100%)				ATTRIBUTABLE R & R		
	31 December 2012			Dec 11	31 December 2012			Dec 11	31 December 2012		
Managed Total project metals	Tonnes (Mt)	Grade (g/t)	Metal (Moz)	Metal (Moz)	Tonnes (Mt)	Grade (g/t)	Gold (Moz)	Gold (Moz)	(%)	Resource (Moz)	Reserve (Moz)
Gold	1,849.5	0.59	35.106	14.042	—	—	—	—	57	19.904	—
Platinum	208.5	0.36	2.417	2.337	—	—	—	—	100	2.417	—
Palladium	208.5	1.47	9.842	9.162	—	—	—	—	100	9.842	—
Silver	132.7	10.80	46.093	46.093	—	—	—	—	51	23.507	—
	Tonnes (Mt)	Grade (%)	Metal (Mlbs)	Metal (Mlbs)	Tonnes (Mt)	Grade (%)	Gold (Moz)	Gold (Moz)	(%)	Resource (Mlbs)	Reserve (Mlbs)
Copper	1,832.1	0.34	13,935	3,428	—	—	—	—	53	7,338	—
Nickel	208.5	0.10	438	313	—	—	—	—	100	438	—
Molybdenum	452.7	0.01	105	98	—	—	—	—	100	105	—



# 7. Securing our future responsibly

Artisans at South Deep, South Africa





# Contents

7.1	Becoming the employer of choice	Page 130
7.1.1	Recruitment and retention	Page 130
7.1.2	Skills development	Page 132
7.1.3	Transformation	Page 134
7.1.4	Health and wellbeing	Page 135
7.1.5	Labour relations	Page 139
7.2	Delivering shared value	Page 141
7.2.1	Shared value: Local employment	Page 142
7.2.2	Shared value: Government	Page 143
7.2.3	Shared value: Local suppliers	Page 144
7.2.4	Shared value: SED	Page 145
7.2.5	Local engagement	Page 148
7.3	Practicing strong business ethics	Page 150
7.3.1	Compliance	Page 150
7.3.2	Government relations	Page 150
7.3.3	Security and human rights	Page 152

## Highlights

95%

Shared value as a percentage of total revenue

1,500

New, skilled employment positions created at South Deep

92%

Proportion of total procurement spend from suppliers in host countries



# 7.1 Becoming the employer of choice

Our Vision of global leadership in sustainable gold mining requires us to:

- **Create the greatest enduring value from gold**, which means not only generating optimal financial value for our investors, but also sustainable socio-economic value for our employees and communities
- **Understand and support stakeholder needs**, by ensuring we effectively address the concerns of those stakeholders who have the ability to influence the long-term success of our business
- **Leave a legacy of shared value**, through the delivery of meaningful and lasting benefits to our employees, communities and host governments

It is these requirements that sit behind our strategic objective of 'securing our future'.

We are determined to ensure that Gold Fields is the place to work in all of our countries of operation. This means ensuring that employees:

- Enjoy optimal working conditions and development opportunities in return for their motivation and loyalty
- Can be confident of their safety – and the safety of their colleagues – when they enter their workplace
- Are acknowledged and rewarded for their essential contribution to value creation
- Know that they have made the right decision – for themselves and their families – by joining forces with the world's most sustainable gold miner

## 7.1.1 Recruitment and retention

### *The 'war for talent'*

Skills shortage and retention continues to represent a key challenge (p41). This is not specific to Gold Fields, but is a global, sector-wide issue. Indeed, skills shortages comes second only to resource nationalism in Ernst & Young's 'Business risks facing mining and metals 2012 – 2013', whilst it has also been identified as a key issue in Deloitte's 'Tracking the trends 2012: The top 10 trends mining companies may face in the coming year'. If we are to achieve our long-term business objectives (p17), we need a well-trained, motivated and stable workforce – including technical experts, managers and operational personnel.

Figure 7.1: Group human resources performance (pre-unbundling)

Category	2012	2011	2010	2009	2008
Total employees (excluding off-payroll contractors)	<b>48,120<sup>4</sup></b>	46,378	47,268	51,122	49,325
HDSA employees in South Africa (%) <sup>1</sup>	<b>63.6</b>	63.0	61.5	60.9	58.4
HDSA employees in South Africa (% management) <sup>1</sup>	<b>43.0</b>	42.7	41.4	39.1	37.2
National employees in Ghana (%) (excluding contractors)	<b>98.00</b>	98.00	96.92	96.91	97.08
Minimum wage ratio <sup>2</sup>	<b>2.83</b>	2.52	2.72	2.79	2.52
Female employees (%)	<b>8.7</b>	8.0	7.4	6.9	5.7
Ratio of basic salary of men to women	<b>1.01</b>	1.06	1.05	1.07	1.12
Employee wages and benefits (Rm)	<b>8,790</b>	7,951 <sup>3</sup>	7,514	6,612	5,804
Average training (hours per employee)	<b>143</b>	128	n/a	n/a	n/a
Employee turnover (%)	<b>7.89</b>	10.72	13.41	13.70	18.57

<sup>1</sup> Excluding foreign nationals, but including white females; HDSA – Historically Disadvantaged South Africans

<sup>2</sup> Entry-level wage compared to local minimum wage

<sup>3</sup> Restated from 9,448 to 7,951 as the number previously included head offices and shared services staff in addition to mine personnel

<sup>4</sup> This number includes employees from Growth and International Projects for the first time

### Relevant stakeholder promises:

- **A winning, safe and productive team:** If we cannot mine safely, we will not mine. We seek to eliminate all harm to our people. Motivated and loyal employees act as our ambassadors. They enable safe production and exceptional value creation. Our ability to attract and retain top talent creates a key competitive advantage
- **The most trusted and valued mining partner:** We build strong relationships with key stakeholders in the communities and societies in which we operate. We measure the contributions we make as we create and share value to leave an enduring, positive legacy

Figure 7.2: Total employees  
(pre-unbundling)

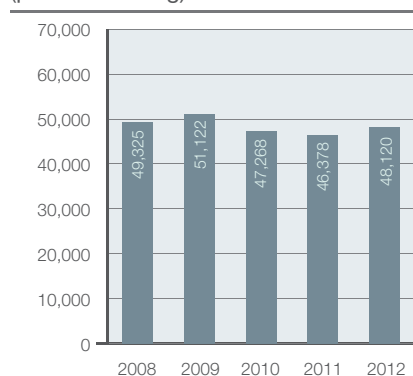


Figure 7.3: Total employees by region  
(% – pre-unbundling)

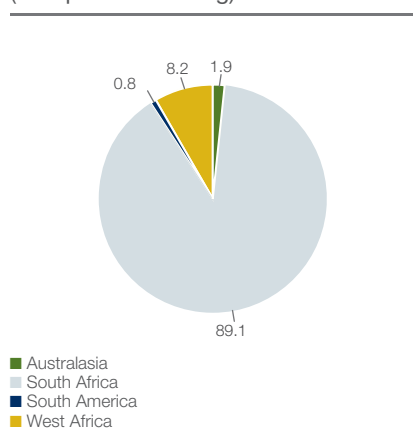
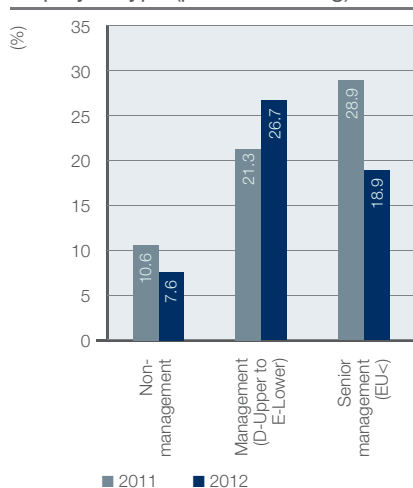


Figure 7.4: Total staff turnover rate by  
employee type (pre-unbundling)



### Turnover challenges in Australia and Ghana

During 2012, we continued to experience high levels of turnover at our Australian operations due to the nature of the highly dynamic 'fly-in, fly-out' extractive labour market in Western Australia, as well as intense competition from other major mining and energy projects and operations in the region.

The turnover rate remains high at 27.5% (2011: 28%). We expect the scarcity of some core and critical skills to continue.

To address this issue, we are:

- Implementing a new, centralised recruitment and retention strategy
- Ensuring remuneration remains fully competitive with peers in Western Australia
- Identifying core and critical skills so that we apply well-targeted management measures
- Making adjustments to our benefits packages to ensure they remain competitive in light of a benchmarking exercise carried out against our competitors in the labour market
- Implementing a formal Talent Management programme linked to employee development
- Carrying out workplace 'climate surveys' to inform related human resource action plans

In Ghana, local regulations mean expatriates can fill a maximum of 6% of management, supervisory and technical positions at mining companies – resulting in intense competition for the relatively limited number of local specialists and managers. Furthermore, in many cases these individuals pursue opportunities to take up highly paid expatriate roles outside of Ghana.

Although turnover in Ghana is not particularly high at 7.06% (2011: 7.4%) – its disproportionate prevalence amongst national managers and specialists (including mine planners, geologists and heavy mining equipment artisans) means it has a greater impact than would otherwise be the case.

To address this issue, we are:

- Ensuring remuneration of senior nationals remains fully competitive with peers within the West Africa Region
- Delivering structured and predictable career progression within the Group
- Carrying out workplace 'climate surveys' to inform related human resource action plans
- Providing opportunities for senior nationals to pursue opportunities as expatriates within the Group – with a view to returning to Ghana
- Implementing intensive succession planning, whereby for each of our non-national, expatriate employees we also develop a national successor, using Individual Development Plans

## 7.1 Becoming the employer of choice continued

### *Employment impact of unbundling*

Following the unbundling of the former Gold Fields South Africa (GFMSA) operations into Sibanye Gold, Gold Fields activities in the country will focus on the South Deep mine. At South Deep the conclusion of a new operating model (p79 – 81) has resulted in a decision to recruit approximately 1,500 mostly skilled mineworkers to support the '24/7' shift operations. The recruitment process is set to continue until mid-2013. Once in full production South Deep is set to employ around 5,000 full-time employees – compared to around 3,500 currently.

Employee training at KDC, South Africa



### 7.1.2 Skills development

The provision of competitive training and development is instrumental in terms of:

- Ensuring our employees operate safely and generate exceptional value
- Supporting the long-term sustainability of our business
- Attracting and retaining the best talent in a competitive global labour market

In 2012, we invested a total of R408 million (US\$50 million) in internal training and skills development. This helped us deliver training to a total of 47,501 employees and contractors.

#### *Leadership development*

The Gold Fields Business and Leadership Academy in South Africa<sup>1</sup> represents a key centre of excellence within the Group, providing high-quality, on-site and external training and development to individuals across the regions.<sup>1</sup> The Academy is now part of the Sibanye Gold corporate structure but could continue to provide training and skills development to Gold Fields through a Service Level Agreement.

In addition, each of our regions runs their own leadership development programmes.

Key leadership development courses offered by the Academy include the following:

- **Global Leader Programme:** This 15-day course is run in partnership with Duke University in North Carolina, and is aimed at the development of 'global leaders' – with a focus on strategic thinking, risk management, stakeholder engagement and related issues. Delivery takes place at Group level

- **Business Leader Programme:** This 15-day course is also run in partnership with Duke University, and is aimed at high-performing senior managers. It is focused on issues such as the cascading of strategy, community engagement, development of regional perspectives and related issues. Delivery takes place at Group level
- **Operational Leader Programme:** This 10 to 15-day course is run in partnership with both Duke University and the Gordon Institute of Business Science in South Africa. The course is focused on developing potential successors for senior managers, with emphasis on the execution of strategy, process excellence, employee engagement and related issues. Delivery takes place at Group level
- **Emergent Leader Programme:** This nine-day course is run in partnership with Duke University and is focused on high-performing/high-potential managers. Focus areas include safe production behaviours, team-building, community awareness and related issues. Delivery takes place at regional level
- **Preparatory Programme:** This two to four-day programme for high performers, including potential supervisors and junior managers, focuses on self-leadership, leading others and driving safe performance. The course is designed at Group level and delivered by our regions
- **Foundational Programme:** This two to three-day programme for all Gold Fields employees (with particular focus on high-potential talent and those in 'mission critical' roles) addresses issues such as linking individuals' roles to Group strategy, development options, internal governance, sustainable development strategy and a range of other important issues. The course is designed at Group level and delivered by our regions

<sup>1</sup> The Academy is represented in the South African Chamber of Mines Education Advisory Council, the mining advisory committees of the University of the Witwatersrand and the University of Johannesburg, and the Mine Education Trust Fund

These programmes are in addition to the Academy's wide range of elective courses, focused on the development of skills around training, moderation, finance project management and soft skills – as well as a dedicated KDC Shaft Full Potential Leadership Development Programme to promote effective, safe production at the mine.

In addition, each of our regions runs their own leadership development programmes, including:

- **Our Australasia Region's Leadership Development Programme:** This is run in partnership with the Australian Institute of Management and the University of Western Australia. In 2012, 77 employees took part in the programme
- **Our West Africa Region's Operational Leadership Programme:** This is run with the Da Vinci Institute of Technology and offers formal tertiary education programmes leading to qualifications in management, technology and innovation. In 2012, 15 managers were enrolled in the programme
- **Our South America Region's internal development programme:** This includes coaching and training to help high-potential employees progress into middle and senior management positions. In addition, the region has a Leadership Programme, which is run in partnership with the University of Piura and DBM Peru.

### *Operational training*

Our Business and Leadership Academy also runs a series of operational training courses for the South Africa Region, including those relating to:

- Mining
- Engineering
- Metallurgy
- Mineral Resources management

This includes the delivery of programmes that are highly tailored to individuals' roles, aspirations and development needs – and follow-up monitoring to ensure the provision of appropriate support and performance management.

In 2012, the Human Resources department delivered the following operational training to employees in the South Africa Region:

- Induction and refresher training: 55,234 (2011: 43,717)
- New skills training: 16,349 (2011: 10,943)
- Adult Basic Education and Training (ABET) programmes: 1,065 (2011: 1,555)
- Engineering learnerships<sup>3</sup>: 421 (2011: 265)
- Mining learnerships: 298 (2011: 340)

The total cost of this training amounted to R366 million (US\$45 million)

This was in addition to 131 university bursaries provided by Gold Fields to employees in South Africa to pursue mining-related degrees and qualifications to augment both their individual knowledge and skills and the capabilities of the Group as a whole. Furthermore, we have an ongoing, three-year sponsorship of the mining faculties of the University of the Witwatersrand (Wits) and the University of Johannesburg – worth R26 million (US\$3.2 million).

Our training capabilities in the South Africa Region have been significantly enhanced by the completion of South Deep's Trackless Engineering Skills Training Centre (p79), which will support development and production ramp-up at the mine. This will be further augmented in early 2013 by the completion of the mine's Operator Training Centre (p79) – marking a major advance in our ability to develop, nurture and deploy cutting-edge underground mechanised mining skills in South Africa and beyond.

Outside South Africa, operational training is delivered at a mine-site level. In the West Africa Region, we have delayed plans to establish a new engineering centre due to current financial constraints.

 [www.duke.edu](http://www.duke.edu)

 [www.gibs.co.za](http://www.gibs.co.za)

<sup>3</sup> Learnerships are ongoing training programmes provided to our workforce in South Africa. They include both theoretical and practical training and lead to the award of nationally recognised qualifications.



## 7.1 Becoming the employer of choice continued

### 7.1.3 Transformation

We aim to employ and develop local employees wherever we operate and at all levels of our business – whether required to or not. We believe our approach will help build local capacity, broaden local skills pools, enhance our reputation – as well as helping to underpin the long-term sustainability of our business.

#### *Historically Disadvantaged South Africans<sup>1</sup>*

Gold Fields fully recognises the need to continue the long-term transformation of the South African mining sector – as part of the broader transformation of society. Furthermore, under the revised Mining Charter, we are required to fill 40% of all management positions with Historically Disadvantaged South Africans (HDSAs) by 2014.

Whilst we are continuing to make progress towards our 2014 target, more still needs to be done. Our longstanding efforts to promote the education, training and development of our HDSA employees is part of a long-term strategy – and its effects will be increasingly felt as individuals pass through this 'empowerment pipeline'.

#### *Nationals*

The employment of nationals not only supports our social licence to operate in Ghana and Peru – but is also a matter of national regulation in both countries. In 2012, we achieved the following proportion of nationals in each country:

- Ghana: 98.0% (2011: 98.0%)
- Peru: 99.9% (2011: 99.5%)

In Ghana, we continue to place strong emphasis on the development and retention of local senior managers and specialists to help address intense competition for local talent – as well as tight quotas imposed by the government on the utilisation of expatriate personnel. In 2012, 67.7% (2011: 60.5%) of our senior managers in Ghana were nationals.

Virtual training for mechanised operators at South Deep



Figure 7.5: HDSAs within the Gold Fields workforce in South Africa (pre-unbundling)



<sup>1</sup> White females are included within the definition of HDSAs

### 7.1.4 Health and wellbeing

We are committed to delivering the kind of workplace and working practices that are conducive to the long-term, holistic wellbeing of our employees and contractors – as well as the maintenance of a fit, motivated and productive workforce. This is the driver behind our established '24 Hours in the Life of a Gold Fields Employee' wellness programme (24-hours programme), which operates across the Group and addresses determinants linked to individual wellbeing:

- Occupational health management
- General health management
- Individual safety behaviour
- Lifestyle (including accommodation, nutrition, sport and recreation)
- General education and development

This programme is of particular importance in our South Africa Region, due to the nature of the specific health risks posed by our deep, underground operations there, the socio-economic context from which many of our employees are drawn and the size of the workforce.

Figure 7.6: Health performance in South Africa (pre-unbundling)

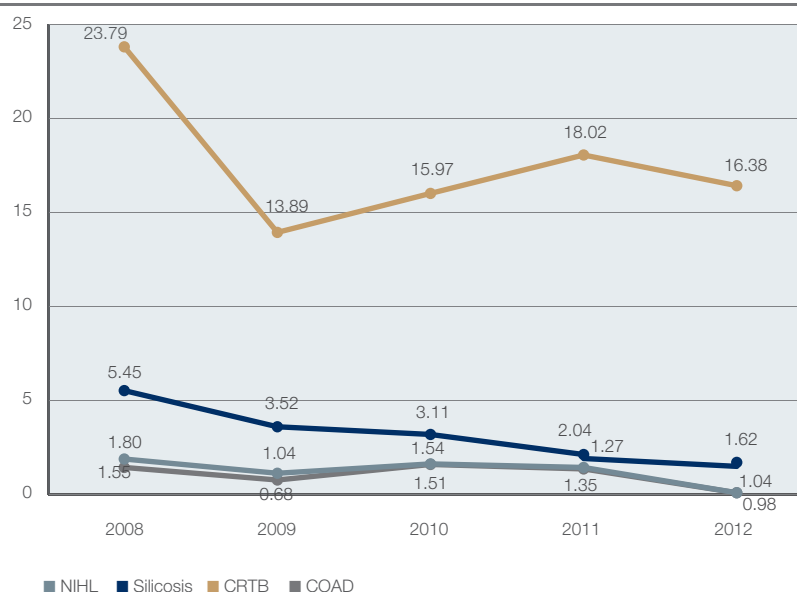
Category	2012	2011	2009	2008
Noise Induced Hearing Loss submissions (NIHL) (Rate per 1,000 employees)	<b>0.98</b>	1.35	1.51	1.04
Silicosis submissions (Rate per 1,000 employees)	<b>1.62</b>	2.04	3.11	5.45
Chronic Obstructive Airways Disease (COAD) (Rate per 1,000 employees)	<b>1.04</b>	1.27	1.54	0.68
Cardio-Respiratory Tuberculosis (CRTB) (Rate per 1,000 employees)	<b>16.38</b>	18.02	15.97	23.79
Employees on Highly Active Anti-Retroviral Treatment (HAART) (retained)	<b>4,365</b>	3,717 <sup>1</sup>	2,991	2,155
Started HAART (Individuals) <sup>2</sup>	<b>7,140</b>	6,113 <sup>1</sup>	5,150	4,114
Exited HAART (Individuals) <sup>3</sup>	<b>2,775</b>	2,731 <sup>1</sup>	2,159	1,644

<sup>1</sup> Restatement due to improved measurement methodology and reporting correction

<sup>2</sup> Cumulative since 2002

<sup>3</sup> i.e. individuals who have stopped participating due to a failure to conform with programme requirements, death, ill-health retirements or voluntary withdrawal. Exited individuals are – where relevant – referred to state programmes. In our labour-sending areas, this process is facilitated by TEBA

Figure 7.7: Occupational disease in the South Africa Region (rate per 1,000 employees – pre-unbundling)



## 7.1 Becoming the employer of choice continued

### *Occupational health management*

All employees are subject to initial and annual medical assessments – tailored in line with local legal requirements, as well as operation and role-specific health risks. The assessments are aimed at preventing, identifying and treating occupational diseases.

In 2012, we submitted the following cases to local occupational health authorities for certification across the Group:

- 54 cases of Chronic Obstructive Airways Disease (COAD) (2011: 66)
- 58 cases of Noise Induced Hearing Loss (NIHL) (2011: 139)
- 84 cases of Silicosis (2011: 107)
- 851 cases of Cardio-Respiratory Tuberculosis (CRTB)<sup>1</sup> (2011: 913)

Our deep underground and relatively labour-intensive South African operations tend to pose higher risks with respect to all four of these occupational diseases. Employees in South Africa are also subject to quantitative, confidential Health Risk Assessments, which relate to each of these occupational diseases, as well as general health and lifestyle issues such as hypertension, diabetes, cholesterol, diet and mental health. Where necessary, participating employees are referred to practitioners – who can proactively address identified risk factors – as well as to our High Performance Centres and Employee Assistance Programme, which can provide broader lifestyle support.

### *Engineering-out health risks*

As with safety risks, one of the most important ways we can reduce occupational health risks is through proactive engineering, which aims to reduce noise and dust levels in line with South Africa's Mine Health and Safety Council milestones for 2013. Key environmental management measures implemented under our Noise and Dust Management System in 2012 include:

- Ongoing installation of tip-filters to minimise dust generation
- Ongoing chemical spraying to suppress dust at foot walls
- Initiation of mist sprays along haulage routes to help trap moving dust concentrations
- Application of chemical dust settling agents along surface haulage roads
- Installation of real-time dust measurement equipment to allow for rapid trouble-shooting and the accumulation of more comprehensive risk-mapping

### *Personal Protective Equipment*

We are also carrying out extensive work through our Respiratory Protection Programme to ensure Personal Protective Equipment (PPE) is suitable and effective given underground conditions and likely employee activities. This includes, for example, examination of 'open-faced' helmets that utilise an active 'air curtain' to minimise exposure to dust and particulates (see below).

In addition, we are testing 'in-ear' dosimeters to allow for the more accurate measurement of 'net' employee exposure to noise (i.e. in addition to the measurement of ambient exposure) – and to tailor more effective management interventions around this.

### *Managing diesel particulates*

In 2012, we accelerated our work on the management of diesel particulate exposure. This has been partly prompted by the July 2012 classification of such particulates as carcinogenic by the World Health Organisation and International Agency for Research on Cancer – and builds on our existing work on this issue.

We are currently carrying out test work to establish the best control measures for diesel particulates, including the testing of diesel oxidation catalysts, lower sulphur engines, diesel particulate filters, increased ventilation throughput – as well as PPE.

Employees in South Africa



<sup>1</sup> New and retreatment cases

### *Silicosis litigation*

The Occupational Diseases in Mines and Works Act, No 78 of 1973 (ODMWA), governs the compensation paid to mining employees who contract certain illnesses, such as silicosis. Recently, the South African Constitutional Court ruled that a claim for compensation under ODMWA does not prevent an employee from seeking compensation from their employer in a civil action under common law (either as individuals or as a class).

On 21 August 2012, a court application was served on a group of respondents that included Gold Fields (the 'August Respondents'). On 21 December 2012, a further court application was issued and was formally served on a number of respondents, including Gold Fields, (the 'December Respondents' and, together with the August Respondents, the 'Respondents') on 10 January 2013, on behalf of classes of mine-workers, former mineworkers and their dependants who were previously employed by, or who are currently employed by, among others, Gold Fields and who allegedly contracted silicosis and/or other occupational lung diseases (the 'Classes'). The court application of 21 August 2012 and the court application of 21 December 2012 are together referred to below as the 'Applications'.

These Applications request that the court certify a class action to be instituted by the applicants on behalf of the Classes. The Applications are the first and preliminary steps in a process where, if the court were to certify the class action, the applicants may, in a second stage, bring an action wherein they will attempt to hold the Respondents liable for silicosis and other occupational lung diseases and resultant consequences. In the second stage, the Applications contemplate addressing what the applicants describe as common legal and factual issues regarding the claim arising from the allegations of the entire Classes. If the applicants are successful in the second stage, they envisage that individual members of the Classes could later submit individual claims for damages against the respective Respondents. The Applications do not identify the number of claims that may be instituted against the Respondents or the quantum of damages the applicants may seek.

With respect to the Applications, Gold Fields has filed notices of its intention to oppose both the Applications and has instructed its attorneys to defend the claims. Gold Fields and its attorneys are engaging with the applicants' attorneys in both Applications to try to establish a court-sanctioned process to agree the timelines (including the date by which Gold Fields must file its papers opposing the Applications) and the possible consolidation of the separate applications. At this stage, Gold Fields cannot quantify its potential liability from these actions.

### *HIV/AIDS and Tuberculosis*

Our 52,100-strong workforce<sup>2</sup> in South Africa faces a significant risk of exposure to HIV/AIDS, by virtue of living and working in a country which has an adult prevalence rate of 17.3%<sup>3</sup> – as well as other factors such as employee demographics, migratory status and lifestyles. As a result, HIV/AIDS and Tuberculosis (TB, which is exacerbated as a result of co-infection with HIV/AIDS) remain the main drivers behind employee morbidity rates, mortality rates and medically induced retirement. In 2012 our medically related death rate was 6.52 per 1,000 employees.

Our integrated HIV/AIDS, Sexually Transmitted Infections (STIs) and TB strategy (developed in cooperation with the South African HIV Clinicians Society) directly addresses the interrelationships between HIV/AIDS, other STIs and TB.

<sup>2</sup> Including contractors off the pay-roll

<sup>3</sup> UNAIDS (AIDSinfo), 2011



## 7.1 Becoming the employer of choice continued

The strategy is based on:

- **Promotion:** Including workplace HIV/AIDS education and awareness raising through regular publicity campaigns and condom distribution in all workplaces
- **Prevention:** Including the provision of free and confidential Voluntary Counselling and Testing (VCT) to all employees in South Africa – with a participation rate of 15% (2011: 11%)
- **Treatment:** Including the provision of free Highly Active Anti-Retroviral Treatment (HAART) to HIV infected employees through our on-site, doctor-staffed clinics. In 2012, 1,027 employees in South Africa joined our HAART programme (2011: 1,010), taking the total number of active participants to 4,365 (2011: 3,717<sup>1</sup>). Employees' dependants can receive HAART via our medical aid schemes
- **Support:** Including through our 24 Hours in the Life of a Gold Fields Employee programme – with services such as doctor-based primary healthcare, psychological counselling and social services. We extend such support to medically retired employees through our home-based care programmes in labour-sending areas

We also carry out extensive work to address stigmatisation and discrimination to remove any barriers that would otherwise stop employees from participating in VCT and HAART. This includes the integration of HIV/AIDS management into our mainstream health services – with VCT taking place during our general Health Risk Assessments, for example. This has the added benefit of enhancing our response to potential interactions with related issues such as TB and other STIs.

In 2012, we initiated the first phase of a new HIV/AIDS and TB initiative, which will see 'high risk' employees tested for TB using newly installed GeneXpert technology – as well as an optional HIV/AIDS test at the same time. Around 481 employees were tested using the new technology (all employees receive annual testing for TB using standard sputum-based methods). Subsequent planned phases include:

- Potential partnership by both Gold Fields and Sibanye Gold with AngloGold Ashanti, Harmony Gold, the Department of Health, the Aurum Institute, UNAIDS and relevant NGOs on the extension of GeneXpert screening to local communities
- Future roll-out of the strategy to the gold sector's labour-sending areas within South Africa – and then to the Southern African Development Community (SADC) region

This will complement our existing work on HIV/AIDS in our local communities, which is done in recognition of the interrelationship with the prevalence of the disease within our workforce (p137 – 138).

 [www.auruminstitute.org/index](http://www.auruminstitute.org/index)

 [www.doh.gov.za](http://www.doh.gov.za)

 [www.unaids.org/en](http://www.unaids.org/en)

### *Accommodation*

We fully recognise the important role decent accommodation plays in terms of employee wellbeing and morale. This is particularly so in our South Africa Region, where about 85% of our workforce comes from domestic and Southern African Development Community labour-sending areas. It has also been a historically contentious issue in South Africa, due to traditional reliance by the industry on high-density accommodation (or hostels) to house workers living away from home.

In 2006 Gold Fields launched its five-year R750 million housing programme at its South African operations. Until the end of December 2012, R582 million of this had been spent on building new houses and hostel upgrades and to date we have provided 594 new homes to employees and improved the room density at our hostels from around eight people per room in 2006 to 1.4 per room in 2012.

There are three key aspects to our approach to accommodation – which is also regulated by our current 2012 Social and Labour Plans (p149):

- **Construction of family accommodation:** Although the original Mining Charter requires us to upgrade hostels into family accommodation – we prefer to go further and construct new family units in viable, stable communities. In 2012, Gold Fields initiated construction of 200 new family units at East Village and Glenharvie near KDC
- **Upgrading of single-person hostels:** During 2012, we upgraded 329 rooms at hostels in South Deep. We are currently looking at longer term plans to fundamentally review our housing and hostel policy at South Deep

<sup>1</sup> Restatement due to improved measurement methodology and reporting correction

### Living out

A total of 15,359 of our employees in South Africa decide not to live in high-density or family accommodation – and receive a Living Out Allowance (LOA) of R1,640 (US\$200) a month. Many employees who take up the LOA choose to live in informal settlements. We do not encourage these informal settlements, but to the extent that they appear inevitable, we try and mitigate their negative impacts and ensure the wellbeing of our employees by helping improve living conditions there. As poor living conditions were identified as one of the underlying reasons for the illegal strike actions that affected South African gold mines during 2012 (p38 – 39), the LOA and its attached conditions need to be re-evaluated.

Efforts to improve living conditions in informal settlements include the ongoing supply of safe drinking water and assistance with waste management. In addition, we are exploring potential opportunities to work with other stakeholders (including our peer companies and local officials) on a joint Community Waste Management Project on the West Rand, and to potentially integrate relevant informal settlements into our own waste management programmes.

## 7.1.5 Labour relations

Our operations in each of the following countries have the following levels of union participation within their workforces:

- Australasia Region: 0%
- South Africa Region: 85%
- South America Region: 15%
- West Africa Region: 95%

### *Illegal strikes at Beatrix and KDC*

In 2012, the South African mining industry experienced a wave of wide-ranging, mostly illegal strikes – that impacted not only Gold Fields but the mining sector as a whole. This significantly affected our production at both KDC and Beatrix, with 29,000 workers participating in the illegal industrial action between September and November. As a result, we lost 145,000 ounces of production – equivalent to R2.1 billion (US\$256 million) in lost revenue. Although the strikers issued demands relating to administrative issues and wages, the root cause of the strikes appears to relate to tensions between the leadership of the National Union of Mineworkers (NUM) and certain sections of their membership.

The strikes violated the existing two-year Collective Wage Agreement (CWA) signed in 2011 between the gold mining industry and the relevant unions (including the NUM, Solidarity and UASA). We adopted a joint position with other gold producers during the strikes and insisted that the CWA continued to apply. Any wage negotiations can only take place when the CWA comes to an end in June 2013. As an act of goodwill, however, we brought forward certain elements of the 2011 CWA relating to changes to job grades and entry level wages, which cumulatively raised our wage bill by around 2.5%.

South Africa's gold mining companies, trade unions and government have since established a working group to examine labour issues within the industry. This group will have input into the next round of labour negotiations scheduled for mid-2013.

The strikes raised concerns about the long-term sustainability of our deep underground, mature mines in South Africa under current corporate structures and labour-relations models. A key focus for Sibanye Gold, as owner of the Beatrix and KDC mines, is to examine the structure of labour relations at these two mines, as well as the potential for profit participation, through direct interaction with the workforce – as well as negotiations with registered trade unions.

 **Case study:** Socio-economic drivers behind South Africa's 2012 mining strikes

## 7.1 Becoming the employer of choice continued

### *Maintenance of responsible security*

Given the context in which the cross-sector strikes were taking place in South Africa – including strike-related incidents at Lonmin's Marikana platinum mine in August 2012 that resulted in the death of 44 people – Gold Fields took particular care to avoid similar incidents at its own mines. The Marikana incident (along with the cross-sector nature of the strikes) was seen as indicative of many of the tensions within the mining sector – as well as wider society. It was also seen to demonstrate the potential for violence that could result from such tensions.

Despite a number of isolated, non-fatal incidents and acts of intimidation by illegal strikers against employees at Beatrix and KDC, we are pleased that all parties were able to reach a generally peaceful resolution to the situation without serious injury or damage to property. We believe this reflects the professional and sensitive response of Gold Fields Protection Services (GFPS) and those assisting them, particularly the South African Police Service, constructive engagement between our management and the relevant unions (and the NUM in particular), and the attitude of the majority of our employees.

### *New operating model at South Deep*

Despite the strikes at Beatrix and KDC, in 2012 we marked a major step forwards in terms of our labour relations at South Deep. This related to the proposal by Gold Fields of a new operating model at the mine, which is aimed at improving productivity, performance and rewards in line with international best practice. Following months of negotiations with the relevant unions and the early agreement by UASA, in August we entered into a formal consultation process with the NUM and other unaffiliated employees under a Section 189 (3)<sup>1</sup> notice. After further negotiations, the NUM and Gold Fields reached a landmark agreement implementing the new operating model in October, which allowed us to suspend the Section 189 notice.

The new operating model (p79 – 81) will transform South Deep into a 24-hour, seven-day a week operation – in line with advanced mechanised underground operations across the world. Under the agreement, an uncapped bonus system will more appropriately reward employees who achieve production targets and will improve alignment to Gold Fields business objectives. At the same time, bonuses will be aligned to safety targets to ensure that safety performance is in no way compromised by the new system (p79). This will have a lasting impact on productivity at South Deep for the rest of its life of mine – currently estimated to be 2060 – and position it to become one of the leading underground mechanised mines in the world.

The long-term impact of this ground-breaking agreement on the future of Gold Fields (and indeed the South African mining industry) cannot be overstated. The agreement also serves as a valuable reminder of what can be achieved when management and labour work together for the common good.

Employees at South Deep, South Africa



<sup>1</sup> Labour Relations Act of South Africa

## 7.2 Delivering shared value

Our aim is to be the most trusted and valued mining partner for key stakeholders wherever we operate – or where we plan to operate. This means establishing, maintaining and monitoring strong relationships with our employees, communities, governments and other groups. It also means ensuring that these relationships are sustainable, by building them upon the ongoing creation of mutually beneficial shared value.

Our most important means of generating shared value for the societies in which we operate is through:

- The payment of wages, benefits and dividends to our employees
- The payment of taxes, royalties and dividends to government
- Where possible, the sourcing of goods and services from local suppliers (i.e. suppliers within our countries of operation and preferably in and around our mines) and help build their capabilities
- The Socio-Economic Development contributions we make to those living around our mines

In 2012, our shared-value contributions to our local communities and host countries amounted to US\$5.30 billion. This represents 95% of our total revenue.

Shared value is a broader measure than Total Economic Contribution, in that it captures local capital expenditure in addition to local operating costs – and is thus significantly higher. Shared value does not include, however, payments to capital providers other than dividend payments made to government and employees.

Like any mining company, our ability to sustain these contributions is entirely dependent on our ongoing profitability. As such – and fluctuations in gold price notwithstanding – our shared-value contributions are highly sensitive to increases in input costs, higher government imposts and more stringent regulation. This is a key message in our interactions with governments seeking to increase their short-term fiscal take (p151 – 152).

Figure 7.8: Shared value by type (US\$m – pre-unbundling)

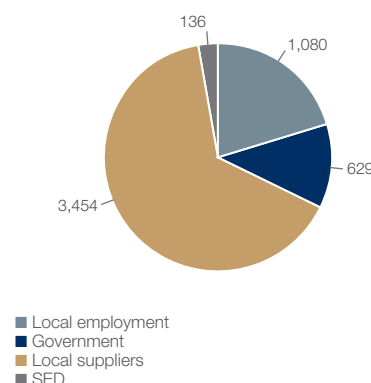
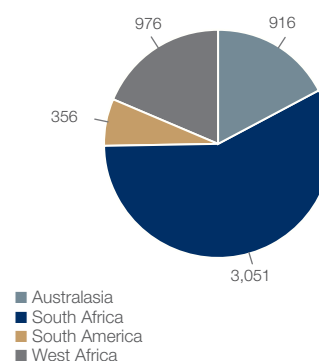


Figure 7.9: Shared value by region (US\$m – pre-unbundling)



### Shared value in the context of the Responsible Mineral Development Initiative

The Responsible Mineral Development Initiative (RMDI) – which was developed by the World Economic Forum – aims to:

- Identify the key challenges around responsible mineral development
- Develop practical responses to these challenges
- Develop shared understanding of the benefits and costs of mineral development
- Establish collaborative processes for stakeholder engagement

During 2012, the RMDI focused on the last two of these aims, developing a Mineral Value Management Tool. This aims to improve understanding of how value is created, to highlight those areas that have the greatest value potential and to identify where stakeholder expectations align and diverge.

The tool focuses on the direct and indirect positive impacts of mining on seven dimensions of value that “drive value creation for governments, local communities and mining companies”. The seven dimensions are fiscal value, employment and skills, the environment, social cohesion and socio-economic development, procurement, beneficiation and infrastructure.

The work by the RMDI further demonstrates the growing consciousness amongst stakeholders that the actual and potential benefits of mining can be better measured, managed, promoted and leveraged – by looking beyond narrow measures of socio-economic impact. It is this same consciousness that has driven the application of our shared value approach.

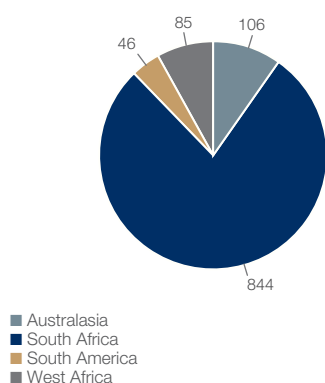


[www.weforum.org/reports/responsible-mineral-development-initiative](http://www.weforum.org/reports/responsible-mineral-development-initiative)



## 7.2 Delivering shared value continued

Figure 7.10: Local employment contributions by region (US\$m – pre-unbundling)



Member of near-mine exploration team at Damang, Ghana



### 7.2.1 Shared value: Local employment

In 2012, our contribution in terms of salaries, benefits (including housing, training, healthcare, etc.) and the payment of dividends to employees amounted to US\$1.08 billion. Given that most of our total workforce are either nationals or Historically Disadvantaged South Africans (HDSAs) (p134), the country-level impact of this contribution is obvious.

Ghana, Peru and South Africa share a key challenge in the form of unemployment and underemployment. This is a key driver behind our cross-Group emphasis on employing – where operationally and commercially viable – nationals, HDSAs and local community members (p134). In addition, this approach:

- Has an important longer-term impact in terms of enhancing local skills pools, building local capacity and fostering international employment standards wherever we operate
- Contributes to broader development in the communities in which we operate, due to the indirect economic impact generated through the purchase of goods and services by employees and their dependants

However, local labour pools are not always of sufficient breadth or depth to offer the specialised skills required for our increasingly sophisticated operations. To address this, we also place significant focus on supporting the training and education of local people outside the workplace (p146 – 147). We also carry out a range of activities to promote alternative income-generating opportunities through our Socio-Economic Development (SED) initiatives (p145), as well as preferential procurement (p144).

Examples of our local employment strategy in practice include the following:

**Ghana:** As well as adhering to national quotas around the employment of nationals (p131), both our Damang and Tarkwa mines cross-check new vacancies against a skills and qualification database of local community members, who are selected by each mine's Employment Committee (chaired by local chiefs). In addition, both mines (and their contractors) proactively fill unskilled positions from local communities, who are identified by local chiefs in co-operation with our Community Affairs teams (p149).

**Peru:** Our Cerro Corona mine employs 519 local community members (the majority of whom have been subject to ongoing, targeted training and development) compared to an original commitment to employ 150 local people. We estimate that approximately 20% of the local economically active population are either Cerro Corona employees or contractors.

**South Africa:** We are subject to the Mining Charter and relevant legislation around Black Economic Empowerment (BEE) (p134).

## 7.2.2 Shared value: Government

Our second most important economic contribution to our host countries is through our payment of taxes, royalties and dividends to governments.<sup>1</sup> In 2012, this amounted to US\$626 million.

Our contribution in this respect is an important factor in the conversion of each country's gold resources into broad-based development – including through the provision of public services, infrastructure development and other forms of government expenditure. This is particularly the case given that those governments hosting our operations are generally perceived to have relatively low levels of public corruption, moderate to strong public governance frameworks, high levels of democratic accountability and moderate to strong rule of law.

Of our host countries, three of them experienced growth of more than 3% in 2011 (latest figures) – suggesting sound government economic policies.

Likewise, both Ghana and Peru are compliant with the Extractive Industries Transparency Initiative (EITI), ensuring full transparency around natural resource revenues received by host governments – and allowing strong public scrutiny of revenue management and distribution.<sup>2</sup> Gold Fields supports the principles and processes of the EITI through its membership of the International Council on Mining and Metals (ICMM) – and fully participates in the EITI process in Ghana and Peru.

As a result, the impacts of our economic contributions to our host governments are likely to outlive our operations in terms of public education, health, infrastructure and other development enablers – often amongst communities that are in acute need of such support.

 **Case study:** Gold Fields recognised for its contribution to the Ghanaian economy

 [www.cpi.transparency.org/cpi2012/results](http://www.cpi.transparency.org/cpi2012/results)

 [www.maplecroft.com/portfolio/mapping/maplecroft/landing](http://www.maplecroft.com/portfolio/mapping/maplecroft/landing)

 [www.data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG](http://www.data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG)

 [www.eiti.org](http://www.eiti.org)

Figure 7.11: Contributions to government by region (US\$m – pre-unbundling)

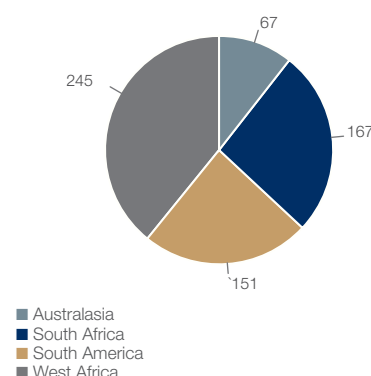


Figure 7.12: Host country governance and growth indicators

	Transparency International Corruption Perceptions Index 2012	Maplecroft Governance Framework Risk Index 2012	Maplecroft Democratic Governance Index 2012	Maplecroft Rule of Law Index 2012	World Bank GDP Growth data 2011	Extractive Industries Transparency Initiative status
Australia	7 <sup>th</sup> out of 176 countries	8.87 (Low risk)	10.00 (Low risk)	9.34 (Low risk)	1.8%	Not a signatory
Ghana	64 <sup>th</sup> out of 176 countries	5.22 (Medium risk)	8.00 (Low risk)	6.24 (Medium risk)	14.4%	Compliant country
Peru	83 <sup>rd</sup> out of 176 countries	5.43 (Medium risk)	10.00 (Low risk)	5.52 (Medium risk)	6.9%	Compliant country
South Africa	69 <sup>th</sup> out of 176 countries	7.22 (Medium risk)	9.00 (Low risk)	7.56 (Low risk)	3.1%	Not a signatory

<sup>1</sup> In addition, the government of Ghana has a 10% shareholding in both our Tarkwa and Damang mines – receiving dividend payments of US\$8 million in 2012

<sup>2</sup> Australia and South Africa are not participants in the EITI

## 7.2 Delivering shared value continued

### 7.2.3 Shared value: Local suppliers

In 2012, we spent a total of US\$3.45 billion on suppliers from our host countries – or 92.3% of our total procurement spend.

It is our policy to use national and/or local suppliers, where possible. This not only helps strengthen our own local supply chains at a strategic and operational level, but also enhances our social licence to operate. In certain cases, national and/or local supply pools do not necessarily have the depth or breadth to support our needs. As a result, we actively work with current and potential suppliers within our host countries and communities to improve their business, management and production standards.

Examples of our local supplier strategy in practice include the following:

**Ghana:** We use local companies for stripping and hauling, employee transportation, on-site catering, fuel and grinding. We continue to play a leading role in the efforts of the Chamber of Mines to increase the proportion of procurement spend going to Ghanaian suppliers – and promote local value-adding activities.

**Peru:** We use local companies for the provision of heavy equipment, light transport and general services – in line with local legal requirements. We have supported the development of local suppliers since the construction of Cerro Corona – including their compliance with ISO 14001 and OHSAS 18001-equivalent standards. This has helped establish a commercially sustainable local supply pool of companies that now service a range of nearby mining operators.

**South Africa:** During 2012 a total of 50.5% of our procurement budget amounting to R4.1 billion (US\$500 million) was spent with Broad-Based Black Economic Empowerment (BBBEE) South African suppliers (2011: 46%). We enhanced our ability to drive the transformation of our supply chain through the launch of a new Supplier Portal (which provides enhanced transparency around supplier shareholdings and BBBEE credentials) as well as a Community Capability Database (which will help us drive more localised procurement).

Dump truck at Agnew, Australia



Figure 7.13: National/local supplier contributions by region (US\$m – pre-unbundling)

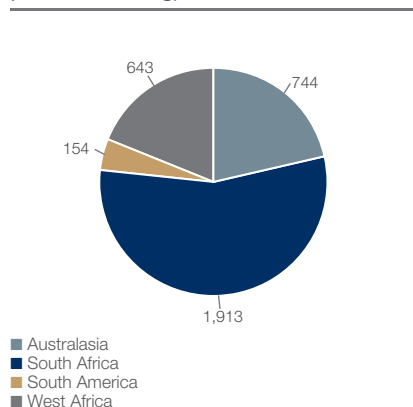
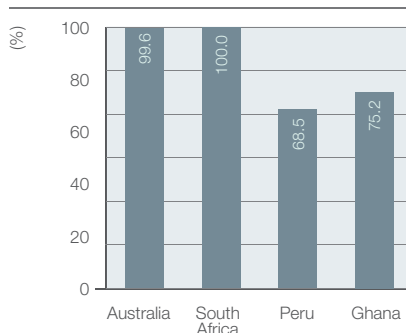


Figure 7.14: Local supplier spend as a proportion of total procurement spend by region 2012 (pre-unbundling)



## 7.2.4 Shared value: SED

We run substantial Socio-Economic Development (SED) programmes to ensure we deliver targeted, tangible and lasting benefits to those communities in the immediate vicinity of our operations – and in our labour-sending areas. This is in recognition that some of our largest Local Economic Contributions (e.g. payments to employees, government and suppliers) do not necessarily directly benefit our local communities or contribute to our social licence to operate at a local level – and in satisfaction of our Social and Labour Plans (SLP) in South Africa. Our approach is also driven by the need to make sure that our finite mineral deposits help generate enduring, mutually supporting social and economic development that continues delivering value to communities long after mine closure.

In 2012, we spent a total of US\$136 million on a range of SED projects (2011: US\$54 million).<sup>1</sup> We place particular focus on project impact to ensure we maximise community benefits.

Figure 7.15: SED spend by region (US\$m – pre-unbundling)



## Local environmental impacts

As well as complying with applicable national environmental regulations and international standards around our own operational performance – we also contribute to the protection and conservation of the broader environments in which we operate. This is particularly the case where local communities rely on the land for their livelihoods or where there is a severe risk of degradation. Key examples include the following:

**Ghana:** We continue to support Leadership Conservation Africa (LCA) Ghana Chapter. This included funding for three 'green' accommodation tents at the LCA's Shai Hills Reserve to help 'kick-start' and attract further sponsors for a sustainable tourism programme. The programme is aimed at securing a sustainable source of funding for conservation efforts at the Reserve.

**Peru:** We have a programme at Cerro Corona to reforest 1,000 acres of local land with native species and fast growing trees by 2016 – assisting with land stability, ground water retention, the provision of sustainable wood-fuel and the creation of economic opportunities around feed-stock for paper production. To date, over half the area planned has been reforested and the programme has benefited local community members significantly.

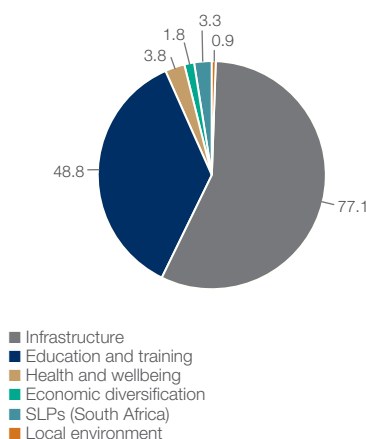
**South Africa:** Our Alien Vegetation Project at KDC aims to clear non-native, water-extracting species from our landholdings using local small- and medium-sized enterprises (SMEs), which employ local people who have been given formal training by Gold Fields. Cleared vegetation is then sold to a nearby company for its conversion into charcoal and the extraction of silicon. The programme employs 45 local people.

### How is SED spending defined?

SED is defined as spend relating to projects that are:

- Influential in benefiting employees and contractors beyond the core business
- Influential in uplifting the communities and societies in our host countries
- Guided by a strong development approach
- Linked to infrastructure investment that benefits communities during operation and closure phases

Figure 7.16: SED contributions by type (US\$m – pre-unbundling)



<sup>1</sup>Significant increase reflects the inclusion of related maintenance provisions and operating costs in 2012 figures



## 7.2 Delivering shared value continued

### Infrastructure

Some of the areas in which we operate are sorely lacking in terms of high-quality infrastructure. As a result, a proportion of our community contributions are aimed at transportation, utility, construction and other infrastructural projects, which we believe offer long-term community benefits and impact multipliers. Key examples include the following:

**Ghana:** We have (in partnership with the Ministry of Roads and Highways and the District Assembly) initiated a major US\$2.3 million project to install an all-weather road between Samahu and Pepesa near Tarkwa. The road, which will be maintained by the public authorities, will benefit five communities along the route – or around 5,500 people.

During 2012, we also continued to implement the Small Town Water Supply (STWS) programme, focused on the construction of deep boreholes and overhead tanks in local communities. In 2012, we completed STWS projects worth a total of US\$672,700 to supply clean, potable water to the communities of Tebe, New Atuabo, Brahabebom and Pepesa – benefiting around 10,400 people.

In addition, we constructed two sets of school buildings in the Subri and Bompieso communities near Damang. The schools, which are run by the Department of Education, benefits around 270 pupils.

During 2012, we commissioned a report by experts from the Kwame Nkrumah University of Science and Technology to assess our longstanding infrastructure contributions to communities around our Damang and Tarkwa mines. Amongst other things, this found general consensus among stakeholders (both within the local communities and local government) that Gold Fields had significantly improved access to quality infrastructure. The report notes “improved enrolment, standard of education among pupils, a reduction in morbidity, enhanced image of communities, increased productivity, among others”.

**Peru:** At the Chucapaca project, we are examining an innovative public/private initiative to provide clean water to local communities in this high-altitude agricultural area. We plan to do so via a new 30 million cubic meter reservoir, that will also provide water to any future mining operation (p115).

**South Africa:** We constructed the R3.5 million (US\$427,000) Simunye Health Centre near our KDC and South Deep mines. The clinic was transferred to the public authorities, which will remain responsible for its continued operation. The project is located in an area that is home to many Gold Fields and Sibanye Gold employees and contractors.

 [www.knust.edu.gh/pages](http://www.knust.edu.gh/pages)

### Education and training

Over time, our education and training initiatives not only help those individuals who have not found employment at our mines to pursue viable alternative options (p142), but also enhance the skills pools available to us at both local (i.e. community) and national level. As such, they are expected to deliver long-term benefits not only to our local stakeholders – but to Gold Fields itself. Key examples include the following:

**Ghana:** Collectively, we sponsored 50 community members through the Takoradi Technical Institute to train as engineers and geologists (2011: 23), provided 54 four-year community scholarships (2011: 32) and 145 new bursaries for local communities (2011: 110), enrolled 48 people onto our Community Apprenticeship Programme, and granted bursaries to dependants of 30 employees.

**Peru:** Our Cerro Corona mine has an ongoing, in-house operator and electro-mechanical training programme for community members. In 2012, 250 community members took part, helping them gain employment either at the mine itself or in the broader Peruvian industry (2011: 60). We also continue to sponsor the enhancement of local teaching through our ‘Successful Schools’ and ‘Teaching for the Future of the Hualgayoc District’ programmes.

Hilltop communities near Far Southeast, Philippines



**South Africa:** We provide a range of education and training programmes through our SLPs. This includes, for example: 131 bursaries to universities and technical colleges (2011: 96); 719 engineering and mining learnerships (2011: 605); sponsorship of the mining faculties of the University of the Witwatersrand (Wits) and the University of Johannesburg (p133).

In addition, the KDC mine also delivers 'hands-on' portable skills training in construction, plumbing, electrics, agriculture and other related skills to local community members via its on-site training facilities.

As part of the Gold Fields 2010 Black Economic Empowerment (BEE) transaction, the Company formed the South Deep Education Trust to receive a regular dividend flow from Gold Fields with the objective of carrying out educational activities in a non-profit manner and with an altruistic purpose. By the end of 2012 the Education Trust, which is managed by a Board of Trustees, had received R35 million (US\$4.3 million) in dividends, of which R15 million (US\$1.8 million) had been allocated. The remaining R20 million (US\$2.4 million) will be allocated in due course.

Some of the key beneficiaries of the funds to date include:

- Previously disadvantaged students, who have received scholarships to some of South Africa's private sector schools – R5.7 million (US\$0.7 million)
- The Lapdesk charity, chaired by former Archbishop Desmond Tutu – R2.3 million (US\$0.3 million)
- The Letsema Circle organisation, which works in labour sending areas – R1.5 million (US\$0.2 million)
- The South African Legal Resources Centre – R1.5 million (US\$0.2 million)
- The University of the Western Cape – R1.6 million (US\$0.2 million)



**Case study:** Completion of new library at Wits University marks Gold Fields support for South African engineering

## Health and wellbeing

It is in recognition of the prevalence of relatively weak health indicators in the vicinity of some of our mines – as well as the interaction between local communities and our workforce – that a proportion of our community contributions are focused on improving local healthcare and behaviours. Key examples include the following:

**Ghana:** We carry out a range of community health initiatives at Damang and Tarkwa, including regular radio broadcasting on health issues, support for Community Health Facilitators and the establishment and support of community Water and Sanitation Committees.

In addition, the Tarkwa Mine Hospital provides general medical care to our employees at both Damang and Tarkwa – as well as up to six dependants per employee – giving more than 25,000 people access to high-quality medical care.

**South Africa:** We provide ongoing co-support (with Johns Hopkins University and the Bill & Melinda Gates Foundation) to three community HIV/AIDS programmes, including the Westonaria Randfontein AIDS project, the Mothusimpilo project near KDC and the Lesedi Lechabille project near Beatrix. These provide peer education, presumptive periodic treatment and the treatment of Sexually Transmitted Infections – and in 2012 benefited around 180,000 people.

## Economic diversification

Given the finite life of our mineral deposits – as well as the fact we are unlikely to meet all local employment demands – we place strong emphasis on working with communities and government to leverage the revenues generated by our operations to help foster a broader, sustainable and non-mining related economic base. Where possible, such efforts are supported by our community skills and training contributions (p146). Key examples include the following:

**Ghana:** We continued to support our longstanding Agribusiness Projects, which include the efficient cultivation and marketing of palm oil by local farmers. In 2012, the programme – carried out in partnership with the Ministry of Food and Agriculture – benefited 320 people.

**Peru:** We continued to build upon our long-term Milk Production Chain Programme. The programme aims to increase both the value and productivity of the local community's livestock holdings through improved pasture, enhanced husbandry and more efficient milking processes. In 2012, around 250 people benefited from this programme.

**South Africa:** We have initiated (under KDC's SLP (p149)) the vertically integrated 'Agri-Hub' programme to promote the production, processing and marketing of vegetables, poultry and pigs on Sibanye Gold-owned land by local people. In 2012, this (early stage) programme employed around 240 people directly and indirectly – a number that is expected to rise significantly over the medium term.

During 2012, Gold Fields had five agricultural and livestock programmes in the labour-sending areas of Eastern Cape and KwaZulu-Natal. The programmes provide agricultural and marketing support to local farmers, as well as animal husbandry services, products and training. In 2012, the programmes benefited around 9,800 people.

## 7.2 Delivering shared value continued

### 7.2.5 Local engagement

The operational continuity of our mines, as well as our ability to successfully establish new operations in potentially challenging locations, relies on a strong social licence to operate from our local communities – and, by extension, our host governments. This makes it essential that we establish and maintain durable relationships based on the sustainable generation of shared value.

#### Engaging local stakeholders

We place particular focus on establishing and maintaining constructive, consultative and cooperative stakeholder relations. This includes regular and formalised engagement with the following groups to address relevant and material issues:

- Central and local government
- Traditional community leaders
- Informal community groups
- NGOs
- Organised labour
- Local businesses

Our activities in this regard are guided by relevant legislation, our Communities and Indigenous People Policy, our Social and Labour Plans (SLPs) in South Africa and the AA 1000 Stakeholder Engagement Standard. In addition, in 2012 we developed a new Community Handbook that will apply across the Group and across all project lifecycle stages. This will establish a coherent approach to community engagement across all regions based on our 'shared value' concept (p141) – as well as best practice from the International Finance Corporation, the World Bank, the International Council on Mining and Metals and the wider industry. Guidance included in the Community Handbook is designed so that it can be tailored to local circumstances.

In addition, we conduct public engagement as part of our Environmental Impact Assessments, to help explain project impacts (and related mitigation measures) and to identify and address stakeholders' issues of concern. In 2012, this process was used (in addition to other project-related engagement activities) at the Arctic Platinum Project, for example (p112).

 **Case study:** Developing a Group-wide approach to artisanal and small-scale mining

 [www1.ifc.org/wps/wcm/connect/corp\\_ext\\_content/ifc\\_external\\_corporate\\_site/home](http://www1.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/home)

 [www.worldbank.org](http://www.worldbank.org)

 [www.icmm.com](http://www.icmm.com)

#### Communicating transformation and development in South Africa

During 2012, we initiated a dedicated awareness-raising campaign in South Africa to highlight our community initiatives – as well as our ongoing contribution to transformation within the mining industry and wider society. This included particular focus on our upgrading of accommodation, our provision of portable skills training to local people, new development opportunities being driven by South Deep, local agricultural projects and our contributions to education.

Although the illegal strike action that affected the Beatrix and KDC operations took place as we launched the campaign, these events – and the wider political, social and economic tensions behind them – highlighted the importance of this initiative. The awareness-raising initiative sought to:

- Maximise the development and transformation impact of our new and existing SLP programmes (p149)
- Ensure that these impacts are understood at a grassroots level – and are clearly associated with Gold Fields and Sibanye Gold

This is one of the reasons that Gold Fields is piloting new Sustainable Development Forums in communities around South Deep, to enhance our ability to communicate directly with local people – without the assistance of intermediaries.

#### Maintenance of community relations in Cajamarca

The Cajamarca Region of Peru – in which the Cerro Corona mine sits – has seen a high degree of social tension between certain local communities and mining operations. This has been exemplified by events around Newmont's Congas and Yanacocha joint ventures, which have faced extensive activism and opposition from certain elements within the community – as well as NGOs and political actors from beyond the region.

Cerro Corona has so far been unaffected by related activism or tensions – something we believe is due to the particularly strong community relations we have nurtured since before the construction of the mine, as well as our longstanding focus on sound water management. Nonetheless, we are monitoring the situation closely to help ensure this remains the case.

### What are Social Labour Plans (SLPs)?

South Africa's Mineral and Petroleum Resources Development Act 2002 requires mines to submit a five-year, renewable SLP before they are granted mining rights. Each SLP, which is agreed with the Department of Mineral Resources (DMR), commits companies to spending a defined budget on Local Economic Development (LED) or Skills Development (SD) initiatives. This is with the aim of:

- Promoting employment and socio-economic welfare
- Assisting in the transformation of the mining industry
- Contributing to development of their areas of operation – as well as in their labour-sending areas

In 2012, we submitted new, second-round SLPs for the Beatrix and KDC mines following the end of their initial, five-year SLPs as well as a new SLP for South Deep. The new SLPs integrate earlier lessons learnt, including increased focus on:

- Narrower, more vertically integrated LED and SD programmes
- Optimisation of impact

The SLP for South Deep is currently being negotiated with government and the relevant trade unions.

### Community engagement details by region

**Australasia:** Engagement with local indigenous groups at both mines under the Native Title Act 1993 on issues around native title, land access and cultural heritage

**South Africa:** Engagement – under the Local Economic Development (LED) of our statutory Social and Labour Plan (SLP) requirements – on issues including local enterprise development and infrastructure support. This includes:

- Regular engagement on issues around water quality in the West Wits area through the Far West Rand Dolomitic Water Association and the Mining Interest Group (p92)
- The 2012 piloting of new Sustainable Development forums in communities around South Deep, which include directly elected local representatives. One of these forums is the South Deep Community Trust, which was established as part of Gold Fields 2010 Black Economic Empowerment transaction, and which to date has received R11 million (US\$1.4 million) in dividends from the deal. These will be allocated to projects identified jointly with community stakeholders. This is with the aim of enhancing grassroots communication with communities
- In-depth stakeholder mapping and analysis at the Beatrix and KDC mine to improve clarity around our engagement activities

**South America:** Engagement through a formal framework to address community priorities around our Cerro Corona mine – including water quality, agricultural development and local employment. In addition, we participate in the 'Mesa de Dialogo y Concertacion de Hualgayoc' (a community-based, multistakeholder forum focused on regional development projects), as well as joint water monitoring with local communities

**West Africa:** Engagement in a number of well-established community forums in Ghana on:

- Broad-based Mine Consultative Committees
- Formalised, regular engagement with local chiefs
- Regular Community Committee meetings
- Direct Community Forums
- Continuous informal engagement, including an 'open-door' policy

Relevant issues in 2012 included local employment (p142), resettlement, crop compensation, illegal mining and access to Gold Fields Socio-Economic Development programmes.



## 7.3 Practicing strong business ethics

Our Values require us to act responsibly, honestly and with respect for others in everything that we do. We aim to maintain the complete confidence of our stakeholders – including our shareholders, business partners and host governments – by adopting an approach that goes beyond legal compliance and applies the highest ethical standards.

### 7.3.1 Compliance

We will not engage in any activities that undermine the legitimate business environment in any form – including bribery and corruption.

All of our directors and employees are bound to adhere to our updated Code of Ethics (p58). The Group-wide rollout of the Code – including formal training sessions – was completed in 2012, to ensure common ethical standards across all of our regions. The Code articulates Gold Fields policy with respect to an array of issues – ranging from facilitation payments through to political contributions. It is binding on every employee, officer and director of any entity that is owned or controlled by Gold Fields.

The Code is supported by an implementation framework, with defined responsibilities and reporting processes – as well as an anonymous whistle-blowing hotline managed by Deloitte. Any breach of the Code will result in disciplinary action, which may lead to dismissal. Should the breach be criminal, we will pursue prosecution of the employee concerned.

Since the Code was launched, we have experienced a marked increase in proactive queries from employees to ensure that their proposed course of action is compliant with its terms – reflecting heightened awareness of the need to apply strong ethical standards. Training on the Code will take place on an annual basis, with plans for additional, targeted training for those in high-risk roles.



[www.goldfields.co.za/pdf/code\\_of\\_ethics\\_24102011/coe\\_english.pdf](http://www.goldfields.co.za/pdf/code_of_ethics_24102011/coe_english.pdf)

### 7.3.2 Government relations

The nature of our business means that our host governments are among our most important stakeholders. General engagement takes place through national Chambers of Mines due to the efficiency and legitimate influence offered by collective engagement. In certain circumstances, we also engage our host governments on a bilateral basis.

As a general rule, Gold Fields does not make financial contributions to political parties – and no such contribution was made in 2012. Likewise, Gold Fields does not receive financial assistance from any of its host governments.

#### Black Economic Empowerment

The primary focus of our engagement with government in South Africa is focused on Black Economic Empowerment (BEE). In the mining sector, this is regulated by the Mineral and Petroleum Resources Development Act of 2002 and the associated 2010 revised Mining Charter.

During 2010, the South African Department of Mineral Resources (DMR) unveiled the revised Mining Charter 2010, which updates empowerment targets that mining companies have to comply with by March 2015. Our South Deep mine is currently working with the DMR and other stakeholders in addressing these targets with a special focus on meeting the Social Labour Plan (SLP) requirements.

Gold Fields is an active participant in the Mining Industry Growth, Development and Employment Task Team (MIGDETT) – through its membership of the South African Chamber of Mines. The MIGDETT is a vehicle used by the DMR, companies and trade unions to promote sustainable growth and meaningful transformation of the mining sector.

Stamping gold at the Rand Refinery, South Africa



## Royalties and revenues

Resource nationalism remains a key risk for Gold Fields, with government efforts to increase imposts on the mining sector generally showing little sign of abating. This dynamic continued to be driven by a mixture of populist pressure, income inequality in resource-rich countries, shortfalls in government budgets and relatively high commodity prices. In addition, the misguided perception persists that mining companies (and gold mining companies in particular) are enjoying profit windfalls – despite the fact that the sector faces rapidly escalating all-in costs (as represented by Notional Cash Expenditure (NCE) (p42 – 44)).

Our ability – and the ability of any mining company – to continue generating shared value for communities and governments is entirely dependent on our continued profitability. Similarly, there is no guarantee that tightening fiscal and regulatory regimes will – in the long term – result in government receiving greater income from the sector, as this dynamic acts as a direct disincentive to investment.

In this context, we believe it is important that we (and other mining companies) better communicate the broad social and economic benefits we already generate for our host societies and governments (p141) and – assuming our continued profitability – hope to continue generating in the future.

## Australia

Gold Fields is not currently affected by the Mineral Resource Rent Tax, which was passed by the Australian Government in March 2012. The tax only applies to large iron ore and coal mining companies – but is evidence of an ongoing shift in political attitude towards the Australian mining sector.

In July 2012, the Clean Energy Act 2011 came into force, directly impacting our operations. Although we are not required to directly participate in the cap and trade scheme established by the Act (which applies a carbon price of A\$23/tonne) (US\$25/tonne), it applies an equivalent carbon price to our diesel through the adjustment of our applicable fuel tax credits and excise duties. It is estimated that this increased our fuel costs by A\$6 million (US\$6 million) in 2012. We believe the Act is again indicative of a broader trend towards the imposition of a heavier fiscal burden on the mining sector.

In 2012, we joined the Minerals Council of Australia, which will help ensure we are able to engage with the federal government at the highest level on these and related issues.

## Ghana

We are the largest individual contributor to national revenues in Ghana. In 2012, we paid a total of US\$255 million (2011: US\$247 million) in corporate taxes, royalties, dividends, income taxes and contributions to the National Stabilisation Levy.

In early 2012, the government introduced a set of additional fiscal imposts on the mining sector. This occurred in a context in which the government identified a shortfall in its budget of more than US\$410 million.

These new imposts comprise:

- A rise in the Corporate Income Tax from 25% to 35%
- A reduction in the capital allowance to 20% for five years (previously 80% in the first year) and the removal of a special 5% allowance for the mining sector
- Provisions to 'ringfence' income and expenses on a localised basis (e.g. potentially on a mine-by-mine, or even pit-by-pit basis) – reducing our ability to internally off-set capital expenditure
- Introduction of 5% customs duties on Mining List items, which were previously subject to a rate of 0%
- A sharp increase in the Stool Tax (which is calculated on the basis of all exploration and mining licence areas) from GH¢0.5 (US\$0.25) per km<sup>2</sup> to GH¢9,019 (US\$4,600) per km<sup>2</sup>. Whilst this can be sustained by our mining operations, its application to large exploration areas is one of the reasons behind our divestment of exploration licences in Ghana (p110)

The Ghanaian tax regime now appears globally uncompetitive, particularly as there may well be further tax increases in future.

We therefore believe the latest increase in the fiscal burden – which follows the 2011 increase in mining royalties from 3% to 5% of revenues – could discourage investment in Ghana's mining sector. Furthermore, while government delayed the implementation of the planned Windfall Profit Tax, it has been given to the Mining Review Committee as part of their full review of the mining industry. This committee is due to revert to Parliament by June 2013. It is also looking at the tax stability agreements that have been selectively granted to other mining companies.

## 7.3 Practicing strong business ethics continued

We believe it is important that all mining companies in Ghana enjoy a level fiscal playing field. The government has established a Renegotiating Stability Agreement Committee to review these agreements and investigate a common and fair approach to taxation within the Ghanaian mining sector. We have also submitted our own draft stability agreement directly to Ghana's Ministry of Finance and Economic Planning and are continuing to engage with the government in this regard.

### *Peru*

Despite initial concerns around the 2011 decision of President Ollanta Humala's government to raise taxes and royalties on the mining sector – the government showed no sign of seeking a further increase in the fiscal burden in 2012. This reflected a more 'centrist' policy approach, based on a commitment by the government to attract further investment in the mining sector and to promote the development of new mining projects in the country. This appears to be at least partly driven by growing recognition that the industrial mining sector is a major contributor to Peru's public revenues (32%), GDP (6%) and exports (62%).<sup>1</sup> As such, we are pleased to be able to recognise Peru's continued status as an attractive fiscal destination for mining investment.

### *South Africa*

While the tax situation in South Africa has remained stable, the government has announced a review of corporate taxation (including mining royalties) – and has committed to introducing a carbon tax in 2015. We expect to be subject to the terms of this tax.

Nonetheless, the ruling ANC party ruled out the potential nationalisation of South Africa's mines at its 5-yearly National Elective Conference – despite previous pressure from a number of quarters to apply such a policy.

### 7.3.3 Security and human rights

During 2012, Gold Fields Protection Services (GFPS), was responsible for the effective and responsible protection of our people and assets. GFPS now falls under Sibanye Gold. Gold Fields is examining appropriate service delivery models to achieve the following objectives:

- Ensure the safety and security of employees and contractors on site as well as protect our physical assets
- Address illegal internal activity, including gold theft, fraud and other illicit activities
- Address illegal external activity, including illegal gold mining (p149), cable theft and other illicit activities
- Ensure the safety and security of our bullion despatches and cash escorts (including armed escorts in South Africa)

During 2012, GFPS personnel helped enforce good safety practices on our sites and participate in emergency response activities where needed.

We believe it is down to the high levels of professionalism within GFPS that – despite high levels of tension, strong inter-union rivalries and a number of non-fatal violent incidents between employees – the illegal mine strikes that affected our KDC and Beatrix operations between September and November (p139 – 140) were ultimately resolved without any fatalities. Given the extreme sectoral and national context in which the strikes took place – and the large numbers of employees involved – we believe this is a singular achievement.

All GFPS personnel receive human rights training during induction. This is based on local legal requirements and both national and international human rights best practice. Where relevant, GFPS personnel are supported by public security organisations as well as private security contractors. GFPS ensures that the organisations they partner with are committed to upholding human rights and the rule of humanitarian law, including through training.

GFPS is also a signatory to the International Code of Conduct for Private Security Service Providers. As a result, it is committed to respecting human rights and humanitarian law in its operations.

In addition, Gold Fields is implementing measures to prepare for the application of the Voluntary Principles on Security and Human Rights.

 [www.icoc-psp.org/ICoCSignatoryCompanies.html](http://www.icoc-psp.org/ICoCSignatoryCompanies.html)

 [www.voluntaryprinciples.org](http://www.voluntaryprinciples.org)

<sup>1</sup>Sociedad Nacional de Minería, Petróleo y Energía, The Peruvian Mining Sector – An Overview, January 2012

## Crisis management

In 2012, we established a Group-wide crisis management programme, which provides a senior management support framework for action planning and decision-making around the anticipation, prevention and response to crisis events, as well as post-crisis recovery. This includes the establishment of a Corporate Crisis Management Support Team, Regional Incident Response Teams and Emergency Response Teams.

The programme is based on:


- Isolation of crisis events from mainstream business and operational processes – including their management by a dedicated crisis team
- Management of crises at a regional level – with support from on-the-ground incident management teams
- Escalation of crisis situations – or potential crisis situations – according to predefined criteria
- Clear allocation of roles and responsibilities

The programme has been supported by comprehensive training for all key personnel – as well as semi-live simulated crisis exercises in Australia and South Africa, which demonstrated the readiness of our crisis management team. The initiative proved its worth almost immediately, playing a key role in our response to:

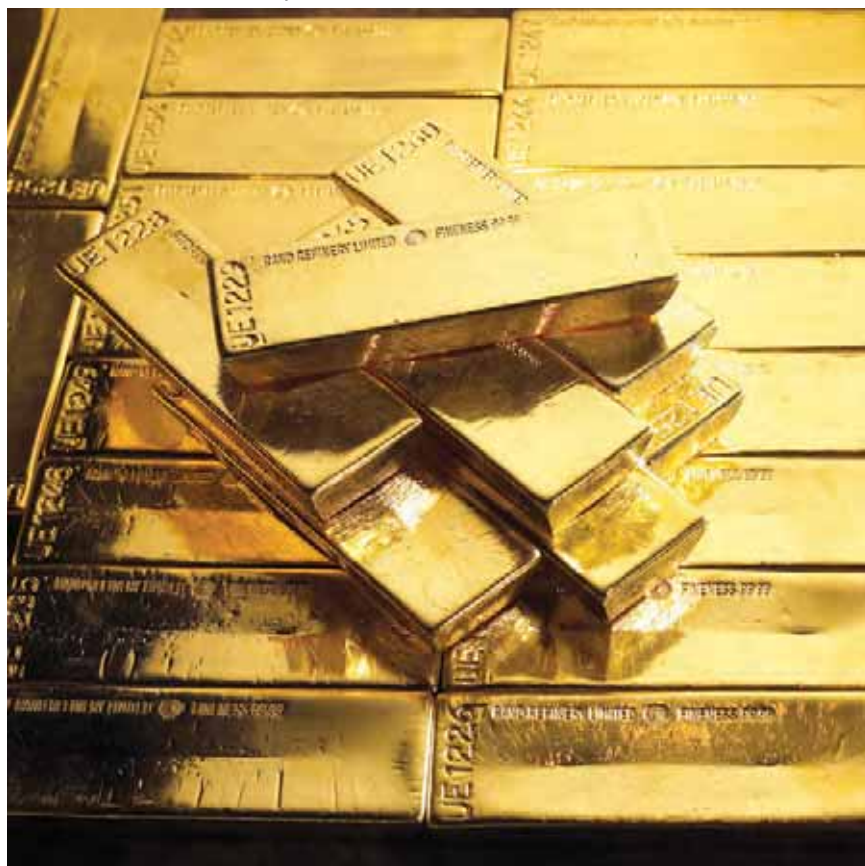
- The serious underground fire at a worked-out area of KDC's Ya Rona shaft in June 2012, which resulted in five fatalities (p86)
- The illegal strikes at Beatrix and KDC between September and November 2012 – and the associated risk of serious violence (p139 – 140)

## World Gold Council Conflict-Free Gold Standard

The nature of gold – including the relative ease of extraction of shallow deposits, its high intrinsic value and its portability – means it is a potential source of finance for armed groups involved in civil conflict. The proportion of newly mined gold believed to be linked to the financing of conflict is believed to be very low, at less than 1% of annual gold production. Nonetheless, Gold Fields and its fellow World Gold Council members believe strong efforts are required to reduce this proportion even further and to ensure responsible gold production continues to generate socio-economic development in as wide a range of locations as possible.

 **Case study:** Launch of the final WGC Conflict – Free Gold Standard

Gold bullion from the Rand Refinery, South Africa





# 8. Assurance







# Contents

8.1 First party: Internal Audit statement	Page 156
8.2 Second party: Assurance on reporting	Page 157
8.3 Third party: Independent assurance	Page 159
8.4 Assured data	Page 164
8.5 Corporate information	Page 166

## 8.1 First party: Internal Audit statement

---

Gold Fields Internal Audit ('GFIA') is an independent assurance provider to the Gold Fields Audit Committee on the effectiveness of the Company's risk management, control and governance processes. GFIA's risk-based annual audit plan covers the breadth and depth of the Gold Fields value chain, and is approved by the Audit Committee on an annual basis. The internal audit activities set out in the audit plan are either executed by our GFIA team (made up of appropriate, qualified and experienced employees), or by external practitioners who have been specifically engaged for this purpose. The internal audit team is based in South Africa and services all of Gold Fields operations across the Group. The Vice-President and Group Head of Internal Audit provides quarterly feedback to the Audit Committee and has a functional reporting line to the Audit Committee Chair.

GFIA follows a risk-based audit methodology, which is in compliance with the Institute of Internal Auditors' 'International Standards for the Professional Practice of Internal Auditing'. Furthermore, GFIA operates a quality assurance programme based on the carrying out of detailed quality review assessments at an activity and functional level. GFIA's quality assurance programme has been assessed as 'generally compliant' with the IIA standards, the highest rating of the degree of conformity.

During 2012, a combined assurance framework was developed and approved by the Audit Committee. This will facilitate the provision of assurance on Gold Fields' top risks and the monitoring of assurance providers.

Based on the work performed by GFIA during the year, the Vice-President and Group Head of Internal Audit has presented the Audit Committee with an assessment on the effectiveness of the Company's system of internal control and risk management, internal financial controls and IT control framework. It is GFIA's opinion that the internal control environment and risk management processes within Gold Fields are adequate and provide reasonable assurance that the objectives of Gold Fields will be met. This GFIA assessment forms one of the bases for the Audit Committee's recommendation in this regard to the Board.



**Shyam Jagwanth**  
*Vice-President and Group Head of Internal Audit*

Johannesburg  
South Africa

26 March 2013

## 8.2 Second party: Assurance on reporting



This is the third year of collaboration between Gold Fields and Maplecroft on the Integrated Annual Review. Maplecroft recognises that it is not an independent party.

Maplecroft worked closely with relevant Gold Fields employees to collect, analyse and review information and data across all areas covered in the Integrated Annual Review 2012. This included site visits in Ghana, Peru and South Africa, as well as interviews with senior managers, discipline experts and other relevant Gold Fields employees across the operational, sustainability and financial disciplines and in all regions.

The validity of original data was not checked at source by Maplecroft; although we did numerous follow-up checks to ensure consistency and to understand trends and reasons for changes. We completed a rigorous peer review of all data and documentation within Maplecroft to ensure the accurate and comprehensive representation of original data. Any anomalies or gaps in data that could not be resolved by Maplecroft were referred back to relevant employees within Gold Fields for clarification and (where relevant) later audit by an independent third party organisation.

We also prepared drafts of all text and worked closely with discipline experts in the refinement of report content (including clarification, review and feedback) to ensure the information presented is fair, accurate and in line with the expectations of stakeholders.

All work completed by Maplecroft is informed by best practice initiatives and standards, including the King III Code, the International Integrated Reporting Committee, the Global Reporting Initiative (GRI) G3.1 Guidelines, the UN Global Compact, the ICMM's 10 Principles and the AA 1000 assurance standard.

### AA 1000 principles

We believe Gold Fields has achieved broad compliance with the AA 1000 principles of materiality, completeness and responsiveness.

#### 1. Materiality

In line with the recommendations made in the King III Code around integrated reporting, this report discloses and explains an integrated and coherent framework for the analysis of Gold Fields strategy, risks, performance and sustainability. It is our view that this report directly and transparently addresses Gold Fields overall strategy (p14 – 17, p30 – 36, p37 – 47), material risks (including its top 10 risks (p49 – 51)), relevant and material stakeholder issues (p52, 54 – 55).

#### 2. Completeness

Our inspection of documents, as well as our engagement with and enquiry of discipline experts, did not identify any material shortfalls with respect to completeness of reporting. Indeed, Gold Fields has proactively sought to identify and report on potentially challenging and sensitive dilemmas, risks and responsibilities, including the following relevant and material issues:

- Potential Silicosis litigation in South Africa (p137)
- The internal investigation into circumstances around the South Deep Black Economic Empowerment deal (p69)
- The impact of nationwide, illegal mine strikes on the Beatrix and KDC mines between September and November 2012 (p38 – 39, 139)
- The impact and consequences of the deadly fire at KDC's Ya Rona shaft in June 2012 (p27, 86)

#### 3. Responsiveness

It is our view that Gold Fields extensive stakeholder engagement activity has done much to inform the content and form of this report. This includes ongoing and enhanced emphasis on:

- Integrated operational, sustainability and financial reporting
- Risk identification, management and mitigation
- Forward looking strategic analysis and planning as well as the identification of challenges and dilemmas
- The understanding of concerns relevant and material to investors as stakeholders

### Recommendations

- **Explicit risk/opportunity-based reporting:** This should build on the existing shift towards strategic-level, risk-based reporting by moving even further towards reporting which is explicitly structured around the high-level risks and opportunities faced by the Company in the short and long term
- **Further clarification regarding the impact of shared value:** An important step has already been made in looking beyond socio-economic development spending to examine the broader concept of shared value – the next step in this evolution is likely to be the measurement of the impact of this shared value
- **Evolution of stakeholder performance table:** The inclusion of this table marks a significant step forward in Gold Fields integrated reporting – and there is significant further potential to enhance its structure and content to provide the most comprehensive and in-depth representation of the relationships between stakeholders, strategy, risk, performance and remuneration



## 8.2 Second party: Assurance on reporting continued

- **Enhanced linkages between management actions and performance outcomes:** In certain cases (for example, energy and water consumption), the relationship is not always clear between specific strategies and/or management actions on the one hand, and performance outcomes on the other. It is recommended that enhanced data collection mechanisms be put in place to provide greater insight into this interaction
- **Further clarity around targets:** The report could be enhanced through the establishment of a broader range of clear, hard targets across the operational, financial and sustainability fields – to drive continuous improvement and provide a clear benchmark for the assessment of management performance
- **Human rights due diligence:** There is scope for Gold Fields to deepen the analysis of its human rights performance to ensure ongoing alignment to best practice. This could include, for example, the development of systematic human rights due diligence systems to ensure ongoing fulfilment of the responsibility to respect human rights under the UN 'Protect, Respect and Remedy' Framework
- **Political risk management:** Gold Fields should investigate the potential implementation of enhanced political risk management measures to ensure the proactive identification, management and communication of political risks
- **Addressing drivers behind 'conflict gold':** Gold Fields should examine the potential benefits to be gained from targeting socio-economic

development spending to address the root causes behind – and human rights consequences of – 'conflict gold'

- We believe this report represents a relevant and complete statement of the integrated performance of Gold Fields. In our view, the Gold Fields statement that it has applied the GRI G3.1 Guidelines at Level A+ is fairly stated.

*Alyson Warhurst*

**Professor Alyson Warhurst  
Dr Kevin Franklin  
Gus Macfarlane**

Maplecroft, United Kingdom

26 March 2013



[www.maplecroft.com](http://www.maplecroft.com)

## 8.3 Third party: Independent assurance

### Report on selected sustainability information

We have undertaken an assurance engagement on selected sustainability information, as identified below and presented in the Integrated Annual Review of Gold Fields Limited ('Gold Fields') for the year ended 31 December 2012 ('the Report').

#### Subject matter and related assurance

The subject matter of our engagement and related assurance is set out in the tables below.

#### 1) Subject matter a to c:

In compliance with the International Council of Mining and Metals' ('ICMM') Sustainable Development Framework: Assurance Procedure (ICMM Assurance Procedure), Subject Matters 4 (selected performance data) and 5 (self-declared application level) in accordance with the GRI G3.1 Guidelines:

#### Subject matter 4 (Figure 8.1 on p164 of the Report)

a) Reasonable Assurance (RA)	Unit
<b>Environment</b>	
Total CO <sub>2</sub> equivalent emissions, Scope 1– 3	Tonnes
Electricity	MWh
Number of environmental incidents – Level 3 and above	Number
Total water withdrawal	ML
Diesel	TJ
Number of sites with cyanide code certification	Number of sites
<b>Health</b>	
Number of cases of silicosis reported	Number of cases
Number of cases of noise induced hearing loss reported	Number of cases
Cardio respiratory tuberculosis (number of new cases reported)	Number of new cases
Number of employees in Highly Active Anti-Retroviral Therapy ('HAART') programme	Cumulative
Percentage of workforce on the Voluntary Counselling and Testing ('VCT') programme	Percentage
<b>Safety</b>	
Lost Time Injury Frequency Rate ('LTIFR') including the Australian restricted work day cases	Rate
Medically Treated Injury Frequency Rate ('MTIFR')	Rate
Number of fatalities	Number
<b>Social</b>	
Total socio-economic development ('SED') spend in rand/US dollar per region	Rand/US dollar

## 8.3 Third party: Independent assurance continued

b) Limited Assurance (LA)		Unit
<b>Environment</b>		
Total water recycled/reused per annum		ML
Water intensity		KL withdrawn per US\$ of revenue
Water intensity		KL withdrawn per ounce of gold produced
<b>Health</b>		
Number of cases of chronic obstructive airways diseases ('COAD') reported		Number of cases
Number of cases of Malaria tested positive per annum		Number of positive cases
<b>Subject matter 5 (p3 of the Report)</b>		
c) We are also required to report, based on our work performed on the Key Performance Indicators, whether we concur with the self-declaration made by Gold Fields that the Report is consistent with the GRI G3.1 A+ application level.		
<b>2) Subject matter d to f:</b>		
In compliance with the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry (BBSEEC) and related Scorecard:		
BBSEEC (2002) and related Scorecard (2004)		
d) Reasonable Assurance (RA)		Unit
Rand value spend on approved Social Labour Plan (SLP) projects		Rand value
Amendment to BBSEEC (2010) and related Scorecard (2010)		
e) Reasonable Assurance (RA)		Unit
Percentage Historically Disadvantaged South Africans (HDSAs) in Management (DL – FL) who are classified as designated groups and who are employed at management levels (top management (board), senior, middle, junior, core skills and total)		Top management %
		Senior %
		Middle %
		Junior %
		Core %
		Total %
Conversion or upgrading of hostels to attain an occupancy rate of one person per room by 2014		Occupancy rate
Number of houses built as part of the housing and hostel upgrade programme		Number of houses built
Total procurement spend from BEE entities (BBSEEC, (2010))		Rand value
f) Limited Assurance (LA)		Unit
Procurement spend from BEE entities (in line with the mining charter categories of capital goods, services and consumable goods)		Capital %
		Services %
		Consumables %

## Directors' responsibilities

The directors are responsible for the preparation and presentation of the Report as well as the information and assessments contained within it, and for determining Gold Fields' objectives in respect of sustainable development performance, including the identification of stakeholders and stakeholder reporting requirements, the identification of material issues, for commitments with respect to sustainability performance, for establishing and maintaining appropriate performance management and internal control systems from which the reported information has been derived, the selection of the sustainability performance indicators which form the subject matter of our assurance engagement, and for such internal control as the directors determine is necessary to enable the preparation of the Report that is free from material misstatement, whether due to fraud or error.

The directors are also responsible for the selection and application of the following reporting criteria used in the evaluation of the respective subject matter:

- (a) and (b), Gold Fields reported performance during the given reporting period for the identified material Sustainable Development risks and opportunities (ICMM Subject Matter 4): the GRI G3.1 Guidelines.
- (c), Gold Fields' self-declared A+ application level of the GRI G3.1 Guidelines in relation to Subject Matter 5 of the ICMM Assurance Procedure: the GRI G3.1 Guidelines for the A+ application level.
- (d), selected mining charter elements: the BBSEEC (2002) and related Scorecard (2004).
- (e) and (f), selected mining charter elements: the Amendment to the BBSEEC (2010) and related Scorecard (2010).

## Our responsibility

Our responsibility is to express assurance conclusions on the subject matter in (a), (b), (d), (e), and (f) and to report whether we concur with Gold Fields self-declared application level in accordance with the GRI G3.1 Guidelines, based on our work performed. We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements ('ISAE') 3000, Assurance Engagements other than the 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 assurance about whether the selected information is free from material misstatement.

Our procedures selected depend on our judgement including the risks of material misstatement of the selected sustainability information in the Report, whether due to fraud or error. In making our risk assessments, we considered internal controls relevant to Gold Fields' preparation of the Report. In a limited assurance engagement, the evidence gathering procedures are less than where reasonable assurance is expressed. We believe the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

## Summary of work performed

Our work included the following evidence gathering procedures:

- Interviewing management and senior executives at Group level to evaluate the application of the GRI G3.1 Guidelines and to obtain an understanding of the internal control environment relative to the reported sustainability information.

- Inspecting documentation at corporate level to corroborate the statements of management and senior executives in our interviews.
- Understanding the risk assessment process and the information systems which inform the related sustainability reporting processes.
- Testing the processes and systems at Group level and site level which generate, collate, aggregate, monitor and report the selected sustainability information.
- Performing site work at Gold Fields KDC, Beatrix, South Deep, Tarkwa, St Ives and Cerro Corona operations (which represents the most material contribution to the selected sustainability performance information for ICMM Subject Matter 4 and for selected elements from the Broad Based Socio-Economic Empowerment Charters [2002 and 2010] and related Scorecards).
- Conducting an application level check on the Report to evaluate whether all disclosure requirements of the GRI A+ application level have been adhered to.

## Conclusions

In relation to the Report for the year ended 31 December 2012, we report

- (a) On the selected performance data on which we are required to express reasonable assurance

In our opinion, the selected performance data identified in (a) above is fairly stated, in all material respects, in accordance with the GRI G3.1 Guidelines.

- (b) On the selected performance data on which we are required to express limited assurance

Based on our work performed, nothing has come to our attention that causes us to believe that the selected performance data identified in (b) above is not fairly stated, in all material respects, in accordance with the GRI G3.1 Guidelines.



## 8.3 Third party: Independent assurance continued

- (c) On Gold Fields self-declaration on the GRI A+ application level

Based on the procedures performed, we concur with the self-declaration made by Gold Fields in the Integrated Annual Review for the year ended 31 December 2012 regarding the GRI G3.1 A+ application level.

- (d) On the selected mining charter elements in compliance with the BBSEEC (2002) and related Scorecard (2004) on which we are required to express reasonable assurance

In our opinion, the selected mining charter elements identified in (d) above have been prepared, in all material respects, in compliance with the BBSEEC (2002) and related Scorecard (2004).

- (e) On the selected mining charter elements in compliance with the Amendment to the BBSEEC (2010) and related Scorecard (2010) on which we are required to express reasonable assurance

In our opinion, the selected mining charter elements identified in (e) above have been prepared, in all material respects, in compliance with the Amendment to the BBSEEC (2010) and related Scorecard (2010).

- (f) On the selected mining charter elements in compliance with the Amendment to the BBSEEC (2010) and related Scorecard (2010) on which we are required to express limited assurance

Based on our work performed, nothing has come to our attention that causes us to believe that the selected mining charter elements identified in (f) above have not been prepared, in all material respects, in compliance with the Amendment to the BBSEEC (2010) and related Scorecard (2010).

### Comparability

In the prior year, we provided limited assurance on all performance data selected for assurance. This is the first year that we have been engaged to provide reasonable assurance on certain parameters identified above.

In addition, our report includes the provision of assurance on water recycled/reused and water intensity. We were previously not required to provide assurance on this selected performance data.

### Report on the ICMM Assurance procedure

We are required to report our findings on the International Council of Mining and Metals' ('ICMM') Sustainable Development Framework: Assurance Procedure (ICMM Assurance Procedure) in respect of:

1. The alignment of Gold Fields sustainability policies to the ICMM 10 SD Principles and any mandatory requirements set out in ICMM Position Statements (ICMM Subject Matter 1).
2. The reporting of Gold Fields material sustainable development risks and opportunities based on a review of its business and the views and expectations of its stakeholders (ICMM Subject Matter 2).
3. The implementation of systems and approaches that Gold Fields is using to manage its material safety risks and opportunities (ICMM Subject Matter 3).

### Directors' responsibilities

The directors are responsible for:

- The alignment of Gold Fields sustainability policies to the ICMM 10 SD Principles and any mandatory requirements set out in ICMM Position Statements.
- The reporting of Gold Fields material sustainable development risks and opportunities based on a review of its business and the views and expectations of its stakeholders.
- The implementation of systems and approaches that Gold Fields is using to manage its material safety risks and opportunities.

### Our responsibility

Our engagement included reporting on the ICMM Assurance Procedure in respect of 1, 2 and 3 above based on the knowledge obtained in our evidence gathering procedures in our assurance engagement on the subject matters in (a), (b) and (c) set out in our 'Report on Selected Sustainability Information' above.

### Findings

Based on our evidence gathering procedures in our assurance engagement for the year ended 31 December 2012 on the subject matter in (a), (b) and (c) set out in our 'Report on Selected Sustainability Information' above, nothing has come to our attention that causes us to believe that:

1. Gold Fields sustainability policies are not aligned with the ICMM 10 SD Principles and any mandatory requirements set out in ICMM Position Statements.
2. Gold Fields has not reported material sustainable development risks and opportunities based on a review of its business and the views and expectations of its stakeholders.
3. Gold Fields has not implemented systems and approaches to manage its material safety risks and opportunities.

## Independence, expertise and limitation of liability

We have complied with the International Federation of Accountants' Code of Ethics for Professional Accountants, which includes comprehensive independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our engagement was conducted by a multidisciplinary team of health, safety, social, environmental and assurance specialists with extensive experience in sustainability reporting.

Our work has been undertaken to enable us to express the conclusions on the subject matters in (a), (b), (c), (d), (e) and (f) in our 'Report on Selected Sustainability Information'

together with findings on 1, 2 and 3 in our 'Report on the ICMM Assurance Procedure' to the directors of Gold Fields 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 Gold Fields, for our work, for this report, or for the conclusions we have reached.

### 8.3.1 Other matter

The maintenance and integrity of the Gold Fields website is the responsibility of Gold Fields management.

Our procedures did not involve consideration of these matters and, accordingly, we accept no responsibility for any changes to either the information in the Report or our independent assurance report that may have occurred since the initial date of presentation on the Gold Fields website.

#### KPMG Services (Proprietary) Limited



**Per PD Naidoo**  
Director

Johannesburg

26 March 2013

#### KPMG Crescent

85 Empire Road  
Parktown  
Johannesburg  
2193



**Per C Basson**  
Director

Johannesburg

26 March 2013

#### KPMG Crescent

85 Empire Road  
Parktown  
Johannesburg  
2193

## 8.4 Assured data

Figure 8.1: Key sustainability performance data selected by Gold Fields for assurance by KPMG

Parameter	Level of Assurance	Management figure
<b>Environment</b>		
Total CO <sub>2</sub> equivalent emissions, Scope 1 – 3 (in tonnes)	Reasonable	Including mine methane: 7,000,057 tonnes Excluding mine methane: 6,284,166 tonnes
Electricity (MWh)	Reasonable	5,219,652 MWh
Number of environmental incidents – Level 3 and above	Reasonable	7 incidents
Total water withdrawal (ML)	Reasonable	88,477 ML
Diesel (TJ)	Reasonable	5,896 TJ
Total water recycled/reused per annum (ML)	Limited	84,000 ML
Water intensity (KL withdrawn per US\$ of revenue)	Limited	0.01594
Water intensity (KL withdrawn per ounce of gold produced)	Limited	26.43
Number of sites with cyanide code certification	Reasonable	7 sites
<b>Health</b>		
Number of cases of silicosis reported	Reasonable	84 cases
Number of cases of noise induced hearing loss reported	Reasonable	58 cases
Number of cases of COAD reported	Limited	54 cases
Cardio respiratory tuberculosis (Number of new cases reported)	Reasonable	605 new cases
Number of cases of Malaria tested positive per annum	Limited	284 positive cases
Number of employees in HAART programme (cumulative)	Reasonable	4,365
Percentage of workforce on the VCT programme	Reasonable	14.89%
<b>Safety</b>		
LTIFR	Reasonable	5.16
MTIFR	Reasonable	5.21 <sup>1</sup>
Number of fatalities	Reasonable	16
<b>Social</b>		
Total socio-economic development (SED) spend in rand/US dollar per region	Reasonable	US\$135,681,122
SED spend for the South Africa Region	Reasonable	US\$127,109,512 R1,080,032,550
SED spend for the West Africa Region	Reasonable	US\$3,211,798
SED spend for the Australasia Region	Reasonable	US\$424,808
SED spend for the South American Region	Reasonable	US\$4,935,004

<sup>1</sup> In South Africa, due mainly to the additional safety risks associated with deep level mining, a conservative approach has been adopted whereby first aid cases are included in the MTIFR. The result is a slight overstatement of the South African MTIFR compared to our international operations

Parameter	Level of Assurance	Management figure
<b>Mining Charter</b>		
<b>Employment equity</b>		
Percentage HDSA in Management (DL – FL) who are classified as designated groups and who are employed at management levels (top management (board), senior, middle, junior, core skills and total)	Reasonable	Top: 35.7% Senior: 31.9% Middle: 41.2% Junior: 45.6% Core: 64.0% Total: 63.6%
<b>Housing and living conditions</b>		
Conversion or upgrading of hostels to attain an occupancy rate of one person per room by 2014	Reasonable	1.4
Number of houses built as part of the housing and hostel upgrade programme	Reasonable	0 houses <sup>2</sup>
<b>Local economic development</b>		
Rand value spent on approved SLP projects	Reasonable	R27,272,583
<b>Procurement and enterprise development</b>		
Procurement spend from BEE entities (in line with the mining charter categories of capital goods, services and consumable goods)	Limited	Capital: 54% Services: 51% Consumables: 47%
Total procurement spend from BEE entities (BBSEEC, 2010)	Reasonable	R4,093,316,901

<sup>2</sup> In 2012, Gold Fields initiated construction of 200 new family units at its South African operations. But these houses had not been completed by year-end (p138)



## 8.5 Corporate information

---

### **CORPORATE SECRETARY**

#### **Karen Robinson**

Tel: +27 11 562 9702

Fax: +27 11 562 9829

Email: karen.robinson2@goldfields.co.za

### **REGISTERED OFFICE**

#### **Johannesburg**

Gold Fields Limited

150 Helen Road

Sandown

Sandton

2196

Postnet Suite 252

Private Bag X30500

Houghton

2041

Tel: +27 11 562 9700

Fax: +27 11 562 9829

### **OFFICE OF THE UNITED KINGDOM SECRETARIES**

St James's Corporate Services Limited

6 St James's Place

London SW1A 1NP

United Kingdom

Tel: +44 20 7499 3916

Fax: +44 20 7491 1989

### **AMERICAN DEPOSITORY RECEIPTS TRANSFER AGENT**

Bank of New York Mellon

BNY Mellon Shareowner Services

PO Box 358516

Pittsburgh, PA15252-8516

US toll-free telephone: +1 888 269 2377

Tel: +1 201 680 6825

Email: shrrelations@bnymellon.com

### **TRANSFER SECRETARIES**

#### **South Africa**

Computershare Investor Services (Proprietary) Limited

Ground Floor

70 Marshall Street

Johannesburg

2001

PO Box 61051

Marshalltown

2107

Tel: +27 11 370 5000

Fax: +27 11 688 5248

#### **United Kingdom**

Capita Registrars

The Registry

34 Beckenham Road

Beckenham

Kent BR3 4TU

England

Tel: 0871 664 0300 [calls cost 10p a minute plus  
network extras, lines are open 08.30 – 17:00  
Monday to Friday] or [from overseas]

+44 20 8639 3399

Fax: +44 20 8658 3430

Email: [ssd@capitaregistrars.com](mailto:ssd@capitaregistrars.com)

## INVESTOR ENQUIRIES

### Willie Jacobsz

Tel: +27 11 562 9775

Mobile: +27 82 971 9238

Email: [willie.jacobsz@goldfields.co.za](mailto:willie.jacobsz@goldfields.co.za)

### Remmy Kawala

Tel: +27 11 562 9844

Mobile: +27 82 312 8692

Email: [remmy.kawala@goldfields.co.za](mailto:remmy.kawala@goldfields.co.za)

## MEDIA ENQUIRIES

### Sven Lunsche

Tel: +27 11 562 9763

Mobile: +27 83 260 9279

Email: [sven.lunsche@goldfields.co.za](mailto:sven.lunsche@goldfields.co.za)

## SUSTAINABLE DEVELOPMENT

### Naseem Chohan

Tel: +27 11 562 9765

Mobile: +27 83 441 8786

Email: [Naseem.chohan@goldfields.co.za](mailto:Naseem.chohan@goldfields.co.za)

## GOLD FIELDS LIMITED

Incorporated in the Republic of South Africa

Registration number 1968/004880/06

Share code: GFI

Issuer code: GOGOF

ISIN: ZAE 000018123

## WEBSITE

<http://www.goldfields.co.za>

## LISTINGS

JSE / NYSE / NASDAQ Dubai: GFI

NYX: GFLB

SWX: GOLI









# Online content: Stakeholder engagement

## Investors

Stakeholder engagement in 2012: Investors

Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	Relevant sections in the Integrated Annual Review 2012
Demand for greater leverage against gold price	All investors	Global	Weekly/monthly engagement	<ul style="list-style-type: none"> <li>Strategic Portfolio Review resulting in the unbundling of Sibanye Gold</li> <li>Operational Portfolio Review resulting in cessation of marginal production activities</li> <li>Focus on cash-based KPIs over ounces produced</li> <li>Avoidance of marginal growth projects and implementation of stringent financial stage-gates</li> <li>Ongoing investment in Group Technical Services to optimise mining performance</li> <li>Ongoing investment in more efficient gold processing technology/facilities</li> <li>Prioritisation of delivery of free cash flow to investors in the form of dividends</li> </ul>	1.3 1.5 2.2.3 3.1.4 3.1.6 5.1 6.1
Growth of cash-generative production volumes (including South Deep ramp-up)	All investors	Global, South Africa	Weekly/monthly engagement	<ul style="list-style-type: none"> <li>Completion of all major mine infrastructure to support South Deep's future run-rate</li> <li>New '24/7' operating model at South Deep to maximise productivity, incentivise employees and support production ramp-up</li> <li>Pursuit of high-quality greenfields exploration in established Regions and new, under-explored prospective areas</li> <li>Establishment of Growth and Exploration division Sustainable Development function to ensure competitive advantage in challenging new growth environments</li> </ul>	1.3.2 1.5 2.2.3 3.1.4 5.1.3 5.1.4 5.1.5 6.1
Optimisation of capital expenditure	All investors	Global	Weekly/monthly engagement	<ul style="list-style-type: none"> <li>Measurement and monitoring of true, all-in cost through the use of Notional Cash Expenditure (NCE)</li> <li>Integration of stringent financial stage-gates throughout the growth pipeline to ensure superior returns</li> <li>Re-scoping of development at the Chucapaca growth project</li> <li>Suspension of development work at the Far Southeast growth project – pending conclusion of stakeholder relations efforts and regulatory clarity</li> </ul>	1.5 2.2.3 3.1.4 6.1 6.3
Leveraging of balance sheet	All investors	Global	Weekly/monthly engagement	<ul style="list-style-type: none"> <li>Focus on maintenance of strong liquidity and improvement of our debt maturity profile</li> <li>Maintenance of a conservative debt maturity schedule</li> </ul>	1.6

# Stakeholder engagement

## Stakeholder engagement in 2012: Investors

Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	Relevant sections in the Integrated Annual Review 2012
Perceptions of deteriorating operating environment in South Africa	All investors	South Africa	Weekly/monthly engagement	<ul style="list-style-type: none"> <li>Unbundling of new Sibanye Gold for more focused management of related issues linked to labour-intensive, deep underground mines</li> <li>Engagement with organised labour, government, employees and peers to establish a new, fit for purpose labour relations model</li> <li>Ongoing and new efforts to address broader transformation within the South African mining industry, including through Social Labour Plans</li> </ul>	1.3 1.5 2.2.3 3.1.1 5.1.5 7.1.5
Concern over the long-term profitability of mature, deep underground mines in South Africa	All investors	South Africa	Monthly engagement	<ul style="list-style-type: none"> <li>Separation of new Gold Fields and Sibanye Gold to allow for more focused management</li> <li>Pursuit of Surface Treatment Strategy to leverage South African surface assets and reduce environmental liabilities</li> <li>Ongoing operational efficiency measures at Beatrix and KDC</li> </ul>	1.3 3.1.1 3.1.4 5.1.3 5.1.6 5.1.7 5.2.1 7.1.5
Impact of significant illegal strikes at KDC and Beatrix	All investors	South Africa	Weekly engagement	<ul style="list-style-type: none"> <li>Application of responsible and effective security practices to ensure resolution of Beatrix and KDC strikes without serious violence</li> <li>Engagement with employees, unions and government to resolve the strikes – including acceleration of planned wage increase</li> <li>Maintenance of the integrity of existing, two-year Collective Wage Agreement – pending resolution of future labour arrangements</li> </ul>	2.2.2 3.1.1 5.1.1 5.1.2 7.1.5 7.3.3
Impact of major underground fire at KDC's Ya Rona shaft	All investors	South Africa	Weekly engagement	<ul style="list-style-type: none"> <li>Ongoing efforts to establish causes of accident and implement recommendations</li> </ul>	2.2.2 5.1.1 5.1.2 5.2
Impact of Section 54 safety stoppages in South Africa	All investors	South Africa	Monthly engagement	<ul style="list-style-type: none"> <li>Ongoing pursuit of Zero Harm (see relevant section under Employees stakeholder table)</li> </ul>	1.3.3 5.1.1 5.1.2 5.2
Impact on production of temporary suspension of our heap leach facilities at Tarkwa	All investors	Ghana	Monthly engagement	<ul style="list-style-type: none"> <li>Securing of a lifting of the suspension in August 2012 and approval for continued dilution and discharge (on a temporary basis)</li> <li>Installation of two new water treatment plants in early 2013 and resumption of heap leach activity</li> </ul>	5.1.1 5.1.2 5.3.2
Delivery of major new growth projects	All investors	Global	Quarterly engagement	<ul style="list-style-type: none"> <li>Fast tracking of the Yanfolila project in Mali towards a 2013 development decision, following a doubling in resources</li> <li>Extensive engagement activity at the Far Southeast growth project in the Philippines to ensure a strong/stable licence to operate</li> </ul>	1.3.2 2.2.3 3.1.5 6.1 6.3

# Stakeholder engagement

## Employees

Stakeholder engagement in 2012: Employees

Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	Relevant sections in the Integrated Annual Review 2012
Ongoing pursuit of Zero Harm	Mine employees	Global, South Africa	Daily	<ul style="list-style-type: none"> <li>Enhanced Safety Strategy in South Africa, including renewed focus on cultural transformation and stakeholder engagement</li> <li>Close, proactive management of a safe return to work following illegal strikes in South Africa</li> <li>Enhanced safety incentives, including piloting of new monthly safety bonus system at KDC</li> <li>Extensive safety engineering programme, including focus on reducing fall of ground</li> </ul>	1.4 1.5 2.2.2 3.2.2 3.2.3 5.2 6.1.4
Responsible management of occupational health and employee wellbeing	Mine employees	Global, South Africa	Daily	<ul style="list-style-type: none"> <li>Engineering-out of health risks, including the installation of tip filters, mist sprays, settling agents and improved dust measurement</li> <li>Implementation of programme to improve the effectiveness of Personal Protective Equipment in South Africa</li> <li>Implementation of programme to manage employee exposure to diesel particulates</li> </ul>	As above 7.1.4
The addressing of potential legal claims relating to silicosis in the South African mining sector	Veteran employees, Ex-employees	South Africa	As required	<ul style="list-style-type: none"> <li>Detailed preparation to determine potential litigation and liability – including consolidation of historical data</li> </ul>	2.2.2 3.2.3 7.1.4
Management of HIV/AIDS and Tuberculosis within the workforce	Employees	South Africa	Daily treatment, annual testing	<ul style="list-style-type: none"> <li>Ongoing awareness raising, Voluntary Counselling and Testing, provision of Highly Active Retroviral Treatment and broader social/medical support</li> <li>Launch of a broader, holistic HIV/AIDS and Tuberculosis initiative examining collaboration with industry peers and the extension of programmes to labour-sending areas</li> <li>Introduction of advanced GeneXpert testing technology for Tuberculosis detection</li> </ul>	7.1.4
Effective management of internal and external crisis situations	Employees	Global	Quarterly review, annual testing	<ul style="list-style-type: none"> <li>Implementation of Group-wide crisis management programme, 'semi-live' exercises and application during illegal strikes at Beatrix and KDC and the serious fire at KDC's Ya Rona shaft</li> </ul>	2.2.2 3.1.1 5.2.1 6.1.4 7.1.5 7.3.3

# Stakeholder engagement

## Stakeholder engagement in 2012: Employees

					Relevant sections in the Integrated Annual Review 2012
Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	
Provision of competitive salaries, working conditions and benefits	Specialist employees, Managers	Global	Quarterly briefing of top-talent, annual survey	<ul style="list-style-type: none"> <li>Regular surveys to ensure remuneration remains competitive in each market we operate in</li> <li>Offering of an integrated, holistic employee value proposition, tailored to individual needs where possible</li> <li>Delivery of high-quality education, training and development opportunities</li> </ul>	3.1.3 7.1.2
Provision of competitive training and development opportunities	Managers and employees	Global	Employees receive two weeks a year of on-the-job training	<ul style="list-style-type: none"> <li>Ongoing application of centralised and regional leadership development programmes</li> <li>On-site operational training in South Africa, South America and West Africa</li> <li>Provision of university bursaries in our South Africa, South America and West Africa regions</li> <li>Development of world-class, high-technology training facilities at South Deep to support deep underground, mechanised mining</li> </ul>	3.1.3 7.1.2
Enhancement of employee accommodation/living arrangements	Junior employees	South Africa	Weekly tenant meetings	<ul style="list-style-type: none"> <li>Upgrading of single men's accommodation and the ongoing delivery of family accommodation units – in line with our Mining Charter commitments</li> <li>Initiative to help improve conditions for those employees who opt to 'live-out' in informal settlements</li> </ul>	7.1.4 7.3.2



# Stakeholder engagement

## Society

Stakeholder engagement in 2012: Society

Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	Relevant sections in the Integrated Annual Review 2012
Increased fiscal burden on extractive companies	Government	Ghana	Regular direct and indirect engagement with government	<ul style="list-style-type: none"> <li>Submission of draft, Gold Fields-specific Stability Agreement to the Government of Ghana to ensure a stable platform for future investment in the country</li> <li>Development/advocacy of draft, sector-wide Stability Agreement to ensure level playing field for all operators</li> <li>Engagement with the government to find correct balance between increasing mining revenues and ensuring that future investment in the Ghanaian extractive industry remains commercially justifiable</li> </ul>	2.2.2 3.1.2 7.3.2
Employment of local citizens, community members and/or Historically Disadvantaged South Africans (HDSAs)	Governments, local citizens, local communities	Ghana, Peru, South Africa	Weekly/monthly/quarterly assessment	<ul style="list-style-type: none"> <li>Compliance with relevant quotas relating to the employment of nationals/Historically Disadvantaged South Africans (HDSAs)</li> <li>Ongoing application of community recruitment processes and structures in Ghana</li> <li>Ongoing, targeted employment, training and development of local community members in Peru</li> <li>Ongoing, targeted employment, training and development of HDSAs in South Africa</li> </ul>	7.1.1 7.1.2 7.1.3 7.2.1
Sourcing of local and/or Black Economic Empowerment (BEE) goods and services	Local/HDSA-controlled businesses	Ghana, Peru and South Africa	As required	<ul style="list-style-type: none"> <li>Compliance with relevant terms of the Mining Charter and other relevant BEE legislation</li> <li>Application (where practicable) of preferential procurement in Ghana, Peru and South Africa</li> <li>Active engagement and joint ventures with local suppliers to improve their business, management and production standards</li> <li>Development of database of suppliers in South Africa</li> </ul>	7.2.3

# Stakeholder engagement

## Stakeholder engagement in 2012: Society

					Relevant sections in the Integrated Annual Review 2012
Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	
Water scarcity and quality	Regulators, local communities	Australia, Ghana, Peru and South Africa	Daily monitoring, weekly joint-community monitoring	<ul style="list-style-type: none"> <li>• Introduction of new Group-wide Water Strategy to ensure strong, common practice across all regions</li> <li>• Ongoing implementation of Liquid Gold project in South Africa to address potential Acid Mine Drainage and other water-related risks</li> <li>• Joint water monitoring with community members at Cerro Corona and Tarkwa</li> <li>• Installation of two high-value water treatment plants at Tarkwa's heap leach facilities</li> </ul>	2.2.3 8.3.2 7.2.5
Carbon emissions and climate change impacts	Governments, society	Global	Six-monthly government briefings	<ul style="list-style-type: none"> <li>• Implementation of new, integrated Energy and Carbon Management Strategy across the Group</li> <li>• Ongoing investigation into renewable energy opportunities, including a biomass energy plant at Tarkwa, a waste and biomass energy plant at KDC and wind-power at St Ives</li> <li>• Ongoing operation of the Beatrix Methane Project and the generation of Certified Emission Reductions</li> <li>• Energy efficiency measures at our South African operations</li> <li>• Minimum requirement of 20% renewables for greenfields projects</li> </ul>	5.1.6 5.3.3
Contributions to local socio-economic development	Local government, Local communities	Global	Monthly meetings with local communities	<ul style="list-style-type: none"> <li>• Implementation of the shared value concept to ensure alignment of operational and strategic interests with local communities</li> <li>• Ongoing Socio-Economic Development contributions (via 'per ounce' payments to the Gold Fields Ghana Foundation)</li> <li>• Ongoing initiatives to enhance local infrastructure, education and training, health and wellbeing, and economic diversification</li> </ul>	2.2.3 3.1.2 6.1 7.2

# Stakeholder engagement

## Stakeholder engagement in 2012: Society

Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	Relevant sections in the Integrated Annual Review 2012
Meaningful consultation on matters affecting local communities	Local communities	Global	Weekly/monthly/quarterly meetings	<ul style="list-style-type: none"> <li>Engagement on issues around heritage issues, native title and land access with indigenous groups at Agnew, St Ives and Far Southeast – and also in relation to our exploration activities in Canada</li> <li>Extensive, multi-layered stakeholder engagement frameworks at Damang and Tarkwa</li> <li>Regulated engagement activities through our Social and Labour Plans at Beatrix, KDC and South Deep</li> <li>The establishment of new Community Engagement Forums at South Deep</li> <li>Ongoing implementation of formal engagement framework at Cerro Corona – and participation in the 'Mesa de Dialogo y Concertacion de Hualgayoc' multi-stakeholder forum</li> </ul>	2.2.3 6.1 6.3 7.2.5
Transformation of the mining industry	National government, Regulators, Society, Employees	South Africa	Six-monthly SLP meetings with government, weekly meetings with employees on training, operating and wellness issues	<ul style="list-style-type: none"> <li>Ongoing strengthening of the 'empowerment pipeline' through the education, training and development of our HDSA employees – including targeted Adult Basic Education and Training programmes</li> <li>Ongoing construction of family accommodation, the upgrading of single person hostels and the promotion of home ownership (on advantageous terms) amongst our employees</li> <li>Efforts to improve living conditions amongst that portion of our workforce that opts to 'live-out' in informal settlements</li> <li>Promotion of socio-economic development in labour-sending areas</li> <li>Implementation of the new operating model at South Deep, offering greater potential take home pay</li> <li>Exploration of new career structures for junior personnel</li> </ul>	3.1.1 7.1.3 7.1.4 7.1.5 7.2

# Stakeholder engagement

## Stakeholder engagement in 2012: Society

					Relevant sections in the Integrated Annual Review 2012
Issue	Stakeholders	Location	Frequency of engagement	Response during 2012	
Securing of people and assets without compromising the human rights of others	National government, Society, Local communities, Employees, Consumers	Ghana, South Africa	Quarterly meetings with external security providers	<ul style="list-style-type: none"> <li>Resolution of illegal strikes at Beatrix and KDC without serious injury</li> <li>Human rights training for Gold Fields Protection Services (GFPS) personnel</li> <li>Ongoing liaison with local security forces</li> <li>Adherence to the International Code of Conduct for Private Security Service Providers by GFPS</li> </ul>	2.2.2 3.1.1 3.2.3 7.1.5 7.3.3
Support for international efforts to exclude conflict-related gold from the legitimate global gold trade	Society, Consumers	Global	Ongoing, monthly WGC meetings	<ul style="list-style-type: none"> <li>Voluntarily adoption of the World Gold Council's (WGC) Conflict-Free Gold Standard, despite not producing gold in any conflict-affected countries</li> <li>Pilot application of the Standard by external and internal experts at all of our eligible operations (building on similar exercises at Damang and Tarkwa in 2011) to assess our readiness to conform with the standard</li> </ul>	4.1.2 7.3.3



# Online content: Corporate governance

## Executive Committee



Members of the Executive Committee have also been identified as the prescribed officers of the Company in terms of Section 66(10) of the Companies Act No 71 of 2008 (as amended).

### Members of the Executive Committee (as at 26 March 2013)

#### 1. Nicholas J Holland (54)

Chief Executive Officer (CEO)

*BCom, BAcc, University of the Witwatersrand; CA(SA)*

Mr Holland was appointed an executive director of Gold Fields in 1998 and became CEO on 1 May 2008. Prior to that he was the Company's CFO. Mr Holland has more than 31 years' experience in financial management, of which 23 years were in the mining industry. Prior to joining Gold Fields, he was Financial Director and Senior Manager of Corporate Finance at Gencor. He is also an alternate director of the Rand Refinery.

#### 2. Paul A Schmidt (45)

Chief Financial Officer (CFO)

*BCom, University of the Witwatersrand; BCompt (Hons), Unisa; CA(SA)*

Mr Schmidt was appointed CFO on 1 January 2009 and joined the Board on 6 November 2009. Prior to this, he held the positions of acting CFO from 1 May 2008 and Financial Controller from 1 April 2003. He has more than 17 years' experience in the mining industry.

#### 3. Naseem A Chohan (52)

Senior Vice-President:  
Sustainable Development

*BEng (Elec), University of Limerick, Ireland*

Mr Chohan joined Gold Fields in September 2010 as Senior Vice-President: Sustainable Development. Mr Chohan is a qualified Electronics Engineer and spent 25 years with De Beers during which he led the development of sustainability principles for the Company. He left De Beers in 2009 when he was Group Consultant, Sustainability and ECOHS (Environment, Community, Occupational Health and Hygiene, and Safety), to start his own mining consultancy.

#### 4. James WD Dowsley (54)

Senior Vice-President:  
Corporate Development

*BSc (Mining Engineering), University of the Witwatersrand*

Mr Dowsley has been General Manager of Corporate Development since March 1998, a title that changed to Senior Vice-President: Corporate Development, in 2002.

#### 5. Michael D Fleischer (52)

Executive Vice-President:  
General Counsel

*BProc, University of the Witwatersrand; Advanced Taxation Certificate, Unisa*

Mr Fleischer was appointed as Executive Vice-President: General Counsel, on 1 November 2006. Prior to his appointment Mr Fleischer was a partner in the corporate services department at Webber Wentzel. Admitted as an attorney to the High Court of South Africa in 1991.

#### 6. Jan W Jacobsz (52)

Senior Vice-President: Head of Investor Relations and Corporate Affairs

*BA (Political Science), University of Johannesburg*

Mr Jacobsz was appointed Senior Vice-President and Head of Investor Relations and Corporate Affairs, as well as a member of the Group executive committee, on 15 April 2002. In addition, Mr Jacobsz held the portfolio of Group Sustainable Development Manager from 2002 to 2005. Prior to that, Mr Jacobsz was Senior Manager: Investor Relations and Corporate Affairs, Manager of Gold Fields Group Transformation Programme, and Administrator of the Gold Fields Foundation.

#### 7. Ernesto Balarezo (45)

Executive Vice-President: South America Region

*BSc (Industrial Engineering), Texas A&M University; MSc Industrial Management*

Mr Balarezo was appointed as Executive Vice-President: South America, on 11 March 2013. Prior to this he was with Peruvian mining group Hochschild as VP Operations, with responsibility for the group's silver and gold mining operations in Latin America, as well as its growth projects. He also held a number of other senior positions at Hochschild. Mr Balarezo replaced Juan-Luis Kruger who left Gold Fields after 4 years with the company.



9



10



11



12



13



14

### 8. Tommy D McKeith (49)

Executive Vice-President: Growth and International Projects

*BSc (Hons) (Geology); GDE (Mining); MBA, University of Witwatersrand*

Mr McKeith was appointed Executive Vice-President: Growth and International Projects, on 1 July 2011 having occupied the position of EVP: Exploration, since October 2007. Prior to rejoining Gold Fields in 2007 he was CEO of Troy Resources, NL. Between 2004 and 2006, Mr McKeith served as the Vice-President of Business Development at Gold Fields after holding various positions in mine geology, exploration and business development at the Company.

### 9. Kgabo Moabelo (42)

Managing Executive: South Africa

*BAdmin (Hons) (Industrial Psychology), Unisa; MSc (Engineering Business Management), University of Warwick*

Mr Moabelo was appointed as Managing Executive: South Africa, from 1 March 2013. Prior to this he was Executive Vice-President: People and Organisational Effectiveness, having joined Gold Fields as Senior Vice-President, Human Resources (HR), on 1 October 2010. Prior to joining Gold Fields, he was the HR director for Cisco Systems, and, between 2005 and 2008, HR director for Standard Bank. Between 1999 and 2005 he held various HR positions at Anglo Platinum. Until 1 January 2013 the SA operations of Gold Fields were managed by Peter Turner, Executive Vice-President: South Africa, who left to join Sibanye Gold.

### 10. Tim Rowland (52)

Executive Vice-President: Group Technical Services

*BSc (Hons) (Geology); MSc (Mineral Exploration); GDE (Mining Engineering); Pr Sci.Nat; FSAIMM; FGSSA; GASA*

Mr Rowland was appointed Executive Vice-President: Group Technical Services, from 1 July 2011. He has 25 years' mining industry experience and was acting Executive Vice-President: South Africa Region from 18 October 2010. Prior to this, he was Vice-President and Head of the Gold Fields Technical Division for the South African Region. He joined Gold Fields in 2003 from Anglo American, where he had held a number of senior technical positions.

### 11. Lee-Ann Samuel (35)

Senior Vice-President:  
Human Resources

*BA Psychology, Political Science (Hons), University of Johannesburg; Global Remuneration Practitioner*

Ms Samuel was appointed Senior Vice-President, Human Resources (HR), on 1 March 2013. She was previously Vice-President, Group Remuneration and Group Benefits. She joined Gold Fields in 2009 and has 14 years' HR experience in the mining, financial services and telecommunications sector.

### 12. Peet van Schalkwyk (49)

Executive Vice-President: West Africa Region

*BSc (Chemistry and Geology); Diploma in Industrial Relations*

Mr Van Schalkwyk was appointed Executive Vice-President: West Africa Region, from 19 September 2011. He has more than 25 years' experience in the mining industry. He returned to Gold Fields after a period in Turkey, where he was General Manager of Alamos Gold Inc. Prior to this he was General Manager of both the Damang and Tarkwa mines in Ghana. Before joining Gold Fields in 2007, he was the Metallurgical Manager of the Africa Region for AngloGold Ashanti, working in Mali and Tanzania.

### 13. Richard M Weston (61)

Executive Vice-President:  
Australasia Region

*FAIMM; CPEng IEA; MSc (Mining Geomechanics), University of NSW; GDM; UCQ; BE (Civil), Sydney University*

Mr Weston was appointed Executive Vice-President: Australasia Region, on 1 May 2010. He was formerly Senior Vice-President, Operations, for Coeur d'Alene Mines Corporation, a gold and silver mining company based in Idaho, US. Before joining Coeur, he oversaw the development of Barrick Australia's Cowal gold project and, prior to that, Rio Tinto Australia's ERA Ranger and Jabiluka uranium mines.

### 14. Karen Robinson (35)

Company Secretary

*LLB, Advanced Certificate in Corporate and Securities Law*

Ms Robinson was appointed as Assistant Company Secretary on 1 November 2011 and was promoted to the Company Secretary on 1 January 2013. She was previously the Company Secretary of Aveng Limited, Kagiso Trust Investments and the Assistant Company Secretary of Murray & Roberts Limited.

# Regional overview



# Contents

1. Australasia	Page	1
1.1 Overview	Page	1
1.1.1 Introduction	Page	1
1.1.2 Heat map	Page	2
1.2 Operation: Agnew	Page	3
1.3 Operation: St Ives	Page	5
2. South Africa	Page	8
2.1 Overview	Page	8
2.1.1 Introduction	Page	8
2.1.2 Heat map	Page	9
2.2 Operation: Beatrix	Page	10
2.3 Operation: KDC	Page	12
2.4 Operation: South Deep	Page	15
3. South America	Page	18
3.1 Overview	Page	18
3.1.1 Introduction	Page	18
3.1.2 Heat map	Page	19
3.2 Operation: Cerro Corona	Page	20
4. West Africa	Page	22
4.1 Overview	Page	22
4.1.1 Introduction	Page	22
4.1.2 Heat map	Page	23
4.2 Operation: Damang	Page	24
4.4 Operation: Tarkwa	Page	27



# Regional overview

## 1. Australasia

### 1.1 Overview

#### 1.1.1 Introduction

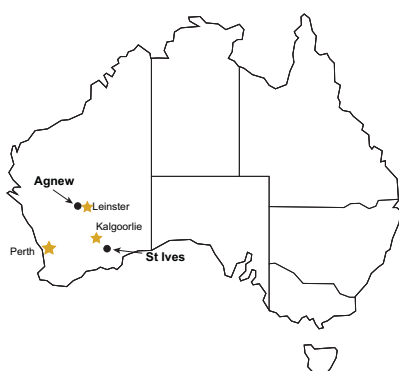
##### Role within Group

Our Australasia Region includes two relatively low-cost gold mines sitting within the same highly prospective geological belt – with ongoing near-mine drilling indicating significant growth potential at both. The region is also home to one of the Group's most exciting greenfields growth opportunities, the Far Southeast project in the Philippines. Furthermore, Gold Fields is involved in a number of early stage exploration projects in Australia and the Philippines.

Figure 1.1: Contribution to Group – Australasia region (including Sibanye Gold)

	% of Group total
<b>Optimising our operations</b>	
Attributable gold production	19
<b>Growing Gold Fields</b>	
Attributable Mineral Resources	5
Attributable Mineral Reserves	5
<b>Securing our future</b>	
Total economic contribution	17
Employees	2

Figure 1.2: Australasia Region map



#### Operations

Our operations in the region are focused on the St Ives and Agnew mines in Western Australia, both of which have highly prospective opportunities for reserve growth and life extension.

#### Growth projects

Our most promising growth project in the region is the highly prospective gold-copper Far Southeast project in the Philippines, in which Gold Fields holds a 40% interest – with an option to acquire a further 20%. Our efforts at Far Southeast are now focused on obtaining the Free Prior and Informed Consent of local indigenous communities. This is a critical step in our efforts to secure a Foreign Technical Assistance Agreement (FTAA), which was submitted in November 2011 – and which is necessary if we are to achieve majority ownership of the project. We are actively engaging with local communities to ensure ongoing support for the development of the project and access for surface drilling. Activities will be scaled back in 2013 until the FTAA processes are completed. An updated resource model is anticipated by mid-2013.

#### Optimising our operations

Figure 1.3: Attributable gold production

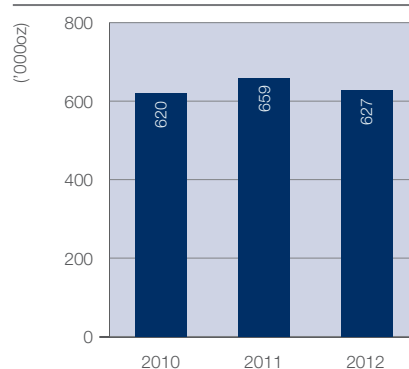
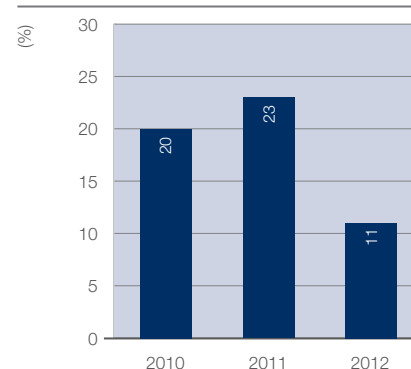


Figure 1.4: NCE margin



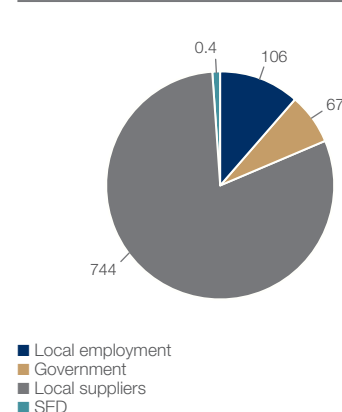
#### Growing Gold Fields

Figure 1.5: Attributable Mineral Reserves and Resources



#### Securing our future

Figure 1.6: Local economic contributions (US\$m)



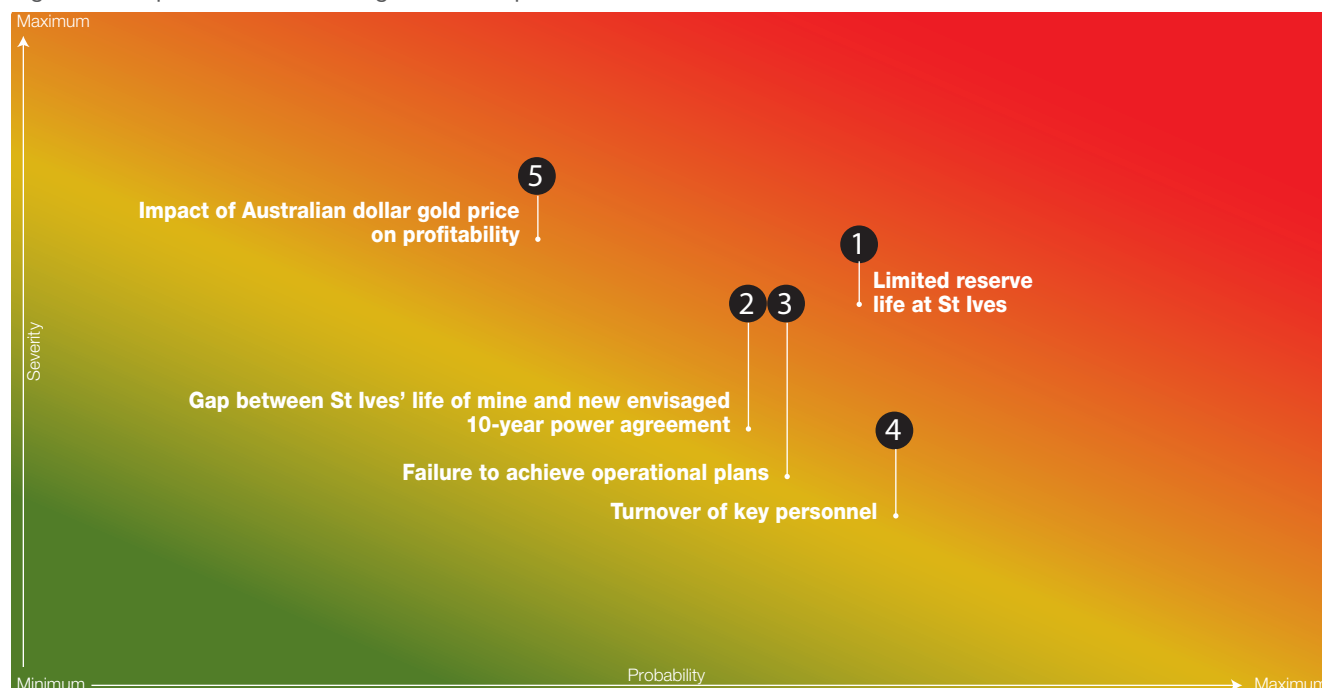
# Regional overview

## 1. Australasia

### 1.1.2 Heat map

The heat map below sets out the top five risks for the Australasia Region, as identified through our Enterprise Risk Management (ERM) process.

Figure 1.7: Top five Australasia Region heat map



Risks	Mitigating strategies
1	<ul style="list-style-type: none"> <li>Delineation of further reserves through significant near mine exploration</li> <li>Implementation of ongoing business improvement to achieve cost savings and productivity gains to reduce cut-off grades</li> <li>Closure of high-cost, heap leach facility to improve cost structures</li> </ul>
2	<ul style="list-style-type: none"> <li>Development of power supply agreement that allows for on-trading in unlikely event of early suspension of operations</li> </ul>
3	<ul style="list-style-type: none"> <li>Mining of higher-grade underground ore at St Ives in place of lower-grade open pit ore</li> <li>Mining of higher-grade Kim ore zones at Agnew</li> <li>Completion of owner-mining transition at St Ives' open pits</li> </ul>
4	<ul style="list-style-type: none"> <li>Review and improvement of employee development programmes</li> <li>Implementation of a centralised recruitment and retention strategy</li> </ul>
5	<ul style="list-style-type: none"> <li>Implementation of ongoing business improvement to achieve cost savings and productivity gains</li> <li>Implementation of portfolio review initiatives</li> </ul>

# Regional overview

## 1. Australasia

---

### 1.2 Operation: Agnew

#### Introduction

The Agnew mine is located 23km west of the town of Leinster, 1,100km north-east of Perth – and sits within the same highly prospective geological region as St Ives. The mine produces from the Waroonga underground mining complex (comprising the Kim, Main and Rajah ore bodies) as well as the Songvang open pit. The lease area includes exploration and mineral rights covering a total area of 68,138 hectares.

#### Strategic overview

Following our Portfolio Review in the second half of 2012, we have withdrawn from the low-grade and marginal Main and Rajah lodes to instead focus only on the high-grade Kim Lode. Although this will result in slightly lower production in 2013, it will also reduce unit costs and improve Agnew's immediate cash-generation performance.

#### Performance overview

During 2012, total production decreased to 176,600 ounces (2011: 194,000 ounces). This reflected operational challenges encountered during the first half of the year, which included:

- Poor ground conditions at the Main Lode ore body (resulting in lower underground volumes mined and processed)
- Lower underground and surface yields
- Reduced mining rates on the Kim ore body due to a change in the plunge of mineralisation, which is no longer a challenge
- The ongoing high turnover of skilled employees

This resulted in a 29% drop in production in the first quarter and stable production in the second quarter. However, production improved dramatically as a result of the refocusing of our mining activities on the high-grade Kim Lode and our withdrawal from the Main and Rajah lodes. This supported an increase in production of 28% between the second and third quarters – and a further 15% increase between the third and fourth quarters – marking a major turnaround for the mine. Indeed, the fourth quarter marked Agnew's highest producing quarter since September 2006. The NCE margin improved to 46% in the fourth quarter, one of the highest in the Group.

Meanwhile, net operating costs increased by 14% from A\$128 million (US\$133 million) to A\$146 million (US\$152 million) due to the draw-down of Songvang stockpiles in 2012, compared with a build-up of Songvang stockpiles in 2011. Mining operations at Songvang were completed in February 2012.

In 2012, the mine's NCE margin remained relatively steady at 29% (2011: 32%). This reflected capital expenditure of A\$60 million (US\$62 million) mainly focused on underground development of the Kim ore body, exploration (mainly at the Waroonga underground complex) and the purchase of additional mining equipment.

#### Near-mine exploration

Agnew offers significant exploration opportunities, and is implementing an ongoing and aggressive near-mine exploration programme (known as the High Grade Shoots Project). This is focused on resource modelling three high-grade extensions to mineralisation at the Waroonga mining complex (the Hastings, Fitzroy and Bengal shoots) – and on drilling the Link Zone between Kim and the High Grade Shoots to define high-grade mineralisation intersected in 2011. Waroonga has been a consistent source of high-grade ore for a number of years and comprises the bulk of Agnew's production and Mineral Reserve.

Results from this activity – as well as drilling on a conceptual target 500 meters north of Waroonga – have been encouraging.

#### 2013 outlook

Planned production at Agnew is estimated at between 150,000 ounces and 160,000 ounces of gold at a total cash cost of A\$700/oz (US\$728/oz) and an NCE of A\$990/oz (US\$1,030/oz). This plan assumes:

- Ongoing focus on the high-grade Kim Lode
- Continuation of new-mine exploration

# Regional overview

## 1. Australasia

### Key indicators

Figure 1.8: Optimising our operations indicators – Agnew

Category	2012	2011	2010	2009	2008
Gold produced – attributable ('000oz)	177	194	152	188	201
Total cash cost (A\$/oz)	799	672	684	536	524
Notional Cash Expenditure (NCE) (A\$/oz)	1,150	1,062	1,098	799	701
Gold price (A\$/oz)	1,610	1,564	1,326	1,241	1,034
Operating profit (A\$m)	139	175	96	133	98
Operating costs (A\$m)	143	134	105	99	101
Operating margin (%)	49	58	48	57	47
NCE margin (%)	29	32	17	36	32
Fatal Injury Frequency Rate	0	0	0	0	0
Lost Time Injury Frequency Rate	3.93 <sup>1</sup>	2.72	1.11	2.13	2.23
Energy consumption (TJ)	420	439	339	356	368
CO <sub>2</sub> -e emissions ('000 tonnes) (Scope 1 & 2)	49.4	49.6	40.6	42.9	45.7
Water withdrawal (million liters)	1,094	1,287	1,213	1,564	1,096

Figure 1.9: Growing Gold Fields indicators – Agnew

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	3.50	2
Attributable Mineral Reserves (million oz)	1.15	2

Figure 1.10: Securing our future indicators – Agnew

Category	2012	2011	2010	2009	2008
Total employees	256	235	212	158	136
Employee wages and benefits (A\$m)	34	27	21	20	21
Total taxation and royalties paid (A\$m)	7	8	0	0	0
SED spend (A\$)	15,000	11,000	n/a	n/a	n/a

<sup>1</sup> Excludes restricted work cases – 16.69 if such cases are included



# Regional overview

## 1. Australasia

### 1.3 Operation: St Ives

#### Introduction

Our St Ives mine is located in the highly prospective geological region of the Norseman-Wiluna Greenstone Belt – 80km south of Kalgoorlie in Western Australia. During the year, the mine produced from four underground mines, three open pits and a number of surface stockpile sources, with processing taking place through a carbon in leach plant and a heap leach plant. The lease area includes exploration and mineral rights covering a total of 104,509 hectares.

#### Strategic overview

Following our Portfolio Review in the second half of 2012, we took the decision to close the marginal heap leach operation at St Ives. Challenges included ageing infrastructure, as well as continued levels of low-grade ore combined with low-recovery levels. Although the mothballing process was initiated in the fourth quarter, full closure will take place in the first half of 2013, depending on the results of the residual leaching programme.

While the removal of the heap leach operations will reduce production by 30,000 ounces to 40,000 ounces per year, it should also contribute to reduced costs and more profitable overall production. In addition, the completion of the transition to owner-mining in 2012 means St Ives can expect additional cost reductions to feed-through during 2013 – further enhancing the mine's ability to support Group cash generation.

#### Performance overview

Gold production decreased by 3% in 2012 to 449,800 ounces (2011: 464,600 ounces). This was largely due to:

- Increased reliance on lower-grade open pit ore as we carried out further development to open up new underground mining areas at Cave Rocks in the first half of the year
- Temporary closure of the Leviathan and Mars/Minotaur link high-grade pits due to wall failure in the first quarter
- A decrease in open pit mining volumes in the third quarter, given the transition to owner-mining
- The mothballing of the marginal heap leach operation

However, gold production recovered significantly in the fourth quarter, increasing by 5% to 111,600 ounces – reflecting increased throughput of higher grade underground ore. At the underground operations, for example, ore mined increased by 56% to 553,000 tonnes in the fourth quarter, with the Cave Rocks and Hamlet mines continuing to ramp-up towards full production levels.

In 2012, St Ives focused on the transition to full owner-mining at its surface operations. This built on the transition to owner-mining for underground stoping, which was completed in late 2011. During the course of the year, this included a gradual shift from contract- to owner-mining in the open pits as elements of our new mining fleet were delivered. The transition to full owner-mining was completed in the fourth quarter, with the passing of drilling and blasting activities to our own teams.

Causeway to Invincible at St Ives, Australia



# Regional overview

## 1. Australasia

---

A total of A\$54 million (US\$56 million) has been spent on the owner-mining programme since it commenced in 2011 – largely on trucks and mobile equipment. The total cost of the mine's conversion to owner-mining is estimated at A\$92 million (US\$96 million), with a completion date planned for early 2014. It is expected to significantly reduce open-pit operating costs and has the potential to increase open pit Mineral Reserves by reducing cut-off grades.

Over 2012, net operating costs increased by 3% to A\$412 million (US\$428 million) – largely due to an increase in mining activity at the higher-cost Cave Rocks underground operation and additional open pit mining.

In 2012, the NCE margin fell to 4% (2011: 19%). Capital expenditure during the year of A\$301 million (US\$313 million) was focused on:

- Mine development to extend the life of our existing underground mine at Cave Rocks
- The purchase of equipment for – and the development of – our Hamlet underground mine
- Construction of a new tailings storage facility, which was completed in the third quarter
- Open pit fleet acquisition to support our shift to owner-mining

### Near-mine exploration

Our St Ives mine is at the forefront of innovative near-mine exploration thinking and technology, and serves as a centre of excellence within the Group. During the fourth quarter, for example, near-mine drilling at St Ives accounted for approximately 70% of all near-mine drilling carried out at our international operations – with much of this focused on the promising Greater Neptune area.

In addition, a new discovery took place in the third quarter, focused on the new Invincible shallow prospect – including definition of mineralisation over a 1km strike to 200 meters, remaining open along strike and at depth. This represents a significant new exploration search space in the area.

In 2012, we spent A\$40 million (US\$42 million) on near-mine exploration. This was aimed at ensuring a range of new deposits are in place to fill the longer-term production pipeline.

### 2013 outlook

Planned production at St Ives is estimated at between 380,000 ounces and 400,000 ounces of gold at a total cash cost of A\$930/oz (US\$967/oz) and an NCE of A\$1,350/oz (US\$1,404/oz). This plan assumes:

- Significantly higher power costs as a result of expiry of the existing power supply agreement – as well as the need to renegotiate a new power agreement
- Ongoing advancement of open pit owner-mining until final completion in 2014
- Completion of the heap leach closure process

# Regional overview

## 1. Australasia

### Key indicators

Figure 1.11: Optimising our operations indicators – St Ives

Category	2012	2011	2010	2009	2008
Gold produced – attributable ('000oz)	<b>450</b>	465	468	415	415
Total cash cost (A\$/oz)	<b>899</b>	873	776	816	739
Notional Cash Expenditure (NCE) (A\$/oz)	<b>1,553</b>	1,248	1,064	1,056	1,014
Gold price (A\$/oz)	<b>1,615</b>	1,532	1,336	1,241	1,033
Operating profit (A\$m)	<b>315</b>	312	273	180	116
Operating costs (A\$m)	<b>398</b>	403	376	345	301
Operating margin (%)	<b>43</b>	44	44	35	27
NCE margin (%)	<b>4</b>	19	20	15	12
Fatal Injury Frequency Rate	<b>0</b>	0	0	0	0
Lost Time Injury Frequency Rate	<b>3.49<sup>1</sup></b>	2.86	5.03	0.82	1.60
Energy consumption (TJ)	<b>1,722</b>	1,718	1,805	1,919	1,980
CO <sub>2</sub> -e emissions ('000 tonnes) (Scope 1 & 2)	<b>175.0</b>	174.7	183.8	198.1	212.1
Water withdrawal (million liters)	<b>10,074</b>	10,686	16,309	23,291	22,159

Figure 1.12: Growing Gold Fields indicators – St Ives

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>4.72</b>	3
Attributable Mineral Reserves (million oz)	<b>2.19</b>	3

Figure 1.13: Securing our future indicators – St Ives

Category	2012	2011	2010	2009	2008
Total employees	<b>652</b>	466	319	315	271
Employee wages and benefits (A\$m)	<b>69</b>	47	43	36	32
Total taxation and royalties paid (A\$m)	<b>18</b>	18	21	29	16
SED spend (A\$)	<b>146,000</b>	150,000	n/a	n/a	n/a

<sup>1</sup> Excludes restricted work cases – 23.17 if such cases are included

# Regional overview

## 2. South Africa

### 2.1 Overview

#### 2.1.1 Introduction

##### Role within Group

The South Africa Region represents Gold Fields historical centre – and has traditionally been the largest contributor to Group production. It also accounts for the majority of our workforce, which is primarily focused on the mature, deep underground Beatrix and KDC mines (now owned and managed by Sibanye Gold).

Our South Deep mine remains of key strategic importance to the long-term sustainability of Gold Fields, with a life of mine estimated to extend beyond 2060.

Figure 2.1: Contribution to Group – South Africa region (including Sibanye Gold)

	% of Group total
<b>Optimising our operations</b>	
Attributable gold production	46
<b>Growing Gold Fields</b>	
Attributable Mineral Resources	82
Attributable Mineral Reserves	72
<b>Securing our future</b>	
Total economic contribution	58
Employees	81

Figure 2.2: South Africa region map



##### Operations

Operations in the region are focused on:

- The mature, deep underground Beatrix and KDC mines
- The underground mechanised South Deep mine – the most significant gold development in South Africa

During the fourth quarter, Gold Fields announced the creation of a new South African gold mining company – Sibanye Gold Limited (Sibanye Gold) – through the proposed unbundling of its 100% owned subsidiary, formerly known as GFI Mining South Africa Proprietary Limited (GFMSA). Sibanye Gold holds both the KDC and Beatrix gold mines as well as various service companies.

Sibanye Gold was successfully listed on the JSE Limited<sup>1</sup> on 11 February 2013 and the New York Stock Exchange on 18 February 2013. The transaction creates a new, fit-for-purpose vehicle that will allow Sibanye Gold management to determine the optimal future exploitation strategy for its assets and to have control over its cash flows – including rewarding shareholders through the payment of dividends.

Following the unbundling, Gold Fields retains the South Deep mine.

##### Optimising our operations

Figure 2.3: Attributable gold production

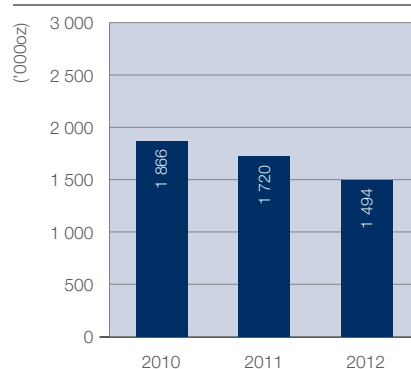
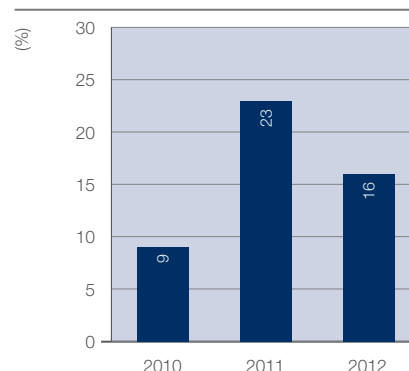
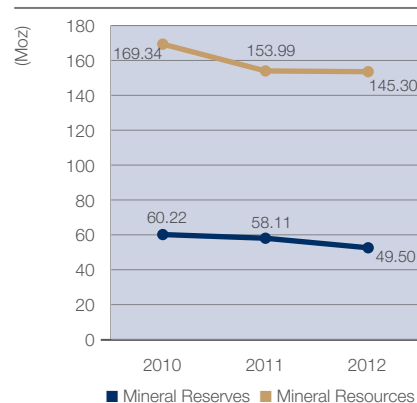


Figure 2.4: NCE margin – excluding South Deep



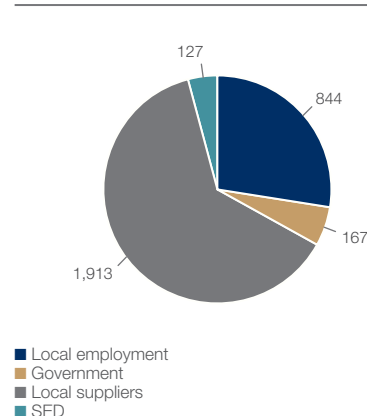
##### Growing Gold Fields

Figure 2.5: Managed Mineral Reserves and Resources



##### Securing our future

Figure 2.6: Local economic contributions (US\$m)





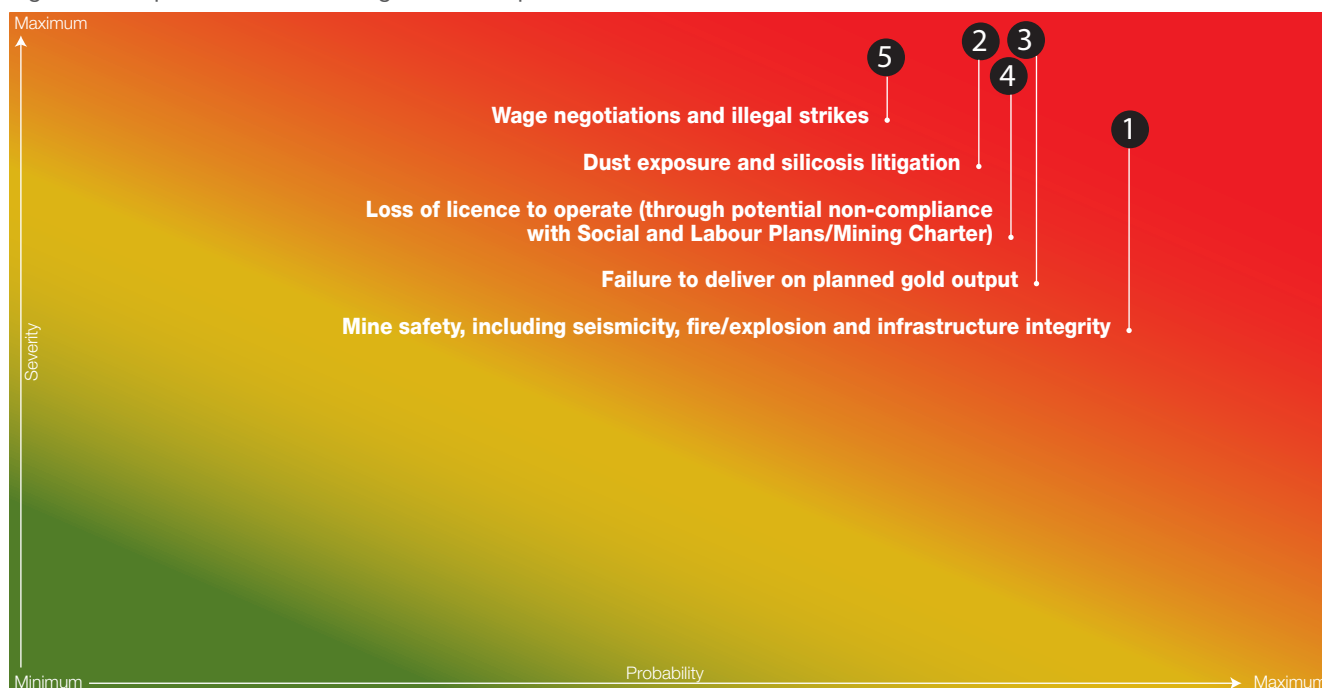
# Regional overview

## 2. South Africa

### 2.1.2 Heat map

The heat map below sets out the top five risks for the South Africa Region – before the formal unbundling of Sibanye Gold – as identified through our Enterprise Risk Management (ERM) process.

Figure 2.7: Top five South Africa region heat map



Risks	Mitigating strategies
<b>1</b>	<ul style="list-style-type: none"> <li>Implementation of the five pillars of our Mine Safety Management Strategy (engineering out risks, compliance, wellbeing, cultural transformation and stakeholder engagement)</li> <li>Carrying out of structural/external inspections and our maintenance management programme</li> <li>Implementation of internal and external fire audits</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>Application of engineering measures to limit the impact of health risks (including tip filters, mist sprays and settling agents)</li> <li>Enhancement of personal protective equipment performance through our Respiratory Protection Programme</li> <li>Detailed preparation to determine potential silicosis liability and legal strategy development</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>Resourcing of appropriate skills to improve underground mechanised mining performance and maintenance</li> <li>Acceleration of destress mining to achieve production ramp-up at South Deep</li> <li>Implementation of the new '24/7/365' operating model at South Deep</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>Close monitoring of Social and Labour Plan compliance at a senior level</li> <li>Carrying out of quarterly meetings of a dedicated Mining Charter Steering Committee – and associated monitoring</li> <li>Provision of enhanced resourcing to ensure non-financial reporting integrity</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>Responsible security provision</li> <li>Ongoing support for the gold sector's existing Collective Wage Agreement pending its end of term in July 2013</li> <li>Direct communication and engagement with employees</li> <li>Engagement with employees, government, peers and unions, directly and indirectly via the Chamber of Mines, regarding reform of existing labour negotiation framework in the mining sector</li> </ul>

<sup>1</sup> Johannesburg Stock Exchange

# Regional overview

## 2. South Africa

### 2.2 Operation: Beatrix

#### Introduction

The mature, deep underground Beatrix mine – which is located in the Free State – has been in production since 1985.

#### Strategic overview

Beatrix has typically offered steady, predictable production to the South Africa Region – complementing higher volume production from the larger KDC mine.

Mine shaft at Beatrix, South Africa



#### Performance overview

During 2012, total production fell to 288,700 ounces (2011: 346,800 ounces). As with KDC, this reflected the impact of unlawful and unprotected strike action during the third and fourth quarters.

Employees engaged in an unprotected strike lasting 23 days (24 September to 16 October) at the Beatrix North and South sections, and for 29 days (21 September to 18 October) at its Four Shaft West section. The full complement of strikers returned to work on 18 October – following an ultimatum given by management on 16 October. It is estimated that the mine lost 29,000 ounces in production as a result – mainly during the fourth quarter.

Additional challenges during the year included:

- A decrease in underground mining yields, as a result of lower-grade areas currently being mined at the North and West sections
- Ongoing internal and external unplanned safety stoppages (including the loss of 20,000 ounces in the second quarter)

Mechanised advancement of the development ends at our long life shafts at Beatrix continued throughout the year. This is aimed at:

- Improving safety by removing employees from the face
- Reducing development costs and improving productivity through enhanced operational efficiency
- Increasing ore reserve flexibility through the acceleration of monthly development advance rates

In the third quarter, 98% of our flat-end development meters advanced at Beatrix's long life shafts were completed by mechanised means. This means that the project has essentially been completed.

Although there was a temporary slowdown in development in the same quarter (due to the installation of a new Guard Communications System to improve tramming safety, the effect of the illegal strikes and additional safety stoppages), progress during the year was otherwise relatively strong.

Operating costs at Beatrix increased by 10% to R2.64 billion (US\$322 million) due to:

- Implementation of an effective 25% electricity tariff increase by state power utility Eskom with effect from April
- The installation of additional mechanical support
- Increased maintenance costs and general cost inflation
- Annual wage increases

The impact of these factors was partially offset by reduced labour costs resulting from the illegal (and thus no-work, no-pay) nature of the strikes at the mine in September and October – as well as a range of cost-saving initiatives.

In 2012, the mine's NCE margin decreased to 16% (2011: 25%). Capital expenditure totalled R658 million (US\$80 million) and was primarily focused on ore reserve development and the upgrading of underground and surface infrastructure.

# Regional overview

## 2. South Africa

### Key indicators

Figure 2.8: Optimising our operations indicators – Beatrix

Category	2012	2011	2010	2009	2008
Gold produced – attributable (kg)	<b>8,981</b>	10,787	11,715	12,443	12,696
Gold produced – attributable ('000oz)	<b>289</b>	347	377	400	408
Total cash cost (R/kg)	<b>294,277</b>	220,073	194,406	169,847	142,045
Total cash cost (US\$/oz)	<b>1,118</b>	957	826	627	539
Notional Cash Expenditure (NCE) (R/kg)	<b>366,875</b>	279,957	255,066	228,128	196,282
Notional Cash Expenditure (NCE) (US\$/oz)	<b>1,393</b>	1,206	1,084	842	745
Gold price (R\$/kg)	<b>435,698</b>	371,772	287,187	259,126	231,750
Gold price (US\$/oz)	<b>1,655</b>	1,602	1,220	956	879
Operating profit (Rm)	<b>1,276</b>	1,602	1,026	1,021	1,052
Operating costs (Rm)	<b>2,637</b>	2,409	2,339	2,203	1,891
Operating margin (%)	<b>33</b>	40	30	32	36
NCE margin (%)	<b>16</b>	25	11	12	15
Fatal Injury Frequency Rate (FIFR)	<b>0.25</b>	0.19	0.18	0.10	0.08
Lost Time Injury Frequency Rate (LTIFR)	<b>3.54</b>	2.95	3.31	3.92	4.74
Energy consumption (TJ)	<b>2,980</b>	3,234	3,325	3,470	3,508
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2) <sup>1</sup>	<b>736.5</b>	798.6	845.3	901.8	892.8
Water withdrawal (million liters)	<b>10,006</b>	10,226	10,834	14,866	16,678

Figure 2.9: Growing Gold Fields indicators – Beatrix

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>8.43</b>	5
Attributable Mineral Reserves (million oz)	<b>3.36</b>	5

Figure 2.10: Securing our future indicators – Beatrix

Category	2012	2011	2010	2009	2008
Total employees	<b>9,222</b>	9,151	9,485	10,327	11,151
Silicosis submissions (Rate per 1,000 employees)	<b>0.85</b>	n/a	n/a	n/a	n/a
Employees on Highly-Active Anti-Retroviral Treatment (HAART)	<b>20.34</b>	n/a	n/a	n/a	n/a
Employee wages and benefits (Rm)	<b>1,566</b>	1,473	1,422	1,307	1,141
Total taxation and royalties paid (Rm)	<b>170</b>	35	18	2	1
SED spend (US\$m)	<b>23<sup>2</sup></b>	6	n/a	n/a	n/a

<sup>1</sup> Excludes fugitive mine methane emissions

<sup>2</sup> Higher figure reflects the inclusion of maintenance provisions and operating costs in 2012

# Regional overview

## 2. South Africa

### 2.3 Operation: KDC

#### Introduction

KDC (Kloof Driefontein Complex) is a large, well-established intermediate to ultra-deep-level gold mining complex, with its lowest working level around 3,350 meters below surface. It was established in 2010 through the merger of the Kloof and Driefontein mines and is located around 60km west of Johannesburg, and consists of a total of 11 producing shaft systems and five processing plants. Despite KDC's long history of production, it retains considerable Mineral Resources and Mineral Reserves of 66 million ounces and 10 million ounces respectively.

#### Strategic overview

KDC has historically been Gold Fields' largest producing mine – accounting for 29% of Group attributable output in 2012. It has offered Gold Fields a significant production base – albeit one that has been subject to consistent production declines in recent years.

The mine has offered a strong foundation for international growth and diversification by helping fund the development of new operations in the Gold Fields portfolio – including the neighbouring South Deep mine in particular. In recent years, Gold Fields focus has been on stabilising production at the mine – and reducing its operational costs to ensure it remains sustainable.

#### Performance overview

In 2012, Gold production fell to 934,900 ounces (2011: 1.1 million ounces). This was despite strong signs of production stabilisation and the reversal of a declining production trend in recent years – and was largely attributable to the impact of illegal strike action as well as a large-scale underground fire at the Ya Rona shaft, both of which took place in the second half of the year (see below).

Indeed, output in the first two quarters was similar to that of the first two quarters of 2011 – supported by good results from our ongoing Shaft Full Potential programme. This included, for example:

- Robust crew productivity performance
- Improved safety performance based on stronger compliance and better safety behaviour
- Optimisation of face length and labour planning
- Improved blasting quality
- Full face advance
- Enhanced ore feed sizes to support effective processing
- Leadership training to ensure effective employee development

Surface operations at KDC East, South Africa





# Regional overview

## 2. South Africa

---

Nonetheless, the overall annual fall in production – including a quarter-on-quarter 15% fall in the third quarter and a quarter-on-quarter 30% fall in the fourth quarter – reflected two key events.

The first was the loss of 116,000 ounces of production as a result of unlawful and unprotected strikes in September and October (which also affected Beatrix – and was part of a wave of strike action across the South African mining sector). The strikes resulted in the loss of 30 days of production at KDC East and 39 days of production at KDC West.

The second was the loss of 30,000 ounces of production as a result of a large-scale underground fire which took place on 30 June 2012 at KDC West's Ya Rona shaft, and which resulted in five fatalities. Operations across the mine were temporarily suspended as a consequence. Production resumed at KDC East after three days, whilst those parts of KDC West unaffected by the fire resumed production after five days. Ya Rona itself was only opened on 14 August 2012, but the resumption of production was then hampered by the illegal strike. The cause of the fire, which started in a long-closed, worked-out part of the shaft, remains unknown. Although the fire – and our subsequent work to extinguish it and make the area safe – disrupted production, no damage was caused to our existing working areas.

Despite these material setbacks, we did manage to advance the mechanisation of development ends at KDC's long life shafts. This is with the aim of improving safety, productivity, cost efficiency and ore reserve flexibility (through accelerated face advance). In the third quarter, we achieved 98% mechanisation in this respect – effectively completing the project.

Total operating costs increased by 11% from R7.45 billion (US\$1.03 billion) in 2011 to R8.24 billion (US\$1.01 billion) in 2012, due to the implementation of an effective 25% electricity tariff increase by state power utility Eskom from April onwards, general cost inflation and annual wage increases. These cost increases were partly offset by reduced labour costs relating to the 'no-work, no pay' illegal strikes during the second half of the year, in addition to a range of cost-saving initiatives at the mine.

In 2012, the mine's NCE margin decreased to 16% (2011: 23%). Capital expenditure, which rose to R2.43 billion (US\$297 million) (2011: R2.30 billion (US\$319 million)) was largely focused on:

- Ore reserve development
- Advancement of the mine's Social and Labour Plan (including housing construction)
- Ongoing implementation of mine safety initiatives

KDC East achieved three million fatality free shifts in August – the first time this has been achieved in its history. Furthermore, the mine operated for the 12 months to September without any fatal accidents.

In addition, the mine continued to implement a range of best practice dust control programmes, including:

- Coaching around personal protective equipment
- Use of water mist systems in haulage and tipping areas
- Installation of dual stage tip filters
- Management of ore transfer chutes to reduce dust transfer to work areas
- Treatment of footwalls with binding chemicals
- Individual filter analysis to determine silica dust exposure levels more accurately

# Regional overview

## 2. South Africa

### Key indicators

Figure 2.11: Optimising our operations indicators – KDC

Category	2012	2011	2010	2009	2008
Gold produced – attributable (kg)	<b>29,078</b>	34,218	37,790	45,362	46,430
Gold produced – attributable ('000oz)	<b>935</b>	1,100	1,215	1,458	1,493
Total cash cost (R/kg)	<b>283,249</b>	219,642	193,948	145,177	125,503
Total cash cost (US\$/oz)	<b>1,076</b>	946	824	536	476
Notional Cash Expenditure (NCE) (R\$/kg)	<b>366,707</b>	285,017	262,141	198,646	173,500
Notional Cash Expenditure (NCE) (US\$/oz)	<b>1,393</b>	1,228	1,114	733	658
Gold price (R/kg)	<b>434,710</b>	368,309	287,499	261,611	228,856
Gold price (US\$/oz)	<b>1,651</b>	1,587	1,222	965	868
Operating profit (Rm)	<b>4,404</b>	5,150	3,398	4,969	4,505
Operating costs (Rm)	<b>8,237</b>	7,452	7,467	6,898	6,121
Operating margin (%)	<b>35</b>	41	31	42	42
NCE margin (%)	<b>16</b>	23	9	24	24
Fatal Injury Frequency Rate (FIFR)	<b>0.15</b>	0.17	0.13	0.24	0.18
Lost Time Injury Frequency Rate (LTIFR)	<b>8.10</b>	7.95	6.31	5.26	6.72
Energy consumption (TJ)	<b>11,506</b>	12,126	12,293	12,334	12,066
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2)	<b>3,141.7</b>	3,295.9	3,348.2	3,492.3	3,311.7
Water withdrawal (million liters)	<b>54,782</b>	38,971	36,859	22,797	27,182

Figure 2.12: Growing Gold Fields indicators – KDC

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>65.81</b>	37
Attributable Mineral Reserves (million oz)	<b>10.17</b>	15

Figure 2.13: Securing Our Future indicators – KDC

Category	2012	2011	2010	2009	2008
Total employees	<b>26,159</b>	26,335	31,033	32,196	28,693
Silicosis submissions (Rate per 1,000 employees)	<b>0.44</b>	n/a	n/a	n/a	n/a
Employees on Highly-Active Anti-Retroviral Treatment (HAART)	<b>56.41</b>	n/a	n/a	n/a	n/a
Employee wages and benefits (Rm)	<b>4,224</b>	4,119	4,303	3,896	3,313
Total taxation and royalties paid (Rm)	<b>1,196</b>	895	348	834	674
SED spend (US\$m)	<b>89<sup>1</sup></b>	33	n/a	n/a	n/a

<sup>1</sup> Higher figure reflects the inclusion of maintenance provisions and operating costs in 2012

# Regional overview

## 2. South Africa

---

### 2.4 Operation: South Deep

#### Introduction

South Deep is a long-life, deep-level mechanised gold mine operating at between 2,000 and 3,000 meters below surface. The mine was acquired by Gold Fields in 2006 and is located 45km south-west of Johannesburg.

South Deep is one of the largest undeveloped ore bodies in the world.

#### Strategic overview

South Deep is still undergoing development and ramping up production towards 700,000 ounces a year by 2016. It is set to offer a mechanised, efficient and low-cost operation focused on a world-class underground ore body – with an estimated life of mine in excess of 80 years.

Our application of advanced mining techniques and mechanised underground mining at South Deep is helping prove that – despite prevailing presumptions – deep underground gold mining can be carried out in an efficient, profitable and safe way.

Under the terms of the recent unbundling of Sibanye Gold, South Deep will remain under the management of Gold Fields. As such, it will play a vital role in the Group's long-term commercial sustainability – in terms of cash generation, production volume and inventory. Indeed, the mine currently accounts for 69% of Gold Fields Mineral Resources and 65% of its Mineral Reserves.

#### Performance overview

During 2012, gold production remained relatively stable at 270,400 ounces (2011: 273,000 ounces). This reflected a 33% surge in production in the second quarter, balanced out by declines in production in the third and fourth quarters. These falls related to the anticipated disruption following the implementation of the new operating model on 21 November (see below).

Destress mining progressed extremely well during the year, increasing by about 75% year-on-year – and reaching new, record levels.

During the fourth quarter, South Deep also marked three important milestones in its journey towards its long-term production target. These included:

- Completion (within budget and on time) of the deepening of the new Vent Shaft and the initiation of its commissioning for hoisting. Once it reaches full capacity (planned for late 2013), this will provide additional rock hoisting capacity of 195,000 tonnes per month – more than doubling mill-feed potential to 330,000 tonnes per month
- Completion and commissioning of the gold plant expansion, which increased plant capacity from 220,000 tonnes per month to 330,000 tonnes per month – three years ahead of full production

- Signing of a landmark agreement with the National Union of Mineworkers (NUM – representing over 70% of employees at the mine) and UASA, on the terms of a new '24/7/365' operating model at South Deep. This is supported by a new bonus system designed to deliver appropriate rewards to employees who achieve production targets, as well as more competitive employment grading. The new operating model, which was implemented on 21 November 2012, is ultimately expected to increase face time by 23%. It also resolved all outstanding labour issues with the NUM dating back to the strike at South Deep in 2010 – and lays the basis for establishing South Deep as a world-class mine for the next 50 years and beyond, to the benefit of all of its stakeholders

Operating costs increased by 16% from R2.14 billion (US\$296 million) in 2011 to R2.48 billion (US\$303 million) – reflecting annual wage increases, an effective 25% electricity tariff increase implemented by state power utility Eskom, workforce expansion ahead of the expected production build-up, and general cost inflation.

# Regional overview

## 2. South Africa

In 2012, the mine's NCE margin regressed to -37% (2011: -34%). Capital expenditure increased from R1.98 billion (US\$275 million) in 2011 to R2.58 billion (US\$315 million) in 2012 and was mainly focused on supporting the production ramp-up. This included expenditure on:

- Deepening of the Vent Shaft
- Expansion of the processing plant
- Completion of the backfill plant
- Ore reserve development (including destressing)
- Acquisition of mobile underground equipment and vehicles

In addition, work continued on the development of further infrastructure projects that will support productivity at the mine. These included:

- A Trackless Engineering Skills Training Centre, which will use advanced training and electronic simulators to produce a cadre of world-class underground mechanised miners. This is due for completion in the first half of 2013
- The new, underground 93-level Main Workshop, which will maintain our mechanised underground mining fleet on a 24-hour, double-shift basis

South Deep achieved three million fatality free shifts during the third quarter and reported no fatalities during the year.

### 2013 outlook

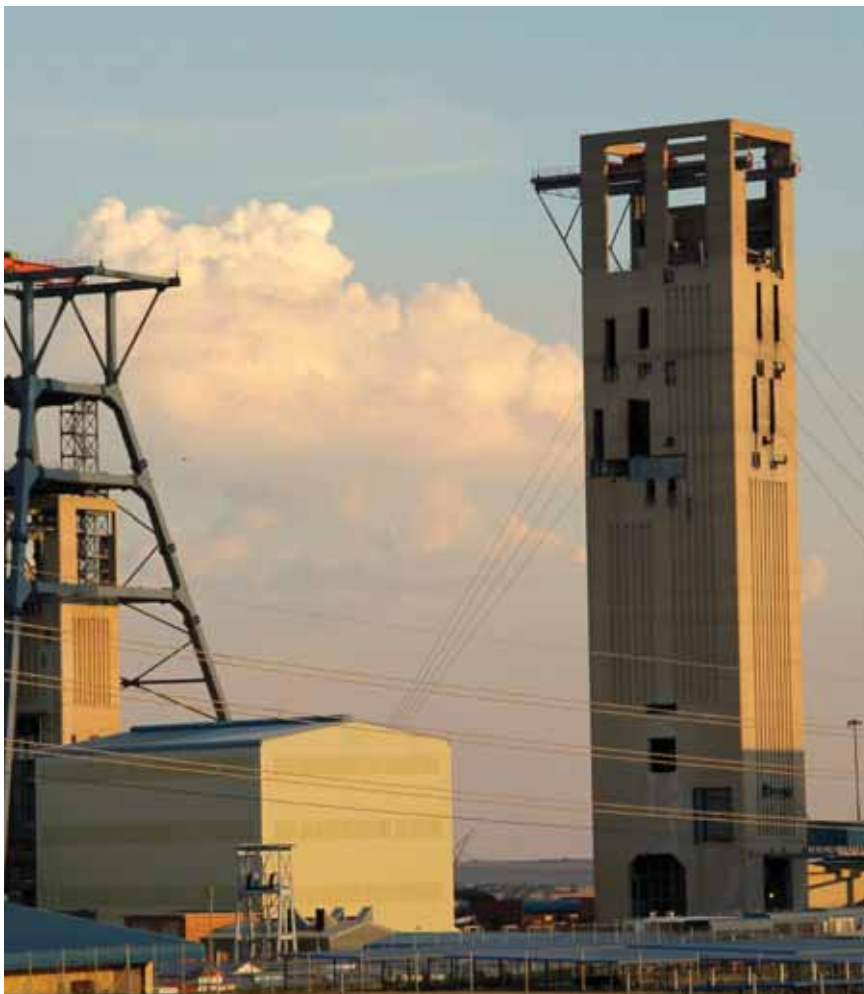
Planned production for South Deep is estimated at between 305,000 and 320,000 ounces of gold at a total cash cost of US\$1,100/oz and an NCE of US\$1,800/oz. This plan assumes:

- The embedding of the new operating model by the end of the first quarter – including the implementation of relevant training and the end of any disruptions linked to the transition in working arrangements
- The achievement of full capacity hoisting via the new Vent Shaft
- Selective outsourcing of equipment maintenance

The new operating model is expected to increase production by between 10% and 15%, helping the mine achieve its target of becoming cash generative by the end of 2013 subject to appropriate gold prices. Thereafter, the total cash cost and NCE are likely to fall as the production build-up progresses over the next three years.

At full production, South Deep is expected to be globally competitive from a cost perspective.

The 'twin' shafts at South Deep, South Africa





# Regional overview

## 2. South Africa

### Key indicators

Figure 2.14: Optimising our operations indicators – South Deep

Category	2012	2011	2010	2009	2008
Gold produced – attributable (kg)	<b>8,411</b>	8,491	8,524	7,373	5,124
Gold produced – attributable ('000oz)	<b>270</b>	273	274	237	165
Total cash cost (R/kg)	<b>290,952</b>	249,146	215,157	183,358	226,776
Total cash cost (US\$/oz)	<b>1,105</b>	1,073	914	677	860
Notional Cash Expenditure (NCE) (R/kg)	<b>601,141</b>	485,314	431,335	379,004	403,044
Notional Cash Expenditure (NCE) (US\$/oz)	<b>2,283</b>	2,091	1,833	1,398	1,529
Gold price (R/kg)	<b>438,961</b>	363,538	288,022	259,921	231,187
Gold price (US\$/oz)	<b>1,667</b>	1,566	1,224	959	877
Operating profit (Rm)	<b>1,212</b>	948	584	509	(24)
Operating costs (Rm)	<b>2,480</b>	2,138	1,871	1,408	1,209
Operating margin (%)	<b>33</b>	31	24	27	(2)
NCE margin (%)	<b>(37)</b>	(34)	(50)	(46)	(74)
Fatal Injury Frequency Rate (FIFR)	<b>0.00</b>	0.04	0.07	0.08	0.94
Lost Time Injury Frequency Rate (LTIFR)	<b>1.95</b>	1.67	2.87	2.74	12.45
Energy consumption (TJ)	<b>2,053</b>	2,092	2,171	2,039	1,719
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2)	<b>537.9</b>	546.7	572.5	559.1	463.0
Water withdrawal (million liters)	<b>3,847</b>	4,674	2,926	2,770	3,870

Figure 2.15: Growing Gold Fields indicators – South Deep

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>73.03</b>	41
Attributable Mineral Reserves (million oz)	<b>36.02</b>	53

Figure 2.16: Securing our future indicators – South Deep

Category	2012	2011	2010	2009	2008
Total employees	<b>3,540</b>	3,503	3,077	2,683	2,488
Silicosis submissions (Rate per 1,000 employees)	<b>0.33</b>	n/a	n/a	n/a	n/a
Employees on Highly-Active Anti-Retroviral Treatment (HAART)	<b>3.92</b>	n/a	n/a	n/a	n/a
Employee wages and benefits (Rm)	<b>1,067</b>	934	742	565	578
Total taxation and royalties paid (Rm)	<b>19</b>	15	0	0	0
SED spend (US\$m)	<b>16<sup>1</sup></b>	7	n/a	n/a	n/a

<sup>1</sup> Higher figure reflects the inclusion of maintenance provisions and operating costs in 2012

# Regional overview

## 3. South America

### 3.1 Overview

#### 3.1.1 Introduction

##### Role within Group

Our South America Region has both an operating mine (Cerro Corona) and a major growth project (Chucapaca). Cerro Corona, which is the newest of our mines, remains the most profitable operation in our Group.

Figure 3.1: Contribution to Group – South America Region (including Sibanye Gold)

	% of Group total
<b>Optimising our operations</b>	
Attributable gold production	10
<b>Growing Gold Fields</b>	
Attributable Mineral Resources	2
Attributable Mineral Reserves	4
<b>Securing our future</b>	
Total economic contribution	7
Employees	1

Figure 3.2: South America Region map



#### Operations

The region is home to the Cerro Corona mine – in which we hold a 98.5% interest through our subsidiary Gold Fields La Cima. Cerro Corona produces both copper and gold.

#### Growth projects

The region is also home to our high-altitude Chucapaca growth project. This is managed by our subsidiary company Canteras del Hallazgo – in which we hold a 51% interest – and Peruvian mining group Compañía de Minas Buenaventura, which holds the remaining 49% interest.

In the fourth quarter of 2012, we completed our final feasibility reviews of the project, which indicated inadequate project returns, relating to the high capital over the life of mine associated with the development plan. As a result, we have suspended development activity and downgraded Chucapaca to an exploration/scoping stage.

Despite this, we remain committed to developing Chucapaca and are instead carrying out a value re-engineering exercise (including a focus on scale, mining method and additional exploration) to identify models that will facilitate the unlocking of its substantial potential whilst offering adequate returns.

#### Optimising our operations

Figure 3.3: Attributable gold equivalent production

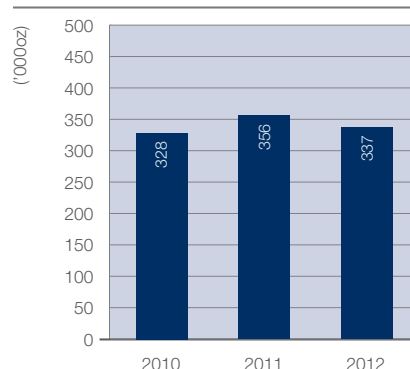
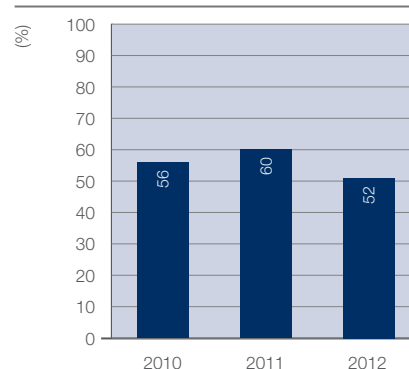
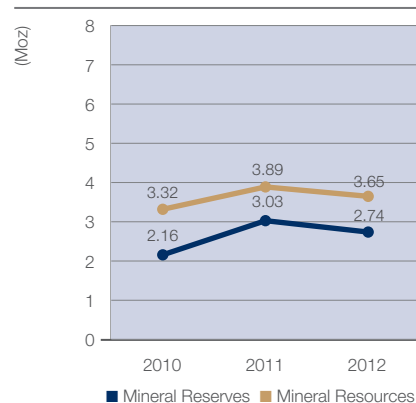


Figure 3.4: NCE margin



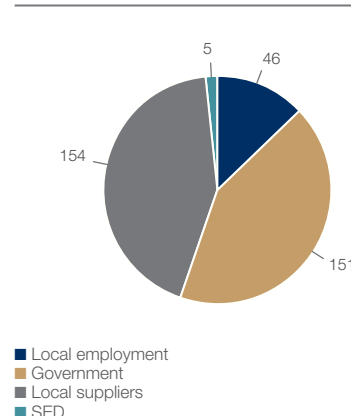
#### Growing Gold Fields

Figure 3.5: Attributable Gold Mineral Reserves and Resources



#### Securing our future

Figure 3.6: Local Economic Contributions (US\$m)



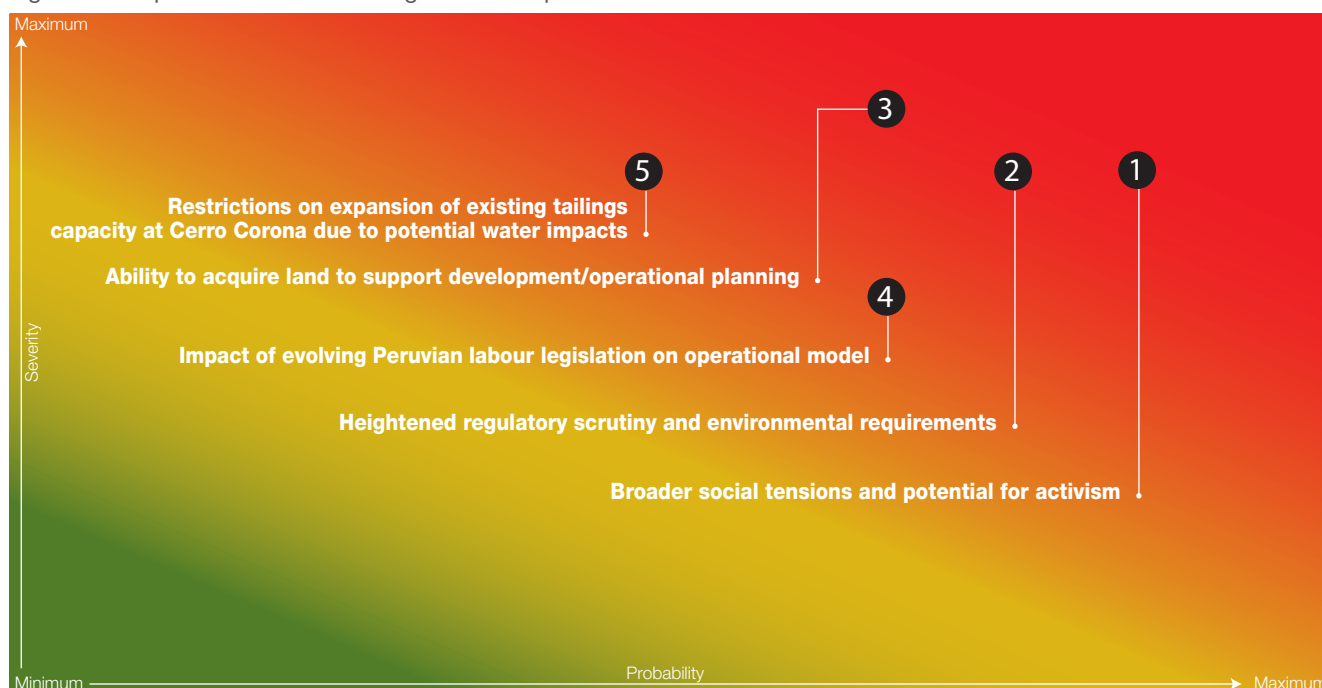
# Regional overview

## 3. South America

### 3.1.2 Heat map

The heat map below sets out the top five risks for the South America Region, as identified through our Enterprise Risk Management (ERM) process (p. 100).

Figure 3.7: Top five South America region heat map



Risks	Mitigating strategies
<b>1</b>	<ul style="list-style-type: none"> <li>Comprehensive satisfaction of our community commitments</li> <li>Stakeholder engagement and monitoring on a regular, ongoing basis</li> <li>Engagement and coordination with peer companies and central government to support the prevention of social conflicts</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>Constant environmental monitoring – including water monitoring – and strict compliance with relevant regulations</li> <li>Implementation of a focused programme to expedite relevant water permits for Chucapaca (pending value-re-engineering exercise)</li> <li>Promotion of participatory environmental monitoring in the Tingo River watershed adjacent to Cerro Corona</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>Development and implementation of a coordinated/systematic acquisition strategy to ensure maximum planning flexibility and optimal prices</li> <li>Suspension of land acquisition at Chucapaca (pending value-re-engineering exercise)</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>Ongoing engagement with central government (directly and through the National Society of Mining), including the evaluation of laws and initiatives to enhance Peruvian labour regulation</li> <li>Monitoring of proposed and actual changes to labour legislation</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>Evaluation of the potential relocation of the existing Las Tomas reservoir to allow for the expansion of Cerro Corona's existing tailings dam</li> <li>Examination of the potential construction of a new reservoir in the Vira Vira area to help address the impact of such an expansion on local water systems</li> </ul>

# Regional overview

## 3. South America

### 3.2 Operation: Cerro Corona

#### Introduction

Cerro Corona is located in the highest part of the western Cordillera of the Andes in northern Peru. It produces gold and copper concentrate from a large open pit, and processes ore through a standard sulphide floatation tank. The copper-gold concentrate is trucked to the port of Salaverry for export.

#### Strategic overview

In 2013, the mine could achieve its full five-year payback of all initial capital expenditure on its development and construction depending on gold and copper prices. Given it has an 18-year life of mine remaining, 3.7 million ounces of Mineral Resources and enjoys the highest NCE margin in the Group, Cerro Corona should continue to play a key role in supporting Gold Fields cash generation strategy well into the future.

#### Performance overview

Managed gold equivalent production fell by 11% from 383,100 ounces to 342,100 ounces. This was due to anticipated lower gold and copper grades, a lower copper to gold price ratio (dictated by changes in market prices for the respective metals) and a lower milling rate in the third quarter due to the processing of hard ore.

Nonetheless, the overall mining fundamentals of the operation remain strong, with technical parameters including volume, grade and recovery expected to track disclosures in our Mineral Resources and Reserve declaration.

Lower gold equivalent production, higher ore and waste mining volumes, and expenditure on plant contributed to a higher total cash cost of US\$492 per ounce – compared with US\$437 per ounce in 2011. Meanwhile, the mine's NCE margin fell to 52% (2011: 60%) – partly reflecting lower net metal prices received and higher capital expenditure of US\$94 million. Much of this related to construction activity on our tailings facility throughout the year (including an additional raise), as well as the implementation of optimisation projects at the processing plant designed to debottleneck the facility. Despite this, the mine continues to boast the highest NCE margin in the Group.

Cerro Corona has recorded no Lost Time Injuries since September 2011.

#### Near-mine exploration

During 2012, we have been assessing the potential offered by the extension of mineralisation of a gold-copper porphyry system that runs to significant depths beneath the current reserve pit (known as Corona Deep). It shares similar characteristics to a number of 'pencil' gold-copper porphyry systems that can extend to depths far below those currently tested at Cerro Corona. As a result, we have been carrying out drilling to establish the potential for an ore body capable of supporting a large-scale underground mining operation.

#### 2013 outlook

Planned production at Cerro Corona is estimated at between 270,000 and 280,000 gold equivalent ounces at a total cash cost of US\$600/oz and an NCE of US\$920/oz. This plan assumes:

- A gold price of US\$1,700/oz and a copper price of US\$8,000/t

We are examining two potential opportunities to add further production at Cerro Corona, including:

- Expansion of the existing processing plant to bring forward sulphide-based production
- A new heap leach facility to process more than 300,000 ounces of gold contained in the mine's surface oxide stockpiles

The Las Tomas reservoir at Cerro Corona, Peru





# Regional overview

## 3. South America

### Key indicators

Figure 3.8: Optimising our operations indicators – Cerro Corona

Category	2012	2011	2010	2009	2008
Gold-equivalent produced – attributable ('000oz)	<b>337</b>	356	328	268	60
Total cash cost (US\$/oz)	<b>492</b>	437	363	361	380
Notional Cash Expenditure (NCE) (US\$/oz)	<b>775</b>	592	532	626	1,560
Gold price (US\$/oz)	<b>1,588</b>	1,463	1,201	970	658
Operating profit (US\$m)	<b>396</b>	403	341	206	19
Operating costs (US\$m)	<b>171</b>	157	146	122	32
Operating margin (%)	<b>71</b>	72	71	62	43
NCE margin (%)	<b>52</b>	60	56	35	(137)
Fatal Injury Frequency Rate (FIFR)	<b>0</b>	0	0	0	0
Lost Time Injury Frequency Rate (LTIFR)	<b>0.00</b>	0.18	0.00	0.32	0.21
Energy consumption (TJ)	<b>1,122</b>	1,006	895	425	n/a
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2)	<b>80.2</b>	70.8	49.4	22.8	n/a
Water withdrawal (million liters)	<b>3,297</b>	3,582	574	187	n/a

Figure 3.9: Growing Gold Fields indicators – Cerro Corona

Category	2012	% of Group total
Attributable Gold Mineral Resources (million oz)	<b>3.65</b>	2
Attributable Gold Mineral Reserves (million oz)	<b>2.74</b>	4

Figure 3.10: Securing our future indicators – Cerro Corona

Category	2012	2011	2010	2009	2008
Total employees	<b>373</b>	367	350	337	n/a
Employee wages and benefits (US\$)	<b>46</b>	49	33	22	9
Total taxation and royalties paid (US\$m)	<b>139</b>	126	73	46	1
SED spend (US\$m)	<b>5</b>	4	n/a	n/a	n/a

# Regional overview

## 4. West Africa

### 4.1 Overview

#### 4.1.1 Introduction

##### Role within Group

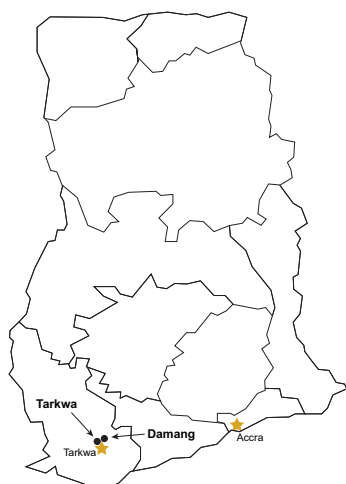
Production in the West Africa Region is focused on our Damang and Tarkwa open pit mines in Ghana.

Tarkwa is the highest gold producer in the Gold Fields International portfolio, with a relatively robust NCE margin of 37%. As such, it plays a key role in supporting cash flow generation within the Group.

Figure 4.1: Contribution to Group – West Africa Region (including Sibanye Gold)

	% of Group total
<b>Optimising our operations</b>	
Attributable gold production	24
<b>Growing Gold Fields</b>	
Attributable Mineral Resources	11
Attributable Mineral Reserves	18
<b>Securing our future</b>	
Total economic contribution	18
Employees	8

Figure 4.2: West Africa Region map



#### Operations

Our Damang and Tarkwa open pit mines are located within 30km from another in south-western Ghana.

Tarkwa is Africa's largest open pit gold mine by production, with a substantial and well-defined Mineral Resource.

Damang, which is smaller, is in a period of transition with production expected to shift from the mature Damang pit to the adjacent Huni and Juno pits. These contain 14% of the mine's current 4.1 million Mineral Reserves. The Huni Saddle between the Damang and Huni pits contain a further 23% of the Mineral Reserves. As such, our immediate focus is on stabilising production at the mine as we continue to investigate opportunities to capitalise on our large Mineral Reserve and Resource position so as to provide a production profile of 200,000 – 250,000 ounces per annum over the next 10 – 15 years. This exercise will also examine the potential for a push-back of the original Damang pit, which contains higher-grade ore than Huni and Juno at close to 2 grams per ton, as well as an underground operation.

#### Optimising our operations

Figure 4.3: Attributable gold production

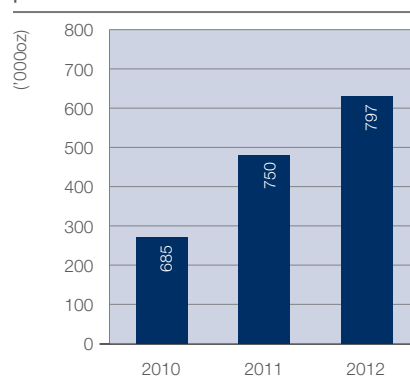


Figure 4.4: NCE margin



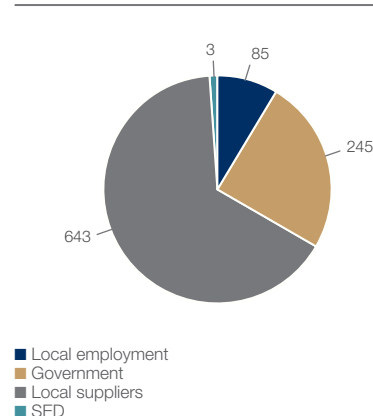
#### Growing Gold Fields

Figure 4.5: Attributable Mineral Reserves and Resources



#### Securing our future

Figure 4.6: Total economic contribution (US\$m)



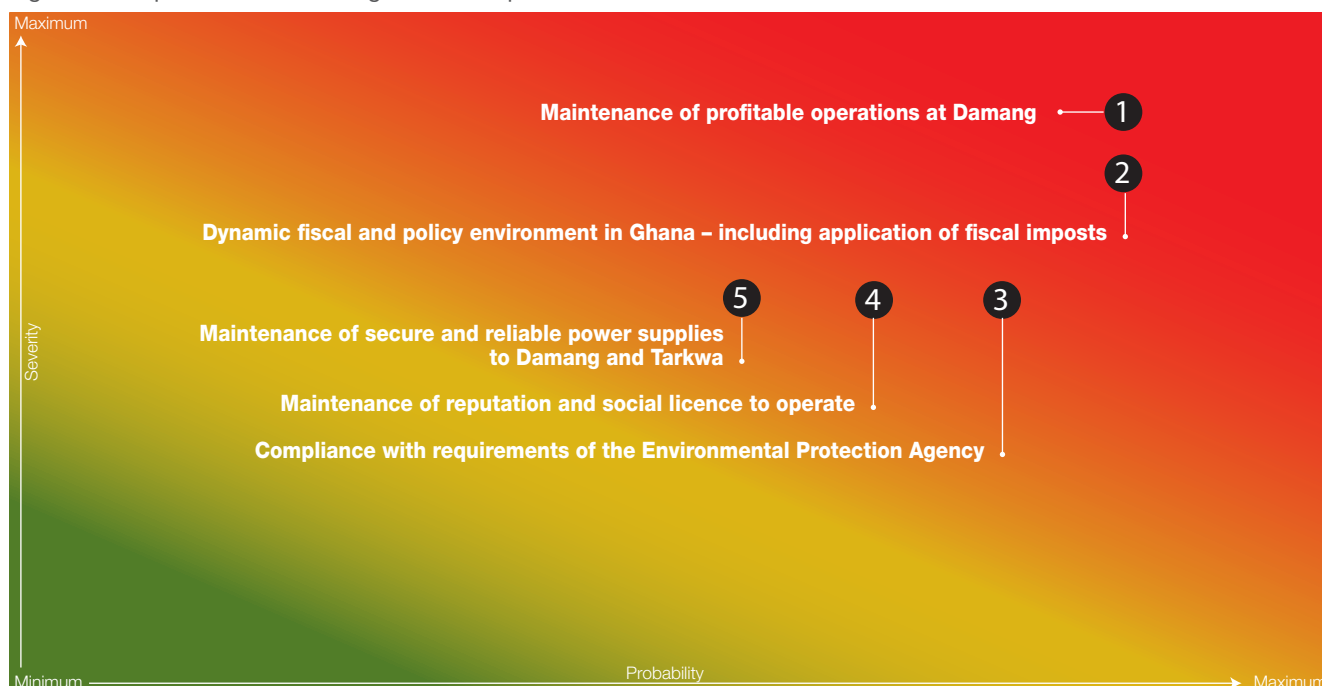
# Regional overview

## 4. West Africa

### 4.1.2 Heat map

The heat map below sets out the top five risks for the West Africa Region, as identified through our Enterprise Risk Management (ERM) process.

Figure 4.7: Top five West Africa region heat map



Risks	Mitigating strategies
1	<ul style="list-style-type: none"> <li>Carrying out infill drilling programme to improve confidence in mine potential</li> <li>Upgrading of processing plant, including the enhancement of its crushing capability to sustain long-term process capacity of 5Mtpa</li> <li>Exploration of potential operational synergies with Tarkwa</li> </ul>
2	<ul style="list-style-type: none"> <li>Direct and indirect engagement with government to highlight negative consequences around long-term revenue generation and employment</li> <li>Submission of a proposed stability agreement to the government to ensure a level playing field with in-country peers</li> <li>Ongoing monitoring of business environment and modelling of actual/potential impacts of fiscal/policy changes</li> <li>Communication of existing contributions to the Ghanaian economy</li> </ul>
3	<ul style="list-style-type: none"> <li>Implementation of a comprehensive water management plan</li> <li>Implementation of enhanced environmental reporting structures at Damang and Tarkwa</li> <li>Completion of new water treatment plants for Tarkwa's heap leach facilities</li> <li>Direct, ongoing engagement with the Environmental Protection Agency and other relevant stakeholders</li> <li>Indirect engagement via the Chamber of Mines to assist government/regulators in the development of effective and operationally viable environmental regulations</li> <li>Completion of environmental and legal due diligence at Tarkwa and Damang to assess and mitigate risks</li> </ul>
4	<ul style="list-style-type: none"> <li>Ongoing application of our comprehensive, multi-layered stakeholder engagement model</li> <li>Auditing of social projects to gauge impact on host communities and quantify Gold Fields overall contribution to socio-economic development</li> <li>Application of the 'shared value' concept</li> </ul>
5	<ul style="list-style-type: none"> <li>Carrying out of a feasibility study for a combined 'clean coal'/biomass power plant</li> <li>Agreement of power purchase sale agreement with the Volta River Authority and the Electricity Company of Ghana, as well as transmission agreement with GridCo. This was achieved after the 2012 year-end</li> <li>Implementation of energy efficiency measures</li> <li>Long-term development of/support for independent power providers</li> </ul>

# Regional overview

## 4. West Africa

---

### *Growth projects*

In the first quarter of 2012, we completed all drilling activities and resource models to support the feasibility study for the Damang Superpit project in Ghana. The geological, mining and metallurgical components of the study indicated a robust project under prior tax conditions.

In the second quarter, however, we slowed work on the project, due to the negative impact of recently introduced changes to the local fiscal regime that would materially increase our tax liabilities – including the imposition of less favourable capital allowances. We are still in discussions with the government of Ghana in this respect.

In the meantime, we initiated a concept study on a smaller, more capital efficient starter project to bring Damang's potential to account earlier and in a more incremental way. This is focused on a Damang pit cut-back to provide higher-grade ore to the existing plant.

### 4.2 Operation: Damang

#### Introduction

Damang is located approximately 30km north of our neighbouring Tarkwa mine. It consists of four open pits, as well as surface stockpiles and a Carbon-In-Leach processing plant.

#### Strategic overview

Our focus is to stabilise production at the mine to between 200,000 ounces and 250,000 ounces per year in the medium- to long-term. Damang has experienced an overall decline in production due to its transition from the mature Damang pit into the developing Huni and Juno pits, which are expected to provide most of the new mining volumes over the next two years.

Nonetheless, we are also seeking opportunities to significantly expand the Damang pit in the medium to long term and harness the value of the mine's 10 million ounce Mineral Resource. Although the pit (in its current form) is expected to be depleted in approximately two years, significant Mineral Reserve potential exists below the current floor, which is only accessible via a significant cut-back. The viability of the cut-back will be investigated during 2013.

#### Performance overview

In 2012, managed gold production fell by 24% to 166,400 ounces – compared with 217,700 ounces in 2011. This was due to mining restrictions imposed by ongoing safety concerns in higher-grade parts of the Damang pit – resulting in decreased volumes of high-grade feed ore. These concerns included potential risks around the southern interface between the Juno pit and the Damang pit, as well as deteriorating ground conditions on the east wall.

Additional challenges during the year included:

- Related-blending constraints, resulting in suboptimal grind and recovery performance
- Below-capacity plant performance

The impact on production was partially offset, however, by the implementation of an additional work shift in the first quarter to accelerate waste stripping, increase mining volumes, maintain a constant feed to the plant and optimise equipment utilisation.

In addition, we are implementing a significant US\$21 million plant upgrade programme (US\$8 million to be spent in 2013) to improve reliability, enhance recovery (under current blending conditions), reduce processing costs and ensure the necessary processing capabilities are in place for the likely extension of Damang's life of mine. The programme, which is expected to be completed in the first half of 2013, includes:

- Introduction of an intensive leach reactor
- The addition of an eighth leach tank
- Introduction of a pre-leach thickener to improve the circuit water balance
- Upgrading of the gravity circuit
- Preventative maintenance



# Regional overview

## 4. West Africa

Improved processing performance helped stop production declines in the third quarter – and contributed to a 10% production increase in the fourth quarter. Nonetheless, the plant is still processing below its 5 million tonnes per year historical nameplate capacity at 4.4 million tonnes per year – with run rate optimisation reliant on the implementation of mill feed size and crushing rate improvements. These are due to be fully commissioned in the second half of 2013.

Net operating costs increased by 9% to US\$153 million, primarily due to annual wage increases, general cost inflation and increased power rates – partially offset by the ongoing savings generated by owner-mining initiated in early 2011. For example, owner-mining has produced savings of US\$35 million over the course of the year.

The mine's NCE margin fell to 2% (2011: 33%). Capital expenditure of US\$114 million has been focused on pre-stripping, exploration, the acquisition of mining fleet and the upgrading of the processing plant. A high level of pre-stripping is necessary to open up the significant Mineral Reserve potential at the Huni and Juno pits.

### Near-mine exploration

In early 2012, drilling focused on the Amoanda open pit, with the aim of adding Mineral Reserves to complement the Damang, Huni and Juno pits.

Near-mine exploration focused on an initial framework drilling programme on high priority targets in the Bonsa Hydrothermal project. This defined highly prospective structural target is similar in style to the main Damang deposit. We are awaiting final assay results to inform the geological interpretation of the results.

### 2013 outlook

Planned production at Damang is estimated at between 165,000 ounces and 180,000 ounces of gold at a total cash cost of US\$1,010/oz and an NCE of US\$1,650/oz. This plan assumes:

- No changes in the current tax regime
- Debottlenecking of the crusher circuit to restore throughput to 5.2 million tonnes per year by no later than the first half of 2014

During 2013, we plan to advance our concept study for a high-grade cut-back on the Damang pit. This is one of a number of options being examined to optimise the extraction of the ore body.

Pit at Damang, Ghana



# Regional overview

## 4. West Africa

### Key indicators

Figure 4.8: Optimising our operations indicators – Damang

Category	2012	2011	2010	2009	2008
Gold produced – attributable ('000oz)	<b>149</b>	174	162	144	140
Total cash cost (US\$/oz)	<b>918</b>	701	660	635	629
Notional Cash Expenditure (NCE) (US\$/oz)	<b>1,630</b>	1,056	973	698	783
Gold price (US\$/oz)	<b>1,670</b>	1,565	1,230	963	863
Operating profit (US\$m)	<b>125</b>	201	134	71	45
Operating costs (US\$m)	<b>157</b>	142	146	122	134
Operating margin (%)	<b>55</b>	59	48	36	26
NCE margin (%)	<b>2</b>	33	21	28	9
Fatal Injury Frequency Rate (FIFR)	<b>0.00</b>	0	0	0	0
Lost Time Injury Frequency Rate (LTIFR)	<b>0.36</b>	0.19	0.64	0.17	0.16
Energy consumption (TJ)	<b>1,519</b>	1,303	1,046	976	1,122
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2)	<b>107.3</b>	90.3	63.7	59.8	71.0
Water withdrawal (million liters)	<b>1,817</b>	5,127	3,011	906	436

Figure 4.9: Growing Gold Fields indicators – Damang

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>7.59</b>	4
Attributable Mineral Reserves (million oz)	<b>3.68</b>	6

Figure 4.10: Securing our future indicators – Damang

Category	2012	2011	2010	2009	2008
Total employees	<b>1,132</b>	969	463	411	414
Employee wages and benefits (US\$)	<b>20</b>	17	14	10	9
Total taxation and royalties paid (US\$m)	<b>35</b>	45	39	16	8
SED spend (US\$m)	<b>1</b>	1	n/a	n/a	n/a

# Regional overview

## 4. West Africa

---

### 4.3 Operation: Tarkwa

#### Introduction

Our Tarkwa mine consists of six open pits, two heap leach facilities (of which one was subsequently closed) and a Carbon-In-Leach (CIL) plant. The operation is currently focused on surface mining multiple reef horizons, with potential for underground mining in the future.

#### Strategic overview

Tarkwa is a stable, world-class mine – and accounts for the largest volume of production within the new Gold Fields portfolio at a relatively high NCE margin of 37%. As such, it plays a key role in supporting cash flow generation within the Group.

#### Performance overview

Managed gold production remained steady at 718,800 ounces – compared with 717,300 ounces in 2011.

During the second quarter of 2012, we commissioned a secondary crusher at the CIL plant – with ramp-up to its full run-rate taking place over the rest of the year. This has achieved a 5% improvement in the milling rate to one million tonnes per month since January 2013. This helped us offset some of the production lost as a result of the temporary suspension of heap leach operations in July and August (see below).

Over the course of the year, we also laid the ground for higher future mining volumes through the expansion of our load and haul fleet. This is expected to increase annual mining volumes by as much as 10% – whilst also allowing us to accelerate waste stripping to improve mine flexibility.

During the third quarter, a directive from the Environmental Protection Agency (EPA) instructed Tarkwa to stop the discharge of water from the North and South Heap Leach facilities, pending the installation of water treatment plants to reduce conductivity (i.e. the amount of non-toxic dissolved salts in discharged water). The heap leach facilities typically contribute around 20% of Tarkwa's production.

In the spirit of environmental best practice and stewardship, we stopped the operations on 16 July and committed to installing new water treatment plants at both facilities. Both facilities reopened on 9 August with the approval of the EPA – following a loss in production of around 15,000 ounces. The North Heap Leach water treatment plant was officially opened on 1 January 2013 with ramped up capacity expected by the end of the first quarter in 2013. The South Heap Leach water treatment facility is scheduled to be operational by the end of the first quarter in 2013, to capture any residual run-off in line with the closure plan.

Net operating costs at Tarkwa increased by 27% to US\$470 million (2011: US\$371 million). This reflected annual wage increases, general cost inflation, higher fuel costs and an increase in power rates – as well as a reassessment of the carrying value of gold-in-process inventories in 2011.

During the fourth quarter – and as part of Gold Fields broader Portfolio Review – we took the decision to stop production at the marginal and high cost South Heap leach operation, though we continue to percolate residual cyanide through the heap. This reflects Gold Fields strategic focus on cash generation and the depletion of Tarkwa's low-grade ore stockpiles. Although this will contribute to a decline in output of around 40,000 ounces per year, the closure will eliminate higher cost production and reduce the mine footprint.

The NCE margin held steady at 37% (2011: 42%). Capital expenditure of US\$260 million was focused on the acquisition of additional mobile equipment and vehicles, increased stripping to improve flexibility, commissioning of the secondary CIL crusher and the construction of water treatment facilities for the heap leach operations.

#### Near-mine exploration

No significant near-mine exploration took place at Tarkwa during 2012.

#### 2013 outlook

Planned production at Tarkwa is estimated at between 640,000 ounces and 650,000 ounces of gold at a total cash cost of US\$785/oz and an NCE of US\$1,190/oz. This plan assumes the closure of the South Heap Leach operation, which produced 51,000 ounces of gold in 2012.

In line with our Group strategy of focusing on low risk, near-mine growth opportunities – we are continuing to investigate the Tarkwa Expansion Phase 6 (TEP6) project, which would see the replacement or partial replacement of all heap leach operations at Tarkwa, with either the expansion of the current processing plant or the construction of a new, additional CIL plant. This would offer considerably higher rates of recovery, helping us optimise utilisation of available high-grade ore sources and increase overall production.

# Regional overview

## 4. West Africa

### Key indicators

Figure 4.11: Optimising our operations indicators – Tarkwa

Category	2012	2011	2010	2009	2008
Gold produced – attributable ('000oz)	<b>647</b>	576	523	473	447
Total cash cost (US\$/oz)	<b>673</b>	556	573	488	494
Notional Cash Expenditure (NCE) (US\$/oz)	<b>1,049</b>	913	831	719	926
Gold price (US\$/oz)	<b>1,668</b>	1,565	1,223	966	863
Operating profit (US\$m)	<b>729</b>	752	480	320	231
Operating costs (US\$m)	<b>494</b>	436	416	342	324
Operating margin (%)	<b>61</b>	67	53	50	43
NCE margin (%)	<b>37</b>	42	32	26	(7)
Fatal Injury Frequency Rate (FIFR)	<b>0.00</b>	0.05	0	0	0
Lost Time Injury Frequency Rate (LTIFR)	<b>0.15</b>	0.21	0.43	0.13	0.31
Energy consumption (TJ)	<b>3,982</b>	3,853	3,743	3,397	3,130
CO <sub>2</sub> emissions ('000 tonnes) (Scope 1 & 2)	<b>283.6</b>	270.5	246.7	225.2	215.2
Water withdrawal (million liters)	<b>3,560</b>	3,684	4,610	6,023	4,528

Figure 4.12: Growing Gold Fields indicators – Tarkwa

Category	2012	% of Group total
Attributable Mineral Resources (million oz)	<b>13.11</b>	7
Attributable Mineral Reserves (million oz)	<b>9.07</b>	14

Figure 4.13: Securing our future indicators – Tarkwa

Category	2012	2011	2010	2009	2008
Total employees	<b>2,769</b>	2,575	2,073	1,917	1,748
Employee wages and benefits (US\$)	<b>64</b>	55	45	36	32
Total taxation and royalties paid (US\$m)	<b>199</b>	202	110	31	37
SED spend (US\$)	<b>2</b>	3	n/a	n/a	n/a