**SUSTAINABILITY REPORT 2017** 

# **BUILDING ON FIRM FOUNDATIONS** DELIVERING A SUSTAINABLE FUTURE





Real Mining. Real People. Real Difference.

# **BUILDING ON FIRM FOUNDATIONS** DELIVERING A SUSTAINABLE FUTURE

In 2017, Anglo American's centenary year, our relentless focus on driving cost and productivity efficiencies through the operations, and on continuing to upgrade the quality of our portfolio, resulted in a step-change in operational performance and profitability. Our ability to maintain strict capital discipline and drive down net debt has substantially restored our balance sheet.

We begin our next 100 years with an ambitious new Sustainability Strategy – guided by our Purpose – that seeks to build trust, materially enhance the socio-economic benefits of mining, and achieve long term greenhouse gas, energy, water and biodiversity targets.

#### Other sources of information

More information about sustainability at Anglo American, including an Excel download of our sustainability data, business unit sustainability reports, and historical reports, can be found in our Annual Report and online at: www.angloamerican.com

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#### Cover images 1. Plant monitors Lufuno Sivhabu and Piunzo Dzebu overlooking the process plant at De Beers' Venetia mine in South Africa. See page 21.

2. 115 Electrical Solutions, in South Africa, was supported in its growth plans by the Zimele Fund. See page 40.  At Mogalakwena platinum mine, in South Africa's water-stressed Limpopo province, technical lead Dean Bothma
 inspects fibre-optic sensing equipment, enabling accurate, real-time monitoring of all water flows mine-wide This

mine-wide. This is the world's first permanent installation using this type of distributed sensing technology.



See page 56.

# PURPOSE AND SCOPE OF THIS REPORT

This report provides our stakeholders with a transparent account of how we addressed the most material sustainability matters our company faced during 2017. The report is aimed primarily at those who work for us, non-governmental organisations (NGOs), investors, customers, businesses and governments. Several additional mechanisms are in place to ensure that we engage meaningfully with local stakeholder groups on matters that are of specific interest to them.

Individual business unit reports are published annually for the De Beers, Platinum, Copper and Kumba Iron Ore businesses, and provide greater detail on performance. These are available on the Anglo American website. The Anglo American Annual Report includes additional information about the management, operations and financial performance of the Group.

This Sustainability Report covers companies, subsidiaries and joint ventures over which Anglo American has management control; it does not include independently managed operations, such as Cerrejón and Samancor, unless significant incidents arise. De Beers, however, which has independently managed joint venture operations with the governments of Namibia and Botswana, is included in full. PricewaterhouseCoopers (PwC) has provided independent assurance over selected sustainability key performance indicators, and on our statement on compliance with the International Council on Mining and Metals (ICMM) Sustainable Development Framework Principles and reporting requirements.

The basis of preparation of this report includes guidance from the ICMM Framework, Global Reporting Initiative Standards and related Mining and Metals Supplement, the EU Non-Financial Disclosure Directive, the UN Global Compact Reporting Framework and the UN Guiding Principles Reporting Framework.

The Anglo American chief executive and the chairman of the Sustainability Committee of the Board have reviewed and approved this report.

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#### OUR VALUES

#### Safety

Safety is always first on our agenda. We truly believe that all injuries are preventable and that by working together we can make safety a way of life, inside and outside of the workplace.

#### **Care and respect**

We always treat people with respect, dignity and common courtesy – regardless of their background, lifestyle or position. And we are building trust through open, two-way communication every single day.

#### Integrity

Integrity demands taking an honest, fair, ethical and transparent approach in everything we do. It is not about being popular; it is about always doing the right thing.

#### Accountability

We take ownership of our decisions, our actions and our results. We deliver on our promises and acknowledge our mistakes. Above all, we never pass blame.

#### Collaboration

No one here is on their own. We are one company with a joint ambition – all working together to make decisions and to get things done more effectively.

#### Innovation

Challenging the way things have always been done is a priority. By developing new solutions, encouraging new ways of thinking and finding new ways of working, we are dramatically improving our business.

# OUR BUSINESS AT A GLANCE

Anglo American is a globally diversified mining company with a portfolio of world class competitive mining operations and undeveloped resources. As we provide the raw materials on which the world's developed and maturing economies depend, we do so in a way that not only generates sustainable returns for our shareholders but that also strives to make a real and lasting contribution to society.

### DIAMONDS

DE BEERS

**\$1,435 million** Underlying EBITDA<sup>®</sup>

**16%** Group EBITDA<sup>®</sup>

8 Mining assets<sup>(1)</sup>

**33.5 Mcts** Production (100% basis)<sup>(2)</sup>

> For more information See page 46 of the Anglo American plc Annual Report 2017

### COPPER

**COPPER** 

**\$1,508 million** Underlying EBITDA\*

17% Group EBITDA<sup>•</sup>

Mining assets(1)

3

**2** Projects Finland (Sakatti) Peru (Quellaveco)

579.3 kt Production

For more information See page 49 of the Anglo American plc Annual Report 2017



<sup>(1)</sup> Number of operating mining assets at 31 December 2017. Reflects the Eskom-tied thermal coal and Union (Platinum) disposals. De Beers' mining assets include Orapa, Letthakane and Damtshaa which are managed as one operation, the 'Orapa regime'. Namdeb includes Northern Coastal Mines, Southern Coastal Mines and Orange River Mines. The Group's 40% share in Samancor, classified as located in South Africa, is considered to be one asset within the portfolio.

 $^{(2)}\,$  With the exception of Gahcho Kué, which is on an attributable 51% basis.

### PGMs

#### PLATINUM

**\$866 million** Underlying EBITDA<sup>®</sup>

10% Group EBITDA<sup>®</sup>

Mining assets<sup>(1)</sup>

**2,397 koz** Production platinum

**1,557 koz** Production palladium

For more information See page 51 of the Anglo American plc Annual Report 2017

#### GEOGRAPHIC OVERVIEW

- (3) Average number of employees, excluding contractors and associates' and joint ventures' employees, and including a proportionate share of employees within joint operations.
- (4) Includes social security costs of \$141 million borne by the Group and \$774 million of taxes collected on behalf of employees and paid to government.
- (5) Based on numbers disclosed within the Group's income statement and excludes the impact of certain associates and joint ventures.
- (6) See page 193 of the Anglo American plc Annual Report 2017 for definition.

### BULK COMMODITIES AND OTHER MINERALS

• COAL

32%

12

\$2,868 million

Underlying EBITDA<sup>•</sup>

Group EBITDA<sup>•</sup>

Mining assets<sup>(1)</sup>

metallurgical – export

19.7 Mt

Production

29.2 Mt

Production

thermal - export

For more information See page 57 of the Anglo American plc

Annual Report 2017

### IRON ORE AND MANGANESE

\$2,357 million Underlying EBITDA\* 27%

Group EBITDA<sup>•</sup>

### Mining assets<sup>(1)</sup>

4

**45.0 Mt** Production iron ore – Kumba

**16.8 Mt** (wet basis) Production iron ore – Minas-Rio

**3.5 Mt** Production manganese ore

#### For more information See page 54 of the Anglo American plc Annual Report 2017

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### NUMBER OF EMPLOYEES<sup>(3)</sup>

	Thousand
Brazil	3
Chile	4
Other South America	1
North America	1
South Africa	52
Other Africa	4
Australia/Asia	2
Europe	2
	69

# 

#### TAXES BORNE AND COLLECTED<sup>(5)</sup>

	\$m
Brazil	168
Chile	395
Other South America	6
North America	66
South Africa	1,278
Other Africa	256
Australia/Asia	764
Europe	174
	3,107

### 

**\$81 million** Underlying EBITDA®

**1%** Group EBITDA<sup>•</sup>

2 Mining assets<sup>(1)</sup>

43.8 kt Production

> For more information See page 60 of the Anglo American plc Annual Report 2017

### CORPORATE AND OTHER

### **\$(292) million** Underlying EBITDA\*

(3)%

Group EBITDA<sup>•</sup>

United Kingdom (Headquarters and Marketing),

Australia,

Brazil, Chile, Singapore

(Marketing hub), South Africa Corporate office locations

For more information See page 62 of the Anglo American plc Annual Report 2017

3,370

# WAGES AND BENEFITS PAID<sup>(4)</sup>

	\$m
Brazil	185
Chile	368
Other South America	9
North America	97
South Africa	1,860
Other Africa	190
Australia/Asia	348
Europe	313



### LOCAL PROCUREMENT SPEND<sup>(6)</sup>

	\$m
Brazil	108
Chile	55
Other South America	21
North America	69
South Africa	1,002
Other Africa	768
Australia/Asia	58
Europe	-
	2,081

# **CHAIRMAN'S STATEMENT**



As a custodian of extensive and valuable mineral resources across the world, it is our duty to operate responsibly and deliver lasting value to all our stakeholders. How a company thinks about sustainability – in its full and proper sense – and how its promises are met, is a mark of the nature of that company and its people."

Stuart Chambers, Chairman

#### SUSTAINABILITY - A PERSONAL COMMITMENT

Mining is an extraordinary business. Its activity has existed through the centuries and the metals and minerals that have been extracted from the ground have supported tremendous human development. However, it has also created divisions between those who have reaped those rewards and those who feel they have been left behind.

Fortunately, today's mining industry is rather more enlightened. As chairman of one of the major global mining companies operating today, I have a clear perspective on the role our business plays in society and the values we must uphold in order to protect and enhance that society and our planet.

For mining to be conducted in a responsible way and to have an enduring positive legacy for the countries and communities where we operate, we must continue to put sustainability at the core of our thinking and decision-making. What's more, this must happen throughout the good times and the bad, irrespective of where we are in the industry cycle.

This means making sure we maintain the right mindset and culture, but also that we allocate our capital in a disciplined way throughout the cycle, that we retain a strong balance sheet and that we keep our foot on the innovation pedal.

It is only by continuing the great progress made in recent years in modernising mining through innovation – spanning technological changes to simply a different way of engaging with particular stakeholders – that we will be able to meet society's increasing expectations of us, both as an industry and as individual companies.

#### FUTURESMART MINING™

#### **Innovation on all fronts**

I believe that the mining industry, with its important role in society at large, has a bright future; but only if all mining companies are committed to investing effort and resources into a sustainable future. Anglo American has long been recognised as a company that does the right thing and that cares deeply about its people and all those that its business touches. In particular, the Group's pioneering work on the scourge of HIV/AIDS in the 1990s – that continues to this day – and our approach to community engagement stand out. We can never rest on our laurels and, as we look to the future, there is no doubt that we will face considerable challenges in safety, energy, water and climate change.

FutureSmart Mining<sup>™</sup> is Anglo American's innovation-led approach to responsible and sustainable mining – and it is critical for the future of how we do business. It is about finding new ways to make mining safer, more efficient, more sustainable, more harmonised with the needs of host communities, and with a smaller environmental footprint.

I am delighted to see the headway we are making on a number of fronts. On the technical side, already we are able to realistically picture near-'waterless' mines, drawing no fresh water by means of closed-loop recycling and the potential for traditional tailings dams to be replaced by much safer 'dry' tailings. And from an energy and water perspective, the trials to enable us to extract more metal while processing less waste rock are proving effective, showing 30% water savings and 20% energy savings compared with traditional methods.

#### Keeping people safe

A further aspect of our FutureSmart Mining<sup>™</sup> work is focused on keeping our people out of harm's way, especially in underground mines with greater risks compared with open cut operations. With a number of partners, we are developing automated and continuous mining vehicles designed to create far greater rock stability and less variance in the quality of the ore we extract, with people well separated from areas of high risk.

The company's safety record in 2017 makes it very plain to me why this and other work is so pressing. I am deeply saddened to report that nine lives were lost at our operations in 2017, six in our Platinum business and three in our Coal business, all in South Africa. I can assure you that the Board is working closely with the management team to ensure that focus is intensified to address the clear challenges we face to prevent further losses of life.

Anglo American has demonstrated that operations – even deep-level underground mines – can go for long periods without incurring a single serious injury. We have shown that our target of zero harm is attainable, and I believe that, if each and every one of us is vigilant in looking out for each other, we are all more likely to get home safely day in, day out, year after year. We should of course recognise the considerable progress made to reduce injuries. During 2017, the intense focus on preventing harm in the workplace was reflected in an 11% decrease in the recordable injury rate, building upon the 42% decrease achieved since 2013. However, there is still a long way to go. The mining industry needs to deploy the latest technologies on a much wider scale than it has done in the past, while also reviewing employment practices, in the unremitting quest to make our operations safer for all those who work at or visit our locations.

#### **Our Sustainability Strategy**

Anglo American has a proud and longstanding reputation as a leader in innovative and sustainable mining. I am delighted that the company has embarked upon a new and ambitious journey to again push the boundaries of positive change through innovative thinking, aimed very much at addressing certain of the major challenges we face as an industry and the rightful and increasing expectations of all our stakeholders.

Aligned to the UN's 2030 Sustainable Development Goals, our new Sustainability Strategy sets out a number of ambitious medium to long term targets that will drive the work we are doing around the natural environment, the long term prosperity of our local communities, and the proactive shaping of policy and ethical standards to drive greater trust and transparency amongst our stakeholders – from host governments and communities to civil society and customers.

"It is our duty to provide society with the metals and minerals it needs in the most efficient and responsible way, using ever cleaner, safer and less physically intrusive methods."

#### **MEETING SOCIETY'S EXPECTATIONS**

It is our duty to provide society with the metals and minerals it needs in the most efficient and responsible way, using ever cleaner, safer and less physically intrusive methods. We are working to fundamentally reduce our energy and water intensity, while creating safer working conditions and more sustainable communities long after our mines have reached the end of their lives.

We also think carefully about the causes and effects of climate change. We continue to work with relevant stakeholders, including our shareholders, to help address these and to provide transparency around the impacts on our own business. For example, we have been working with the 'Aiming for A' investor coalition, which has engaged with the 10 largest UK-listed extractive and utility companies, including Anglo American, to understand their resilience to climate change up to, and beyond, 2035. We are also structuring our annual reporting to be both in line with the Aiming for A resolution and the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures. Anglo American's new Sustainability Strategy sets out our ambitious energy and carbon reduction targets to be achieved by 2030.

As a Group and as individuals, we can always do more to gain the trust of all those with whom we engage. That is why Anglo American has updated, and is progressively rolling out to all employees, its Code of Conduct to ensure there is a single point of reference for what is expected of all of us. Embedding the right behaviours, aligned to our longestablished set of values, is critical for us in today's challenging marketplace.

#### Our work with communities

The bulk of our operations are located in the developing world where we must forge strong and lasting partnerships with host communities and governments so that we can work together to deliver sustainable prosperity in the regions where we operate.

Leveraging our normal business activities is the most effective way to deliver positive developmental outcomes for these host communities. In 2017, our operations' expenditure on suppliers based close to our operations amounted to \$2.1 billion, which represented 23% of total supplier expenditure.

In my relatively short time with Anglo American, I have already visited around 15 operations across the Group and have been able to see first hand the positive effect of the work we are doing on the ground, particularly with our supplier- and enterprise-development programmes, in our host communities. The passion with which our teams deliver these programmes is remarkable.

#### The Board and its Sustainability Committee

I have arrived into an Anglo American that has been revitalised considerably under Mark Cutifani's leadership and management team. As chairman, I see it as my duty not only to see that the Board continues to perform its oversight and guidance role effectively, but that it helps to maintain the company's leadership in sustainability through ensuring the appropriate mix of experience and skills on the Board.

It is only by experiencing the operations, and meeting and speaking to as many people as possible, that Board members can get a real feel for the business and the challenges and opportunities we face. To this end, during 2017, members of the Board and its Sustainability Committee visited operations in South Africa, Chile, Brazil, Peru and the UK.

Lastly, I would like to take this opportunity to express my appreciation to my predecessor, Sir John Parker, for his leadership and guidance of Anglo American through a time of exceptional turbulence, and for the keen interest he always took in all matters relating to sustainability.

#### OUTLOOK

Our licence to operate as a business is reliant on our track record and hard-earned reputation as a responsible mining company – a company that host communities and countries would choose as their partner. My vision is for Anglo American to continue to push the boundaries of what is possible in mining so that we strengthen that position further – by operating ever more sustainably. By doing so, and by being the technological innovators, we will be well placed to attract the very best talent and to be the employer of choice in the mining industry.

Mulus

Stuart Chambers Chairman

# **OUR BUSINESS MODEL**

Anglo American draws upon a number of key inputs from both its central expertise and its diversified operating businesses that, through expert allocation, development, extraction and marketing, create sustainable value for our shareholders and our diverse range of stakeholders.

#### **GROUP INPUTS**

#### Financial

Our corporate centre allocates our financial resources where they can be put to work most effectively to deliver optimal financial returns for our shareholders.

#### Know-how

We link our industry-leading technical and marketing knowledge to ensure we invest our efforts and capital in key leverage points in the 'mine to market' value chain

#### Mining and processing activities have long been major users of water and energy. Our technical and social expertise combines to provide advice and hands-on support to the operations to mitigate our water and energy requirements, while also developing new technologies that have the potential to significantly reduce our environmental footprint

Other natural resources

#### Relationships with our stakeholders

Open and honest engagement with our stakeholders is critical in gaining and maintaining our social and legal licences to operate and, therefore, the sustainability of our business We engage with a wide range of stakeholders to ensure effective two-way relationships.

#### Ore Reserves and Mineral Resources

People Our people are the business.

We aim to resource the organisation with a capable, engaged and productive workforce and are

committed to ensuring

no harm comes

to any of

our people

We have an extensive resource base across our business and across a wide geographic

footprint, providing a suite of options for delivering value over the long term.

#### Plant and equipment

Our procurement and technical teams form strong relationships with major suppliers to deliver tailored equipment and other solutions to enable best in class operating performance and cost-effectiveness.

**GOVERNANCE** 

Our governance controls ensure we

effectively respond to those matters

that have the potential to cause financial,

operational and reputational harm to our

business, while acting ethically and with

### **OUR UNIQUELY** DIVERSIFIED **PORTFOLIO**

#### Quality

The high quality and long life of our mineral assets from which we will deliver leading shareholder returns.

### **OUR PEOPLE-CENTRIC VALUE CHAIN**

We will invest in those points in the value chain that provide us with the best return on our investment.



### **OUR INNOVATIVE CORE PROCESSES**

#### Discovery

Our award winning exploration teams discover mineral deposits in a safe and responsible way to replenish the resources that underpin our future success.

#### Innovation Model

Our strengthened in-house technology capability provides world class, innovative solutions across our assets, supporting the delivery of step-change operating performance.

#### **Operating Model**

The application of our Operating Model drives a more stable, predictable and higher level of operating performance, resulting in improved safety, productivity and lower costs.

#### Project development

The successful development and execution of our capital projects reduces expenditure and ensures predictability of outcome against our performance objectives.

### HOW WE CREATE SHARED VALUE

### MATERIALITY **AND RISK**

Identifying and understanding our material matters and risks is critical in the development and delivery of our strategy.

#### For our Material matters ß See page 18

Organisation Model allows our businesses to design structures and roles that provide clear accountability and appropriate authority to get our work done

Relationships with

Our exploration teams

work with our businesses to discover mineral deposits in

a safe and responsible way to replenish the resources that

integrity for the benefit of all our stakeholders. People For our Governance Report See pages 63-116 of the Anglo American plc Annual Report 2017

Our simplified

underpin our future success - both to extend the lives of existing mines and to provide longer term near

Plant and equipment

Our businesses implement local procurement policies that support suppliers based in the host communities close to our operations – making a significant socio-economic contribution and building stronger communities, as well as lowering logistics costs.

#### Financial

Our businesses' strong focus on working capital management, productivity and cost discipline helps to drive sustainable positive cash flows

#### Know-how

Our businesses work closely with our Technical function and Marketing business to apply innovative mining methods and technologies to realise even greater value from our resource base, and optimise

mine production plans to ensure we provide products to our customers around the world, meeting their specific technical and logistical requirements.

#### Other natural resources

It is critical that our businesses responsibly manage all the natural resources used in their processes, given the finite nature of mineral resources, scarcity of water and energy sources at some of our operations, and input cost pressures.

#### our stakeholders Working within our social performance framework, it is the goal of our operations to asset and greenfield options

build and sustain constructive relationships with our communities and host countries that are based on mutual respect

### **OPERATING BUSINESS INPUTS**

Anglo American plc Sustainability Report 2017

#### Value creation

Assets that offer - either in isolation or in combination with other assets in the portfolio - the most attractive long term value-creation potential.

#### Diversification

The diverse composition and scale of our portfolio create a measured risk profile, allowing us to leverage resources, expertise and relationships to deliver strong returns.

Our Organisation Model ensures we have the right people in the right roles doing the right value-adding work. From the financial, technical, marketing and other expertise provided from the corporate centre, through our entire value chain from mine to market, it is our people that create the sustainable value that all our stakeholders demand and expect.



Across every aspect of our business, we are thinking innovatively about how we work to ensure the safety of our people, enhance our sustainability performance, and deliver industry-leading margins and returns.

#### Marketing

The value from our mineral resources and market positions is optimised by our dedicated Marketing business, driving appropriate commercial decisions across the value chain - from mine to market - including working directly to tailor products to our customers' specific needs.

#### Sustainability Model

Integrating sustainability into core business processes has been a longstanding priority for Anglo American. The corporate centre drives the sustainability agenda and offers expert advice, and hands-on support, to operations facing complex sustainability challenges.

### **OUTPUTS**

Our outputs are the products that meet the growing consumer and other demands of the world's developed and maturing economies. Mining and processing activities also result in the unavoidable disturbance of land and seabed, generation of mineral residue, use of fresh water and energy, as well as atmospheric emissions and water discharges, all of which we strive to minimise through our innovative approach.

**GROUP PRODUCTION** GROWTH<sup>(1)</sup> 5%

Increase over 2016 TOTAL WATER

WITHDRAWALS 306 Mm<sup>3</sup> ATTRIBUTABLE FREE CASH FLOW<sup>•</sup> \$4.9 billion

CO<sub>2</sub> EQUIVALENT EMISSIONS 18.0 Mt

### STAKEHOLDER VALUE

As we strive to deliver sustainable returns to our shareholders, we are acutely aware of the potential value creation we can offer to our full range of stakeholders. Through our core business activities - employing people, paying taxes to governments and procuring from host communities - we make a significant and positive contribution to the countries where we operate. Beyond our direct mining activities, we create and sustain jobs, build infrastructure, support education, and help improve healthcare for employees and local communities.

### INVESTORS **\$1.02**

Total dividends paid and proposed per share

GOVERNMENT \$3.1 billion

Taxes borne and collected<sup>(2)</sup>

EMPLOYEES \$3.4 billion Wages and benefits paid<sup>(3)</sup>

### SUPPLIERS \$2.1 billion

LOCAL COMMUNITIES

Jobs created and maintained through enterprise development programmes since 2008

### **HOW WE MEASURE** THE VALUE WE CREATE

Our seven pillars of value underpin everything we do. Each pillar has defined key performance indicators (KPIs) and targets that we set the business and against which we measure performance, both financial and non-financial.

SAFETY AND HEALTH A ENVIRONMENT SOCIO-POLITICAL  $\odot$ 

PEOPLE

For our KPIs See page 13

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PRODUCTION COST \$ FINANCIAL

(1) Proforma growth in copper equivalent production, excluding disposals.

Based on numbers disclosed within the Group's income statement and excludes the impact of certain associates and joint ventures

(3) Includes social security costs of \$141 million borne by the Group and \$774 million of taxes collected on behalf of employees and paid to government.

Local procurement expenditure

# 120,812

# **CHIEF EXECUTIVE'S REVIEW**



"In our centenary year, we took the opportunity to reflect and build upon our firm foundations to deliver a sustainable future – in every respect – for Anglo American and our diverse range of stakeholders."

Mark Cutifani, Chief Executive

It was a great honour to be chief executive during Anglo American's centenary year. There are not many organisations that have reached such a milestone, and it was fitting that we celebrated this historic occasion with so many employees and stakeholders who have played – and continue to play – such an important role in all that we do. This company's achievements over the past 100 years span so many areas of endeavour. As employees, we can take pride in those achievements; the products we provide to enable modern life, the positive difference we make to so many in and around our operations, and the myriad of valuable partnerships we have forged during this time.

Throughout its history our company has repeatedly shown its agility and adaptability. In today's fast-changing world, these characteristics have never been more important in creating a successful and sustainable business.

Anglo American today has the foundations, the people, and the know-how to continue to make a real and positive difference to all those who we interact with as a business. We are reinforcing our commitments to society with the forthcoming launch of what we believe will be an industryleading Sustainability Strategy, focusing on our host communities, the natural environment and the governance of our industry – aligned to the UN's Sustainable Development Goals.

#### SAFETY

Our safety record in 2017 is deeply saddening and was our single disappointment. We lost nine of our people in fatal accidents, all in South Africa. Every leader in our business understands it is unacceptable to continue to work where there is a likely consequence of injury. Let me assure you that we have made significant and urgent operational interventions to manage activity risks to end fatal incidents across all operations. Safety is our most critical area of focus, and while we must recognise significant progress over recent years, reducing our injury frequency rate by more than 40% since 2013, we still have a long way to go on our journey to zero harm.

#### HEALTH

We closely track progress, in a bi-monthly report, on reducing the number of our people exposed to key health hazards. The number of new cases of occupational disease reported in our business continues to decrease. By 2020, our aim is to record no new cases of occupational disease that are a result of exposure at Anglo American managed operations.

Our operations in southern Africa have an ambitious target for 90% of employees to know their HIV-status. While we fell a little short of achieving this in 2017, 76,000 members of our workforce (including contractors) participated in testing. The immense scale of testing, the improved uptake of anti-retroviral treatment and active case management have contributed to a radical decrease in deaths from AIDS and tuberculosis in our workforce.

#### **OUR PERFORMANCE**

In 2017, we started to see the real benefits of our relentless focus over the last four years on driving cost and productivity efficiencies through the operations. The wide-ranging actions that we have taken through the implementation of our Operating Model have resulted in a step-change in operational performance, cash flow generation and profitability, and a substantially strengthened balance sheet. The Operating Model is designed to deliver planned work, which in turn drives cost, productivity, safety and environmental improvements across our business.

We are making good progress on meeting our longstanding ECO<sub>2</sub>MAN greenhouse gas and energy reduction targets. In 2017, operations saved 4.8 million tonnes of carbon-dioxide-equivalent emissions and 6.4 million GJ of energy. ECO<sub>2</sub>MAN has provided us with a credible start in our transition to a low-carbon future.

Anglo American's approach to water has evolved from a necessary focus on operational efficiency to what is now a strategic, long term and collaborative response to our shared water challenges. We are determined to play our part in ensuring that our host communities and other users do not suffer from diminished access to this precious resource due to our presence. The innovations that we are expecting to apply to our mining processes will form the next step-change in water efficiency.

Employment and wider economic opportunities are frequently identified by local stakeholders as two of their most pressing needs. Anglo American operations employ large numbers of people, and our supplier expenditure amounted to \$9 billion in 2017. Our aim is to channel the benefits of mining more directly, and more sustainably, to local economies. Local procurement is a powerful mechanism to stimulate local development and, in 2017, accounted for 23% of our total supplier expenditure. More widely, and over the last decade, Anglo American's enterprise development programmes, which are designed to generate economic activity outside of the mining value chain, have supported 121,000 jobs and 64,300 small businesses.

#### **COMMITTING TO A SUSTAINABLE FUTURE**

After more than eight years in the role, Sir John Parker stepped down as chairman during the year. As chairman of the Board and an active member of the Sustainability Committee, his grasp of sustainability issues and their importance ensured that topics such as climate change, transparency, our code of business conduct, and Boardroom diversity were absolutely on the Board's agenda. He was never one to accept the status quo, and I am pleased that his successor as chairman, Stuart Chambers, has embraced this forward-thinking approach.

Stuart joins Anglo American at a pivotal time. There is no denying that the challenges we have faced in recent years – as a business and as an industry – have required us to re-examine how we operate and the broader role that mining plays in the modern world. From where and what we mine, to the expectations of our stakeholders and society at large, we have continued to have robust conversations to ensure Anglo American remains resilient and that our role in society is clear as we embark on our second century.

At the heart of all these conversations has been the matter of sustainability. While continuing to supply the world with the precious minerals and metals it increasingly demands, modern society rightly expects mining companies to contribute more effectively to socio-economic development and to reduce their environmental footprint, working in ways that create shared, sustainable value.

#### INNOVATION – FUTURESMART MINING™

From resource exploration and through every step of the value chain to delivering our products into our customers' hands, FutureSmart Mining™ is Anglo American's innovation-led approach to sustainable mining. Working in partnerships beyond mining, we are applying open-innovation principles to reframe mining challenges and co-create solutions that will materially improve efficiencies and our competitive cost positions.

The technologies we are developing will fundamentally change the way we extract and process our products and will provide the next step-change in operating performance – creating significant safety improvements and major energy, water and capital cost savings. From technologies that are available today, to those such as swarm robotics and the use of 'dry water', the future of mining will be very different – to the extent that previously inaccessible or uneconomic orebodies will become mineable, both technically and in an acceptable way to our host communities and countries. We intend to remain at the forefront of this revolution.

#### **Engagement – faith groups**

Innovation extends to all corners, considering mining's role in meeting the needs of society. Our work with faith groups as a leading participant in the Mining and Faith Reflections Initiative recognises that many relationships with communities and NGOs are guided by faith-based organisations. A very positive initial dialogue with the Vatican is being broadened into a more ecumenical approach encompassing the Church of England and the Methodist Church, amongst others. With greater mutual understanding, we are better placed as true partners in developing our businesses and communities towards a better future.

#### **Sustainability Strategy**

Anglo American has a long track record as a leader in sustainable, responsible mining, and a reputation for doing the right thing. As a part of FutureSmart Mining<sup>™</sup>, we are introducing an ambitious Sustainability Strategy which is the result of rigorous and far-reaching consultation and development. We have leveraged existing partnerships and conducted extensive stakeholder engagement, analysed critical sustainability opportunities and risks - including the UN Sustainable Development Goals - and ensured cross-functional and business unit collaboration internally. We have set out a series of stretch goals relating to our host communities, the natural environment, and the governance of our industry, together with a new collaborative approach to regional economic development. The outcome is a Sustainability Strategy that will deliver lasting value to all our stakeholders, including shareholders, by positioning us better to meet society's growing expectations for truly sustainable mining, while continuing to provide the increasingly essential products that improve people's lives.

#### **OUR PURPOSE**

Our Sustainability Strategy commitments are stretching, and deliberately so. They will challenge our people to think differently, to innovate and change the way we do things. The status quo is not good enough for the future of our industry and we will mobilise our people and our resources to deliver.

Closely aligned to our Purpose as a company – re-imagining mining to improve people's lives – I believe this progressive series of commitments will provide a further source of employee pride and competitive differentiation in an era when our social licences to operate are more closely scrutinised than ever, and rightly so.

We are setting a clear direction for the future of Anglo American, yet one that has its roots deep in the history of our company. The more sustainable our business, the more trust we earn and the stronger our business becomes. This is the context in which we are building shared value for a sustainable future.

Mark Cutifani Chief Executive

# ANGLO AMERICAN'S BLUEPRINT FOR THE FUTURE OF SUSTAINABLE MINING

In the decades ahead, mining must transform and that journey begins now. This involves addressing the industry's critical challenges, including safety, productivity, and the use of energy, water and land.

While a soaring global consumer population indicates a strong demand outlook for minerals and metals, at the same time modern society rightly expects that the mining industry should contribute more effectively to socio-economic development, while reducing its environmental footprint and supporting biodiversity.

#### OUR COMMITMENT TO THE SDGS

The UN Sustainable Development Goals (SDGs), to which Anglo American is committed, also challenge us to find new approaches to the way we do things, while providing an important benchmark against which to measure our performance as we seek to redefine what it is to be a responsible miner.

We have started by mapping our social and environmental activities against the SDGs in South Africa and Brazil, which will help us to prioritise both what we do well and what is most needed in those countries. Approaching it in this way – rather than just compliance with mining law or regulatory requirements – means we have a more strategic and holistic impact on the ground and a better link to our overall Sustainability Strategy, which is itself grounded in the SDGs.

#### **FUTURESMART MINING™**

FutureSmart Mining<sup>™</sup> is Anglo American's innovation-led approach to sustainable mining. It is our blueprint for the future of our business. A future in which broad innovative thinking, enabling technologies, and collaborative partnerships will shape an industry that is safer, more sustainable and efficient, and better harmonised with the needs of our host communities and society as a whole.

FutureSmart Mining<sup>™</sup> is focused on delivering step-change improvements across all aspects of our business. This means finding new ways to make mining safer, more efficient and more sustainable, with a smaller physical footprint. It also means a focus on shared value which, for Anglo American, means that our business creates value for all stakeholders.

Our approach to mining innovation is end to end; it considers all mining-related activity from exploration and discovery, right through to delivering products into our customers' hands, considering the broad social, economic and environmental interests of all our stakeholders within a self-sustaining mining 'ecosystem'.

#### **OUR SUSTAINABILITY STRATEGY**

Anglo American has applied its FutureSmart Mining<sup>™</sup> approach to the development of what we believe will be an industry-leading Sustainability Strategy. Holistic, integrated and flexible to the characteristics of individual operating sites, our strategy comprises mutually reinforcing elements that together are expected to positively transform how our stakeholders experience our business, both locally and globally.

The strategy is focused on three global sustainability pillars – Trusted Corporate Leader, Thriving Communities, Healthy Environment – each encompassing three global stretch goals. These goals relate to Anglo American as a whole, at an aggregate level. They are deliberately ambitious, they will challenge our business to innovate and change, and we are mobilising our people and resources to deliver them by 2030.

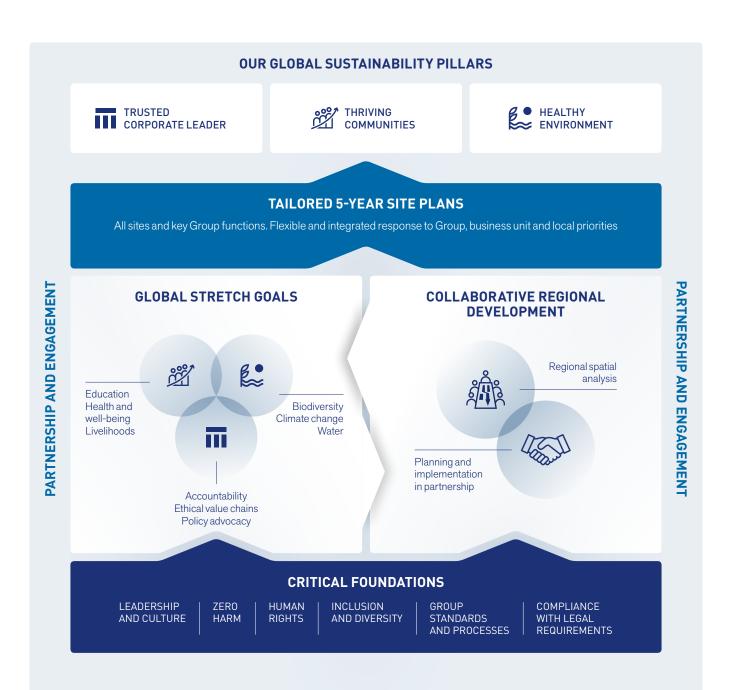
Underpinning our strategy are a number of critical foundations that form the common and minimum requirements for each of our operations and our business as a whole; as such, they are essential to the long term credibility and success of our Sustainability Strategy and our social licence to operate.

### **HOW WE DELIVER**

Collaborative Regional Development is at the heart of how we will bring long term development opportunities to the regions around our operations. This innovative approach looks, through spatial analysis and planning, to identify the socio-economic development opportunities of greatest potential in a province and then catalyses and facilitates partnerships with a broad range of stakeholders – including community representatives, faith-based groups, businesses and entrepreneurs, government, academics and NGOs – to deliver those opportunities. By working in this way, we will create the foundations for long term sustainable development of those regions, well beyond the life of the mine.

While our goals may be defined at a global level, how we achieve them will be a function of our actions at a local level. We recognise that our operations are all different and we are neighbours to a diverse array of communities in the many countries where we operate. At individual operations, however, there may be differing local and regional priorities relating to the natural environment, for example. One operation may be located where water is scarce, whereas another may face the opposite challenge.

Our Sustainability Strategy offers all the appropriate flexibility at the site level, with each of our operating sites developing their own, tailored five-year plans to respond to their local context, priorities and opportunities. As such, while the plans for individual sites will consistently be aligned to our three global sustainability pillars, there may be aspects of the plans that do not relate to a specific global stretch goal, but do make a real and positive difference in a particular local environment. It is this innovative, focused yet flexible approach that will help our people engage and work in partnership with our stakeholders to improve people's lives, sustainably.



OUR GLOBAL SUSTAINABILITY PILLARS	GLOBAL STRETCH GOALS		
TRUSTED CORPORATE LEADER	<b>Accountability</b> Our vision is to transform the relationship between mines and communities, and wider society	Ethical value chains Our vision is to be a part of a value chain that supports and reinforces positive human rights and sustainability outcomes	<b>Policy advocacy</b> Our vision is to take a lead on issues that affect our business in a way that is collaborative and aimed at society's wider goals
	<b>Education</b> Our vision is for all children in host communities to have access to excellent education and training	Health and well-being Our vision is for the SDG targets for health to be achieved in all our host communities	<b>Livelihoods</b> Our vision is shared, sustainable prosperity in our host communities
HEALTHY ENVIRONMENT	<b>Biodiversity</b> Our vision is to deliver net positive impact across Anglo American through implementing the mitigation hierarchy and investment in biodiversity stewardship	<b>Climate change</b> Our vision is to operate carbon- neutral mines	Water Our vision is to operate waterless mines in water-scarce catchments

# SUSTAINABILITY STRATEGY TARGETS

GROUP STRETCH GOALS	MILESTONE TARGETS
TRUSTED CORPORATE LEADE	R
Accountability	<b>2020:</b> Establish, or support the functioning of existing, local stakeholder accountability forums and national multi-stakeholder dialogue groups
	Engage in strategic international partnerships to support sustainability imperatives
Ethical value chains	<b>2020:</b> Half of Anglo American operations to be certified to agreed responsible mine certification standards
	A common responsible sourcing standard for the mining industry to be agreed
	<b>2025:</b> All Anglo American operations certified to relevant mine certification standards
	Responsible sourcing standard implemented across Anglo American
	Parts of the business are already certified against industry-specific mine-certification standards, such as the Responsible Jewellery Council. Such operations will not be required to seek additional certification. A further target that is being investigated is developing a 'ramp up' responsible mine certification standard for junior mining companies.
Policy advocacy	<b>2020:</b> Finalise Group and business unit/country policy advocacy action plans in support of key sustainability issues
	Provide scholarship and training opportunities for policy-makers in regions with capacity constraints
	<b>2025:</b> Significant programmes and partnerships in place to support priority policy and governance issues
	<b>2030:</b> External recognition of our leadership on policy and advocacy
Education	<b>2020:</b> Baselines and strategies to achieve the target in place
	2025: Schools in host communities to perform within the top 30% of state schools
	<b>2030:</b> Schools in host communities to perform within the top 20% of state schools
	All operations will implement measures to support education. Operations in large urban areas or in countries whose school systems score very highly in the PISA rankings may propose alternative meaningful measures.
Health and well-being	<b>2020:</b> Baseline established and strategies in place at every site to achieve the SDG3 health targets
	<b>2025:</b> Operations to be halfway towards closing the gap between baselines and 2030 targets
	2030: SDG3 targets for health in host communities met
Livelihoods	<b>2020:</b> Baselines and strategies to achieve targets in place at every site
	<b>2025:</b> Three jobs created/supported off-site for every job on-site
	<b>2030:</b> Five jobs created/supported off-site for every job on-site
	Mines in communities with low unemployment have the flexibility to set an alternative meaningful target. The targets apply at a regional level and are not directly linked between mines and mine communities.
Biodiversity	<b>2020:</b> Net-positive impact (NPI) methodology, biodiversity value assessments and site-specific indicators in place at all high-risk sites
	Formalise partnerships to support NPI, which are aligned with existing regional and national biodiversity stewardship initiatives
	<b>2030:</b> Deliver net-positive impact on biodiversity across Anglo American
Climate change	<b>2020:</b> Reduce greenhouse gas (GHG) emissions by 22% relative to the business as usual (BAU) projection
	Reduce energy consumption by 8% relative to the BAU projection
	Implementation of four priority projects to meet 2030 to commence
	<b>2030:</b> Reduce net GHG emissions by 30%
W	Improve energy efficiency by 30%
Water	<b>2020:</b> Reduce the abstraction of freshwater in water-scarce regions by 20%
	Increase water-recycling levels to 75% <b>2030:</b> Reduce the abstraction of freshwater in water-scarce regions by 50%
	2030. Neduce the abstraction of meshwater in water scarce regions by 30%

# **MEASURING OUR** PERFORMANCE

MEASURING OUR PERFORMANCE

Positive outcome

⊘ Neutral outcome/Not applicable

× Negative outcome

EY PERFORMANCE INDICATORS (KPIs)	TARGET	2017	2016	PERFORMANC
Safety and Health				
Work-related fatal injuries	Zero harm	9	11	$\otimes$
Total recordable case frequency rate	15% year-on-year reduction	0.63	0.71	$\otimes$
New cases of occupational disease	Year-on-year reduction	96	111	$\bigcirc$
Employees potentially exposed to noise over 85 dBA <sup>(1)</sup>	Year-on-year reduction	34,999	26,280	$\otimes$
Employees potentially exposed to inhalable hazards and carcinogens over the occupational exposure limit <sup>(1)</sup>	Year-on-year reduction	5,064	6,047	$\bigcirc$
Number of employees who know their HIV status	More than 90% of employees in southern Africa know their status	83%	88%	$\otimes$
Number of HIV-positive employees undergoing anti-retroviral treatment	More than 90% of HIV-positive employees in southern Africa	84%	68%	$\otimes$
S Environment				
Energy savings	8% saving by 2020 <sup>(2)</sup>	6%	5%	
Greenhouse gas (GHG) emissions savings	21% saving by 2020 <sup>(2)</sup>	21%	19%	$\odot$
Level 3-5 environmental incidents	Year-on-year reduction	2 Level 3	4 Level 3	$\odot$
Number of operations with closure plans aligned with the Anglo American Mine Closure Toolbox	All operations to have closure plans aligned with the Mine Closure Toolbox	90%	79%	$\otimes$
Social				
Businesses supported by enterprise development initiatives (2008-2015)	-	64,291	62,447	-
Jobs supported by enterprise development initiatives (2008-2015)	-	120,812	116,298	-
Local procurement (\$)	-	2,081bn	2,020 bn	-
Compliance with the Anglo American Social Way	100% compliance	89.2%	100%	$\otimes$
People				
Voluntary labour turnover	-	2.3%	2.2%	_
Gender diversity: managers who are female	-	26%	25%	_

(1) This figure reflects the number of employees who work in environments where there is potential for exposure above the exposure limit. All employees working in such

environments are issued with protective equipment to prevent occupational illness. Data for 2017 includes contractors and is based on improved risk-assessment processes. (2) Energy, GHG and water savings are calculated relative to projected 'business as usual' consumption levels.

# GOVERNANCE AND MANAGEMENT APPROACH

Sustainability considerations are firmly embedded into Anglo American's governance structures. The Board's Sustainability Committee oversees how we manage our most material sustainability matters, while the Audit Committee reviews the principal risks to the Group, including those related to sustainability. Safety, health, environmental and operational risk management indicators are included in various incentive schemes.

#### GOVERNANCE

The role of the Anglo American Board of directors is to promote and safeguard the long term success of the business, while considering the interests of its various stakeholders. A full account of our approach to corporate governance is available in the 2017 Anglo American Annual Report.

Several standing committees – the Sustainability, Remuneration, Nomination and Audit committees – are designated to take on certain responsibilities on the Board's behalf.



The Board visited a range of Anglo American-supported community projects during 2017, including this agricultural business close to our copper project in Quellaveco, Peru.

The Sustainability Committee holds accountability for overseeing how Anglo American manages its most material sustainability issues. The Committee meets four times a year and comprises Jack Thompson (chairman of the committee); Stuart Chambers (chairman of the Board); non-executive directors Ian Ashby, Nolitha Fakude, Mphu Ramatlapeng and Jim Rutherford; Mark Cutifani (chief executive); and Tony O'Neill (Group technical director). Sir John Parker (chairman of the Board until October 2017) also served as a member during the year. Business unit heads, Group directors of HR and Corporate Relations, the Group general counsel, and Group head of safety and Sustainable Development also participate in meetings.

In 2017, the non-executive members of the committee visited Platinum's Precious Metals Refinery, and two social projects supported by Anglo American in Peru. Members of the committee participated in the Group's annual Global Safety Day campaign at the Quellaveco copper project in Peru.

As part of its overall mandate to oversee audit, internal control and risk management, the Audit Committee reviews the principal risks to the Group, including those related to catastrophic event risk and material sustainability issues.

The Remuneration Committee determines the remuneration of executive directors, the chairman and senior management and oversees remuneration policy for all employees. Anglo American's safety results affect the performance-based remuneration of all employees in the business. The following are included in the annual performance incentives for executives and senior management:

- Safety incidents
- Environmental incidents
- HIV management (90% of employees know their status and 90% of HIV-positive employees are on treatment)
- The implementation of the Operational Risk Management (ORM) process
- Metrics relating to climate change (22% reduction in CO<sub>2</sub> equivalent emissions relative to a 2011 business-asusual baseline) and occupational disease management (10% reduction in exposure to inhalable hazards and carcinogens) are included in the long term incentive scheme for senior- and executive-level personnel.

#### **EXECUTIVE STRUCTURE**

The Board delegates executive responsibilities to the chief executive, who is advised and supported by the Group Management Committee (GMC). The GMC is comprised of the chief executive, business unit CEOs, Group directors of corporate functions and the Group general counsel. Tony O'Neill, technical director, holds accountability for matters relating to safety, health, environment, supply chain and operational risk. Social performance and human rights fall within the ambit of Anik Michaud, Group director – Corporate Relations.

### SUSTAINABILITY COMMITTEE DISCUSSIONS IN 2017

At each meeting, the committee reviews detailed reports covering the Group's performance across a range of sustainability areas and discusses significant social, safety, health and environmental incidents. In addition to the regular reports, the following matters were discussed during 2017:

- The Anglo American Sustainability Strategy
- Business unit updates from Platinum, Copper, De Beers, and Group Discovery and Geosciences
- Engagement with faith groups
- Tailings storage facility risk management
- Air-quality management at Kumba Iron Ore
- Mercury monitoring at Victor mine
- The 'Aiming for A' shareholder resolution
- The Anglo American Safety, Health and Environment Way
- Human rights
- 2016 Social Way assessment results
- Mine closure liabilities
- Sustainability Report assurance findings
- Material legal developments
- Sustainability Committee evaluation
- Anglo American's Sustainability performance relative to ICMM members
- Appointment of external auditors for the Sustainability Report
- Water management
- Operational risk reviews
- Workforce engagement and development
- Safety intervention at Coal South Africa operations.

The GMC is supported by corporate, operational and investment sub-committees. These committees are responsible, respectively, for: reviewing corporate policies and processes, as well as the financial performance and budgets for business units; driving operational best practices across the Group and the setting of technical standards; and making recommendations to the GMC and chief executive on capital-investment proposals.

#### **ORGANISATIONAL STRUCTURE**

Anglo American is headquartered in the UK and its ordinary shares are listed on the London Stock Exchange (the primary listing), as well as the Johannesburg, Swiss, Botswana and Namibia Stock Exchanges. The business is managed as four operating units: De Beers, Platinum, Copper, and Bulk commodities and Other Minerals (Iron Ore and Manganese, Coal, and Nickel). Collectively, these business units manage more than 30 mining operations and 10 processing operations in Australia, Botswana, Brazil, Canada, Chile, Namibia, South Africa and Zimbabwe. De Beers also owns a range of commercial and industrial enterprises across various geographies. (See page 75 for a full list of managed and joint operations.) The sale of Dartbrook coal mine in Australia was concluded during 2017. Sales agreements were entered into for New Vaal, New Denmark and Kriel collieries in South Africa. The sale of Union platinum mine in South Africa was completed in early 2018, while the sale of Drayton coal mine in Australia was completed in February 2018.

Business units are supported by corporate functions and the Marketing business. The corporate centres host Technical and Sustainability, Corporate Relations, Human Resources, Finance, and Strategy and Business Development functions that set the performance expectations we have of operations, offer expert advice and hands-on support to operations facing complex challenges, and monitor the effectiveness of critical programmes.

Anglo American has a large and diverse base of more than 12,000 suppliers around the world. Our most material purchases involve goods and services that are typical to large-scale infrastructure and manufacturing projects, including: labour; heavy equipment; process chemicals; fuel and lubricating oils; explosives; motors and a range of services.

### POLICIES AND STANDARDS

Our sustainability standards are articulated in the Anglo American Safety, Health and Environment (SHE) Way, the Government Relations Way and the Social Way. The 'Ways' apply throughout the Group and set out the vision, principles, policies, management-system requirements and performance expectations for managing our core sustainability risks and opportunities. We also promote comparable standards in joint ventures and associate companies.

Group Technical Standards define the mandatory minimum requirements we set for managing a wide range of specific issues. In relation to sustainability, these include, for example, the management of water, energy, tailings-storage facilities, and various technical aspects of mining that relate to safety.

Through our responsible-sourcing programme, we aim to ensure that those we do business with follow a set of minimum standards of responsible business conduct that are comparable to what we expect of ourselves. Our approach in this regard is guided by our Responsible Sourcing Standard for Suppliers.

#### **OPERATING MODEL**

Anglo American's Operating Model is designed to deliver the expectations set by management in a consistent, effective and efficient manner. There are three components to our Operating Model, which address operational strategy, work management, and continuous improvement. By the end of 2017, various components of our Operating Model had been fully or partially implemented at 14 sites.

#### **OPERATIONAL RISK MANAGEMENT**

Our Operational Risk Management (ORM) process provides operational managers with a means of identifying, prioritising and controlling the risks that threaten their ability to meet their objectives.

The process manages operational risk through the implementation of four risk management layers:

#### Layer 1

Baseline risk management is undertaken to systematically identify material risks – described as priority unwanted events – at operations. Risk and control registers are then developed as a record of the identified priority events and ranked according to the degree of associated risk.

#### Layer 2

Issue-based risk management is conducted for priority unwanted events to enable detailed characterisation of the risk and to support the development of control strategies. Such exercises evaluate the effectiveness of existing controls, determine whether the risks are acceptable, and recommend control improvements.

#### Layer 3

Task-based risk management is undertaken to develop work plans and methods that guide the productive and safe execution of specific tasks.

#### Layer 4

Continuous risk management is employed to support the management of risks during the execution of work. This covers, among other elements, the identification, correction and reporting of workplace and execution issues. Risk assessments are undertaken before a task is performed, during the performance of a task when a change or unexpected condition is recognised, and after the task, so that the work area is acceptable to hand over to others.

#### ASSURANCE

Anglo American's Business Assurance Services (ABAS) provides independent internal assurance to our Audit Committee over the design adequacy and operating effectiveness of the internal control environment that mitigates risk across the Group.

In addition, the ABAS team works with colleagues across other functions to provide assurance over the controls associated with priority catastrophic and sustainabilityrelated risks at operations. These operational-risk audits are conducted on a rotational basis and reach approximately one third of operations annually. The results are reported to the Audit and Sustainability committees of the Board. Global thematic reviews, such as on tailings dam integrity, are undertaken at relevant Anglo American operations.

All managed operations will undertake self-assessments against the enhanced requirements of the SHE Way in 2018. The goal is to conduct formal third-party reviews for compliance with the SHE Way in subsequent years. Several operations also seek external assurance over their compliance with ISO 14001 and OHSAS 18001 management-system standards. All operations are assessed against the Social Way annually, with results being reported to the business units, GMC and the Sustainability Committee.

# CONTEXT AND MATERIAL MATTERS

Sustainable development in the mining industry is shaped by several characteristics that are unique to the sector. The nature of our business, including factors such as geographic footprint, the size of our workforce and commodity mix, further influence our approach to sustainability.

#### Mined materials form the basis for modern living

The metals and minerals we mine make global communication, information technology, efficient transportation, widespread access to energy, and several other critical aspects of modern life possible. Three of Anglo American's commodities – copper, platinum and nickel – will become even more critical in the move to low-carbon technology and renewable energy.

#### Mining is long term, yet finite

The inevitable closure of mining operations means that maximum value must be delivered over the life of the mine, and in such a way that the immediate needs and expectations of employees, governments and communities are balanced with those of future generations.

#### Mines are located where resources are found

As a developer of natural resources, the location of mining operations is dictated by where mineral resources are found. This reality, and substantial up-front capital investment, generally results in long term commitments to assets and surrounding communities.

#### STAKEHOLDER GROUPS

Investors	Suppliers and contractors
Communities	Civil society (NGOs, faith groups, academia)
Governments and multilateral institutions	Customers
Employees and trade unions	Industry/business associations

#### PILLARS OF VALUE

Safety and Health
 Environment
 Socio-political
 People



# There are significant developmental benefits and expectations

Mineral resources are owned by host countries. For this reason, and because many mining operations are located in areas that have little other economic activity, mining companies are expected to be, and generally are, important catalysts for socio-economic development. The majority of Anglo American's assets are in developing countries where there is a special responsibility to deliver developmental benefits – particularly at a local level.

## The future of mining is in ever-more challenging environments

Reserves that are easy to exploit have largely been found and mined. This reality inevitably steers the future of mining towards more environmentally, politically and technically challenging reserves and/or locations. Those locations often call for innovative approaches to mining, environmental stewardship and local development.

### Mining activities have a material environmental impact

The change from the baseline land use associated with mining is currently unavoidable and difficult to remediate effectively, particularly in the short term. Mining's highly visible disruptions to land make the industry a natural focus for those concerned about the health of our environment.

#### Mining is resource intensive

Mining and processing operations currently require large volumes of water for the purposes of processing, dust suppression and the transportation of ore. They also use significant amounts of diesel, primarily for haul trucks; and electricity, largely for processing activities and ventilation of underground mines. Many Anglo American assets are located in water-scarce regions where drastically reducing the abstraction of fresh water is a priority.

# Large numbers of people are employed by mining, but are also exposed to safety and health risks

Traditional mining has been a major employer of low-skilled workers in areas with limited economic activity. However, the labour-intensive nature of mining, combined with physical hazards inherent to the industry, presents higher risks to human health and safety than many other sectors. The industry is also particularly exposed to labour-relations risks, especially in developing economies with high levels of unemployment.

# OUR APPROACH TO DETERMINING WHAT IS IMPORTANT

Identifying and evaluating matters that are of common material interest to our stakeholders and to our business, and understanding how they may affect our ability to create value over time, are integral to our planning processes and help support the delivery of Anglo American's strategy.

Our process for determining those matters involves three steps: consultation, analysis and approval.

The consultation process in 2017 involved extensive desktop research, including: review of the Group Risk Register; global media coverage and analyst reports on Anglo American and the mining sector; and analysis of minuted Board and executive discussions. We also conducted an external consultation survey with a wide range of stakeholders, including investors, customers, suppliers, governments, civil society and industry groups. We will continue to conduct such engagement on a regular basis.

#### **MATERIAL MATTERS IN 2017**

The matters identified through our materiality process were naturally numerous and wide-ranging. These were then

analysed and prioritised by senior management, and then reviewed and approved by the Board.

In order for us to report against these material matters effectively, highlight connectivity and demonstrate how they affect the delivery of our strategy, we have set them out under the headings listed in the table below.

Each material matter covers a number of topics and issues, and some also intersect with specific principal risks facing the Group, as identified in the Group Risk Register. Principal risks are those risks, or combination of risks, that would threaten the business model, future performance, solvency or liquidity of Anglo American. An analysis of the Group's principal risks, including mitigation strategies, can be found on pages 42-45 of the Anglo American plc Annual Report 2017.

This Sustainability Report provides a more comprehensive account of our performance regarding safety and health, workforce culture and capability, environmental impacts and climate change, and meeting our commitments to governments and society. The sub-set of topics addressed includes business conduct, workforce engagement, safety, health, social performance and human rights, our socioeconomic contribution, environmental management, water, climate change, and mine closure.

Matters identified as material to our stakeholders and	d our business include:	Y
MATERIAL MATTERS		AREAS OF IMPACT
<b>Safety and Health</b> Protecting the safety and health of employees and contractors is a fundamental human rights issue facing Anglo American and the mining industry. While protecting our workforce from harm is a moral imperative, our focus on 'zero harm' also constitutes a direct investment in the productivity of the business. A safe and healthy	workforce contributes to an engaged, motivated and productive workforce that mitigates operational stoppages, and reduces potential legal liabilities. Safety is also considered a principal risk. Further details on this principal risk can be found on page 44 of the Anglo American plc Annual Report 2017.	Pillars of value:
<b>Environmental impacts and climate change</b> Responsible environmental management, including the management of water consumption and discharge, is a major factor in legal compliance and permitting, but also plays a significant role in improving the balance of value from mining	for our local stakeholders. Understanding the effects of climate change on our business and how it may impact our value chain is important as we strive to maximise the opportunities associated with the transition to a low-carbon future.	Pillars of value:
Meeting our commitments to governments and society Acting in an ethical and responsible manner is fundamental to Anglo American realising the significant business benefits gained from building trusted and constructive relationships with our stakeholders.	Working closely with host communities and governments to undertake integrated planning and share the benefits of mining helps Anglo American to avoid and mitigate adverse social impacts (including after a mine closes), optimise development opportunities and maintain our socio-political licence to operate.	Pillars of value:
Workforce culture and capability To deliver on our business objectives, we rely on a capable and engaged workforce that behaves in a manner that is consistent with Anglo American's values and Code of Conduct.	We aim to foster a high performance culture, through an organisation structure that is fit for purpose, resourcing this structure with the best capability and empowering our people to deliver results.	Pillars of value:
<b>Operational and cost performance</b> The mining sector continues to face operating cost inflation, including labour costs, energy costs and the impact of ore grade deterioration. In order to deliver our profitable growth strategy and to maintain our competitive position, Anglo American must deliver its financial	improvement targets and minimise the number of unplanned operational stoppages that affect production. This is also considered a principal risk. Further details on this principal risk can be found on page 45 of the Anglo American plc Annual Report 2017.	Pillars of value:
Political and regulatory Anglo American operates or has projects in a number of countries where there is political instability and where the regulatory environment for the mining industry is uncertain.	These factors are also considered principal risks. Further details on this principal risk can be found on page 42 of the Anglo American plc Annual Report 2017.	Pillars of value: <b>? 3 1 4</b>
<b>Macro-economic environment</b> Economic slowdown in those countries that are major consumers of the Group's products could have a negative impact on demand for those products. Demand may also be negatively affected by product substitution and/or fundamental shifts in market forces.	These factors are also considered principal risks. The Marketplace review on pages 11 to 13 of the Anglo American plc Annual Report 2017 gives more detail on the macro-economic environment facing the Group.	Pillars of value:

# **BUSINESS CONDUCT**

The private sector faces ever-greater demands and expectations from many different stakeholders, who judge our reputation against best practice. This puts our ethical performance into the spotlight and raises the importance of not only committing to high standards of business conduct, but also of being able to demonstrate proper compliance with these standards throughout the organisation.

### **DOING THE RIGHT THING**



At Kumba Iron Ore – senior officials Jean Britz, Conrad Bezuidenhout, Frikkie Burger, Derek Esterhuysen, Christo Oliver and Tana van Straaten participating in one of the interactive Code of Conduct Workshops attended by all leaders in Anglo American.

#### We are putting our values into action and helping employees to 'do the right thing' by launching our new Code of Conduct.

During 2017, more than 3,400 leaders were trained to facilitate Code of Conduct engagement sessions with employees at all levels in the organisation. Helping employees to understand what it means to act ethically in Anglo American, and supporting them in this process, is all the more critical in challenging market conditions where there are strong tensions between the pressure to deliver targets and choosing to do the right thing.

The engagement programme for the Code of Conduct has encompassed all of our employees across a range of different cultural, educational and literacy backgrounds. The approach has been to train team leaders to facilitate discussions on ethical dilemmas and personal action commitments with their employees. The dilemmas have been based on everyday challenging situations that employees may encounter, such as what to do when they feel that safety or integrity may be compromised. During the discussions employees were encouraged to refer to the new Code of Conduct as guidance in making the right choice or in knowing where to go to ask for more support.

The Code of Conduct itself has been designed with employees in mind; it utilises simple, creative messaging to link decision-making to choosing the right direction, both as an individual and a business. The toolkit supporting leaders in the cascade campaign included a range of innovative materials from animations to interactive documents. Anglo American was proud to have won the 'Best employee engagement programme' award in relation to its efforts at 'CorpComms' 2017 Corporate Communications Awards.

Various initiatives are under way to measure the success of the engagement programme, including formal testing, surveys, and feedback during the cascade sessions. During Anglo American's 2017 "Have your say" employee engagement survey, 94% of respondents agreed that the new Code of Conduct was guiding the right behaviour.

The ongoing Code of Conduct training and awareness initiatives continue to remind employees what it means to live the values and to contribute to an ethical culture.

#### **CODE OF CONDUCT**

Anglo American launched a new Code of Conduct at the end of 2016. The Code focuses on four key areas, providing guidance on how to: prioritise safety, health and the environment; treat people with care and respect; conduct business with integrity; and protect our physical assets, information and interests.

During 2017, we hosted more than 200 workshops in which more than 3,000 individuals received Code of Conduct training, which will be offered on a continuous basis.

#### **BUSINESS INTEGRITY**

Our Business Integrity Policy states that we will neither give nor accept bribes, nor permit others to do so in our name. The policy is supported by 11 performance standards that set out the conduct required in areas where bribery and corruption risk may be present. The standards prohibit the company from making donations to any political party or politician. No such donations were made in 2017.

During 2017, we hosted more than 65 workshops in seven jurisdictions, in which 1,200 individuals received business integrity training. Approximately 1,250 employees and contractors participated in online training.

#### ADDRESSING BRIBERY RISK

Bribery risks are considered an essential element of the ethical risk assessments carried out at business unit and Group levels in 2017. The bribery-risk areas include use of agents, and the nature of interactions with government officials, customers, suppliers and communities. When bribery risk is determined to be unacceptably high, an action plan is developed to strengthen the internal controls in order to manage the risk. The bribery risk assessment process and action planning are audited by our internal audit team.

#### WHISTLEBLOWING

Our independently managed 'Speak Up' facility is a confidential and secure means for our employees, contractors, suppliers, business partners and other external stakeholders around the world to report concerns about conduct that is contrary to our values and integrity standards. We do not tolerate any form of retaliation against employees raising concerns in good faith. Any allegation of harassment or intimidation by others as a result of contacting Speak Up is investigated and, if required, appropriate action is taken.

During 2017, more than 900 alerts were received, of which approximately 68% related to allegations of external fraud attempts. All alerts were evaluated, investigated as necessary and the proven alerts were properly addressed by management.

#### **PUBLIC POLICY**

As a major mining company, expectations around our performance and contribution to society are high. Anglo American is subject to extensive regulation and approval processes at international, national, state and local levels. Adhering to these processes and understanding these expectations involves regular interaction with national governments, elected leaders, departmental experts and regional and local officials, as well as broader civil society and multilateral institutions.

Public policy areas relevant to mining include our contribution to sustainable development, disclosure and transparency, health and safety, concessions and

permitting, corporate governance and taxation, and environmental performance. Our interactions with government and government-linked institutions are not just about legal compliance, but also involve active engagement at all levels in line with our wider international policy commitments; e.g. on human rights or transparency. We aim to inform and promote an environment conducive to best practice in all such areas of policy. We also draw on our strategic partnerships with international agencies, NGOs, civil society organisations and trade associations to promote multi-stakeholder approaches to addressing difficult challenges.

Our government engagement follows a clear and accountable set of parameters, including an annual planning and assurance process. Requirements are set out in our Government Relations Handbook, which is aligned with our Code of Conduct. For each material jurisdiction, government relations plans are approved annually by the Group and relevant business unit CEOs. In 2017, the main areas on which we have engaged with governments have included:

#### **Reform to mining codes**

Several countries in which we operate — for example, South Africa and Brazil – have undergone processes to amend their mining codes. This affects many aspects of our business, ranging from how concessions are granted, to the ownership structure of mining companies, mining rights and permitting. Throughout the development of these legislative codes, we have participated in public consultations, industry association roundtables and meetings with public bodies and officials to outline the industry perspective on perceived impacts, benefits, and potential unintended consequences, as well as to further understand upcoming changes.

#### **Taxation system and standards**

Governments regularly review and revise taxation systems and disclosure requirements. This influences what taxes we pay, where and how. As a global company, we support standardised taxation systems, based on internationally recognised standards such as OECD guidelines. We participate in technical industry groups, public consultations, multilateral institutions working groups and consultations, and sometimes have one-on-one meetings with relevant officials to clarify specific matters or provide an industry perspective. We are committed to paying tax in the countries where we operate mines and see this as an important part of our wider societal and development contribution.

#### **Responsible mining in society**

We participate in multilateral initiatives to inform and improve a best-practice approach in the areas of sustainability, transparency, community engagement, human rights, climate change and responsible business, as well as to help identify the roles that different stakeholders; companies, government and civil society should play in development. These initiatives often involve governmentlinked institutions, as well as multilateral institutions, investors and civil society. For example, we have invested in further integrating human rights into our business by strengthening our human rights due-diligence approach, including within our supply chain, and have participated in various working groups linked to business and human rights.

There is wide recognition that to achieve the UN Sustainable Development Goals (SDGs), the private sector, governments and civil society will need to work closely together. In 2017, we started mapping how our activities can contribute to the SDGs, either through existing work or through the development of new programmes. This process has involved consultation with governments and other stakeholders to understand and take development priorities into consideration.

# **WORKFORCE ENGAGEMENT**

We create a sustainable competitive advantage by resourcing the Group with a capable and engaged workforce within a culture that fosters safety, diversity, innovation and performance.

### **STANDING WITH WOMEN AND GIRLS**

During 2015, De Beers identified *Standing with Women and Girls* as a strategic pillar within the *Building Forever* brand proposition. Recent research indicates that millennials have higher expectations of companies with respect to environmental impacts, their contribution to society, and gender equality. As a prominent global brand, a gamechanging approach to sustainable development is a critical enabler for the future of De Beers.



Plant monitors Lufuno Sivhabu and Pfunzo Dzebu overlooking the process plant at De Beers' Venetia mine in South Africa. The link between diamonds, women and De Beers is tangible. More than 90% of end-use consumers of diamonds are women. Gender equality is high on the agenda of host governments and host communities, and is supported by legislative requirements such as the Gender Pay Gap obligation in the United Kingdom. Critically, gender diversity within the workforce leads to greater innovation, faster decision-making and higher productivity. Currently, women make up 24% of De Beers' total workforce and nearly 20% of the leadership population. In an effort to improve workforce diversity and women's empowerment more broadly, the De Beers Executive Committee took a decision in 2016 to develop a strategic framework to advance gender diversity. Three themes emerged from this work: gender diversity and inclusion; community development; and the formation of strategic partnerships. In September 2017, De Beers announced a three-year collaboration with UN Women, including becoming a UN Women *HeForShe* Champion. The collaboration involves three key commitments:

De Beers has committed to investing \$3 million in female micro-entrepreneurs, as well as in science, technology, engineering and maths (STEM) in our countries of diamond production. In Botswana, South Africa and Namibia, the focus will be on supporting female micro- entrepreneurs in the informal sector by helping them to grow their businesses and create sustainable jobs. In Canada, we will provide scholarships and mentoring to underprivileged students in STEM fields. The programmes were launched in early 2018.

The second commitment involves the advancement of women across the organisation. De Beers' goals are to double the rate of females appointed into senior leadership roles, by achieving gender parity in the appointment of men and women into senior leadership by 2020. Foundational work completed in 2017 included: establishing a cross-pipeline gender diversity steering group; unconscious-bias training; mentoring programmes; and a review of best-practice policies and recruitment guidelines.

Finally, De Beers will support gender equality through its consumer marketing campaigns. This commitment will involve working with UN Women to develop best-practice guidelines, and commissioning creative campaigns showcasing the evolving role of women in society.

De Beers' commitments align with the UN's SDG 5: Achieve gender equality and empower all women and girls, with links to SDG 4: Quality education and SDG 8: Good jobs and economic growth.

#### EFFECTIVE AND EFFICIENT ORGANISATION DESIGN

Anglo American's organisation design is built around strong, product-focused operating units, supported by functions that provide value-adding expert leadership and ensure effective governance to continuously improve business performance.

This design aims to maximise the effectiveness of Anglo American's Operating Model, promote the sharing of resources and consistent best-in-class standards across operations, while investing in functional capacity in the strategic areas that will best deliver business returns.

Our Organisation Model ensures we have the right people in the right roles doing the right value-adding work at the right time, with clear accountabilities minimising work duplication and increasing organisation capability and effectiveness.

# RESOURCING THE ORGANISATION WITH THE BEST CAPABILITY

Equipping Anglo American with an engaged and productive workforce is essential for our success. We aim to attract the best people in the industry and to facilitate professional and personal development in our core disciplines. In assessing the capability of current and prospective employees, we consider, inter alia: technical skills and knowledge acquired through experience and practice; mental processing ability; social process skills; and the degree of drive and commitment a person displays.

#### Assessing our existing talent consistently

To resource our structure with the best capability, we need to have the right people in the right roles, and to align workforce aspirations with our organisational goals. We have developed a talent identification tool and process that we applied systematically across the Group during 2017. The consistent approach to assessing and calibrating talent has enabled us to map our capability and to better understand our risks and readiness for succession, in particular for assimilating talent into leadership and specialist positions. We have been identifying and allocating talent into different talent pools for development purposes, with the aim of addressing weaknesses and realising new opportunities.

# Number of permanent employees and contractors by region 2017<sup>(1)</sup>

Total	98,113	
Middle East	12	
Asia	538	
North America	1,198	
Europe	2,031	
Australia	4,420	
South America	15,850	
Africa	74,064	

(1) These figures reflect the annual average of employees and contractors at managed operations during the year.

#### **Building leadership capability**

Inspiring, accountable, safety-conscious leaders drive organisational alignment and a high performance culture. To strengthen our leadership pipeline, we are improving our framework for developing management and leadership skills across the Group.

We have a diverse range of internal and external programmes, aimed at enhancing skills, knowledge and awareness, to enable leaders to be more effective in their roles and more accountable for their contribution in driving value. In 2017, we resumed our leading Programme for Management Excellence and The Achiever Programme, both of which have been updated in line with the organisation's ambition and strategic goals. The scope of the Advanced Social Management Programme for leaders has been extended to include all aspects of sustainability and is designed to support the implementation of the new Sustainability Strategy.

We continue to see excellent results from our Building Leaders and Shaping Talent (BLAST) initiative, an accelerated leadership-development programme for recent graduates. The programme provides rotation across three roles and two continents in four years, thereby affording a mix of experience and global exposure across commodities and disciplines. This pathway enables participants to be considered for middle-management roles when they exit the programme.

#### Number of permanent employees and contractors by business unit 2017<sup>(1)</sup>

		%		
De Beers	20,456	21		
Copper	9,387	10		
Platinum	29,638	30		
Kumba Iron Ore	10,160	10		
Iron Ore Brazil	3,543	4		
Coal	19,923	20		
Nickel	2,550	3		
Marketing	300	0		
Group Departments	2,156	2		
Total	98,113			

<sup>(1)</sup> These figures reflect the annual average of employees and contractors at managed operations during the year.

#### Managing learning and development

With the strategic focus on developing a high-performance culture, we are designing a learning 'ecosystem' employing best-in-class practices in the design, creation, deployment and tracking of learning experiences in order to create an engaging and empowering learning culture for employees. To enable this, we are investing in a Group-wide learning management system, the foundational element of which is training in our Code of Conduct, safety and operational risk management.

In an increasingly competitive market for skills, we are investing in developing a pipeline of future talent through our support of 2,209 graduates, bursars, apprentices and trainees.

Graduate recruitment programmes include placing tertiary-institution graduates on our Professionals in Training programmes to ensure that technical skills are advanced to follow Anglo American's workplace standards and meet various countries' legal requirements.

Anglo American has numerous initiatives focused on supporting education and development, from schools through to tertiary institutions, as well as programmes targeted at building skills and leadership capability. We develop skills in mining as well as non-mining-related sectors, and we provide basic literacy and numeracy to our employees, contractors and community members through adult basic education and training programmes. In 2017, we spent more than \$69 million on training, across our range of external and internal development programmes.

During 2017, voluntary turnover was 2.3%, while new employees accounted for 10.5% of permanent employees.

#### Agile workforce planning for the future

Given the changing nature of work, we need to be proactive in anticipating the implications of future technical innovation in terms of work content, capabilities required and employment numbers. By using statistical modelling, machine learning, and data mining to analyse current and historical facts, we are developing the capability to make predictions on workforce changes such as exits, promotions, and internal movement. We are developing a continuous scenario-based workforce-planning approach to take into account different assumption models in terms of external market shifts, and legislative and regulatory changes, as well as internal business demands. This risk-based approach aims to improve our ability to predict potentially material impacts on our workforce and adapt accordingly. This iterative planning and monitoring approach will allow us to add more detail on talent and timing requirements into our long term plans.

# A CULTURE THAT MAKES US THE EMPLOYER OF CHOICE WITHIN THE MINING SECTOR

We aspire to have an organisational culture that fosters safety, diversity, innovation and performance. Our organisational culture is shaped by leaders who demonstrate company values and work interdependently to achieve the best overall outcomes for Anglo American.

# Purposeful, aligned and accountable leadership teams

Through our performance management process, we ensure that the objectives of leadership teams across the company are consistent and aligned to the company's broader goals.

Our short term incentive programme also fosters organisational alignment, which was recently reviewed to ensure that safety performance is rewarded in a way that is consistent at different levels of the organisation and that the right behaviours are incentivised.

A principal input of our culture and Purpose work has been the results of a global employee engagement survey conducted among 6,000 employees from across the organisation. All employees with workplace internet access, down to a supervisor level, were invited to participate. More than 60 questions were asked across 12 dimensions, ranging from culture and values and sustainable engagement, through leadership and organisation effectiveness, to development and performance management. The results have provided a better understanding of our cultural strengths, as well as the areas we need to focus on for improvement. We are taking actions and are developing an approach to better define and promote our organisational culture.

#### **Reward structures that differentiate performance**

It is critical that we provide appropriate remuneration to attract, retain and motivate the right calibre of employee in the regions within which we operate.

We implement a performance management and remuneration framework that is designed to reward our people based on their performance and recognised potential, giving equal emphasis to delivery and behaviour through a combination of short and long term incentives. The process is geared to support a values-driven, high performance culture.

Senior leaders within the organisation are incentivised with longer term awards, which are provided on meeting pre-determined objectives that are in line with the interests of shareholders. (Refer to the 2017 Anglo American Annual Report for a comprehensive account of our approach to remuneration.)

In total, 19% of employees received formal performance and development reviews. Of those who received such reviews, 70% were male and 30% were female.

#### An inclusive and diverse environment

Anglo American embraces inclusion and diversity in all its forms and complies with relevant legal obligations across host jurisdictions. We seek to build a workforce that reflects our geographical footprint and we provide similar opportunities for broader development within the regions within which we operate. A diverse workforce is a source of competitive advantage, bringing greater variety of thought to tackle the complex, global challenges we face.

We continually develop our workforce to ensure that we have this diversity among our future leaders. The talentmapping exercise we undertook in 2017 has provided better insight into the diversity make-up of the future of the organisation. In certain areas of the business we focus on particular aspects of diversity. In De Beers, for example, there is currently a strong focus on improving gender diversity (see case study on page 21), while in South Africa racial diversity is highlighted as an area of focus.

On the back of the progress made by De Beers on gender diversity, the Anglo American Group is developing a broad inclusion and diversity strategy. This includes unconsciousbias training for senior managers and embedding appropriate targets within our talent and succession planning processes to ensure that management positions or critical role appointments are made from a diverse slate of candidates.

By year end, women made up 19% of our overall workforce (2016: 18%) and 26% of managers (2016: 25%). The proportion of permanent employees under 30 years of age was 13%, those between the ages of 30 and 50 accounted for 68% of the workforce, while the remaining 19% were over 50 years of age. In South Africa, the figure for historically disadvantaged South Africans as a percentage of management positions was 66%.

Anglo American has commenced reporting its UK Gender Pay Gap position in line with legislative requirements under UK law. (For further information see page 115 of the Anglo American plc Annual Report 2017.)

#### **Supporting labour rights**

As expressed in our Human Rights Policy, and as signatories to the United Nations Global Compact, we are committed to the labour rights principles set out in the International Labour Organization core conventions, including the right to freedom of association and collective bargaining, non-discrimination, and the eradication of child and forced labour. Observance of these rights is required of all our operations and suppliers, irrespective of location.

At our operations, we have policies and processes in place to ensure that we do not employ any under-age or forced labour. No incidents of employing under-age or forced labour were reported in 2017.

#### **Fostering sound industrial relations**

Approximately 72% of our current permanent workforce is represented by works councils, trade unions or other similar bodies, and covered by collective-bargaining agreements. We continually seek to improve relations with our employees and their representative bodies and see trade unions as key partners in promoting the broader welfare of our employees. In 2017, Group-wide, there were no instances of industrial action lasting longer than a week.

# SAFETY

Operating safely, sustainably and responsibly is integral to our business strategy. Our aim is to continually build and instil both a company and industry culture that protects people from harm.

### LEARNING FROM HIGH POTENTIAL INCIDENTS

Anglo American is analysing high potential incidents (HPIs) to identify and correct absent or failed controls. This brings the company one step closer to creating a zero-harm work environment.

Safety performance has traditionally been measured by lagging indicators, such as injury frequency rates and lost workdays. Such measures are necessary to track the number and severity of injuries, but do not provide an indication of our capability to prevent injuries. Leading indicators are increasingly being used as a means for understanding factors that might prevent injuries. Systematically tracking and analysing aspects such as safety training, safety audits, the implementation and effectiveness of controls, and HPIs can help provide an indication of where corrective action is required to avoid harm.

Tracking and analysing HPIs offers an opportunity to learn from incidents which could have resulted in significant harm. It is a requirement that all HPIs are investigated, the causes analysed and lessons captured. Risk and control strategies are then re-assessed, and improved when necessary.

At Platinum, general managers and other key personnel meet monthly to share learnings from HPIs. An example

of an incident shared involved a haul truck driver who reversed over a safety berm at Mogalakwena mine in South Africa. Once the rear wheels were over the safety berm, the haul truck slid down an embankment and came to rest in a gully. While physical controls kept the driver safe, the potential outcome could have been serious.

An investigation was conducted to understand why the incident took place, and identify controls that might need to be strengthened or improved to avoid similar incidents. The investigation revealed that the driver failed to reverse at 90° to the berm, his view was obscured by the angle of the sun and the rear-view camera had not been cleaned properly. Opportunities to improve controls included refresher training for haul truck drivers with respect to the angle of approach and the use of physical controls; changing the current rear-view cameras to give a wider field of vision; and refining our understanding of environmental conditions when allocating dumping areas. For example, the position of the setting sun was not considered for this dump site and the silhouette of a hill forming the horizon obscured the actual berm position. Further analysis recommended adjustments to the design of the roads and safety berms.

300-tonne haul trucks in operation at Platinum's Mogalakwena north pit, in South Africa.



(1) The figure reported

in 2016 (0.007) was

restated following a

small downward

adjustment of the

number of hours worked that year.

The reduction of

hours resulted in the

rounding up of the

figure to 0.008.

#### **OUR PERFORMANCE**

We deeply regret the loss of nine of our people in 2017. An additional, non-recordable loss of life involving transportation on a public road occurred at Los Bronces in Chile. Any loss of life is unacceptable and we remain unwavering in our commitment to achieving our vision of zero harm. All fatal incidents are subject to rigorous investigation and management action to prevent repeats.

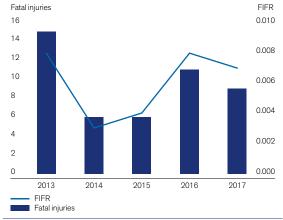
The Group's fatal-injury frequency rate (FIFR) at the end of 2017 was 0.007 compared with 0.008<sup>(1)</sup> in 2016. At our Platinum operations, two employees died as a result of falls of ground, while three employees died in moving machinery incidents, and a sixth person died as a result of exposure to a hazardous substance. At Coal South Africa, one employee was engulfed while cleaning a coal silo, another died while preparing to repair a conveyor belt, and a third person was fatally injured in a moving-machinery incident.

Failure to identify hazards and respect risks, not following standard operating procedures, and inadequate supervision and oversight, are routinely identified as contributing factors in significant and fatal incidents across the Group.

Over the past two years, 90% of Group fatalities have occurred at our South African operations. Ensuring safety at South African mines is an ongoing issue across the industry. We continue to focus on further strengthening our safety culture and controls at more challenging mines.

Our lost-time-injury frequency rate (LTIFR) declined from 0.37 in 2016 to 0.34 in 2017, while our total recordable case frequency rate (TRCFR), which includes any injury that requires more than first-aid treatment, decreased by 11% from 0.71 in 2016 to 0.63 in 2017. Notwithstanding the improvements in our injury performance, we did not meet our Group-level targets for the year.

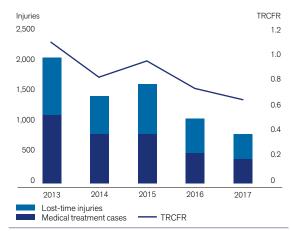




Operations that experienced a substantial deterioration in safety performance have taken decisive action to improve their performance. For example, Coal South Africa, following its third fatality in 2017, implemented a leadershipdriven 100-day safety-intervention initiative. At Platinum, a high turnover of front-line supervisors and managers affected safety performance. Response measures included accelerating the recruitment process, re-evaluating incentive schemes, wellness programmes and further investigating the root cause of the high turnover rate.

The reporting and learning from HPIs has improved, heightening awareness around critical controls and promoting actions to improve their effectiveness. (See case study on page 25.) Notably, HPIs are driving improvements in fatigue monitoring and detection, traffic management, and explosives management. In most incidents reported, controls in place functioned as designed, preventing or minimising the negative effects of such incidents. Of the 203 HPIs reported, the most common involved transportation, moving machinery and falling objects. An increase in the reporting and addressing of high potential hazards (HPHs), which are used to identify and correct conditions that may result in an incident or event materialising, is helping to reduce the number of HPIs.





#### **PROVIDING A SAFE WORKPLACE**

Our safety-management approach is risk-based and focuses on integrating safe working practices into every aspect of what we do. This is founded on three key principles: a mindset of zero harm; no repeats; and the application of simple, non-negotiable standards. Throughout 2017, operations continued to implement safety improvement plans that include initiatives around critical controls, learning from incidents, culture and behaviour, and leadership engagement and accountability. These remain priorities in 2018, with the aim of ensuring that each of our sites follows a consistent approach.

#### **Resilient management systems**

During 2017, we launched our new Safety, Health and Environment (SHE) Way, which integrates safety, health and environment in guiding our approach to achieving zero harm. The management-system framework provides a simpler, more streamlined approach aligned to the latest international standards. Early in 2018, operations commenced self-assessments and will develop SHE management improvement plans. We have also implemented interventions aimed at further integrating safety with our Operating Model, thereby improving the planning and scheduling of work and tasks. At Los Bronces in Chile, for example, where planned work improved following implementation of the Operating Model, injury-frequency rates decreased by 80%.

#### Effective risk management

Our operations continue to embed Operational Risk Management (ORM) processes for safety, with a focus on identifying, implementing and monitoring critical controls, analysing deficiencies, and incorporating identified controls into task-risk assessments. Operational metrics, together with HPI and HPH reporting, provide a robust set of leading safety indicators to inform interventions. Sharing and implementing safety learnings more efficiently is mitigating the number of repeat incidents.

During the year, we conducted technical assessments of risk analyses and critical-control management at several operations. The reviews highlighted weaknesses in our practices and also identified opportunities to improve critical control definitions and monitoring specification and frequency. In response, we have added further impetus to building ORM capability and capacity across the Group through continued risk-management training, supported by enhanced capability building at front-line manager and practitioner levels. We are also defining minimum mandatory critical-control strategies and associated monitoring specifications for common major hazards; these will be rolled out across the Group in 2018.

Targets relating to the delivery of ORM form part of management incentives, and there is growing recognition that safety and productivity are complementary. Anglo American's safety results affect the performancebased remuneration of all employees in the business.

#### Leadership and accountability

Strengthening leadership and accountability remains a priority as we continue to place an emphasis on improving the quality and impact of our 'visible felt leadership' (VFL) interventions. In 2017, we refreshed our VFL training programme, which was well received when piloted among representatives of several South African business units and the Anglo American Tripartite Initiative – a senior safety leadership forum comprising company, government and labour union representatives.

Safety leadership workshops were piloted for operational leadership team members based in South Africa. These aimed to develop safety intelligence and skills through analysis of safety situations and employee feedback. The programme included a simulation tool based on a fictional conveyor-belt fatality investigation, exploring the tension between accountability and blame, and the leadership changes required to create a safe and productive environment at the workface. The simulation became a foundational element of the training programme rolled out in 2017.

We are also developing contractor and supplier performance scorecards to promote accountability and safety performance improvements.

#### **Safety culture**

Building a safe, responsible culture requires strong safety leadership, effective supervision and an engaged workforce. To foster a stronger safety culture, in 2017 we developed a safety-culture framework that is designed to embed positive safety leadership practices as part of daily activities. The framework defines the safety practices expected of managers, supervisors, and all our employees, and their roles in strengthening the culture. This initiative was supplemented by our seventh annual Global Safety Day campaign. The theme in 2017 was 'safe, responsible production - together we make it happen', which focused on the importance of planning, reporting risks and incidents, working together to address challenges and opportunities, and giving recognition to each other for working safely. All sites engaged in a series of 'activations', which included the dedicated Global Safety Day, held in October, which once again brought employees and contractors together to reinforce a commitment to shared responsibility for safety.

#### **Engagement and collaboration**

Anglo American and IndustriALL Global Union have collaborated in developing a globally applicable safety initiative that is designed to improve industrial relations by building trust between management and labour, and to ensure safety and health hazards associated with work are clearly identified, understood, and eliminated or adequately controlled. The initiative will be piloted at a selection of globally as well as operationally diverse sites over a 12-month period.

A further example of collaboration is Los Bronces' partnership with the local authorities in launching a road-safety-monitoring system for the main access road to the mine. The system includes surveillance cameras, an automatic vehicle counting station, speed controls and emergency communication for road users.

### **ELIMINATING FATALITIES**



Production manager Alfred Mathenjwa, train operations specialist Malcolm Isaaks, plant manager Bongani Buthelezi and general manager of logistics Anesan Naidoo conducting a safety meeting at Kumba's Kolomela mine in South Africa.

Eliminating fatalities at South African mines is an ongoing challenge across the industry. At Kumba, to arrest a trend of fatal incidents occurring every second year at its operations, in 2016 the business intensified its approach with the development and implementation of an 'elimination of fatalities framework'.

The framework is designed to facilitate a step-change in the management of high-level (potentially fatal) safety risks by building on existing practices and stepping up its focus on safety-critical controls and safe behaviour. Implementation of the framework ensured that there were no fatalities during 2017 and has supported the achievement of almost all of Kumba's safety-related targets for 2017.

The six focus areas of the framework are: strengthening safety leadership and accountability; embedding a caring culture; improving the planning and scheduling of work; assessing and managing risk and change; safety performance monitoring and assurance; and learning from HPIs and HPHs. The framework recognises that everyone at Kumba has a role to play in eliminating fatalities – the CEO, every leader and every employee and contractor must understand their role, responsibility and accountabilities.

In strengthening leadership, the number of visible felt leadership interactions and interventions at Sishen and Kolomela escalated in 2017, driving an encouraging increase in the number of HPHs reported and a decrease in the number of HPIs. In 2017, Kumba's safety team analysed the 21 HPIs and 2,410 HPHs recorded at Sishen and Kolomela during 2016, to identify the primary causes and weaknesses in the operations' practices. Kumba personnel conducted in excess of 2,300 critical-control monitoring inspections, which are designed to identify and remedy possible deficiencies. The exercise found that 91% of critical controls were operating effectively. Achieving and maintaining full compliance is a critical goal for 2018.

In 2018, we will maintain a very visible focus on high-level safety risk management, driving improvements across the six focus areas of the framework. This involves timeous and thorough critical control monitoring; and reporting, analysing and addressing HPHs.

All levels of management, including the Kumba CEO and executive committee, have participated in safety leadership alignment training. The training will be extended to supervisory personnel in 2018.

# HEALTH

Our occupational health programme targets the elimination of health hazards at source. It is increasingly augmented by focused efforts to improve the health of our workforce – at work and at home.

### **REAL-TIME MONITORING**

Potential worker exposure to health hazards is being significantly reduced by real-time monitoring of dust, noise and gases by devices installed at the Platinum Precious Metals Refinery (PMR) in South Africa.



A real-time monitoring station in operation at Platinum's Precious Metals Refinery, indicating the current conditions for safe working in each area.

Several real-time monitoring devices were installed around the PMR during a pilot project in 2017. The Operational intelligence Suite (OiS) initiative links devices to dashboards that allow operational personnel to respond to control failures without delay. Automated

#### **OUR MANAGEMENT APPROACH**

Our health-related activities focus on mitigating health risks in the workplace, on supporting the overall health and well-being of our workforce, and promoting community health initiatives in the areas where we operate. In 2017, we updated our occupational health strategy, setting clear objectives and targets for our health outcomes in 2022. Our primary goal is to ensure that there are no new cases of occupational disease as a result of exposure to health email notifications indicate the actual versus allowable levels of any substance of concern, and include a list of employees who may be at risk of exposure in accesscontrolled areas. These notifications serve as earlywarning systems for employees working in areas with real-time monitoring devices (though all employees also wear protective equipment).

Results from the pilot project were encouraging. The enhanced approach to monitoring identified faulty valves that needed to be replaced before the planned maintenance schedule, as well as the need for more frequent maintenance of extraction ventilation system fans and scrubber units. Real-time monitoring of soluble platinum, coupled with an upgrade in ventilation equipment, resulted in a reduction in personal exposure to airborne pollutants and a change to lighter and more comfortable respirators.

These early warnings prevented exposure to pollutants, protecting employee and host-community well-being. Productivity and efficiency at the PMR improved as a result of fewer stoppages and proactive maintenance by the engineering department.

Real-time monitoring systems are currently being installed at Mogalakwena, Rustenburg Base Metals Refinery and Sishen as part of the larger roll-out, which includes installations in communities surrounding our operations. During 2018, we plan to trial the project at an underground operation. We foresee that real-time monitoring of exposure of individual employees using personal monitoring devices will become a reality in the near future.

hazards at Anglo American. In striving to prevent harm and positively influence the health and well-being of our employees, we aim to develop an integrated, holistic approach to managing workplace and personal health risks that is globally consistent, yet locally relevant. In support of the recently approved Sustainability Strategy, we will promote greater collaboration between our functions and with partners in implementing strategic communityhealth initiatives.

#### **OCCUPATIONAL HEALTH**

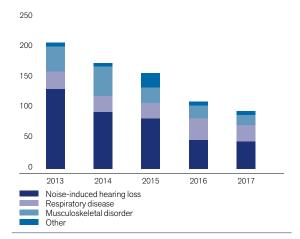
Our primary focus is to eliminate exposure in the workplace at levels known to cause harm and prevent associated occupational diseases. Our principal occupational health risks relate to occupational exposure to inhalable hazards, workplace carcinogens, noise, musculoskeletal stress and the management of fatigue, and psycho-social factors.

In striving for zero harm, our integrated approach is guided by the SHE Way. The progress we have made in aligning health risk management with the Operating Model and ORM processes and improving occupational hygiene capacity and capability, provides the foundation for achieving a step-change in our health performance. Guided by the new SHE Way, all technical standards and related documents will be reviewed during 2018.

#### **Controlling occupational exposure**

The company's occupational-hygiene programme targets the elimination of occupational health hazards at source. Our focus on embedding the critical-control-management process and mitigation measures has resulted in reduced levels of exposure and fewer health incidents. In workplaces where there is a possibility that an occupational exposure limit (OEL) might be exceeded, employees are provided with appropriate personal protective equipment (PPE), such as suitably selected respiratory-protection and hearingprotection devices. We have intensive programmes in place to ensure that employees and contractors are trained in the appropriate use and maintenance of the PPE provided, and strict control measures to ensure adherence to requirements in areas where hazards are present and the use of PPE is required.





At Platinum, the implementation of our OiS initiative, which triggers an alert when an over-exposure or critical-control failure is detected, has enabled more timeous control monitoring and management of workplace environmental conditions and associated occupational exposures. OiS utilises real-time data for the monitoring of defined parameters as an indication of critical-control availability and performance.

The total number of employees reported to be working in environments with noise levels in excess of the relevant OELs amounted to 35,000 at the end of 2017. Measures to reduce noise levels, including engineering solutions in haul-truck cabins and rock drills, particularly at our Platinum and Iron Ore operations in South Africa, have resulted in the near-elimination of employees exposed to noise levels above the key South Africa Mine Health and Safety Council milestone limit of 105 dB(A). The roll-out of personalised hearing-protection devices at sites at risk across our Platinum, Iron Ore, Coal and De Beers' South African operations has also materially improved the effectiveness of hearing-protection measures.

Employees who were reported to be working in environments where they were potentially at risk of exposure to inhalable hazards at levels in excess of the relevant OELs decreased from 6,047 in 2016 to 5,064 in 2017. The introduction of real-time dust monitoring to detect potential excessive dust concentrations in the workplace atmosphere is significantly improving our understanding of our risk profiles and timeous dust suppression. (See case study on page 29.) An improved understanding of dust sources and the introduction of additional controls will remain a priority in 2018. Long term workplace dust-control projects are progressing at Iron Ore's Sishen mine in South Africa and Minas-Rio in Brazil, and at Copper's Los Bronces and El Soldado mines in Chile.

We are improving our understanding of certain occupational carcinogenic risks, including exposure to welding fumes, ultraviolet radiation and arsenic.

#### **Health incidents**

The reporting and investigation of health incidents is an essential part of the process to ensure that the effective control of exposure to health hazards takes place at source. We report five levels of health incidents. A decrease in the number of reported incidents across all levels in 2017 is indicative of improved understanding of the management of health incidents and progress in health-hazard prevention and control measures. We continue to focus on improving our reporting of health HPHs and HPIs. Reporting of HPIs is encouraged, as they are used to heighten awareness, facilitate organisational learning, and to effect more robust controls. We are working towards achieving an aligned and consistent approach across the business units so that trends and investigation findings can be analysed and communicated efficiently to prevent repeat incidents.

#### Monitoring the health of employees

Anglo American's occupational medical-surveillance programmes ensure that the baseline health of every employee entering the workforce is recorded, that their state of health is monitored throughout the duration of their employment, and that focused interventions are made to help the individual sustain and potentially improve their health. Our programmes are designed to detect risk factors and early signs of ill health related to occupational exposures and lifestyle conditions. Medical surveillance therefore incorporates screening for common lifestyle diseases such as hypertension, diabetes, cholesterol and obesity.

The interplay between workplace and social risk factors calls for an integrated approach to health promotion, prevention and management. To this end, Anglo American organised an international occupational health seminar in Chile. The event, Total Health 2017, attracted more than 70 occupational health professionals from the mining industry, government and academia to discuss current challenges in the occupational health field and aid collaboration between different sectors. In the context of an evolving health-services landscape, we continue to develop and standardise our systems for managing confidential health information. At our South African operations, we utilise advanced electronic healthrecord systems that allow health professionals to capture each health visit through a secure website. The employee's online record is linked to their hazard exposure profile and can be accurately tracked and analysed over time.

The number of new cases of occupational disease reported in 2017 was 96 compared with 111 recorded in 2016. A high proportion of the new cases reported were coal-workers' pneumoconiosis in South Africa and Australia. In response to an increase in cases across the industry in recent years, the Queensland government delivered 68 recommendations for stricter health and safety management. The recommendations are being reviewed by industry and government. Metallurgical Coal in Australia has enhanced its respiration-monitoring process and is providing chest X-ray programmes and respiratory examinations for former employees. Coal South Africa is conducting additional medical-screening tests for employees who have worked in conditions of potential exposure to respirable coal dust at levels above the OEL for more than 10 years, to proactively identify potential cases.

### A TALENT STRATEGY FOR OCCUPATIONAL HYGIENE

Debswana is developing vital occupational hygiene skills as part of its safety and sustainable development strategy in Botswana.

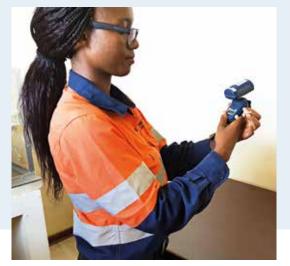
Occupational hygiene (OH) is a core function at Anglo American and supports our goal of achieving zero harm. It helps to prevent occupational disease caused by employees' exposure to dust and gases, noise and vibration, biological hazards and workplace stress.

But OH is a specialist occupation and a scarce skill in southern Africa, so by building our own talent we will reduce risk across our operations in Botswana.

Debswana is identifying and managing talented people in partnership with the University of Botswana. The programme includes a review of job profiles to match technical and behavioural competency, talent-retention initiatives, and programmes to develop people throughout their career.

In 2015, Debswana recruited six graduates for a two-year programme. In 2017, they completed their courses and are now working as occupational hygiene officers. Another six graduates joined the programme in November 2017. The programme was also extended to current OH employees, helping them to build skills and meet the increasing requirements of their job.

Two Anglo American students are doing a degree in Occupational Hygiene at Middlesex University in the UK as part of the undergraduate scholarship programme, and we expect to recruit another four candidates in 2018.



At Debswana's Jwaneng mine in Botswana, hygiene officer Amogelang Kolane is a graduate of the company's occupational health training scheme. Here, she is calibrating a device used in personal noise monitoring.

## Developing occupational hygiene capacity and capability

Occupational hygiene is a scarce skill and we continue to invest in attracting, developing and retaining occupationalhygiene capacity and capabilities. In Botswana, Debswana recognised this skills shortage and incorporated an occupational-hygiene talent-management programme into its safety and sustainable development strategy. (See case study on page 31.)

In South Africa, we are supporting a Chair of Occupational Hygiene at the University of the Witwatersrand, and the position's associated activities, with an endowment of \$1.4 million over the period 2014-2019.

Anglo American collaborates with other mining houses and universities across Chile, Australia and South Africa to encourage joint occupational health- and hygiene-related research activities and publications, academic staff visits, and the exchange of academic materials and other information.

#### **EMPLOYEE WELL-BEING**

Through our wellness programmes, we strive to improve the health of our people and to reduce absenteeism, which can have a significant impact on the ability of our teams to execute planned tasks safely and effectively.

#### **Supporting wellness**

There is a concerning prevalence of non-communicable diseases across our operations, particularly those associated with lifestyle. This is in line with global trends relating to increases in obesity and associated conditions such as hypertension and diabetes. Various internal surveys and assessments also point to high levels of stress among our employees. To address some of the related factors, business units have introduced activities related to culture transformation and financial well-being.

To promote emotional well-being, and to support employees with early symptoms and signs of emotional stress, many operations facilitate access to professional support, while some conduct initiatives in partnership with community-based organisations. All employees have access to an employee assistance programme (EAP) and to various other resources aimed at encouraging well-being. At many of our southern African businesses, high levels of employee indebtedness affect employee wellness. The number of employees benefiting our financial well-being services continues to increase. From the date of inception, more than 24,500 people attended the financial wellness awareness training offered through the Platinum Nkululeko programme. During 2017, 1,293 people signed up with Nkululeko and 105 (11%) have taken up the debt-relief intervention. The combined debt burden of our employees has reduced by approximately \$2.64 million. Despite this intervention, recent analysis has shown that 23% of employees are still over-indebted with a debt to income ratio of more than 75%.

Our Los Bronces operation in Chile is investing \$80 million to improve the living environment of its employees and contractors. The mine's expansion over the next two years will allow for approximately 2,000 shift workers in nine buildings, equipped with a cafeteria, fitness rooms and dormitories.

#### Absenteeism

The total absenteeism rate (absenteeism owing to injuries on duty, non-work-related injuries and sickness) has been consistent at 5.4% over the past three years. Non-workrelated diseases cause the greatest burden of ill health and absenteeism. We are refining our approach to illness and medical-surveillance reporting in order to inform more focused interventions in 2018.

#### **Managing TB and HIV/AIDS**

We are recognised leaders for our TB and HIV/AIDS programmes in the workplace and most of our performance indicators continue to show a steady improvement.

As at the end of 2017, 83% of employees in southern Africa knew their HIV status. While this fell short of our target of 90%, 76,000 members of our workforce (including contractors) participated in testing. The annual number of new HIV infections decreased from 611 in 2016 to 506 in 2017.

The uptake of ART by HIV-positive employees increased to 84% in 2017 from 80% in 2016. In line with government and best-practice treatment guidelines, all people diagnosed as HIV-positive start ART treatment immediately. As a result of this increase in ART uptake, active case management and HIV/TB awareness campaigns, and changes in the Group's asset portfolio, the number of employees who have died from TB (four) and AIDS (12) has dramatically decreased in recent years.

#### HIV/AIDS indicators<sup>(1)</sup>

	2017	2016	2015	2014	2013
Employee voluntary testing and counselling cases	43,568	45,279	50,223	59,813	51,954
Contractor voluntary testing and counselling case	32,433	38,376	39,643	48,421	40,814
Employees who know their status (%)	83	88	68	86	75
Known HIV+ employees on anti-retroviral therapy (ART) (%)	84	80	72	53	47
New HIV cases (employees)	506	611	349	543	529
AIDS deaths (employees)	12	68	91	89	125
New cases of tuberculosis (TB) (employees)	188	511	544	734	677
TB incidence rate (per 100,000 employees)	361	669	790	1,064	963
TB deaths (employees)	4	28	52	63	59

(1) HIV/AIDS and TB data from 2015 onwards includes De Beers operations in Botswana and Namibia. AIDS deaths up to and including 2015 included tuberculosis-related deaths. From 2016, the reported deaths only include those confirmed AIDS deaths.

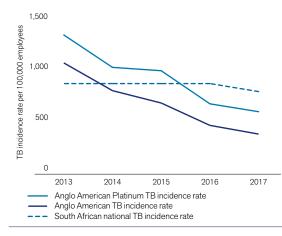
At 361 per 100,000 of the population, our TB incidence rate among employees in South Africa decreased again and remains well below the 2017 South African national rate of 781 per 100,000.

Building on our strong foundations for improving our management of TB and HIV/AIDS, we have set the following ambitious targets for 2020 and 2022:

- Achieve the UNAIDS 90/90/90 targets for 2020: 90% of our employees should know their HIV status; 90% of identified seropositive individuals should be on ART; and 90% of those should have undetectable viral loads
- By 2022, we aim to reduce TB incidence in our workforce to 30% of 2015 levels, and HIV incidence in the workforce to less than 0.1%.

Achieving our targets will require greater effort to detect and treat dependants of employees and community members, to prevent transmission of infectious diseases. For example, in South Africa, De Beers collaborates with district health partners in screening campaigns to promote HIV testing, screening for TB and screening for lifestyle diseases. The business participated in the development of South Africa's National Strategic Plan on HIV, TB and sexually transmitted infections 2017-2022, and is working in partnership with strategic stakeholders to demonstrate the private sector's response and contribution. In 2017, Venetia mine embarked on a company-co-funded community-health screening initiative that covered 15,000 individuals in the Alldays, Blouberg and Musina district communities. The partnership culminated in a Community Health and Wellness Day that was attended by South Africa's Minister of Health.

# Anglo American TB incidence rate relative to the South African national average 2013–2017



#### **INVESTING IN COMMUNITY HEALTH**

Our activities to promote healthcare in the broader community include investments in strengthening health systems in our neighbouring communities, as well as activities aimed at supporting healthcare in developing countries more broadly.

Iron Ore Brazil continues to diversify its community health programme, including making improvements to health infrastructure in local municipalities, monitoring health indicators, providing training for healthcare professionals, as well as educating on TB control, alcohol and drugs, diabetes and hypertension, and sexual and reproductive health. In South America, many of these initiatives are provided through Anglo American's longstanding partnership with the NGO, Reprolatina. Over the past eight years, more than 63,000 individuals have benefited from Reprolatina's education activities.

Kumba's Ulysses Gogi Modise clinic renders primary healthcare services to contractors and communities surrounding its Sishen and Kolomela operations in South Africa. The Batho Pele Mobile clinics offer primary healthcare to remote communities that do not have access to healthcare facilities. Kumba's Kolomela mine has developed a high-tech trauma care unit which plays a valuable role in being able to accommodate and stabilise the sick and injured before they are transported to medical facilities that can provide definitive care, which are at least 200 kilometres away. In 2017, the trauma unit attended to 100 people, while 3,500 people visited the primary healthcare clinic next to the trauma unit.

During 2017, Platinum continued to provide primary care services through a public-private partnership in Rustenburg, South Africa. The resources allocated for mine emergency medical services are also available to support emergency responses for incidents that occur outside the mining premises. For example, Mogalakwena's emergency response team attended to 123 incidents that occurred on public roads and in the surrounding villages.

In Botswana, De Beers' strategically placed hospitals in Orapa and Jwaneng serve as regional hospitals, providing communities with access to primary and secondary healthcare.

Our Coal business supports the Ndlovu Care Group in South Africa, as well as medical centres for communities in Middlemount and Moranbah in Australia, where services are limited.

To enhance our positive contribution, the health function works with our social performance team to identify gaps and solutions to achieve locally relevant priority health SDGs and targets.



In South Africa, the National Schools Nutrition Programme aims to feed disadvantaged schoolchildren and educate them about nutrition. Platinum's contribution is the Garden Heroes project, which encourages schools and their pupils to grow their own food on site.

# SOCIAL PERFORMANCE AND HUMAN RIGHTS

Our aim is to partner in delivering sustainable prosperity in our host communities. The first step towards achieving this objective is to avoid or minimise potential negative impacts. We strive to do this by applying robust social performance standards and maintaining constructive relationships with local stakeholders.



**CONNECTED COMMUNITIES** 

The external team, who went into the community to recruit respondents, show off their new uniforms following a detailed briefing at Kumba Iron Ore's Sishen mine.

#### Maintaining good relationships with host communities is critical for preserving our social licence to operate.

The connected communities project engages monthly with stakeholders via mobile text message surveys, allowing us to understand how perceptions shift over time. Social media and other communication technologies, when used correctly, have a valuable contribution to make in understanding community perceptions.

During 2017, we launched surveys in South Africa (four sites), Brazil (two sites) and Peru (one site). Integrity and anonymity of respondents are vital, with registrations being carried out by a third party, who removed all personal data, leaving only selected demographic information such as gender, location and age. The survey tests general perceptions within the community, asking whether a respondent agrees or disagrees with a range of statements, from impact management to trust.

A key challenge for the project is maintaining participation levels. This issue has been tackled by sending reminder text messages. Initial results have been encouraging and, in general, a 30% response rate has been achieved.

The surveys provide a directional signpost, telling us where we need to look and what we need to address. We plan to investigate changes in perception and, where necessary, design measures to improve performance. In this way, we're aiming to improve our understanding of community concerns in order to be a better neighbour.

#### **OUR MANAGEMENT APPROACH**

The Social Way defines Anglo American's governing framework for social performance. It provides clear requirements for all Anglo American-managed sites to ensure that policies and systems are in place to engage with affected communities, to avoid, prevent and mitigate adverse social impacts, and to optimise development opportunities.

The Social Way is supported by our industry-leading Socio-Economic Assessment Toolbox (SEAT), which provides our operations with detailed guidance on how to manage social impacts and deliver socio-economic development. We use SEAT to improve operations' understanding of their positive and negative socioeconomic effects, enhance stakeholder dialogue, management of social issues, build our ability to support local socio-economic development, and foster greater transparency and accountability. Engagement with local stakeholders identified through operational stakeholder mapping exercises is central to the process. Operations are required to undertake a SEAT assessment every three years and to make these publicly available. Our social performance strategy draws on SEAT assessments and aims to bridge potential gaps between our business objectives, life of mine planning and social management plans.

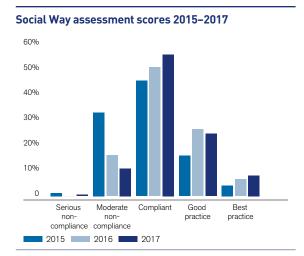
Notwithstanding our progress in implementing the Social Way performance criteria, there is a need to improve capacity and capability at several operations, and to further integrate the management of socio-political risks and opportunities into core business processes. To support our progress, the current version of SEAT is being updated to align with international best practice and the Social Way.

## MITIGATING SOCIAL RISKS AND IMPACTS

Each site is assessed annually against the Social Way requirements. More in-depth reviews of priority issues are undertaken on a rotational basis as part of the operational risk-assurance process. The 2017 assessment results reflect steady improvement across almost all Social Way requirements, with a year-on-year decline reported in the number of non-compliances across the Group. (See graph below.) There were, however, two serious cases of non-compliance with the requirements at two operations. These related to a lack of evidence to support emergency response planning, and inadequate risk assessments around the Voluntary Principles on Security and Human Rights. Neither non-compliance resulted in any impact on stakeholders and plans are in place to remedy these non-compliances. Progress in achieving Group-wide compliance with the Social Way is included in the chief executive's quarterly performance scorecard.

While each operation has its unique social characteristics, typical issues of concern among host communities relate to environmental impacts, contractor management and a perception of limited opportunities for local businesses. Negative effects can trigger stakeholder opposition, resulting in project delays, disruption to our operations and reputational damage.

Social instability leading to community unrest remains a particular challenge in South Africa. Many of the protests have their roots in poor public-service delivery and unemployment. Anglo American continues to collaborate with employees, unions and the South African government, and also with communities around our mines, to address the challenges. Our response includes working towards meeting ambitious targets for host-community education, health and employment as part of our Sustainability Strategy. We place a strategic focus on mitigating social conflict and promoting socio-economic development across South Africa's Limpopo province, which hosts several key platinum and diamond assets.



Effective engagement with communities is critical to address risks of mistrust and lack of clear communication, which have been catalysts in many social incidents. We are strengthening our resources for connecting with communities. (See case study on page 34.)

De Beers' Ní Hadi Xa environmental agreement established in 2016 with five First Nation parties is unique and reflects an evolution in how the industry approaches community engagement in Canada. The agreement aims to encourage the building and maintenance of positive respectful relationships, providing a forum for active engagement in the monitoring and management of Gahcho Kué and its interaction with the land and environment. The Ní Hadi Xa Governance Committee helps to promote inclusion and drive a collaborative approach between De Beers' operations and its neighbouring communities.

## **COMPLAINTS, GRIEVANCES AND INCIDENTS**

Our mandatory Group-wide complaints and grievances reporting procedure, which includes social incidents, is designed to ensure openness, accountability and respectfulness in our handling of stakeholder grievances. Level 3-5 (moderate to significant) social incidents are reported to the Board and included in the chief executive's quarterly performance scorecard.

Stakeholder complaints and grievances provide valuable indicators to help operations anticipate deeper community concerns and proactively mitigate social risks. Over the past two years, we have been improving social incident and grievance management to enhance the accuracy and consistency across the Group in identifying, reporting and classifying complaints and grievances. In 2017, we developed new guidance to ensure a clear differentiation between social incidents and grievances. Business units continue to receive guidance and training on systemreporting changes, as well as Group-level support with incident classification and management, including implementing appropriate remedial measures and closing-out social incidents.

During 2017, we recorded and reviewed approximately 1,900 complaints and grievances across the Group. Following review, 1,161 were confirmed as having a social aspect and, of these, 243 were at Level 3-4 and none at Level 5.

During the same period, 709 social incidents were recorded, of which 147 were Level 3-4 incidents and none at Level 5. The greatest proportion of incidents (25%) and of complaints (31%) related to contractor management, with employment opportunities and environmental impacts also featuring highly (around 14% and 11% of total complaints).

The number of complaints that related to human rights issues in 2017 accounted for approximately 2% of the total number of complaints (20 in total).

# ANGLO AMERICAN'S SOCIAL PERFORMANCE REQUIREMENTS

## Social risk and impact management

Identify, assess and manage social risks and impacts, according to International Finance Corporation (IFC) performance standard requirements, throughout the life of mine.

# Social performance strategy and social management plan

Develop, document and implement a long term social performance strategy and annual social management plan.

#### **Stakeholder engagement**

Develop a stakeholder engagement plan, as guided through SEAT, to be updated annually, or more frequently, as appropriate.

#### Socio-economic development

Detail socio-economic development-related strategic objectives and how these will be implemented.

## **Social commitments**

Develop a social commitments register to identify, document, monitor and report to site management and the business unit head of corporate affairs, or equivalent, on the implementation of social commitments.

## Social complaints and incident management

Implement a site-level social complaints and incident procedure.

### Community safety, health and security management

Identify, assess and manage the safety, health and security impacts of our activities on external stakeholders.

# Contractors, suppliers and other business partners

Put in place procedures to avoid and minimise material adverse social impacts and to maximise positive impacts that could arise through engagements with our contractors, suppliers and business partners.

## **Social performance resourcing**

Ensure that site and operational teams have adequate financial resources, capacity and capability to implement the Social Way requirements.

## **Context-specific requirements**

Develop specific management plans, where identified as relevant in impact assessments, for the following: resettlements, cultural heritage, Indigenous Peoples, and benefit-sharing agreements.

## **RESPECTING HUMAN RIGHTS**

Our Human Rights Policy and framework guide our approach to identifying and addressing our salient human rights risks, which are integrated into the Social Way, SEAT tools and in other internal policy documents as relevant. Our policy requires operation-level due-diligence processes, which have been conducted at the majority of sites. Given that human rights are cross-cutting and touch on every discipline, function and aspect of the business, our approach to managing human rights risk is cross-functional, broadbased and firmly embedded into our broader riskmanagement framework. To this end, a human rights working group meets each quarter.

Our most significant human rights risks from a Group perspective and throughout all stages of the mining life cycle are shown on page 38. The nature and extent of risks vary based on the location and life-cycle stage of operations.

Human rights risks and potentially vulnerable groups are identified through annual social-risk assessments at each operation. We have undertaken human rights due-diligence exercises with the help of external experts at 33 operations, including 18 in 2017. Each site has identified its key human rights issues in terms of potential impact (positive and negative) on people or risk to the operation, and has developed action plans to address the actual and perceived human rights concerns raised. Common issues identified across all the sites included perceptions of discrimination associated with employment and the visibility of procurement opportunities, unfulfilled commitments, and disrespect among contractors for labour rights.

We periodically conduct an independent Group-level human rights due-diligence study. The last exercise was undertaken in 2013. In 2017, building on the foundations provided by the roll-out of our new Code of Conduct and launch of our Sustainability Strategy, we appointed independent consultants to conduct a further due-diligence exercise. The six-month project includes a review of our policies and procedures and site-level due-diligence reports to inform updates of our salient risk areas and provide recommendations, including for addressing gaps and improving training and monitoring.

## Human rights partnerships and commitments

The independent peace-building organisation International Alert has been a strategic partner in strengthening our governance of human rights and security since 2010. We also have ongoing dialogues with other leading human rights organisations such as Shift and The Institute for Human Rights and Business. These exchanges further assist us in building capacity for human rights due diligence at various levels of our company, as well as in developing and implementing risk-mitigation measures across the business.

Our approach to human rights is aligned with the UN Guiding Principles on Business and Human Rights and we remain committed to implementing the UN Global Compact Principles. We integrate these principles across our Code of Conduct, which encompasses our human rights policy, and embed them in our corporate standards. During 2017, Anglo American participated in the Business Network on Civic Freedoms and Human Rights Defenders, convened by the International Service for Human Rights and the Business and Human Rights Resource Centre. We are fully committed to an ethical value chain that respects human rights and is free of slavery. In accordance with the UK's Modern Slavery Act 2015, we have published a Group statement to demonstrate our approach to preventing modern slavery and human trafficking in our operations and supply chain. Our actions thus far have been tracked and documented as we prepare our next annual Group statement in 2018. Our actions include the following:

- we have established a dedicated Modern Slavery working group, which is cross-functional and aims to refine our approach to responsible sourcing in accordance with the guidance provided by the UK Modern Slavery Act and other relevant aspects of an ethical value chain
- we form part of the United Nations Global Compact Modern Slavery Working Group
- we have incorporated Modern Slavery scenarios into the Group-wide mandatory Code of Conduct employee training.

Our chief executive, Mark Cutifani, formed part of the UK Prime Minister's Modern Slavery Panel in October 2017.

## Security and human rights

We are a longstanding signatory of the Voluntary Principles on Security and Human Rights (VPs) and seek to ensure that appropriate measures are taken at all operations to manage security and human rights risks. International Alert provides ongoing support to different sites, to strengthen our implementation of the VPs. This has included conducting gap analyses at all our South African and South American business units, and implementing action plans to address weaknesses. Implementation of the VPs includes conducting due diligence on public and private security providers, incorporating VP clauses in commercial contracts or agreements with security providers, and providing training to relevant employees and contractors.

Our risk assessments assist in determining human-rightsrelated training requirements, which vary between businesses. Standardised security and human rights training material is implemented across the Group. In 2017, nearly 3,400 employees and contractors participated in securityrelated human rights training and relevant employees receive induction or refresher training on security and human rights. All employees and contractors receive training on our Code of Conduct, which encompasses human rights.

## **RESPONSIBLE RESETTLEMENT**

Land acquisition and resettlement is one of our most material social matters. Resettlements can have long term consequences for the social structures and livelihoods of affected peoples and may present significant risks to our capital projects and operations.

All resettlement processes are managed in line with IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement and our own SEAT tool. Each resettlement is duly planned and implemented in a participatory manner. The main objective is to ensure the improvement of the livelihood and quality of life of the resettled families. Our aim is to plan and design new projects in a way that avoids or minimises any resettlement. In 2017, Debswana (a joint venture between the Government of the Republic of Botswana and De Beers) continued with a resettlement process at its mining operation at Orapa, in Botswana, which has affected 324 people. The focus is now on livelihood restoration, monitoring and evaluation. Coal South Africa resettled one household at the Mafube life extension project and another two at New Denmark. Livelihood-restoration plans are ongoing.

At Coal South Africa's Kriel colliery, an independent livelihood-restoration audit was conducted in 2016. The findings identified several limitations and challenges, which were addressed on an ongoing basis through 2017.

In South Africa, Kumba resettled two further households from Dingleton to Siyathemba, a new purpose-built suburb in Kathu. A number of families have yet to move to their new homes and have voluntarily entered into a facilitated dispute-resolution process to agree on mutually acceptable terms. Sishen mine continues to focus on sustainability and integration initiatives for the more than 400 homeowners who have already moved to Siyathemba. The mine has received the authorisation for the inclusion of Dingleton and other properties in the Sishen mining right.

Out of a total of 46 families, Iron Ore Brazil has completed the resettlement plan for 39 families that were assisted for three years; seven families continue to be engaged in our livelihood-restoration programme.

At Platinum, resettlement close-out reviews continue at Mogalakwena and Twickenham in Limpopo in South Africa, and at Unki in Zimbabwe. Ongoing and routine assessments are undertaken to determine whether livelihood restoration measures remain effective.

### **INDIGENOUS PEOPLES**

We recognise the potential vulnerability of Indigenous Peoples to the impact of mining activities, given their traditional reliance on natural resources and the special cultural significance of their lands. As a member of the ICMM, we committed to the 2013 ICMM Position Statement on Indigenous Peoples and Mining, which endorses the principle of Free, Prior and Informed Consent (FPIC). This commitment is incorporated into our Social Way policy.

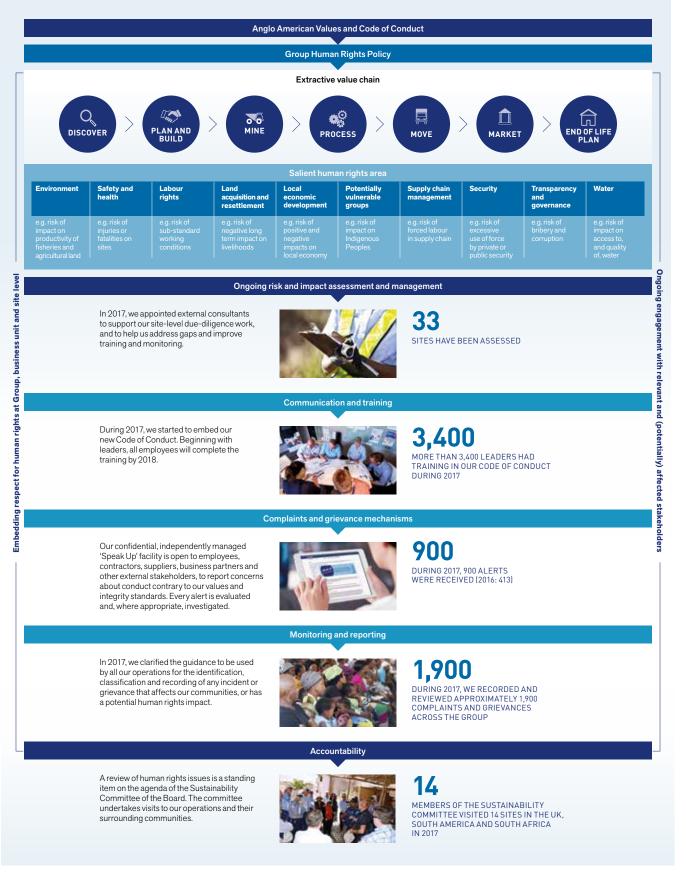
Aligned with the Position Statement and our own policy, we accordingly seek the consent of Indigenous Peoples for all new projects (and changes to existing projects) that are located on lands traditionally owned by, or under customary use of, Indigenous Peoples and are likely to have significant adverse impacts on them.

De Beers' operations in Canada are located near land traditionally used by indigenous communities for hunting and fishing. Working in partnership and ensuring local benefits from mining has always been an important aspect of impact and benefit agreements (IBAs) with indigenous communities around De Beers operations in Canada. Over and above IBA conditions, De Beers seeks to increase community benefits by awarding contracts to First Nation-owned companies who meet commercial terms, as well as providing local employment and training opportunities.

IBAs associated with Snap Lake mine remain on hold while the operation is under care and maintenance. At Gahcho Kué, De Beers is forging strong relationships with communities through the implementation of its Ní Hadi Xa environmental agreement with five First Nation parties.

## **HUMAN RIGHTS FRAMEWORK**

These are the areas where the company is likely to have the greatest positive or negative impact on human rights across its operations. Operation-level due-diligence processes have been conducted at all sites in line with Social Way requirements.



## MANAGING SOCIAL IMPACTS IN OUR SUPPLY CHAIN

The Anglo American Responsible Sourcing Standard for Suppliers articulates easy-to-understand performance requirements. The standard addresses supplier compliance with local and applicable international regulations and with Anglo American requirements regarding safety, wellness, the environment, business integrity, human rights, labour practices and economic development. Our standard contract terms require acceptance of these requirements and for suppliers to submit self-assessment questionnaires. In addition, we retain the right to audit to verify practices. We are optimising our approach to responsible procurement in line with the UK Modern Slavery Act.

A central focus in 2017 was to raise awareness and to adopt responsible-sourcing requirements among our suppliers. This aligns with our broader ambition to increase levels of procurement from emerging and host community suppliers in the markets where we operate. Over the past two years we have piloted and refined a model aimed at supporting small local suppliers to implement controls and practices in such a way that they can better manage responsible-sourcing requirements. Building on our initial work in 2016 with 19 host community suppliers at Platinum's Mogalakwena operation, in 2017 we undertook a similar initiative with 15 host community suppliers at De Beers' Venetia operation. In each case we hosted a two-day training workshop which included completing self-assessments to assess compliance with various elements of local law and the responsible-sourcing standard and conducted a follow-up mini-audit at the premises of the small- and medium-sized suppliers involved.

We also conducted follow-up site visits to selected Mogalakwena suppliers to validate their progress. By year-end, we had conducted 18 audits (a combination of partial and full). The audits assist in determining the effectiveness of our controls and management processes.

These exercises identified areas for improvement in the supplier businesses, ranging from legal compliance relating to employee contracts, workplace safety and excessive working hours. As part of the engagements, we agreed detailed corrective action plans with the suppliers and a process of sharing these improvements with our Supply Chain team. We use insights gained from the engagement programme to optimise our supplier development approach.

In line with our responsible-sourcing strategy, developed in 2017, we will implement supplier-engagement initiatives to build capacity for responsible sourcing at scale at various operations globally in 2018. We plan to supplement existing supplier-engagement approaches to include responsible-sourcing awareness. The strategy includes progressive targets up to 2020, focusing on optimising the supplier due-diligence process, increasing the capacity of our suppliers and aligning our approach within the mining industry.

Since 2016, suppliers across our various global procurement categories, who collectively account for more than 22% of our total supplier expenditure, have been requested to complete self-assessments. In cases where risks are identified, third-party audits are conducted. In a recent case, such an audit identified a number of human rights concerns associated with a prospective supplier. Anglo American worked with that supplier to remedy the identified concerns. (See case study alongside.) To promote an industry-wide commitment to responsible sourcing, the Chamber of Mines in South Africa is co-ordinating a collaborative process aimed at harmonising an industry approach to promote greater supplier participation and encourage better sharing of noncompetitive supplier data. The process will include agreement on a set of common principles, simplified auditing protocols and principles of 'mutual recognition'. Our intention is to spread this work beyond South Africa as an objective of the Sustainability Strategy.

# SUPPORTING LABOUR RIGHTS IN THE SUPPLY CHAIN

Anglo American's Responsible Sourcing Standard for Suppliers provides guidance to existing and prospective suppliers on our expectations of them in several areas, including labour practices and human rights. The standard is based on International Labour Organization and legal requirements.

Platinum recently conducted a market scan for suppliers of construction materials. A prospective supplier was able to demonstrate logistical and cost efficiencies by manufacturing materials close to the Anglo American operation; subsequent testing confirmed that the product met high quality benchmarks and complied with our safety and technical requirements. The prospective supplier also employs a large labour force from our mining host community.

The Anglo American Supply Chain team started the supplier on-boarding process, including commercial checks of the prospective supplier. The supplier is a joint venture between a foreign government agency and private and public investors. Owing to the technical nature of its work, which had included the commissioning and establishment of the plant, 26% of the supplier's workforce are expatriates. Skills-transfer plans are in place to increase the proportion of local employees.

Prior to concluding a supply agreement, Anglo American commissioned a third-party audit of the supplier against the Responsible Sourcing Standard requirements. While the supplier demonstrated several manufacturing best practices, some potential human rights risk issues were identified. Concerns included: the retention of original passports of the expatriate workers; time and attendance records were not provided for all employees (indicating potential violations of maximum working hours); inadequate rest days; and potential errors in remuneration.

Through an intervention by Anglo American, the supplier agreed on a corrective action plan which detailed actions, timelines and responsibilities to address the risk identified, including the immediate return of original passports. An independent follow-up audit a month later confirmed that the critical issues had been resolved and a supply agreement has been signed. Anglo American will continue working with the supplier and the independent auditors to ensure that appropriate management practices are embedded to avoid a recurrence of similar issues.

# **SOCIO-ECONOMIC CONTRIBUTION**

As a major mining company, with the majority of our operations in developing markets, our contribution to host countries, regions and communities extends well beyond creating jobs and paying taxes. We seek to support regional development and to respond effectively to stakeholder expectations.

# ENHANCING OUR APPROACH TO ENTERPRISE DEVELOPMENT IN SOUTH AFRICA



115 Electrical Solutions was founded by Antony Mpati, who attended Anglo American's Entrepreneur Internship Programme – two years of training and hands-on projects. The Zimele Fund then helped him to acquire aerial platform vehicles, growing the range of services the company could provide. Today the company employs 40 people. Anglo American has been operating enterprise development (ED) programmes globally since the founding of Zimele in South Africa in 1989. Today, we operate ED programmes in South Africa, Botswana, Chile, Peru and Brazil. Our experience has taught us what shapes successful outcomes:

- Providing funds alone is not the best route to improving the performance and sustainable growth of a business. More recent programmes follow a model of mentoring and advisory support first, followed by access to funding
- Successful enterprise and supplier development (ESD)
  programmes are aligned with opportunities within our
  supply chain and linked to the overall business strategy.
  Local procurement is a powerful mechanism to
  stimulate the local economy and empower local
  entrepreneurs. In a similar vein, integration of
  enterprise development, supplier development and
  youth development is vital in extracting synergies
  between programmes
- Partnerships are essential. Working with public, private and NGO sector players enhances the overall offering. Through utilising the expertise and resources of others, tailored services can be offered to entrepreneurs and enable action at a larger scale

• Finally, continuous refinement of the model allows for adaptability and flexibility. Such refinement must be underpinned by rigorous monitoring and evaluation processes.

In addition to these learnings, the pressing need to generate employment in South Africa and the country's transformation imperatives created an opportunity to re-evaluate Zimele. At the outset, the intention of Zimele was to increase participation in the economy of the historically excluded black majority. Zimele has been a resounding success and has long been internationally recognised as a best-practice model; at any given time, Zimele supports more than 5,000 jobs and between 200 and 300 small, medium and micro enterprises.

However, since Zimele has historically provided funding to entrepreneurs first and foremost, the new approach will focus more on mentoring and advising, followed by access to funding. The intention is to create interventions which are appropriate to the development cycle of small businesses, while providing skills to young people and harnessing the skills of specialist organisations to help with design and implementation.

### THRIVING COMMUNITIES

One pillar of Anglo American's new Sustainability Strategy is focused on thriving communities. Our aspirational vision is for:

- transformed relationships between mines and communities and wider society
- the Sustainable Development Goal targets for health to be achieved in all our host communities
- all children in our host communities to have access to good education and training
- shared, sustainable prosperity in our host communities.

By 2020, we will have completed all necessary baseline studies and will have strategies in place at every site to guide our progress towards achieving milestone targets. Targets include creating three jobs off site for every job on site by 2025 and five jobs off site for every on-site job by 2030. We aim to have schools in host communities in non-OECD countries performing among the top 30% of state schools by 2025 and in the top 20% by 2030.

#### **Local procurement** % of total available expenditure

Anglo A	American total	
2017	23	
2016	23	
Austral	lia	
2017	4	
2016	4	
Botswa	ana	
2017		83
2016		81
Brazil		
2017	13	
2016	8	
Canada	a	
2017	26	
2016	22	
Chile		
2017	5	
2016	3	
Namibi		
2017	44	
2016	39	
Peru		
2017	12	
2016	16	
South A		
2017	25	
2016	33	
Zimbał	bwe	
2017	14	
2016	14	

## **OUR MANAGEMENT APPROACH**

Our socio-economic development approach focuses on leveraging core business activities, improving the productivity of local economies and public institutions, and delivering benefits through partnerships. The aim is to support sustainable job creation and effective public-service delivery so that economies can deliver opportunities even after mine closure. Our strategy recognises the importance of implementing programmes that build on existing successful initiatives and strengthen the capacity of local institutions, as opposed to isolated projects.

All operations are required to adhere to the Social Way requirements on socio-economic development and to implement SEAT in order to enhance development in host communities and countries. This approach allows our sites to better understand their priorities and target interventions that have the greatest impact. It also helps us understand the type of partnerships that are required to deliver impact at scale and over the long term.

In 2016, we developed and started implementing a robust assessment methodology tool to measure our socioeconomic development performance and inform the design of effective site-level strategies. The assessments in 2016 highlighted variable performance across the Group, with the highest scores achieved at our South American operations. In 2017, we engaged external consultants to support sites in South Africa, Botswana, Zimbabwe, Namibia and Canada in identifying and addressing their respective needs to improve their level of performance and compliance with the Social Way requirements for socio-economic development.

## SUPPORTING LOCAL ECONOMIES

To stimulate local economies, we promote local and inclusive procurement initiatives, enterprise and supplier development, and youth and workforce development. These programmes create a strong platform for job creation within and outside the mining value chain.

### Local procurement

Our local and inclusive procurement initiatives, supported through supplier development, provides an opportunity to direct our supply chain spend to boost local economic development. Operations adhere to our Group-wide Local Procurement Policy, implement local procurement strategies and report against targets.

A new system for registering suppliers through our global website was launched in 2016. This process will support increased visibility of prospective suppliers that could be considered for future procurement opportunities. In South Africa, the system could further support the identification of businesses who could benefit from supplier-development initiatives.

In 2017, operations spent approximately \$9 billion (2016: \$8.8 billion) with suppliers, which accounted for nearly 48% of our total economic value distribution. Local procurement, including marginalised groups, communities affected by our operations and emerging suppliers in host countries, was \$2.1 billion (2016: \$2.0 billion) representing 23% of total supplier expenditure (2016: 23%). Given the remote locations of some of our operations, and the important role that the mining supply chain could play to stimulate economic and business opportunities, we have increased our focus on procuring from host communitybased suppliers. In 2017, we procured approximately \$0.5 billion in goods and services from these suppliers, with plans in place to progressively increase this being supported by a comprehensive inclusive procurement strategy.

#### Supplier development

Our supplier development programmes across the Group aim to improve the efficiency, capability and productivity of small businesses, as well as develop a more robust and competitive supply chain for Anglo American through increased access to local expertise, reduced logistics costs and availability. We work with our existing supplier base to unlock opportunities for local employment and skills development, and nurture supplier partnerships and joint ventures between our existing large suppliers and entrepreneurs.

Our experience demonstrates the case for focusing on strengthening existing supplier capacity in the areas close to our operations, and supporting industrialisation in the countries where we operate. This more localised and systematic approach integrates supplier development more effectively with our workforce and our enterprise development agenda. We currently have programmes at our operations in Brazil, Chile, Peru and South Africa.

## **Enterprise development**

In tandem with our supplier development initiatives, our enterprise-development programmes are designed to foster the potential of local entrepreneurs. All Anglo American programmes (see table on page 43) provide businessmentorship support, coupled with access to capital and markets. The strong focus on capacity development aims to help establish resilient local businesses that will not be dependent on support from Anglo American over the long term. We work in partnership with local banks and other development institutions in a co-funding model.

As our operations alone are not able to meet local demands for employment, we are working with various partners to provide diversified workforce development opportunities and to develop non-mining jobs in our communities through enterprise development and local employment programmes. This integrated approach to enterprise and workforce development allows the impact of our value chains to deliver strong economic opportunities during the life of the mine, while also building more local entrepreneurial capacity in other sectors to help sustain socio-economic development over the long term.

## **BUILDING LOCAL CAPACITY**

Our presence creates large revenue flows for local municipalities and host governments. In some instances, a lack of capacity and skills prevents municipalities from delivering sound public services to local populations. We invest in strengthening the skills, competencies and abilities of municipal staff, and in empowering community members to exercise their civil rights constructively. In the longer term, facilitating more effective municipal investment in social services may reduce expectations on the business to deliver these services through corporate social investment (CSI) projects.

## **Social investment**

We believe that leveraging core business activities is the most effective way to deliver positive development outcomes. However, not all stakeholders who need help can be supported in this way. As such, much of our CSI expenditure supports vulnerable and marginalised stakeholders, who are unable to participate in our value chains. In making investments, we place a strong focus on partnerships and co-funding. In 2017, Anglo American's CSI expenditure in local communities, including from the Anglo American Chairman's Fund, the Anglo American Group Foundation and our enterprise development programmes, totalled \$88 million (2016: \$84 million). This figure represents 1.7% of underlying EBIT, less underlying EBIT of associates and joint ventures.

We monitor our CSI through a standardised reporting process aimed at maximising the value that Anglo American and its host communities derive from these investments. Health and education are strategic focus areas in our Sustainability Strategy and CSI programme and a high priority for national and community-level stakeholders. In 2017, Anglo American spent \$16.8 million on education and training, and \$4 million on health and welfare projects.

### Volunteering

Facilitating opportunities for staff to participate in our social investment projects can help us to better connect with communities and demonstrate our commitment to helping them achieve their development vision. Employee volunteering can also make many of our workforce's skills available to host communities. Copper's employee volunteering 'Ambassadors' programme, which was launched in 2014, is being used as a model for developing a Group-wide approach to employee volunteering. Teams of employees partner with local community groups to propose projects which, if approved, can receive up to \$5,000 in company funding.

Through the Ambassadors programme, more than 133 employees and contractors have participated in 55 social projects in two different regions.

In 2018, we will roll out a corporate-level programme modelled on the successful programme developed in Chile and funding will be provided by the Anglo American Group Foundation. The programme seeks to enable our employees to use their professional skills to contribute to development needs in local communities in a meaningful and lasting way.

Aligito Alliel	ican enterprise	uevelopinent pi	ogrammes	
Country	Name of the programme	SME supported (2008–2017)	Jobs supported (2008–2017)	Partners
South Africa	Zimele	3,555	55,002	National Treasury – Sebenza Fund, Sefa – Sefa Mining Fund, Transnet & Sefa – Godisa Fund, Shanduka Black Umbrellas, TechnoServe, Tiger Brands
Chile	Emerge Chile	59,498	60,932	Aramak, Centro el Emprendedor de Colina, Finning, Fondo Esperanza, Komatsu, Lo Barnechea Emprende, Polpaico, Pro Til Til, TechnoServe
Brazil	Crescer and Avançar	610	2,196	Circuito Serra do Cipó, Emater, IMA, Inter-American Development Bank, Komatsu, Sapore, TechnoServe
Botswana	Tokafala	362	1,036	De Beers, Debswana, Government of Botswana, TechnoServe
Peru	Emerge Peru	266	1,646	Moquegua's Chamber of Commerce, TechnoServe
Total		64,291	120,812	

## Anglo American enterprise development programmes

## ENTRENCHING OUR LEADERSHIP IN SOUTH AMERICA

In recognition of our strong commitment to socio-economic development in several countries in South America, in 2016 the Inter-American Development Bank (IDB) committed \$2 million in co-funding to support our socio-economic development initiatives in Peru, Chile and Brazil. During 2017, the IDB, our local teams and TechnoServe, our Group NGO partner for enterprise development, worked together to deliver on this shared project.

In Brazil, our achievements have provided the foundation for engaging purposefully with a broader range of public and private partners in prioritising needs and clarifying roles for local development. This has included local municipalities participating in identifying procurement opportunities for local suppliers. At Minas-Rio, our leading supplier development programme, Promova, continues to strengthen its impact. Since its inception in 2012, Promova has worked with more than 140 local companies to unlock \$87 million in local expenditure that accounted for a 16% increase in local GDP. Promova's approach involves a thorough analysis of supply chain demand dynamics and then builds local capacity based on gaps in the market. Capacity-building is achieved through intensive training and mentorship programmes. More than 1,750 people have been trained in person and through online courses. Acting in tandem with Promova is the enterprise development programme, Crescer, which supports rural entrepreneurs, local youth employment and external capacity development. Our ongoing collaboration with Agenda Pública to strengthen local government capacity and service delivery in Barro Alto, Niguelândia and Minas Gerais, has been supplemented with additional partnerships to support capacity-building.

In Chile, our progress is being further advanced through two new initiatives launched in 2017. EmpleaT! is an employment scheme delivered through public and private partnerships that is designed to develop selected vulnerable individuals over a period of months for either entrepreneurial- or employee-based progression. In 2017, the scheme supported 86 participants, with 65 graduates and a 46% increase in income. Through our new technical education programme, SoyTechnico, we are supporting 12 technical secondary schools, which are training 421 students. We have also enhanced our Emerge enterprise development model to be more inclusive of entrepreneurs at the bottom of the income pyramid. The scheme focuses on developing managerial capacities and provides segmented and customised services for enabling growth. To date, more than 1,600 entrepreneurs have participated in the programme, with an increase in sales ranging between 30% and 100%.

Our operations in South America are delivering CSI projects in collaboration with other large corporates, government institutions and suppliers so that the projects can be bigger in scale, more effective and more cost-competitive.

## TARGETED INITIATIVES IN SOUTHERN AFRICA

In South Africa, the government places an emphasis on job creation to address the country's high level of unemployment, which stands at about 27%. In 2017, we redesigned our flagship enterprise development scheme, Zimele, to sharpen its focus and align with our highly successful programmes in South America and Botswana. The new model will drive cost efficiencies while aggressively supporting more jobs. The strategy focuses on enterprise development, supplier development and youth development. These programmes will be delivered through communitybased hubs and expert partners to build a strong social licence that is not dependent on Anglo American funding long term, but rather on the growth of the local businesses. The revised programme was launched at five pilot sites towards the end of 2017, with full implementation across all our South African sites targeted by mid-2019. Our ambition is to support 10,000 jobs a year by 2020.

## **Global CSI expenditure by type**

	\$'000	%	
Community development	47,762	54	
Education and training	16,809	19	
Water and sanitation	11,079	13	
Health and welfare	4,116	5	
Sports, art, culture and heritage	2,859	3	
Other	2,217	3	
Institutional capacity development	1,332	2	I
Environment	1,249	1	I
Employee-matched giving and fundraising	260	0	
Disaster and emergency relief	243	0	
Energy and climate change	22	0	
Total	87,948		

## **Global CSI expenditure by region**

Total	87,948	
Rest of World	1,192	1
United Kingdom	444	1
Australia	363	1
Americas	30,334	34
Africa	55,615	63
	\$'000	%

In South Africa, our operations contribute to the country's drive to promote black economic empowerment (BEE).

In 2017, Anglo American-managed businesses spent \$2.58 billion (R34.2 billion) with BEE-compliant businesses (2016: R28 billion). The percentage of total expenditure in South Africa (excluding goods and services procured from the public sector and public enterprises) remains unchanged at 79%. The amended broad-based BEE Codes of Good Practice place greater emphasis on targeting procurement from marginalised groups, especially black-female and black-youth-owned businesses, increasing local content in goods procured and placing emphasis on supplier development. We continue to increase the scale of working partnerships between large suppliers and small companies - in some cases including requirements for local labour recruitment and skills transfer in supplier contracts. In conjunction with the South African government, we are supporting initiatives to stimulate local manufacturing and technology development, thereby increasing our contribution to empowerment.

We place a strategic focus on socio-economic development in Limpopo province. Given the magnitude of socio-economic issues, work was initiated in 2016 to catalyse collaboration and partnership on systemic, cross-sector, transformational sustainable development in the province. Working with spatial data on socio-economic and environmental aspects, significant potential has been identified in various sectors, including: agriculture, game farming and tourism, as well as the energy sector. The regional partnership approach has the potential to significantly increase the range, scale and integration of development initiatives both around our mines and more widely in Limpopo. Partnerships for specific initiatives have been forged and assessments are being undertaken on the feasibility of developing commercial agriculture and agricultural processing, and integrated game ranching, as well as supplier development, in the province.

In parallel and in conjunction with this work, we are partnering with the Department of Cooperative Governance and Traditional Affairs to develop a second phase of local government capacity development, with an emphasis on developing structured partnerships with government at provincial level.

In partnership with local and provincial government, we continue to help alleviate the shortage of affordable housing in South Africa that profoundly affects employees and community members.

In Botswana, our Tokafala programme contributes to the government's economic-diversification programme. The scheme has supported more than 400 beneficiaries (small- micro- or medium-sized enterprises) and more than 2,000 jobs since its inception in 2014, with participants increasing their revenues by an average of 39%. Tokafala has expanded its short term focus on enterprise development and supplier development to include the roll-out of a youth-development programme at mine sites. The pilot project will support a total of 200 youth in Orapa/ Letlhakane and Jwaneng. In the medium to long term, a recent memorandum of understanding signed between the Botswana government, Anglo American, De Beers Global Sightholder Sales and Debswana, with \$4 million in funding, will further expand the reach and influence of Tokafala. The sable antelope and buffalo breeding project

and conservation in the

high biodiversity value.

at Coal South Africa's

Waterberg Estate promotes biodiversity

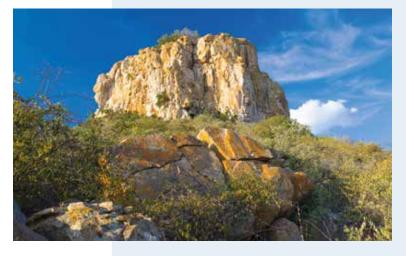
Northern Limpopo

region. 'Bulklip', a dramatic sandstone feature on the site, is of

# CONSERVATION AND SOCIO-ECONOMIC DEVELOPMENT

Limpopo province is a major contributor to biodiversity in South Africa, with large areas under national, provincial and private conservation management. Mining and tourism are significant economic activities in the province.

Anglo American has several operations in Limpopo, though a significant proportion of the company's land is not used by those operations. This has created an opportunity to use the property to generate socioeconomic and conservation benefits that extend beyond the life of our mines.



Working in partnership with the provincial premier's office, South Africa's Council for Scientific and Industrial Research, World Vision, Exxaro and The Guild Combination, an initiative was developed to explore sustainable land use.

Opportunities include linking community-owned land with mining concessions to create locally managed biodiversity conservation areas that contribute to the local economy through wildlife ranching and tourism. The programme is being developed in line with national biodiversity strategies, conservation plans and provincial development initiatives.

The community-owned Mooihoek and Anglo American's Groenfontein farm are being used to form an integrated game farm, with similar opportunities being explored across Anglo American Platinum's land portfolio. Among critical success factors is the consideration of community needs; each phase, therefore, involves stakeholder engagement and collaboration.

Challenges include accessing reliable data on land ownership and the complexity of aligning multiple stakeholders towards a common goal. An additional challenge is developing a methodology to evaluate socio-economic benefits from biodiversity conservation.

The initiative highlights the importance of operating outside traditional silos and taking a whole-landscape approach that considers the needs of communities while aligning with national and provincial plans.

## **ECONOMIC VALUE-ADD**

It is through our core business activities – employing people, paying taxes to governments and procuring from host communities and countries – that we make our most significant positive contribution to economies.

The value distributed directly by Anglo American in 2017 amounted to \$18.78 billion. This figure includes:

- \$9 billion paid to suppliers
- \$3.4 billion to our employees through wages and related expenditure
- \$3.1 billion in taxes and royalties borne and collected
- \$0.6 billion paid to Anglo American plc shareholders
- \$0.4 billion to providers of capital
- \$2.2 billion that was reinvested in the Group
- \$88 million in corporate social investment.

The majority of our total supplier, employee and tax expenditure was in developing countries. Through the multiplier effect, the positive economic contribution of our operations extends significantly further than these direct forms of value distribution.

#### **Payments to governments**

Anglo American has voluntarily provided information about our tax payments on a country-by-country basis for the past 12 years and we remain a supporter of the Extractive Industries Transparency Initiative (EITI), despite having no operational mines in countries that are implementing the EITI.

Anglo American releases an annual Tax and Economic Contribution Report. The 2017 report will be available in June 2018.

## Economic value distribution 2017

Ş	\$ billion	%	
Suppliers	9.0	48	
Employees	3.4	18	
Company taxes	3.1	17	
Reinvested in the Group	2.2	12	
Providers of capital	0.4	2	
Corporate social investment	0.09	0	
Dividends	0.6	3	
Total	18.78		

# Taxes borne and collected: developed vs. developing

Total	3,107,260		
Developed	1,392,989	45	
Developing	1,714,271	55	
	\$ million	%	

# **ENVIRONMENTAL MANAGEMENT**

Responsible environmental management is an important aspect of legal compliance and permitting, and plays a significant role in ensuring that mining creates value for all of us who rely on ecosystem services for our well-being.

# WORKING WITH CONTRACTORS TO ADDRESS ENVIRONMENTAL RISK IN PERU



Discussing the construction of the Asana river diversion tunnel at Copper's Quellaveco project in Peru. Anglo American's Quellaveco copper project in Peru is working with local stakeholders to create a construction risk-management tool that goes beyond environmental protection to include societal and archaeological impact.

The mine in the high Andes region of Moquegua in southern Peru is in a strong position to contribute towards sustainable management of High Andean ecosystems. The vision for the operation is one of social and environmental best practice for land stewardship.

The construction risk-management tool stretches beyond compliance. It is supported by the project's environmental management plan, and incorporates the conditions of permits and legal requirements.

There are three phases to the environmental assessment process:

During pre-construction, we work with the contractor to evaluate the skills of its environment manager, assess environmental risk, highlight critical controls to manage these risks, and describe tools to monitor performance. A baseline assessment ensures visibility of current environmental quality in the planned work area.

During construction, the contractor's environmental performance is then monitored in 12 categories. The contractors get an overall score for performance, and the process highlights and remedies gaps such as incorrect classification of waste or failure to install containment trays underneath generators.

Contractors are required to report environmental incidents, the materials they consume and the wastes they generate. Their staff are trained in environmental awareness and assessed to ensure adequate knowledge. Training scores and the results of environmental assessments are then discussed internally and with the contractors, with a focus on continuous improvement.

The post-construction phase ensures plans are in place for rehabilitation of the environment once work is complete. The contractor presents its environmental closure report and the site is verified as complying with requirements.

Once signed off, Supply Chain is notified of the completion of the construction.

#### **OUR MANAGEMENT APPROACH**

Anglo American's Sustainability Strategy articulates our commitment to demonstrating leadership in environmental stewardship. Our ultimate vision is to operate waterless mines in water-scarce regions, run carbon-neutral mines, and deliver net-positive biodiversity outcomes.

Notwithstanding progress in many areas, realising our long term environmental management goals will require considerable further focus and investment in best practices. This journey is underpinned by best-practice policies; performance standards and business processes; investing in internal capacity, capability and technological innovation; and identifying opportunities for partnerships and collaboration with stakeholders.

Internal policy requirements are detailed in the Anglo American SHE Way, which was approved in 2017 and is being rolled out in 2018. Our approach to environmental risk management is being integrated into our Operational Risk Management (ORM) process and Operating Model. ORM implementation, including for our most significant environmental risks, formed part of performance-based remuneration for senior executives in 2017, along with a target to reduce significant environmental incidents. The roll-out of our Minimum Permitting Requirements will position business units to obtain permits timeously and to comply with their conditions.

During 2017, we appointed internal specialists for air quality, biodiversity, and product stewardship, as well as additional resources for our mineral-residue function.

## **ENVIRONMENTAL INCIDENTS**

Anglo American reports five levels of environmental incident severity according to actual and/or potential consequences on the receiving environment. Level 3-5 incidents (ranging from moderate to high impact) are featured in the chief executive's report to the Board and are addressed each quarter by the Board's Sustainability Committee. A steady decline over the past four years in the number of environmental incidents in all categories indicates continued improvement in the management of environmental controls across our operations. In 2017, for the third consecutive year, there were no Level 4 or Level 5 incidents. The Group reported two Level 3 (moderate impact) environmental incidents, compared with four in 2016 and six in 2015. The incidents in 2017 were both classified as high potential incidents (HPIs) that could have potentially resulted in more serious impacts. The 2017 Level 3 environmental incidents are reviewed in the table below.

Fines and penalties related to environmental incidents amounted to \$8.6 million in 2017. This figure includes approximately \$8.3 million associated with several fines issued in Brazil for alleged administrative issues that did not have an environmental impact. For example, the figure includes a single fine of \$8.1 million which was motivated by the business allegedly failing to sell or donate all the timber from the mine site clearing process within the period stipulated in the construction permit. Iron Ore Brazil is in the process of appealing these fines.

In 2017, we revised our existing classification criteria for environmental incidents; the more exacting categorisation aims to facilitate additional learning and sharing opportunities and improve the consistency of reporting across the Group. Reporting against the updated classifications will start in 2018. We believe that the change may result in an increase in reported Level 3 incidents owing to the improved method for classifying incidents.

We continue to encourage the reporting of environmental high potential hazards (HPHs) and HPIs, which are valuable leading indicators to inform preventative actions. While there has been progress, much still needs to be done to achieve consistent, reliable reporting and sharing of learnings across the Group.

Primary impact – Operation	Description	Remedial action
Water		
Copper, Chile	An uncontrolled water release from the ventilation system at Los Bronces, while preparing the pipeline for mineral pulp transport, resulted in a discharge of 823 m <sup>3</sup> into a river.	Remedial action included removing 10 m <sup>3</sup> of soil at the exit of the downstream Vizcachas tunnel; environmental sampling (flora, fauna, and soil) and monitoring of downstream water bodies. The incident was reported to the local government agency, authorities and stakeholders, including notifying agricultural users to close-off irrigation systems from potential contamination.
Rehabilitation		
Coal, South Africa	At the Kriel colliery in Mpumalanga, a dragline spilt overburden on to a topsoil stockpile intended for use in rehabilitation.	We implemented a recovery plan for the topsoil and developed a system to ensure more effective recording of data and communications between mine planning and mining.

## Level 3 environmental incidents 2017

# PRIORITISING ENVIRONMENTAL RISK IN AUSTRALIA

Our Grosvenor coal operation in Australia is trialling the Operational Risk Management (ORM) process to give greater priority to environmental risk.

Risk management leads to critical controls that keep employees healthy and safe, protect the environment and maintain Anglo American's social licence to operate.

But environmental risk is sometimes seen as a reputational issue with a lower priority than financial loss or safety, and is not always detected by the normal ORM system.

Anglo American's Metallurgical Coal business therefore set out to give environmental issues the necessary focus at its operations. Our environmental specialists came together to evaluate and benchmark the above ground and underground risks associated with coal mining activities, looking at 12 priority unwanted events (PUEs) in a baseline risk assessment.

Six specific PUEs were identified at Grosvenor, with 13 associated critical controls. After internal consultation, these controls were assigned for monitoring and evaluation, typically by engineering and maintenance teams and not just the environment department.

An example of a critical-control monitoring activity at Grosvenor is the six-monthly check that pumping infrastructure is maintained to allow automated transfer of water between facilities, in accordance with operational plans. This ensures the operation can comply with dam operational limits and reduces the risk of an unplanned release of water into the environment.

## BIODIVERSITY

Biodiversity underpins the structure, function and composition of ecosystems and the services they provide to societies and economies. For us to reduce our risk exposure and increase opportunities in relation to biodiversity and ecosystem services (BES), we need to understand the related impacts and dependencies of our projects, operations and supply chains. Local stakeholders also affect and depend on biodiversity and ecosystem services, thereby making our activities in this area all the more relevant.

## Management approach

As access to the land needed to explore for, and mine, resources is becoming more and more constrained, expectations of companies in terms of their performance and reputation are increasing. The Group's Sustainability Strategy upholds our commitment to contribute positively towards biodiversity conservation. By 2020, we aim to have developed site-specific indicators and an agreed methodology to measure net-positive impact at all high-risk sites, and to have developed partnerships to support the delivery of positive biodiversity outcomes. Our long term 2030 target is to deliver net-positive biodiversity outcomes wherever we operate, which will require our commitment and involvement in strategic partnerships, as well as collaboration with key stakeholders. The focus will be on the rigorous application of the mitigation hierarchy at a landscape level, as well as the integration of regional naturalresource and socio-economic development plans.

Another example is the verification that maintenance of sediment- and erosion-control structures has been effective before and after the wet season. This is necessary to ensure sediment laden run-off is managed in accordance with Grosvenor's environmental licence. Monitoring recently identified that additional work is required to prepare sediment traps ahead of the rains.

Environmental risk is now given a greater priority at Grosvenor, with learnings to be applied across our Metallurgical Coal and other operations.



Environmental co-ordinator, Liz Muirhead, at Coal Australia's Grosvenor mine. Liz now works at the company's Dawson mine.

Extensive technical work completed in 2017 will form the basis of our new biodiversity strategy and performance standards, to be released in 2018. Our aim is to improve consistency in the implementation of biodiversity management across our operations. The ORM and learning from incidents processes are assisting in identifying which biodiversity considerations should be integrated with business-planning processes.

We are re-assessing the biodiversity risks and opportunities across the operations, with an initial focus on high-risk sites. This work will continue in 2018 and will inform a revision of our stand-alone biodiversity action plans (BAPs) to ensure that they are in place at high-risk operations. Implementation of the BAPs, through partnerships and collaboration with local stakeholders, helps to ensure that ecological considerations and community needs are addressed at a regional level.

Regulatory requirements for environmental-impact offset arrangements, including compensation agreements, have been included as conditions of mining, notably at Platinum, Copper, Iron Ore Brazil, Kumba and Coal South Africa. Reviews of policy and legislation are managed through site-specific BAPs and biodiversity assessments. In South Africa, we are participating in the review of the draft National Environmental Offset Policy.

#### **Operational developments**

Starting at our high-risk sites, in particular Copper and Iron Ore Brazil, best-practice guidance on achieving no net loss, mitigating impacts on protected species, meeting regulatory requirements and planning around post-closure objectives is being incorporated into a review of BAPs.

During 2017, De Beers conducted a Group Conservation Threat and Opportunity assessment across its operations. The results informed a better understanding of threats and opportunities and, in turn, a revised plan for certain mitigation measures and conservation practices. De Beers has engaged with Fauna & Flora International (FFI) to help shape its conservation positioning.

De Beers Marine Namibia has assessed and mitigated its marine biodiversity risks through a structured riskassessment process. The business is now monitoring seabed biodiversity recovery using external specialists under the guidance of an independent Marine Scientific Advisory Committee.

Owing to the environmental sensitivity of its mine site and the proximity of communities, Minas-Rio continues to implement an action plan to mitigate licensing risks. The operation's forestry-compensation project has been approved, and progress has been made to develop new conservation areas to offset the presence of caves within the mine-site area.

## **Engagement and collaboration**

Through our longstanding partnership with FFI, we receive independent strategic advice on biodiversity and assistance on building our capacity to manage biodiversity risks. One example is our Sakatti polymetallic project in Finland, where we work with FFI to assess whether 'no net loss to biodiversity' is feasible, should the project proceed.

In South Africa, we have developed a framework to help us plan how to maximise the contribution and full potential of our biodiversity and non-operational land assets, while promoting sustainable socio-economic development opportunities. Our approach recognises the importance of engaging with communities and collaborating with regional and inter-regional government and private agencies.

Improving our biodiversity knowledge and the conservation and stewardship of critical habitats and/or threatened or endemic species remains an important objective for the Group. As part of this commitment, De Beers co-hosted the eighth annual Oppenheimer De Beers Group Research Conference in October 2017. The aim of the conference is to highlight the results of the diverse research projects undertaken in South Africa, Zimbabwe, Namibia, Botswana, Canada and the United Kingdom.

# PRESERVING BIODIVERSITY AT DER BROCHEN

Anglo American is researching and preserving plant biodiversity around our Der Brochen platinum project in the Limpopo province of South Africa. Protecting indigenous fauna and flora is a critical part of our approach to net-positive biodiversity outcomes.

The area around Der Brochen is in the Sekhukhuneland Centre of Plant Endemism, and is recognised under the 2013 SA Mining and Biodiversity Guideline as a high-biodiversity area at risk from mining.

The site of a potential tailings storage facility was assessed for its biodiversity. In total, 58 woody and 18 herbaceous plant species were identified, nine of them protected, five threatened and five endemic.

The project has recommended methodologies for extracting, storing and relocating these specimens, including capture of seeds and replanting.

Over three months, 1,058 endemic trees were relocated from the site to a storage nursery with the help of a botanist, six local community members were trained and four tonnes of alien invasive plant species were removed.



Field manager Judah Mojalefa carrying out an environmental audit at Anglo American Platinum's Der Brochen project.

# **OPERATIONS LOCATED IN SENSITIVE ENVIRONMENTS**



# VENETIA

Land managed: 6,261 hectares Land disturbed: 1,888 hectares

#### SENDELINGSDRIF

Land managed: 4,700 hectares Land disturbed: 145 hectares

# 1 Minas-Rio Iron Ore Brazil, Brazil

**Description:** The Minas-Rio mine and pipeline are located in the Atlantic forest and Cerrado biomes, which host several protected species. The operation is also situated in a region with a distinctive iron-rich rocky soil type (Ironstone Rupestrian Fields – IRF), which supports unique animal and plant life. Land clearance for mining there is subject to strict regulation, including significant offset requirements. In the case of an IRF, every hectare of land disturbed must be offset by two hectares, with similar ecological characteristics, in the same watershed.

**Response:** A study, completed in partnership with the Federal University of Viçosa, has identified suitable sites for offsetting disturbances to IRFs. Iron Ore Brazil has entered into a partnership with São Paulo University to carry out a long term study to inform its target of no net loss of biodiversity and ecosystem services.

Extensive wildlife monitoring programmes are in place to mitigate impacts on vulnerable species and native vegetation is harvested for future use in rehabilitation and offsets. As part of Minas-Rio's environmental management plan, the operation continues to support work on establishing an ecological corridor that will connect fragments of forest, leading to increased flow of fauna and flora. Most of these pockets of land are in the hands of private owners, so a multi-stakeholder approach encourages their contribution to this ecological corridor through education and skills development. Iron Ore Brazil also supports the Protected Areas of Amazon Programme.

# **2 Venetia** De Beers, South Africa

**Description:** Venetia mine is situated adjacent to the Venetia Limpopo Nature Reserve established by De Beers in Limpopo province, South Africa. The Mapungubwe Cultural Landscape was proclaimed as a World Heritage site in 2003 and, in 2009, a revised buffer zone was proclaimed without prior consultation with the mine. This resulted in the mine falling within the buffer zone of the Mapungubwe Cultural Landscape.

**Response:** De Beers operates according to conditions agreed with the government and, in 2013, through active engagement with the South African government, De Beers received consent for Venetia's underground project to proceed. A revised buffer zone that excludes Venetia mine was accepted by the UNESCO World Heritage Committee in 2014 and is going through the local legal process. While no mining takes place in the core area, there are shared water resources that are carefully managed by the mine.

### 3 Sendelingsdrif De Beers, Namibia

**Description:** Sendelingsdrif falls within the southern end of the Namib desert in the Succulent Karoo Biome. The Succulent Karoo is recognised as the world's only desert biodiversity hotspot, and the mining licence falls within Management Resource Protected Area (mining) and IUCN Category VI Protected Area of the Tsau//Khaeb (Sperrgebiet) National Park.

**Response:** The De Beers team at Sendelingsdrif, together with research partners – the Gobabeb Research and Training Centre and Kew Gardens' Millennium Seed Bank project in West Sussex – implements an environmental management plan to minimise the footprint of the mine; ensures that landforms and soil structures are rehabilitated; and effects innovative restoration measures. The restoration-ecology programme will ensure the survival of significant plant species after mining.

# OPERATIONS LOCATED IN SENSITIVE ENVIRONMENTS

# EL SOLDADO Land managed: 8,030 hectares Land disturbed: 1,245 hectares

SISHEN AND KOLOMELA Land managed: 87,876 hectares Land disturbed: 14,963 hectares

> - ISIBONELO Land managed: 1,269 hectares Land disturbed: 908 hectares

## Sishen and Kolomela Kumba Iron Ore, South Africa

**Description:** Sishen and Kolomela iron ore mines are situated in the southern part of a protected woodland in Northern Cape province. The region hosts several protected plant species that may not be removed or damaged without permits.

**Response:** Sishen and Kolomela mines' BAPs are used in conjunction with land management plans to address top risks, including the effects of mine dewatering, alien and invasive species, bush encroachment and the relocation of protected species to offset areas. Research and biodiversity monitoring protocols are used to understand and measure long term biodiversity trends.

## El Soldado

#### Copper, Chile

**Description:** El Soldado copper mine is situated in a priority biodiversity-conservation area, which hosts more than 190 different species of flora that are native and/or endemic. A total of six plant species and 17 animal species are protected.

**Response:** El Soldado focuses on reforestation, research, monitoring and environmental education through its biodiversity action plan. Restoration of the El Gallo creek following the unsanctioned disposal of waste rock in 2011 is ongoing. Increasing the survival rate of the protected Belloto del Norte trees remains a priority, with additional resources being invested in improving reforestation techniques.

# **6 Isibonelo** Coal, South Africa

**Description:** Isibonelo is located within the sensitive Olifants river catchment of Mpumalanga – host to the majority of the country's collieries. The operation's key considerations relate to the presence of red-data plant species, a significant area of wetland within the mining area, grassland management, pollution and alien-plant invasion.

**Response:** As part of its original mining licence agreement, Isibonelo has established two off-site wetland rehabilitation projects to offset planned impacts of the mine. It also revised its original mine design to avoid affecting around 500 hectares of wetland. The protection of red-data plant species and management of alien plant species are addressed via the Isibonelo BAP.

# A SHOWCASE FOR MINERALS AND BIODIVERSITY IN BRAZIL

Anglo American has opened a science centre in Conceição do Mato Dentro, Brazil, linking the region's mineral wealth to local archaeology and endemic biodiversity.

The community project opened in 2014 as an educational resource for employees, communities, municipalities, schools, colleges and universities.

It is underpinned by environmental and cultural themes and aims to build community relations, share knowledge of the region's historical and archaeological heritage, and create educational partnerships with NGOs and local academic institutions.

Visitors to the science centre are guided through a 'time tunnel' to discover the history of the region, and how Anglo American has managed its Minas-Rio operation for the protection of local biodiversity.

There is a themed garden, with about 80 endemic plant species from the ironstone rupestrian fields and a butterfly garden filled with local species.

Feedback from visitors has been positive, and schools value the student activities and training offered to teachers.



The Science Centre at Conceição do Mato Dentro, Brazil, displays 200 of the archaeological remains out of 200,000 discovered at our Minas-Rio iron ore operation.

## MINERAL RESIDUE MANAGEMENT

Mining generates significant quantities of mineral residue, which affects the land through the establishment of tailings dams and waste rock piles, and may also influence water quality if not managed effectively. Where possible, we place mineral residue into mined-out areas or pits, such as at our Coal facilities in Australia. This provides increased containment safety and reduces the overall footprint of the disturbed land, supporting long term closure planning and implementation. We also seek to minimise land impacts by making use of mineral residue in the construction of containment facilities; waste rock is being used to build containment dams at Mogalakwena, Jwaneng, Venetia and Collahuasi mines.

The integrity of tailings dams is under increasing scrutiny following a number of serious tailings dam breaches in the mining industry in recent years. Tailings storage facilities are classified as one of our top 10 major risks and are subject to a rigorous risk management programme. Over the past three years we have been rolling out a new mineral residue management technical standard, which is now in the last stages of implementation for all tailings dams and waterretaining dams. Self-assessments have been completed and formal reporting will start in the first quarter of 2018. We aim to complete implementation for waste rock piles and develop surface-flooding risk-management plans by the end of 2018. The new standard raises the bar in the level of care for our mineral residue facilities, as we seek to move beyond compliance and towards best practice. In implementing our internal technical standard, we will align with the ICMM position statement on preventing catastrophic failure of tailings storage facilities, which all ICMM member companies are committed to implementing by November 2018.

The standard has received wide international recognition and we are confident that we are well positioned to meet evolving, stricter legislative requirements for tailings dam construction and maintenance, notably in Brazil and Chile.

Implementation of the standard is supported by a greater level of awareness of the risks that these facilities present and by our commitment to demonstrate industry leadership in this field. In 2017, we held two training workshops, in Johannesburg and in Santiago, with 'no repeats' as the theme. More than a hundred participants from different business units, functions and levels of the organisation, including executives, facility supervisors, 'operational champions' and external consultants, collaborated in receiving training on the standard and in sharing knowledge across various business units and commodities.

We have also developed a practical technical guideline that has been externally peer-reviewed, in order to facilitate improved characterisation and management of static liquefaction risks, particularly at our upstream tailings dams.

# FIBRE OPTIC CABLE MONITORING OF TAILINGS DAMS IN CHILE



Fibre optic cable technology is already being used at our operations in Chile to enable near-real-time measurement and monitoring of tailings dam conditions, including structural movements, seepage levels and the degree of settlement taking place. Featured in the control room at Los Bronces' Las Tórtolas operation is tailings dam operator Carlos Onetto.

## Anglo American is using innovative fibre optic cable technology to monitor and safeguard the integrity of its tailings dams.

The technology is already deployed in Chile and is being introduced in Brazil and South Africa. It will be tested in different environments and applications before it is rolled out across 78 tailings storage facilities worldwide.

The fibre optic cable monitoring initiative is part of Anglo American's FutureSmart Mining™ approach to the innovative use of targeted technology to make mines safer, more efficient and cost-effective.

In December 2017, we launched an online mineral residue facilities dashboard that is customised for our needs. It provides a comprehensive inventory of, and updated risk tables for, all the containment facilities in the Group (close to 80 tailings storage facilities and more than 200 water-containment structures). By using this tool, our key required documents are now stored and accessible in one place. In 2018, we will extend this to include our waste dumps and stockpiles.

We classify facilities based on potential consequences of a catastrophic event. Classification criteria include: public and employee safety; employee health; and environmental, infrastructure, financial, social and reputational consequences of incidents. In turn, the classifications determine: design criteria; the frequency of monitoring and inspection; assignment of appropriately skilled and resourced people; and governance structures to manage, monitor, audit and review facilities.

Critical controls at facilities are audited internally by rotation at all facilities, and each of the businesses is addressing identified priority issues. External, independent technical review panels are in place at most operations for our mineral-residue facilities to undertake independent reviews; such panels will be in place Group-wide by mid-2018.

## **HOW IT WORKS**

Fibre optic cable technology enables near-real-time measurement of parameters such as temperature and strain. Based on data processing and interpretation, we can evaluate structural movements, seepage levels, and settlements in dams – the latter up to sub-millimetre accuracy.

Real-time analysis data improves the monitoring of dam integrity by immediately alerting operations to potential problems, ensuring a faster remedial response.

Interpretation of data can then be used to better understand potential structural movements, long term deformation, and creep in dams and their foundations. It can identify seepage or leakage detected through subtle changes in temperature.

Safe management of tailings dams is critical for Anglo American as failure or leakage can be catastrophic for local communities and the environment.

Tailings dams are also getting bigger as declining yields require more ore to be mined to deliver the same amount of product.

At the Minas-Rio mine in Brazil, fibre optic cable technology will be used to monitor and identify large structural deformations in a concrete box culvert that is part of the tailings dam spillway. The culvert will, in coming years, be subjected to large loads as the dam is raised. Understanding its performance and being able to measure structural deformations will be crucial to monitoring risks associated with maintaining the spillway's integrity.

We are implementing leading practices in all aspects of dam management, from concept, design, engineering, maintenance and surveillance, to post-closure. Examples of best-available practices and technologies in mineral residue management at our operations include mine waste co-disposal, underground backfilling, dewatered tailings deposition and dry stacking, and in-pit backfilling.

Innovation is an important focus for our mineral residue facilities practice area to promote more efficient and effective systems and processes. A principal development is the introduction of digital tablet applications when conducting routine dam-safety inspections of tailings facilities and water-retaining dams. This technology enables us to better monitor deficiencies and follow-up on required maintenance work and risk mitigation. We are also introducing fibre optic cable (FOC) monitoring technologies, which allow much more precise and accurate measurements of dam movement, also in real time. FOC technology has been introduced on pilot projects at operations in Chile, Brazil and South Africa. (See case study above.) At Platinum's Mototolo operation, a new tailings storage facility is being developed with FOC technology for both deformation and seepage monitoring.

### NON-MINERAL WASTE MANAGEMENT

We apply the 'avoid, reduce, re-use and recycle' management hierarchy to ensure the least-possible effects on human health and the environment, during both the operational and post-closure phases.

Reduction and/or recycling targets related to non-mineral waste have been set at individual business units and operations. In South Africa, our Iron Ore and Platinum operations aim to send zero waste to landfill by 2020. Both business units are working on renewed approaches to waste management and on partnership with stakeholders to enhance recycling and reduce the amount of waste sent to landfill. At Platinum's Mogalakwena mine, more than 600 tyres have been shredded and disposed of, or used for alternative purposes, thereby mitigating associated environmental and legal risks.

In 2017, Iron Ore Brazil reached its target of recycling 88% of its non-mineral waste. Significant progress in 2017 involved the recycling of mixed rubber that was previously sent to landfill. A challenge remains the disposal of wood. The business has been conducting a study to identify potential uses within the business, such as erosion prevention.

At Namdeb, oil and grease are re-used for energy generation. Where appropriate, certain types of waste are also incinerated. Nickel plans to use fatty acid instead of heavy-fuel oil at Codemin once there is sufficient availability.

The management of hazardous substances is strictly regulated and controlled at our operations, as well as at the receiving waste facilities, which are regularly audited by external parties. In 2017, we developed a new technical standard on hazardous-materials management and established a baseline assessment against the standard, which will be rolled out in 2018.

We have implemented bioremediation facilities at Kumba's Sishen and Kolomela operations and at Platinum's Mogalakwena mine to treat soil that has been affected by hydrocarbons.

## **PRODUCT STEWARDSHIP**

We seek opportunities to work with customers and other organisations to research and optimise the use of our products downstream. We collaborate with the ICMM and other partners on initiatives aimed at promoting responsible stewardship of commodities, and we actively promote the beneficial uses of our products. (See case study on page 62.)

In addition, we have mandatory product-compliance obligations that stem primarily from two sources. First, implementation of the EU's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation – a leading initiative aimed at improving the protection of human health and the environment from the potential risks associated with chemicals. Secondly, the UN's Globally Harmonised System of Classification and Labelling of Chemicals (GHS), which influences standards for hazard assessment and communication in the global trade of our products, as well as setting operational standards in many countries where we operate. REACH and GHS apply to all chemical substances, including minerals and metals, and failure to comply with these obligations would put our ability to access markets at risk. Comprehensive systems are in place, therefore, to ensure ongoing compliance.

During 2017, we focused on our collaboration with the European Precious Metals Federation to complete our platinum group metal registration dossiers for the May 2018 REACH deadline. This important collaboration has generated high-quality data on our products and their applications, which will ensure they are used appropriately – maximising their benefit to society.

Internationally, the GHS is increasingly having an influence on transport – in particular, marine shipping. We have been actively involved in the development of appropriate hazard-characterisation methods, which are being used to assess our bulk cargoes against revised safety and environmental codes from the International Maritime Organisation. Similar activity is continually undertaken to update safety-data sheets for customers and for productcompliance systems such as those prompted by implementation of the GHS in many countries.

## **MATERIALS CONSUMPTION**

As a large, diversified mining company, Anglo American operations consume a wide variety of resources. These are reported according to what is most material for individual businesses. The most material resource at a Group level is water, which is addressed on pages 56-61. During 2017, our global operations consumed 286,390 tonnes of explosives (mainly at opencast operations), 29,857 m<sup>3</sup> of lubricants and 1,791 tonnes of grease. Off-road tyres used on haul trucks and other mobile machinery, flotation reagents, mill liners at our Copper business, and nickel electrode pastes are some of the other materials commonly used in the business.

# **AIR QUALITY**

In 2017, we conducted a technical review of air quality and emission risks to develop a Group strategy for air quality and emissions. This strategy will be finalised in 2018 and will be supported by a mandatory Group air-quality and emissions technical standard and related guidance. The standard will encourage ongoing operational improvements and monitoring to ensure that emissions are minimised and permit conditions are met. Every site is required to develop an emissions inventory. In 2018, all sites will complete a self-assessment against the updated standard. This will provide a baseline understanding of the air quality and emission risks at each sites and of the level of control, compliance and action plans in place to manage these risks.

We investigate all air-quality-related complaints received from local communities. If an operation is found to be responsible for an infringement, and had followed all mitigation measures, we take steps to strengthen our mitigation and monitoring practices, in order to prevent repeat incidents.

#### Addressing risks

The most material Group-wide air-quality issue relates to sulphur dioxide (SO<sub>2</sub>) emissions around our Copper and Platinum smelters, nitrogen dioxide (NO<sub>2</sub>) associated with the combustion of diesel and marine fuel, and particulate emissions.

In South Africa,  $SO_2$  emissions from Platinum's smelters are regulated by the Air Quality Act, which stipulated reduced  $SO_2$ -emission levels by 2015, and a further reduction by 2020. Platinum has been granted a postponement in terms of compliance with the 2015 limit in respect of its Mortimer and Polokwane smelters. Platinum has made progress with designing abatement technologies for its Mortimer and Polokwane smelters to comply with the more stringent limits, while the Mortimer smelter has implemented air-quality-offset projects.

Kumba's Sishen mine continues to implement a comprehensive dust-action plan to address particulate matter levels in surrounding communities. The operation is re-assessing its dust-monitoring systems for alignment with air-dispersion modelling results. Mine-drill cyclones have been installed to reduce dust at the drill rigs and progress with waste-dump rehabilitation has been made through hydro-seeding and moonscaping.

## **Our performance**

In 2017, we generated a total of 39,400 tonnes of SO<sub>2</sub> (2016: 40,100 tonnes) and 32,000 tonnes of NO<sub>2</sub> emissions (2016: 35,300 tonnes). We are improving our measuring of particulate matter (PM) emissions and will report more comprehensively on these in future.

Sishen and Kolomela mines continued to report PM<sub>10</sub> dust exceedances, driven largely by dry conditions and strong winds. Actions under way to mitigate exceedances include additional dust-dispersion modelling and researching new technologies.

At Minas-Rio, total suspended particle and PM<sub>10</sub> samples taken in 2017 were compliant with legislated Brazilian air-quality standards. The mine operates a best practice environmental monitoring centre, which includes online air quality and meteorological stations. Those stations monitor air quality in the Conceição do Mato Dentro municipality as well as in areas surrounding the mine. Data is monitored in a central control room. Each deviation is recorded and investigated in order to understand the causes.

Coal South Africa operations are surrounded by other coal mining companies, power stations, crop farms and heavy industry that collectively contribute to fugitive-dust fall-out and particulate-matter emissions. These sources compound the contribution of ambient dust levels, resulting in exceedances at the mine's monitoring stations. Coal South Africa has air-quality management plans in place for opencast operations to manage its dust levels, regardless of background contributions. At De Beers, the marine mining vessels use marine fuels that have a high sulphur content when compared to diesel — although well within quality specifications. The types of marine fuels and their sulphur content and carbon emissions are a consideration in all new projects.

At Nickel, six Level 1 (low level) incidents were reported following particulate emissions from dust-abatement equipment at Barro Alto. These incidents have been investigated and mitigation measures implemented.

## **Responding to regulatory developments**

In Australia, the government is proposing stricter  $PM_{10}$ and  $PM_{25}$  air quality standards that will be included in future environmental-licence conditions for our sites. Metallurgical Coal is monitoring the implementation of the standard and aims to obtain a transitional arrangement to reduce the risk of non-compliance.

In South Africa, Coal, Platinum and Iron Ore submitted their 2017 emission reports to the National Atmospheric Emissions Inventory. In addition, in accordance with the National Greenhouse Gas Emission Reporting Guidelines, which came into effect in April 2017, these business units have registered their operations in preparation for reporting to the government by March 2018.

In Chile, Los Bronces mine is located in a highly urbanised region that has been designated a 'saturated zone' for certain air-quality pollutants, including  $PM_{10}$  dust, nitrogen oxides and sulphur oxides. The regulator has promulgated specific air-quality threshold limits, requiring any new project that exceeds these to identify and implement additional emission-reduction projects. In response, Los Bronces has completed a baseline air-quality study to support the permitting of its underground project, as well as the operational continuity of the mine.

# WATER

With predicted global water shortfall of 40% by 2030, pressure on shared freshwater resources is recognised as a global concern. Anglo American is investing at scale in advanced technology and partnerships to contribute positively to water preservation and work towards our vision of operating waterless mines in water-scarce regions.

# **TOWARDS A WATERLESS MINE**



At Mogalakwena platinum mine, in South Africa's water-stressed Limpopo province, technical lead Dean Bothma inspects fibre-optic sensing equipment, enabling accurate, real-time monitoring of all water flows mine-wide. This is the world's first permanent installation using this type of distributed sensing technology. Anglo American aims to eliminate the use of fresh water from mining processes. Our work towards a waterless mine focuses on evaporation measurement and dry tailings disposal, exploring innovative approaches to dry separation, and non-aqueous processing.

Mining operations store water in dams to ensure a reliable water supply and enable recycling, but evaporation accounts for 10% to 25% of water lost. We are testing a new technology developed by Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) to more accurately measure and manage evaporation rates.

Significant water losses are also incurred in tailings disposal. Fine particle slurries are particularly difficult to dewater and current dry disposal options have prohibitive

capital and operating costs. In partnership with an innovation leader, we are conducting promising research, testing bespoke polymers to separate water from fine slurries. This lower-cost dewatering technology creates dry, stackable tailings.

To minimise the amount of water sent to tailings in the first place, we are also exploring innovative methods for more targeted comminution (crushing and grinding ore to the required particle size), dewatering waste far earlier in the process. Early estimates indicate the potential for a 30% to 40% reduction in water used per unit of mineral production.

We are confident these dry processing techniques will allow us to re-use 80% of process water, moving us closer towards the waterless mine.

## **OUR MANAGEMENT APPROACH**

In supporting the ICMM's water-position statement, we uphold commitments to apply strong and transparent corporate water governance, manage water at operations effectively and efficiently, and to collaborate with our partners and our communities to achieve responsible and sustainable water use.

We implement an integrated programme, recognising the importance of multi-disciplinary collaboration for effective risk-based water management. Over the past five years, we have invested several hundred million dollars in addressing water-related issues, including infrastructure, watertreatment/water-recovery technologies and managing environmental impacts.

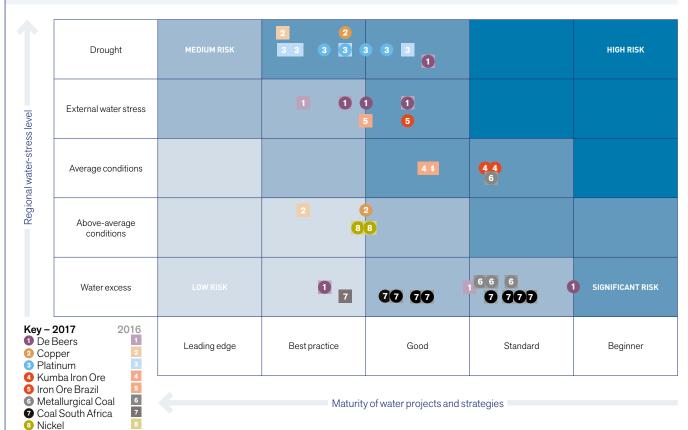
## **Risk-based management**

In 2017, we started implementing and embedding our new water-management standard and associated reporting requirements. The standard guides a risk-based, regional approach to water management, in line with global best practice and the ICMM water reporting guidelines. We have invested more than \$10 million across the Group to address gaps in meeting the new standard.

Every site is appointing a water manager to co-ordinate multi-disciplinary implementation of the water standard and water-management plan in alignment with our strategy. We also have regional water-management co-ordinators. In 2017, we started reporting against a more comprehensive and rigorous set of performance indicators across the Group. By mid-2018, all sites will have detailed, dynamic operational water balances, supported by regional water balances that are linked to regional climatic data.

Modelling water-balance scenarios significantly improves our ability to predict and quantify risks and identify infrastructure requirements to enable timely management responses to climatic variability. Water balances will inform risk-based water management and support coherent water-management plans.

By the end of 2018, we will have a more consistent baseline of data with which to determine targets, KPIs and wateraction plans for each site to implement towards achieving 2030 stretch targets. Site plans include provision for water security, water-use efficiency, mine dewatering and storm-water management, and discharge management.



# WATER MANAGEMENT OPERATIONAL RISK, 2017

🗋 No change

We are developing regional water balances in key basins to understand our water-security position (water availability) and our impact on the water security of others (water-quality impacts), as well as identifying strategic opportunities together with regional stakeholders. Regional water balances are currently being developed in South Africa's Limpopo province, Chile's Santiago basin and Brazil's Peixe river basin. The regional balances will include informed assumptions on regional water demand from all industries, domestic water needs and population growth for varying climatic projections. We have developed regional water plans for high-risk regions and we are working towards having such plans for all our operations.

# ASSESSING AND RESPONDING TO WATER RISKS

The principal water-related risks to the business are security of supply, excess water management (groundwater and surface water) and water quality being impaired as a result of an uncontrolled discharge into the environment.

A qualitative assessment of water risks at all Anglo American's operations is depicted in the graph on page 57, as well as the variation in our risk profile from 2016 to 2017. The assessment included water security, operational water management, water quality and pollution, environmental protection and compliance, as well as mine dewatering and slope depressurisation. Although the water-stress levels in most cases remained the same, or increased in waterscarce areas, the decrease in our water risks evidenced in the shift observed in our water performance towards the left of the figure is an encouraging reflection of our better understanding of and improvements in operational water management.

### Water security

In 2017, we did not experience significant water shortages at any of our sites. This is, however, considered to be a short term, unsustainable phenomenon. Although our risk profile improved in 2017, nearly 50% of all sites are water-stressed.

In South Africa, 80% of our operations are located in water-scarce regions in the Northern Cape and Limpopo provinces. Water security is a risk for all our operations in Limpopo, in particular during times of prolonged drought and increasing community and municipal demand. Initial studies indicate that the province will be severely waterstressed between 2022 and 2025. A project has been launched to understand water balances in regional catchments in order to secure sufficient water for our operations and communities (See case study on page 59.)

Another critical water-scarcity area that continues to receive specific attention is the Andes in Chile, where we have copper operations and face challenging climate change projections. Elsewhere in South America, at the Cerrejón coal operation in Colombia (in which Anglo American has a 33.3% shareholding) a challenging political, social and environmental context has driven action towards integrated water management and water stewardship. Our Minas-Rio iron ore operation in Brazil has also incurred significant water stress.

## **Climate variability and extreme weather**

Our climate data review and predictive modelling indicate that increasing weather volatility, highly variable and interchangeable periods of droughts and floods, as well as heightened social sensitivity to such developments, are likely to expand and exacerbate water stress at our vulnerable operations.

In Chile, our Los Bronces copper operation, which is in a climatic region of considerable variability, experienced increased precipitation rates in 2016 and 2017, following a prolonged drought that ended in 2015. Although this was below the average precipitation, snowfall on the waste dump in 2017 increased the rate of acid mine drainage during that period. This is being controlled, however, with no discharges during the year. Acid water has been pumped into the plant as part of a temporary solution. We are developing a long term solution that incorporates acid water collection, treatment, and re-use. In 2017, we also undertook a climate-adaptation modelling exercise for Los Bronces. (See case study on page 65.)

Extreme rainfall was responsible for uncontrolled discharges at Metallurgical Coal's Capcoal and Dawson operations, as well as at several Platinum operations in South Africa that are normally water-stressed. All discharges were minor incidents and the operations have reviewed their water-retaining structures and other controls to mitigate excess water risks.

# FINDING REGIONAL WATER SOLUTIONS



At De Beers' Venetia mine in Limpopo province, South Africa, employees and visitors to the site are constantly reminded that water is a scarce resource. South Africa is one of the most water-scarce countries on earth. As a significant consumer of this precious resource, Platinum is active in reducing fresh water consumption and implementing water-conservation initiatives in the semi-arid Limpopo province, where several Group operations are located.

Anglo American has been actively involved in partnerships, through the Olifants River Water Forum and Lebolelo pipeline, to source water into the Northern and Eastern Limb platinum operations and communities. This has included collaboration with 30 organisations to provide bulk water services to mines and communities in

#### **Responding to water-quality risks**

We seek to minimise the adverse effects of our mining activities on surrounding surface and ground water to avoid affecting the water security of our stakeholders. Poorquality water is harmful to the environment and human health, can affect mining and processing equipment, and present closure liabilities.

Our principal water-quality-related risks are high salinity and acid rock drainage at some of our coal operations in South Africa and Australia, and at copper operations in Chile. Any unplanned discharges that breach legal agreements are reported as environmental incidents and addressed.

In December 2016, Wildlands League publicly announced that they were initiating legal action (a private prosecution) against De Beers Canada associated with alleged issues with mercury monitoring at Victor mine. The prosecution alleges that De Beers Canada's annual reporting of its mercury monitoring programme to the Government of Ontario and Attawapiskat First Nation did not comply with the reporting requirements specified in the permit. The alleged offences are regulatory strict liability offences, so the prosecutor must prove beyond reasonable doubt that De Beers Canada committed the alleged acts, which, if found guilty, could result in fines. Anglo American is defending the case. Work continues to define the nature of the source of low levels of mercury present in two creeks

the area. Used (grey) water is also sourced for the Northern Limb operations through partnerships with the municipalities of Polokwane and Mokopane.

In addition to several regional bulk water resource and water-efficiency initiatives, Platinum seeks to improve its understanding of regional water availability in the longer term. An important development in this regard was a memorandum of understanding between Platinum and the Global Water Development US Service LLC, a subsidiary of Blackstone, as a partner in the Limpopo Regional Water Project.

In 2017, Anglo American commissioned the strategic Limpopo regional source-water project, in collaboration with the Department of Water Affairs and Sanitation, to restate the regional water balances of catchments in Limpopo. The objective is to understand the water deficits and surpluses in order to undertake, in collaboration with other regional stakeholders, a conceptual source-water project to address shortfall. Preliminary findings indicate significant shortfalls in regional water supply up to 2022, thereby stressing the importance of water supply and demand management for all stakeholders. Currently, source-water options are being evaluated; these will inform Platinum's updated water strategy.

Several source-water options to meet the regional water supply are being evaluated. A pivotal part of the solution is for mining operations to significantly reduce water demand through the implementation of water-efficient technologies. Platinum's operations are currently finalising their next generation operational water balances and water-management plans that will define new targets for water efficiency.

adjacent to Victor mine. This includes two phases of environmental site assessments to identify and delineate areas of potential environmental concern, followed by a human health and ecological risk assessment, remedial action and risk management planning, and the integration of these aspects into the Victor mine closure plan by mid-2018.

Instances of unpermitted mine-water discharge occurred at Platinum's operations, owing to rainfall events that caused run-off in excess of the legally stipulated storm-event design parameters for containment dams. In all cases, plans are being put in place to improve operational water management.

We are using hydrogeological models on an increasing scale to assist in identifying potential risks related to seepage from tailings dams, and in seeking design solutions.

At Coal South Africa, water-treatment plants are used extensively to treat mine-affected water. The flagship eMalahleni water-reclamation plant produces potable water for the eMalahleni municipality.

Coal South Africa is also making good progress with concurrent rehabilitation of mine voids to reduce infiltration of rainfall, and has completed the development of a water model to assist in identifying passive rather than active treatment options. We anticipate similar approaches at other sites in coming years.

## Water withdrawals by source in 2017 ('000 m<sup>3</sup>)

Surface water	86,435		
Groundwater (including dewatering)	144,046		
Seawater	33,935		
Third-party potable water	19,163		
Third-party non-potable water	22,696		
Total withdrawals	306,275		

## WORKING TOWARDS AMBITIOUS TARGETS

We have made progress towards our 2020 targets of reducing absolute freshwater abstractions by 20% (against our projected 'business as usual' (BAU) consumption), recycling/re-using water for 75% of our water requirements, and recording no Level 3 (or above) incidents.

In 2017, we started to report in line with the ICMM water reporting guideline. As such, we now disclose four main categories: water withdrawals; consumption; recycling; and discharges.

Total water withdrawals amounted to 306.3 million m<sup>3</sup> in 2017. The graph above provides a disaggregated view of withdrawals by source. A significant proportion (24%) of withdrawals is for dewatering, which involves removing unwanted water from mine workings. This water is subsequently diverted to municipalities, used for operational activities and/or re-injection into aquifers.

Water discharges came to 100.4 million m<sup>3</sup>. Water consumption is the amount of water that is not recycled or discharged. Consumption and recycling figures will be disclosed in 2018, when the new reporting guidelines are fully implemented.

The more rigorous water-management approach we are implementing provides the foundation for working towards ambitious targets. Our longer term 2030 target is a 50% reduction in abstraction of freshwater from water-scarce regions, as well as increasing our water re-use and recycling to greater than 85%. Achieving our longer term targets is dependent on our reducing levels of imported freshwater and on high-scale investment in advanced technology to aggressively raise levels of water recycling and re-use in our water-stressed operating environments.

At sites where we have too much water, our focus is on reducing levels of imported freshwater. Kumba, for example, pumps as much clean groundwater from dewatering as is needed into the Vaal Gamagara pipeline in order to support regional water supply. The operation is optimising the use of treated sewerage effluent, return water and storm water to reduce its clean ground-water consumption.

We will also be increasing water re-use at high water sites, to minimise discharges and abstraction of fresh water.

## **INNOVATION AND TECHNOLOGY**

Anglo American continues to invest in researching and implementing water-technology solutions to conserve and, where possible, eliminate, the use of freshly-drawn water from our mining processes.

### Water efficiency

We decrease our operational reliance on new water by using innovative technologies to maximise water efficiency in our mining and processing activities. Los Bronces, for example, has multiple water-efficiency and re-use projects, including extraction and re-use of water in tailings, and has achieved a 70% recycling rate.

We are making good progress in water conservation by minimising the amount of water sent to tailings dams by repeatedly using the same water, a concept known as 'closed loop', and through evaporation control. Evaporation losses from water stored in dams account for 10% to 25% of total water lost at a mine.

In striving to reduce levels of water usage, with the ultimate aim of operating a waterless mine, we are developing new technology initiatives that will result in far less mineral ore having to be processed. Although water management is not the primary driver for these initiatives, the impact on water use will be further significant decreases in water intensity.

### Creating new sources of water

Through continued research and collaboration, we are exploring new opportunities to create water sources. These include working with regional stakeholders to optimise re-use at a catchment scale near our sites, regional desalination projects and managed aquifer recharge. We routinely evaluate the use of municipal sewerage as a source of water, as well as desalination of sea and brackish surface water. In all cases, we seek solutions for our own operations that have social, catchment-scale benefits.

An example of an opportunity being explored in South Africa is the feasibility of using the excess mine-water discharge from abandoned coal mines in Mpumalanga, and excess water stored on operational mines, as a water-source option for the country's water-scarce Limpopo province.

In Peru, Copper's Quellaveco project is located in an arid region in the south of the country. To augment water availability, we are constructing a dam to create a watersupply reservoir to serve the mining project, the local community and agricultural industry in the future.

# THE CONCENTRATED MINE



Pilar Méndez at work in the particle recovery pilot plant at Copper's Los Bronces operation in Chile. One of the great challenges facing the mining industry is how to extract more metal with less waste, while minimising costs and our environmental footprint.

Our Concentrate the Mine<sup>™</sup> concept integrates different enabling technologies to deliver a large increase in output, with a significant reduction in energy and water use.

Advanced Fragmentation, developed with the University of Queensland, uses new technology to blast ore into finer particles. This increases volumes through plants and increases production. It is also more energy efficient as we reduce the volume of rock put through high-energy grinding, a process in which only 1% of energy is used for breakage and the rest lost in heat and vibration. A further advantage is lower volumes of waste for tailings.

Anglo American is also working on more efficient extraction of minerals from bulk ore by using sensors to remove non-ore-bearing rock from a loaded conveyor belt. Identifying and removing discard earlier in the process lets us increase the grade while reducing processing costs.

It also reduces the environmental footprint of the mine owing to lower energy consumption, greenhouse gas emissions and water losses per tonne of product.

Coarse particle recovery (CPR) allows us to float particles at sizes two to three times larger than normal, consuming less energy and increasing production. It enables us to easily extract water from the process, leaving a waste stream that is dry and stackable.

CPR will allow us to re-use 80% of process water and can be applied to most Anglo American assets. It represents an important change because water sent to tailings disposal often represents the biggest water loss at a mine.

We are achieving outstanding results at the pilot plant at Los Bronces copper mine in Chile and exceeding performance targets for productivity, and water and energy consumption, offset by a minor recovery loss.

We are now preparing to extend the pilot from Copper to our Platinum business and give more momentum to precision processing.

## PARTNERING FOR REGIONAL MANAGEMENT

In taking a basin-wide approach to water management, we work with partners, businesses and authorities in seeking a stable, long term effective approach to regional water use incorporating local issues and sensitivities into our water-management practices.

Since a high number of our assets are in southern Africa, we have developed a collaborative water strategy for the region, which was launched in 2017.

At Los Bronces in Chile, we work with local power plants, agricultural communes, various levels of government, as well as our mining neighbour, Codelco Andina, in setting our water strategy. Across the border in Peru, Quellaveco is working with government and local agriculture in defining its water-resources plan. In South Africa, Anglo American participated in the development of regional water partnerships between government and industry to accelerate the development of bulk-water infrastructure to supply the Olifants river catchment. During 2017, we also participated in an ICMM roundtable discussion on collective action opportunities, with a particular focus on the Limpopo province.

Anglo American has signed a memorandum of understanding with the Global Water Development subsidiary of private infrastructure developer Blackstone. The aim is to identify and develop water-related infrastructure projects as private/public partnerships, financed and managed by Blackstone. Projects being reviewed include potential new water sources and reducing water risks at certain South American and South African sites.

# **CLIMATE CHANGE**

Anglo American has taken decisive steps for more than a decade to contribute to the global effort to reduce emissions, while continuing to provide the materials that modern life requires. We are working towards ambitious 2030 targets as part of our roadmap for developing a carbon-neutral mine.

# THE ROLE OF PLATINUM IN A CLEAN ENERGY FUTURE



Hydrogen fuel cell electric vehicles produce no harmful tailpipe emissions and have range and refuelling times similar to those of petrol or diesel vehicles. Platinum group metals (PGMs) are currently used in autocatalysts that are designed to reduce harmful emissions from internal combustion engines (45%); for jewellery (34%); in a range of industrial applications; and as an investment commodity.

As part of a long term qualitative scenario planning exercise, Anglo American sought to understand how demand for PGMs might be affected by the inevitable shift to a low-carbon future. The analysis indicates that the transition opportunities are potentially positive for PGMs to 2035, with demand driven by ever-stricter emissions legislation and associated demand for catalytic converters. However, several government policies limiting the sale of internal combustion engine (ICE) vehicles in the future, together with voluntary commitments by manufacturers to phase out the use of ICEs, will ultimately reduce demand for catalytic converters.

Our Platinum business has three key initiatives in place to shape the demand for PGMs in a low-carbon, post-ICE world:

Through the PGM Investment Programme, we make strategic investments in a portfolio of activities ranging from research, product development and demonstration through to investments in early-stage businesses that use or enable the use of PGMs in the longer term. This includes companies with expertise in the advancement of hydrogen fuel cells and hydrogen-storage solutions.

We support dedicated market-development activities, including investments in refuelling infrastructure and research and development. For example, in 2017, Anglo American co-funded the construction of seven hydrogen refuelling stations in California to promote the roll-out of hybrid fuel cell electric vehicles.

Finally, we take a positive policy advocacy stance through initiatives such as the Hydrogen Council, of which we are a founding member. This is a global initiative of leading energy, transport and industry companies with a united vision and ambition for hydrogen to foster the energy transition from fossil-fuel-based sources of power. Bringing together cross-industry expertise and collaborating to shift complex energy systems, the Hydrogen Council plans to invest \$1.9 billion per year over the next five years, supporting a transition to a hydrogen-based transportation system.

Through this approach, we aim to stimulate a hydrogen economy and an increase in the adoption rate of fuel cell electric vehicles.

## **OUR MANAGEMENT APPROACH**

Anglo American's climate change policy articulates our commitment to five principles:

- building internal agility and ensuring resilience to climate change
- driving energy and carbon savings throughout our business
- understanding and responding to the carbon life-cycle risks and opportunities of our products
- developing and implementing collaborative solutions with our stakeholders
- contributing our skills and knowledge to the development of responsible public policy.

A central aspect of our approach is the energy- and carbon-management (ECO<sub>2</sub>MAN) programme, which we have been implementing across the Group since 2011. The programme is centred on site-level energy and greenhouse gas (GHG) reduction targets, which constitute a reduction against current business plans. The targets consider variable operating conditions, such as changes to mine plans, production levels, the depth and grade of orebodies, and haul distances, as well as acquisitions or disposals.

## Strategic KPIs and executive incentives

The Anglo American chief executive and business unit CEO's scorecards include performance on energy and carbon. In 2017, the Board approved the inclusion of our 2020 energy and carbon targets within the executive Long Term Incentive Plan.

## Reporting

We are responding to society's expectations for greater transparency around climate change, expressed by initiatives such as the 'Aiming for A' coalition and the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures. In 2017, we published a stand-alone supplement on our climate change plans, policies and progress. Further disclosure is provided in our Annual Report, through the sustainability performance section of our website and in our annual submission to the NGO, CDP.

## REDUCING OPERATIONAL EMISSIONS AND ENERGY USE

In 2017, Anglo American operations were responsible for 17.95 million tonnes of  $CO_2$ -equivalent emissions (Mt  $CO_2e$ ), (2016: 17.90 Mt  $CO_2e$ ). This slight increase was a result of divestments and business improvement projects that were offset by an increase in production (and associated coal-mine methane emissions) at Metallurgical Coal operations.

Our GHG emission-reduction target for 2020 is 22% against projected emissions in a BAU scenario. GHG-emission savings in 2017 amounted to 4.8 million tonnes (Mt)  $CO_{2}e - a 21\%$  reduction relative to the BAU.

The Group's total energy consumption dropped to 97 million GJ from 105 million GJ in 2016. Divestments and energy-efficiency projects were the primary causes for the decrease.

Our energy-reduction target for 2020 is 8%. Approximately 320 energy-efficiency and business-improvement projects saved 6.4 million GJ in energy consumption (a 6% reduction relative to the projected consumption in a BAU scenario) in 2017.

The cumulative avoided energy costs under the ECO<sub>2</sub>MAN programme over the past three years is estimated at \$260 million based on 2017 energy prices. The energy-efficiency projects we have implemented have a typical payback time of three years.

Several of our South African operations benefit from tax-allowance incentives, achieving an estimated \$15.4 million (R200 million), for measurable energy savings. Kumba continues to achieve significant energy savings through a range of emission-reduction initiatives across its haulage fleet.

Our energy-efficiency target for 2030 is a 30% reduction in our absolute energy intensity against our 2016 performance, while our long term GHG emissions target is a net 30% reduction in emissions against the 2016 level. The long term stretch targets align with our aspiration to develop a carbon-neutral mine. Building on the outcomes of the FutureSmart Mining<sup>™</sup> Innovation Open Forum on energy that we held in December 2016, we held an energyefficiency workshop in October 2017 to further assist in identifying and prioritising opportunities, and in developing action plans meet our longer term targets. By 2020, we will have completed technical reviews to identify the priority energy and carbon-reduction options at our major operations.

Our most significant source of Scope 3 emissions is the combustion of coal by customers for energy generation and metallurgical processes. In 2016, our Scope 3 emissions associated with coal were estimated at 109 Mt CO<sub>2</sub>e.

In addition to our focus on GHG management, we investigate opportunities for carbon-offset partnerships. We have identified options for implementation once a compliance carbon-trading market develops.

## **PORTFOLIO RESILIENCE**

We identify and assess the potential impacts of climate change on our portfolio. Of considerable importance is our role as a producer of copper, nickel and PGMs – critical products in enabling low-carbon technologies – as well as being a producer of thermal coal.

In 2015, we assessed the climate-related scenario risks and opportunities for the thermal coal market to 2030 and beyond. The exercise highlighted the continued role of thermal coal in the global energy mix, even within the International Energy Agency (IEA) 2°C Scenario, with an increasing contribution from alternative low-carbon energy sources and extensive deployment of carbon capture and storage (CCS) technologies.

In 2016, we undertook a qualitative assessment to determine implications for product demand for copper and PGM markets. The qualitative analysis, which included the IEA 2°C Scenario, indicates that in the transition to a low-carbon economy, and under increasing climate constraints, the demand for both metals is positive, and is particularly attractive for copper. Society's rising global access to electricity, combined with the demand to provide it through renewable sources, will rely on the use of copper as one of the most efficient conductors of electricity.

Demand for PGMs is currently linked to the automotive and jewellery industries. We expect the ongoing trend towards cleaner-emission vehicles, driven by increasingly stringent global emissions legislation, to sustain demand for PGMs in catalytic converters. We invest in a few companies, including several hydrogen and fuel-cell companies, which are developing new technologies to drive industrial demand for PGMs. Many of these technologies address environmental issues such as pollution and global warming.

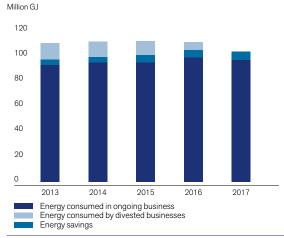
# Total GHG emissions against business as usual 2013–2017

2013-2017 Million tonnes CO<sub>2</sub>e 25 20 15 10 5 0 2013 2014 2015 2016 2017 GHGs emitted in ongoing business

GHGs emitted by divested businesses

GHG savings





Coal plays a key role in the global provision of energy and electricity and is an indispensable element in the production of steel, which is a critical material in the provision of renewable energy. At present, we do not believe that there is any viable alternative to metallurgical coal. Thermal coal, primarily through its role in electricity production, has a central role in supporting poverty alleviation and sustaining prosperity. Through the World Coal Association and the Coal Industry Advisory Board, we engage with governments to inform policy for more effective downstream uptake of new technologies for coal that will reduce related GHG emissions and improve local air quality.

Our intention is to complete a quantitative analysis of the climate-scenario-related impacts on copper, nickel, PGMs, iron ore and metallurgical coal in 2018. The analysis will enhance our view of low-carbon transition risks and align with disclosure requirements, including the recently issued recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD).

## ADAPTATION FOR CLIMATE RESILIENCE

The mine-project investment decisions we make today could be significantly affected by weather variability associated with long term climate change. Anglo American seeks to understand the physical implications of climate change for our operations and neighbouring communities and to implement appropriate adaptation responses.

Key elements of our approach include:

- building climate change scenarios using the best-available science
- using our operating models to identify vulnerability and exposure
- integrating critical controls into operational risk management.

# UNDERSTANDING THE IMPACTS OF CLIMATE CHANGE IN CHILE



Copper's Los Bronces mine is situated high on the western face of the Chilean Andes. As understanding the potential physical and social effects of climate change on our mining operations and host communities is of material importance to Anglo American, we have been working with the UK Met Office to understand which of our operations would be most at risk from these impacts.

We have been working with the UK Met Office and other recognised experts on climate science since 2010. Initial climate studies identified our highest-risk sites as being located in Peru and Chile, with several other operations also vulnerable to extreme weather events. In 2012, we developed climate scenarios for vulnerable regions, which we then used to develop best-practice guidance for our operations and new investment projects. In 2016, we undertook a high-resolution modelling exercise with the UK Met Office, for the Los Bronces underground project in Chile. The scenario data has informed our catchment-based water-model, air-quality and natural-hazard assessments and control measures. (See case study above.)

In 2017, Platinum initiated a climate-modelling and -adaptation exercise across all of its operations in South Africa. Similar exercised are planned for Debswana's Jwaneng and Orapa operations in Botswana. This work highlighted two countries where risk was significant: Peru and Chile. As a result, a bespoke piece of climate-modelling analysis was carried out for the Los Bronces underground copper project in Chile. Although the area around the mine is semi-arid, the glaciers found there are natural stores of water that influence the run-off of mountain rivers, especially in the dry season. Understanding the effects of mining and climate change on the hydrological cycle within this area is important, both for operations and the communities located downstream.

Once a robust and accurate climate model had been established, scenarios were run up to the years 2030, 2040 and beyond. Specific weather parameters were fed into the model to understand the effects of temperature and rainfall changes over time and different altitudes, and how they could potentially affect geomorphology, air emissions and natural hazards.

Predictions for rain, snowfall and glacial meltwater were all linked to how they influence water security and are now factored into the water balance of the mine's catchment area. These climate-variability findings will feed into Los Bronces' life of mine plan to better inform planning decisions. The recent drought from 2012-2015 and the subsequent high precipitation events in 2016 highlight the potential value of these models in building climate-resilient operations.

## INNOVATION

Our roadmap for a carbon-neutral mine focuses on the following key areas:

## **Radically reducing energy consumption**

We can achieve this through process, equipment and behavioural efficiencies. Comminution (the grinding and crushing of rock) is the largest consumer of energy in mineral processing. Through FutureSmart Mining<sup>™</sup>, we are investing in new mineral processing technologies that are more energy efficient than conventional methods of comminution. For example, our novel comminution circuits fragment particles using 30% less energy than conventional means. We also apply best-available technologies to underground ventilation, fuel use and pumping.

## Low-carbon and renewable energy

Switching to low carbon energy sources can help mitigate GHG emissions in cases where we cannot further reduce energy consumption. We have made some early progress in the use of renewable energy, although a great deal more is required. In Brazil, the furnace at Codemin uses biomass instead of fossil fuels in the processing of nickel. Coal South Africa has installed solar power generation capacity that meets a portion of its energy needs at Greenside colliery and Coal's Highveld hospital. A feasibility study is under way for a solar photovoltaic project at Platinum's Mogalakwena complex, also in South Africa.

### **Energy recovery**

Platinum's Waterval smelter in South Africa generates electricity from waste heat recovered from the converting process. Through this process we harvest around 20 MW in thermal energy and return on average approximately 3.2 MW in electrical energy to the electrical grid. Anglo American is also investigating ways of recovering energy from haul truck braking systems and pipeline slurry flows.

## Mitigating coal-mine methane emissions

At our Moranbah North, Grosvenor and Capcoal underground metallurgical coal operations in Australia, waste mine methane is captured and used to generate more than 100 MW of electricity. A significant technical challenge for us is to reduce low concentrations of methane emissions in ventilation air.

#### **Carbon capture and storage**

Through De Beers, we are investigating the potential for mineral carbonation of kimberlite tailings as a carbon capture and storage (CCS) technology solution. In 2017, we progressed to analysing tailings at Venetia and Gahcho Kué mines. Laboratory-scale pilots and technology-scoping work for the two mines have commenced at the University of British Columbia and will continue in 2018.

We also support research through our contribution to the Australian Coal 21 Fund, which invests in the development of technologies relating to carbon capture, geological storage and methane emissions abatement at underground coal mines. In South Africa, we are founding members of the Centre for Carbon Capture and Storage. To date, we have invested approximately \$10 million in clean-coal technology.

## Working with our suppliers

Climate-smart procurement will see us buying more high-efficiency equipment and working with suppliers on innovation and technology change.

Examples of successful measures to work with our supply chain to reduce our direct and indirect risks include:

- working with key global suppliers to understand their innovation plans, and discussing how those can support safety and sustainability objectives
- changing a fuel contract to a new fuel that includes an additive that improves fuel efficiency and reduces related GHG emissions
- requiring that service providers transporting employees meet requirements regarding the specification, operation and maintenance of buses
- working with suppliers to source more efficient products that minimise operating costs and reduce GHG and other emissions
- efforts to recycle mining consumable goods, including conveyor belts and tyres, to reduce environmental impacts.

## PUBLIC POLICY POSITIONS AND ENGAGEMENT

Anglo American's formal position on climate change is expressed in our climate change policy, our position statement on climate change and the ICMM statement on climate change.

We engage in policy processes through the ICMM, as well as several other local and international forums. In South Africa, we participate in policy-engagement processes through our membership of the National Business Initiative, Business Unity South Africa, and the Industry Task Team on Climate Change. In Brazil, we annually submit data into the GHG Protocol programme; in 2017, Iron Ore Brazil's externally verified GHG inventory was awarded gold-level accreditation, garnering recognition from our stakeholders.

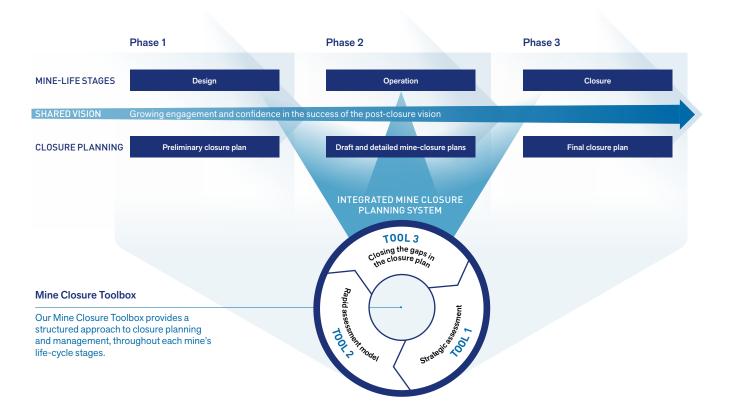
Recognising the potential for a range of carbon pricing and offset/incentive policies to emerge in the medium term, we continue to work with governments, industry peers and other stakeholders in developing and implementing effective, efficient and equitable climate-change policies.

In South Africa, our operating sites are prepared for the reporting requirements under the national GHG emission reporting regulations, which came into effect in April 2017. Industry is challenging aspects of the regulations, in particular, the intention to manage company GHG emissions at the regional level. The government also issued a draft bill on carbon tax in 2016. While certain policy and technical aspects remain outstanding, we are evaluating further opportunities to limit our exposure through reduced energy use and GHG emissions and opportunities to source carbon-offset credits.

In Australia, the federal government implemented the climate change Safeguard Mechanism in July 2016, to restrict GHG emissions. We continue to explore options for offsets should there be a potential exceedance, including the use of carbon credits.

# MINE CLOSURE AND REHABILITATION

Our approach to mine-closure planning is aimed at ensuring that the full spectrum of life of mine opportunities, risks and liabilities is effectively identified, that plans are fully costed, and that adequate provision is made for premature closure.





Baselines of social, environmental and economic knowledge are gathered. Identify and prioritise realistically achievable contributions to sustainability.

For existing mines, the post-closure planning process is complementary to the existing management processes at the operation, such as ongoing interested and affected parties (I&AP) consultation, ongoing environmental monitoring, the Anglo American Socio-Economic Assessment Toolbox (SEAT), Version 3 - derived social management plans, regular environmental audits, our newly piloted Integrated Mine Closure Planning System (ICPS) underpinned by the Anglo American Code of Conduct, the International Council on Mining and Metals' principles and commitments, and the Anglo American SHE Policy Manual and Guidelines.

# T00L 2

**Rapid assessment model:** Against which a mine's current closure

plan can be evaluated, and from which the following key aspects relating to closure can be determined:

- The required level of closure planning that the mine should ideally be at, in relation to the remaining life of mine
- The gaps in a mine's current closure plan when compared against the required level of closure planning
- The requirements to address gaps identified in the current closure plan.

#### TOOL 3

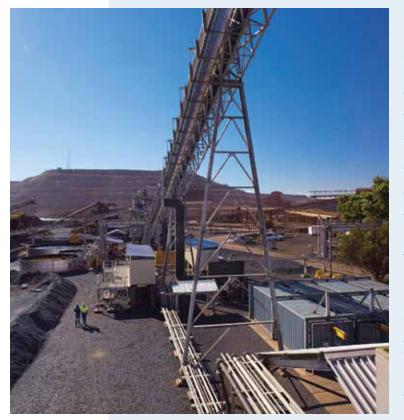
Closing the gaps in the closure plan: Prioritise and schedule the actions in the mine-closure project plan and update the operational and closure cash flows, to ensure sufficient funds are available to implement the required closure plan.

#### INTEGRATED MINE CLOSURE PLANNING SYSTEM

We are piloting this system which guides the execution of mine-closure plans, mainly during the operating phase of the mine, with the goal of reducing long term closure liabilities.

# **REVISED LIFE OF MINE PLANNING AT SISHEN**

The waste rock dump at Kumba Iron Ore's Sishen mine in South Africa. Integrated, long term, closure planning has identified opportunities that could reduce closure costs substantially at Sishen mine in South Africa.



While the concept of integrated closure planning is not new, there are very few examples of sustainable mine closure. Common challenges relate to the complexity of environmental impacts, inadequate financial provisioning, a lack of cross-disciplinary collaboration and short term operational pressures. However, the business case for effective mine-closure planning is compelling, with considerable potential for cost savings and reduced environmental liabilities.

At Sishen, the Anglo American Mine Closure Toolbox and Integrated Closure Planning System were used for a detailed analysis of the mine's environmental management plan and associated legal obligations. The purpose of the exercise was to update the plan with practical, best-practice solutions that would be acceptable to the regulator and reduce closure liabilities.

A total of 27 integrated planning opportunities were identified by a multi-disciplinary team. Of these, the top five have detailed implementation plans in place. They include alternative approaches to waste-rock placement, revised rehabilitation design, collaboration opportunities with neighbouring mines, alternative landform design and growth media, and investigating opportunities for post-closure land use.

Some of these opportunities have already realised significant value. For example, there has been a 70% increase in short-haul in-pit dumping of waste rock in the latest medium and long term plans for the operation. The operational expenditure saving is currently being estimated, but will be tens of millions of dollars. Regulatory approval for the updated plans needs to be received before the full extent of all identified opportunities can be realised.

## **OUR MANAGEMENT APPROACH**

The Anglo American Mine Closure Toolbox (MCT) is the primary means through which we seek to achieve a structured approach to closure planning and management. Our mine-closure planning focus areas are: establishing the status and prioritisation of our operations' closure plans; integrating planning processes; calculating and funding of closure liabilities; and stakeholder engagement.

Our commitment to responsible mine closure is an important aspect of integrating sustainability into our wider business. The MCT is designed to be used in conjunction with other standards and toolboxes, including the Social Way, our Socio-Economic Assessment Toolbox (SEAT), and Investment Development Model. The latter includes a set of requirements to ensure that closure is considered from the outset in the way mines are designed. All projects are required to develop a closure plan as part of the project development and investment evaluation process.

## **CLOSURE PLANS**

Nearly 90% of our managed operations have closure plans that are fundamentally aligned with the MCT's requirements. However, the quality of the closure plans varies across business units and sites, which is being addressed through the mine-closure planning programme. In 2017, Platinum completed the preliminary mine-closure plans for the Amandelbult complex and Twickenham mine. Mine-closure plans for the Mototolo concentrator and Polokwane smelter will be completed by the end of 2018.

Our priority 'high risk' and 'high opportunity' operations, in terms of mine closure, are implementing value-adding closure-plan actions and tracking their implementation. In 2017, we completed a Group-wide independent internal audit of mine-closure planning practices to determine progress in addressing risks and opportunities, including progressive rehabilitation. The results have informed a better understanding of our progress and where we need to make improvements. The greatest opportunity to address many of these issues will be achieved through integrated closure planning. We aim to have value-adding closure processes implemented at all sites, and closure costs accurately calculated, by 2020. Kumba has updated its closure plan for Sishen mine in South Africa, with significant improvements in a range of areas, including risk assessment, gap analysis, closure criteria and success criteria. Following a benchmarking exercise undertaken at mines in the Pilbara region of Western Australia, Sishen has acted on the learnings identified relating to closure planning and sustainable rehabilitation. It has also developed an integrated closure and progressive rehabilitation plan to address the alignment of its closure plan with legal commitments. (See case study on page 68.)

Copper's El Soldado mine in Chile has updated its mineclosure plan and appointed an on-site manager to oversee its implementation. Los Bronces mine has reviewed its closure-plan options and developed an action plan to close the gaps.

Coal South Africa's Khwezela mine has completed the development of a water model to assist in identifying passive rather than active treatment options. A review of mitigation options indicated a potential to decrease active water treatment and reduce operating costs.

The social-closure plan process that was completed for Coal South Africa's Khwezela mine in 2016 is guiding a similar process for Namdeb, with its Oranjemund town, focusing on post-closure sustainability.

The final closure plan for Kumba's Thabazimbi mine was submitted to government in May 2017. We have continued to invest in maintaining public services in Thabazimbi, and the current transfer of the mining right to ArcelorMittal South Africa remains in progress.

## Integrated mine planning processes

We are progressively integrating mine-closure planning with our operational strategies. This involves assessing and identifying opportunities to make operational changes that require no or modest additional expenditure, and which result in significantly reduced operational costs and closure liabilities. A particular focus is placed on concurrent rehabilitation.

Anglo American has refined the Integrated Closure Planning System (ICPS) developed in 2016, following the successful trial implementation completed at Kumba's Kolomela mine and at Drayton mine in Australia over the past two years. The ICPS includes a closure risk-assessment and gap analysis, reviewing the closure vision, identifying detailed closure criteria and tracking closure-opportunity implementation plans. The ICPS will be rolled out across the Group throughout 2018 and 2019.

## **CLOSURE LIABILITIES**

The revised version of the Group accounting standard for calculating closure liabilities has been finalised. A review of closure-liability calculation methods across the business units has identified the need for better alignment with the standard. Some of the gaps involved more robust quantification of groundwater liability, and post-closure manufacturing and maintenance costs. Platinum initiated a project in 2017 aimed at estimating the groundwater liabilities for all its operations and principal joint ventures. The groundwater liability assessment for the Mototolo concentrator was completed in 2017 and the estimated additional liability has been included in the overall liability for Platinum. Groundwater liability is expected to be finalised at all other operations by the end of 2018.

The ICPS enables consistent and accurate accounting of closure liabilities.

All our operations in South Africa are required to update their liability assessments annually. Our operations are aligning their closure liability assessment protocols and methodology to comply with new financial provision regulations for closure liabilities by February 2019. Training on the new accounting standard for calculating closure liabilities has been provided to South African business units.

## REHABILITATION

One of our most important responsibilities is the rehabilitation of our land to the post-mining land use agreed with stakeholders. In 2017, we drafted a revised progressive rehabilitation strategy. The primary objective of the strategy is to identify and reduce risks associated with land that has been disturbed and is available for rehabilitation, and to minimise the risk of the creation of a backlog in the future. Other objectives include building internal expertise and capacity, identifying and capitalising on concurrent rehabilitation opportunities, and improving performance indicators and reporting. Operations will develop detailed rehabilitation plans that identify individual risks, opportunities and resource requirements to meet rehabilitation targets.

The Group manages 1.57 million hectares of land, of which 110,824 hectares have been altered either for mineralextraction activities, or other industrial or commercial purposes. Of the altered land, 17% (19, 265 hectares) has been fully rehabilitated. In 2017, we re-assessed the rehabilitation status at all our sites and prioritised activities for 2018. The top-priority sites identified were Thabazimbi, Capcoal, Namdeb – Land, Sishen and El Soldado. These sites were highly ranked owing to concerns relating to large rehabilitation backlogs, adverse waste materials, significant waste dumps, mineral-residue-facility footprint and/or a lack of approved rehabilitation prescription.

# IMPLEMENTING PASSIVE WATER-TREATMENT SYSTEMS TO TREAT MINE-AFFECTED WATER

Coal South Africa's Khwezela mine at Witbank in Mpumalanga province. An innovative water project at Kromdraai pit – part of Khwezela colliery in South Africa – will reduce acid-mine drainage by 50%, and long term liabilities by 80%, using cost-effective passive water-treatment systems.



In 2017, 39% of the rehabilitation target set by operations was achieved, excluding De Beers where rehabilitation at Venetia mine has been deferred to 2019, while Debswana data is not reported centrally. Rehabilitation is a particular risk at opencast operations, including those at Kumba, De Beers and Coal operations. Metallurgical Coal has continued to reduce its disturbed-land footprint and liability, and increase its concurrent rehabilitation efforts. Rehabilitation at Kumba and Coal South Africa is on target. The reshaping of mine voids is progressing well at Coal South Africa's Khweleza mine and at De Beers' Voorspoed mine and dumps. Los Bronces has identified noncompliances to backlog conditions in work completed owing to business or technical reasons. Some aspects will take several years to be addressed, and plans will be put in place to ensure compliance with all backlog conditions.

The most significant mine closure issue facing Kromdraai relates to acidic metal-rich mine water, with the potential to discharge into adjacent streams. It is a complex problem owing to the interaction of surface and groundwater associated with the historical underground and current open-cut mining areas.

To understand these complex interactions, we used airborne electromagnetic and magnetic data collection methods to map hydrogeological features of the area such as dykes, faults, weathering and pollution plumes. This information was used to suggest new locations for drilling boreholes, which would, in turn, provide accurate water flow data to feed into the model for the best-quality outputs.

With an accurate model, we could test several scenarios to understand the trade-offs between different water-treatment plans and surface-rehabilitation options. The resultant cost-benefit analysis identified the optimal solution for reducing residual risk at an acceptable cost.

A more effective approach to surface rehabilitation has subsequently reduced the need for active water treatment (through reverse osmosis) owing to a reduction in surface water infiltration and, therefore, lower levels of acid-mine drainage.

# **RESPONSIBLE DIVESTMENT**

Our approach to divestment is undertaken in accordance with the Anglo American Code of Conduct and company values. This includes due-diligence assessments of lesser-known bidders and ensuring that known liabilities associated with assets for divestment are disclosed to bidders.

Divestment processes are invariably coupled with concerns over job losses. There are, however, typically very few jobs affected as sale agreements tend to involve the transfer of employees to the new companies on a like-for-like basis.

# DATA AND ASSURANCE

### INDEPENDENT ASSURANCE REPORT TO THE DIRECTORS OF ANGLO AMERICAN PLC

We have been engaged by the directors of Anglo American Plc (the 'Company') to perform an independent assurance engagement in respect of selected sustainability information reported in the Company's Sustainability Report for the year ending 31 December 2017 (the 'Report'). This report is produced in accordance with the terms of our contract with the Company dated 13 February 2018.

### INDEPENDENCE, QUALITY CONTROL AND EXPERTISE

We have complied with the independence and other ethical requirements of the Code of Professional Conduct for Registered Auditors issued by the Independent Regulatory Board for Auditors (IRBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. The IRBA Code is consistent with the International Ethics Standards Board for Accountants Code of Ethics for Professional Accountants (Part A and B).

The firm applies International Standard on Quality Control 1 and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our engagement was conducted by a multi-disciplinary team of health, safety, environmental and assurance specialists with extensive experience in sustainability reporting.

### SCOPE AND SUBJECT MATTER

The subject matter of our engagement and the related levels of assurance that we are required to provide are as follows:

### **Reasonable assurance**

The following selected sustainability information in the Report was selected for an expression of reasonable assurance:

Total work-related fatal injuries	Page 76
Limited assurance	

The following selected sustainability information in the Report was selected for an expression of limited assurance:

Fatal-injury frequency rate (FIFR)	Page 76
Total recordable-case frequency rate (TRCFR)	Page 76
Total number of new cases of noise induced hearing loss (NIHL)	Page 76
Total Scope 1 emissions in million tonnes CO <sub>2</sub> e	Page 77
Total Scope 2 emissions in million tonnes CO <sub>2</sub> e	Page 77
Total energy consumption in million GJ	Page 77
Total number of Level 3, 4 and 5 environmental incidents reported	Page 77
Corporate social investment expenditure (US\$)	Page 44
Management's description of alignment with the relevant governance, processes and control activities in operation	

governance, processes and control activities in operation for the 2017 reporting year, to meet the ICMM Assurance Procedures.

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We refer to this information as the 'selected sustainability information for reasonable assurance' and 'selected sustainability information for limited assurance', respectively, and collectively as the 'selected sustainability information'.

We have carried out work on the data reported for 2017 only and have not performed any procedures with respect to earlier periods, or any other elements included in the 2017 Sustainability Report and, therefore, do not express any conclusion thereon. We have not performed work in respect of future projections and targets.

## RESPECTIVE RESPONSIBILITIES OF THE DIRECTORS AND PRICEWATERHOUSECOOPERS INC.

The directors are responsible for selection, preparation and presentation of the selected sustainability information in accordance with the criteria set out in the Company's criteria set out on pages 73-74 of the Report. The directors are also responsible for designing, implementing and maintaining of internal controls as the directors determine is necessary to enable the preparation of the selected sustainability information that are free from material misstatements, whether due to fraud or error.

Our responsibility is to form an independent conclusion, based on our reasonable assurance procedures, on whether the selected sustainability information for reasonable assurance has been prepared, in all material respects, in accordance with the reporting criteria.

We further have a responsibility to form an independent conclusion, based on our limited assurance procedures, on whether anything has come to our attention to indicate that the selected sustainability information for limited assurance has not been prepared, in all material respects, in accordance with the reporting criteria.

This report, including the conclusions, has been prepared solely for the directors of the Company as a body, to assist the directors in reporting on the Company's sustainable development performance and activities. We permit the disclosure of this report within the Report for the year ended 31 December 2017, to enable the directors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the Report. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the directors as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

### **ASSURANCE WORK PERFORMED**

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits and Reviews of Historical Financial Information and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements (ISAE) 3410: Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board. These standards require that we comply with ethical requirements and that we plan and perform the assurance engagement to obtain assurance on the selected sustainability information as per the terms of our engagement. Our work included examination, on a test basis, of evidence relevant to the selected sustainability information. It also included an assessment of the significant estimates and judgements made by the directors in the preparation of the selected sustainability information. We planned and performed our work so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence on which to base our conclusion in respect of the selected sustainability information.

Our work in respect of the selected sustainability information consisted of:

- reviewing processes that Anglo American have in place for determining the selected sustainability information included in the Report
- obtaining an understanding of the systems used to generate, aggregate and report the selected sustainability information
- conducting interviews with management at the sampled operations and at head office
- applying the assurance criteria in evaluating the data generation and reporting processes
- · performing control walkthroughs
- testing the accuracy of data reported on a sample basis for limited and reasonable assurance
- reviewing the consolidation of the data at head office to obtain an understanding of the consistency of the reporting processes compared with prior years and to obtain explanations for deviations in performance trends
- reviewing the consistency between the selected sustainability information and related statements in Anglo American's Report.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement under ISAE 3000 (Revised). Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement, and therefore less assurance is obtained with a limited assurance engagement than for a reasonable assurance engagement.

The procedures selected depend on our judgement, including the assessment of the risk of material misstatement of the selected sustainability information, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation of the selected sustainability information in order to design procedures that are appropriate in the circumstances.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

### **INHERENT LIMITATIONS**

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining, calculating, sampling and estimating such information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques, which can result in materially different measurements and can impact comparability. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgements. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time.

### CONCLUSIONS

### **Reasonable assurance**

Based on the results of our reasonable assurance procedures, in our opinion, the selected sustainability information for the year ended 31 December 2017, has been prepared, in all material respects, in accordance with the reporting criteria.

### Limited assurance

Based on the results of our limited assurance procedures nothing has come to our attention that causes us to believe that the selected sustainability information for the year ended 31 December 2017, has not been prepared, in all material respects, in accordance with the reporting criteria.

### Other matters

The maintenance and integrity of Anglo American's website is the responsibility of Anglo American's directors. 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 Anglo American website.

tricewaterheise Grapes Inc.

PricewaterhouseCoopers Inc. Director: Jayne Mammatt Registered Auditor 4 Lisbon Lane, Johannesburg 28 February 2018

# BASIS FOR THE PREPARATION OF KEY SUSTAINABILITY DATA

#### INTRODUCTION

Our data governance process, definitions, calculation methodologies and additional guidance notes are documented in the Anglo American Sustainability Indicators, Definitions and Governance business process standard, which is mandatory throughout the business. External verification was, for the purposes of reporting, carried out against this basis of preparation document.

### **Organisational boundaries and scope**

Anglo American accounts for 100% of operations over which it holds management control, including in some instances joint ventures where we have the formal right to mandate Anglo American management and performance standards. A full list of those operations is available on page 75. Our proportional share of independently managed operations is not included in our sustainability reporting scope. Acquisitions and divestments are accounted for from date of acquisition/until date of sale.

#### **Data sources**

Anglo American hosts a single database for reporting key sustainability metrics, including those relating to energy, GHG emissions, water consumption, environmental incidents, occupational health, social performance and safety. Corporate social investment figures are captured in our financial reporting system and collated in a spreadsheet. Consistent reporting processes and indicator definitions have been implemented and applied for all indicators in the assurance scope.

This data is captured on a monthly basis by more than 50 reporting entities and subject to integrity reviews by corporate analysts each quarter. A selection of material indicators is reported internally on a monthly basis and to the executive and Board at each meeting.

It should be noted that while indicators in the assurance scope are reported with a high degree of accuracy, estimates are allowed in December for energy and water consumption data as they are dependent on invoices from utility providers.

#### **Reporting period**

Our reporting year runs from 1 January 2017 to 31 December 2017. Changes to historical data follow a formal change request process, which is signed off by relevant heads of functions and restated externally, if material.

### **KPI DEFINITIONS**

### Scope 1 emissions

Scope 1 emissions include  $CO_2e$  emissions from fossil fuels, coal seam gas fugitive emissions, renewable fuels, and operational processes. Process emissions include those associated with on-site and managed sewerage facilities, on-site water-treatment facilities, the use of carbonates in acid leaching processes at copper-processing facilities, fugitive emissions during the production of phosphates.

### Scope 2 emissions

Scope 2 emissions include  $CO_2$  from electricity purchased and reported in million tonnes of  $CO_2e$ .

### **Total energy use**

Total energy use is calculated from electricity purchased, energy from fossil fuels and energy from renewable fuels, and reported in million GJ.

#### **Total work-related fatal injuries**

A fatality is an employee or contractor death resulting from a workrelated injury. Anglo American records all work-related losses of life for the purposes of internal and external investigation, management action, legal process and compensation. However, while fatal injuries that result from criminal activity and public-road incidents are recorded for management purposes, these are not included in formal statistics and frequency-rate calculations.

### Fatal injury frequency rate (FIFR)

The FIFR is the rate of fatality per 200,000 hours worked for both employees and contractors.

### Total recordable case frequency rate (TRCFR)

The TRCFR is a rate per 200,000 hours of employee and contractor fatal injuries, lost-time injuries, and medical treatment cases. First aid cases – minor work-related injuries which, in normal circumstances, are able to be treated successfully in accordance with recognised first aid training – are not included in this calculation. Injuries are diagnosed by medical and safety professionals according to Anglo American criteria. These criteria are additional to local legal reporting and compensation requirements.

#### New cases of noise-induced hearing loss (NIHL)

Number of employees diagnosed with NIHL during the reporting period. New cases are recorded when:

- The rules for diagnostic criteria for occupational disease in Anglo American have been met
- There is a pattern consistent with NIHL on the audiogram
- $\bullet$  The average hearing loss at frequencies 0.5, 1, 2, 3 and 4 kHz for both ears is greater than 25dBA
- There has been a 10dB change in the average hearing loss since the pre-placement audiogram recorded on employment with Anglo American
- The employee has not previously been counted as NIHL.

### Total amount spent on corporate social investment (CSI)

Categories for corporate social investment expenditure include charitable donations, community investment and commercial initiatives. CSI is reported in US dollars and converted from currency of the operations at the average foreign exchange rate applied by Anglo American for financial reporting purposes.

Charitable donations include cash donations; contributions in kind; employees' working hours spent on charity projects during work hours; and the cost of initiatives designed to inform communities about community-benefit initiatives (e.g. the production of reports that are issued to communities for the purpose of reporting progress). Not included is expenditure that is necessary for the development of an operation (e.g. resettlement of families) or for receiving a licence. Training expenditure for individuals who will be employed by the company following completion of training is not included.

Community investment includes the funding of community partnerships which address social issues; the costs of providing public facilities to community members who are not employees or dependants; the marginal value of land or other assets transferred to community ownership; and income-creation schemes or mentoring/volunteering initiatives which do not have a principally commercial justification. Commercial initiatives include enterprise development and other community initiatives/partnerships that also directly support the success of the company (such as supplier development). There must, however, be a clear and primary element of public benefit.

We prohibit the making of donations for political purposes to any politician, political party or related organisation, any official of a political party or candidate for political office in any circumstances, either directly or through third parties.

### **Environmental incidents**

Anglo American reports five levels of incidents that are classified according to the actual severity of the impact of the incident. A Level 1 incident will have a minor impact on the environment, while at the other extreme, a Level 5 incident will have a major impact on the environment.

The following components are taken into consideration when rating the severity of environmental incidents: the duration of the impact; the extent of the impact; the sensitivity of the receiving environment; and the biodiversity value of fauna and flora in the area affected by the incident.

A Level 3 incident is an unwanted event where:

- The impact lasts more than one month, but no longer than a year, and/or
- The impact affects a large area (several hundreds of square metres) and the impact extends into an area off site, and/or
- The receiving environment comprises largely natural habitat, with minor impaired ecosystem function, and with minor impacts on surface and groundwater resources, and/or
- The impacted site has moderate biodiversity value.

A Level 4 incident is an unwanted event where:

- The impact lasts for more than one year, but is reversible, and/or
- The impact affects an extended area (square kilometres), with off-site impacts extending beyond immediate neighbours/neighbouring land. Impacts are measured on a sub-basin scale or sub-regional scale, and/or
- The receiving environment is classified as having sensitive natural habitat, with no impairment of ecosystem function, and with pristine surface or groundwater resources, and/or
- The impacted site has high biodiversity value.

A Level 5 incident is an unwanted event where:

- The impact is permanent (i.e. there is no technical or economically feasible solution for mitigating the impact, or the impact extends beyond the life of mine), and/or
- The impact affects an area on a whole basin or regional scale, and/or
- The receiving environment is classified as having highly sensitive natural habitat, with critical ecosystem function, and with pristine, often limited, surface or groundwater resources, and/or
- The impacted site has very high biodiversity value.

# **REPORTING SCOPE**

as at 31 December 2017

Unless otherwise stated, data included in this report accounts for 100% of the businesses managed by Anglo American, with the exception of De Beers, where 100% of De Beers' joint venture operations in Namibia and Botswana is also accounted for. Data for acquisitions is included from date of acquisition, and divested businesses discontinue reporting from the date of disposal.

### Businesses included in reporting scope

	Country
Platinum	
Mining operations	
Amandelbult	South Africa
Mogalakwena	South Africa
Unki	Zimbabwe
Union	South Africa
Twickenham project (care and maintenance – C&M)	South Africa
Processing operations	
Waterval smelter	South Africa
Mortimer smelter	South Africa
Polokwane smelter	South Africa
Rustenburg base metals refinery	South Africa
Rustenburg precious metals refinery	South Africa
Other	
Western Limb tailings retreatment	South Africa
De Beers	
De Beers Canada	
Victor	Canada
Snap Lake (C&M)	Canada
Gahcho Kué	Canada
De Beers Consolidated Mines	
Venetia	South Africa
Voorspoed	South Africa
Namakwaland mines	South Africa
Debswana	
Damtshaa (C&M)	Botswana
Jwaneng	Botswana
Orapa	Botswana
LetIhakane	Botswana
Namdeb	
Namdeb Diamond Corporation	Namibia
Debmarine Namibia	Namibia
Commercial and industrial	lamba
Element Six	Global
Sales and Brands	Global
Copper	
Chagres smelter	Chile
El Soldado	Chile
Los Bronces	Chile
Quellaveco project	Peru
Nickel	
Codemin	Brazil
Barro Alto	Brazil
Kumba Iron Ore	
Kolomela	South Africa
Sishen	South Africa
Iron Ore Brazil	
Minas-Rio	Brazil

### Businesses included in reporting scope

	Country
Metallurgical Coal	
Capcoal	Australia
Dartbrook	Australia
Dawson	Australia
Drayton	Australia
Grosvenor	Australia
Grasstree	Australia
Moranbah North	Australia
Peace River Coal (C&M)	Canada
Coal South Africa	
Goedehoop	South Africa
Greenside	South Africa
Isibonelo	South Africa
Khwezela	South Africa
Kriel	South Africa
New Denmark	South Africa
New Vaal	South Africa
Zibulo	South Africa
Other	
Vergelegen wine farm	South Africa
Corporate offices	Global
Discovery	Global

## Joint ventures, associates, investments and other interests excluded from reporting scope

	Country
Platinum	
Masa Chrome Company	South Africa
Modikwa Platinum Joint Operation	South Africa
Kroondal Pooling and Sharing Agreement	South Africa
Mototolo Joint Operation	South Africa
Bokoni	South Africa
Pandora	South Africa
Bafokeng-Rasimone	South Africa
Atlatsa Resources Corporation	South Africa
Johnson Matthey Fuel Cells	South Africa
Wesizwe Platinum Limited	South Africa
Royal Bafokeng Platinum Limited	South Africa
De Beers	
De Beers Jewellers	Global
Copper	
Collahuasi	Chile
Iron Ore and Manganese	
Iron Ore Brazil – Ferroport	Brazil
Samancor	Australia and South Africa
Coal	
Jellinbah	Australia
Dalrymple Bay Coal Terminal Pty Ltd	Australia
Newcastle Coal Shippers Pty Ltd	Australia
Phola plant	South Africa
Mafube	South Africa
Richards Bay Coal Terminal	South Africa
Carbones del Cerrejón	Colombia
Other	
Exxaro Resources	South Africa

# **2017 DATA**

An Excel download of detailed sustainability data is available at www.angloamerican.com

Safety					
	2017	2016	2015	2014	2013
Anglo American total					
Work-related loss of life	9	11	6	6	15
Lost-time injuries (LTIs)	429	548	802	609	918
Medical treatment cases (MTCs)	372	481	783	780	1,088
First aid cases (FAC)	1,500	1,604	2,234	2,387	2,423
Total recordable cases (fatal injuries + LTIs + MTCs)	810	1,040	1,591	1,395	2,021
Total injuries (recordable cases + FACs)	2,310	2,644	3,825	3,782	4,444
Hours worked (thousand)	255,879	293,259	341,394	347,058	372,880
Fatal-injury frequency rate	0.007	0.008	0.004	0.003	0.008
Total recordable case frequency rate	0.63	0.71	0.93	0.8	1.08
Lost-time injury frequency rate	0.34	0.37	0.47	0.35	0.49
Employees potentially exposed to hazards <sup>(1)</sup>	0017	0010	0015	0014	0010
Total number of workers	2017 124,726	2016	2015	2014	2013
Inhalable hazards and carcinogens					
Total number of workers at risk of exposure to inhalable hazards and carcinogens <sup>(2)</sup>	72,695	_	_	_	_
Workers potentially exposed to inhalable hazards above the exposure limit	2,499	_	_	_	_
Workers potentially exposed to carcinogens above the exposure limit	2,565	_	_	_	_
Noise					
Total number of workers at risk of exposure to noise <sup>(2)</sup>	75,761	_	_	_	_
Workers potentially exposed to noise above 85dB(A)	34,999	_	_	_	_
New cases of occupational disease					
	2017	2016	2015	2014	2013
Diseases related to inhalable hazard and carcinogen exposure	27	35	29	26	30
Diseases related to noise exposure	46	48	83	94	132
Diseases related to other health hazard exposure	23	28	47	55	47
Total	96	111	159	175	209
HIV/AIDS <sup>(3)</sup>					
	2017	2016	2015	2014	2013
Number of employee voluntary testing and counselling cases	43,568	45,279	50,223	59,813	51,954
Number of contractor voluntary testing and counselling cases	32,433	38,376	39,643	48,421	40,814
Employees in southern Africa who know their status (%)	83	88	68	86	75
Known HIV+ employees on anti-retroviral therapy (ART) (%)	84	68	72	53	47
Number of new employee HIV cases	506	611	349	543	529
Number of employee AIDS deaths <sup>[2]</sup>	12	68	91	89	125
HIV incidence rate	1.16	1.35	0.69	0.91	1.02
Tuberculosis					
	2017	2016	2015	2014	2013
New cases of tuberculosis (TB)	188	511	544	734	677
TB incidence rate per 100,000 employees <sup>(4)</sup>	361	669	790	1,064	963
Proven TB deaths	4	28	52	63	59

(1) Exposure is above the occupational exposure limit 'A' classification band (without taking personal protective equipment (PPE) into account).

All workers, including long term contractors, potentially exposed above the A, B, C, and D occupational exposure limit classification bands (without taking PPE into account).
 HIV/AIDS and TB data in 2015 and 2016 includes De Beers operations in Botswana and Namibia for the first time. 2012-2014 data included Anglo American operations in South Africa and Zimbabwe only.
 TB incidence rate is calculated using the annual average number of employees. Previously stated TB incidence rates were calculated using the number of employees at the end of the reporting year.

Environment					
	2017	2016	2015	2014	2013
GHG emissions (Mt CO <sub>2</sub> e)					
Scope 1	9.9	9.0	8.8	8.0	7.3
Scope 2	8.0	8.9	9.5	9.3	9.8
Total CO <sub>2</sub> e	17.95	17.9	18.3	17.3	17.1
Energy consumption (million GJ)					
Energy from electricity	43.1	46.9	46.6	44.3	46.0
Energy from fossil fuels	52.5	56.0	56.8	61.1	57.5
Energy from renewable fuels	1.8	2.6	2.9	2.4	2.2
Total energy	97.4	105.5	106.3	107.7	105.7
Water <sup>(1)</sup>					
Water withdrawals by source ('000 m <sup>3</sup> )					
Surface water	86,435	77,418	89,520	69,679	71,900
Groundwater <sup>(2)</sup>	144,046	152,366	180,089	135,819	128,565
Seawater	33,935	26,850	31,695	31,207	28,818
Third-party potable water	19,163	17,123	20,326	19,627	24,672
Third-party non-potable water	22,696	22,020	17,018	19,566	22,118
Total withdrawals	306,275	295,778	338,648	275,898	276,072
Dewatering as a percentage of withdrawals <sup>(3)</sup>	24%	23%	27%	23%	23%
Freshwater as a percentage of withdrawals <sup>(4)</sup>	82%	83%	86%	82%	82%
Water discharges ('000 m³)					
Surface water	25,648	69,578	83,206	_	-
Ground water	3,495	31	159	_	_
Seawater and estuaries	32,008	38,680	30,110	_	_
Third party	39,224	8,694	11,004	_	_
Land (hectares)					
Company-managed land <sup>(5)</sup>	1,565,438	1,567,624	1,652,959	1,684,186	466,613
Land altered by mining activities and supporting infrastructure	110,824	109,411	130,352	114,921	84,214
Land rehabilitated <sup>(6)</sup>	19,265	20,662	20,322	20,418	16,827
Environmental incidents					
Level 3	2	4	6	14	30
Level 4	0	0	0	1	0
Level 5	0	0	0	0	0
Air emissions					
Total $SO_2$ emissions from diesel, marine, and intermediate fuel oil used and processes ('000 tonnes)	39.4	40.1	43.0	34.0	36.0
Total NO $_2$ emissions from diesel, marine, and intermediate fuel oil used and processes ('000 tonnes)	32.0	35.3	41.9	43.5	40.4
Ozone depleting compounds (ODCs) vented/released to the atmosphere (tonnes)	0.1	3	3	3	6
ODCs remaining in use (tonnes)	1	1	3	1	2
Non-mineral waste <sup>(7)</sup>					
Hazardous waste to legal landfill (tonnes)	41,427	23,293	40,782	17,750	22,621
Hazardous waste to legal landfill (m³) <sup>(8)</sup>	5,032,974	5,003,030	-	_	-
Non-hazardous waste to legal landfill (tonnes)	479,119	38,290	239,747	51,163	87,986
Non-hazardous waste to legal landfill (m <sup>3</sup> ) <sup>(8)</sup>	82,108	73,643	_	_	-

(1) In 2017, we revised our water reporting requirements to ensure alignment with the International Council for Mining and Metals (ICMM) guidance, in addition to the 2018 GRI Standards requirements. This revision has fundamentally shifted our site-level reporting of water and as a result we are currently ensuring data consistency and validity for many of the reporting requirements. As such, our reporting in 2017 includes only water withdrawals by source (previously disclosed); however, with known inconsistencies owing to ongoing work to embed the reporting requirements) and discharges, and we are working towards ensuring readiness to disclose consumption and re-use/recycling.

<sup>(2)</sup> Groundwater withdrawals includes dewatering for slope stability in open cut operations.

(3) Dewatered volumes are in most instances diverted to a third party (for example, a community treatment facility) for beneficial use, including municipal supply or agriculture.

(4) Freshwater includes all withdrawals from surface creeks, dams, rivers (including precipitation harvested), groundwater sources, and third-party potable water.

 $^{(5)}$   $\,$  Land data for De Beers has been included since 2014.

(a) Land data to be been includes and both fully rehabilitated and signed off by the regulator, and land rehabilitated but not yet signed off as meeting agreed land use objectives.
 (7) Hazardous waste and non-hazardous waste is either reported in mass (tonnes) or volume (m<sup>3</sup>), as is appropriate to each operation. Volumes in mass were introduced for reporting at relevant operations in

2015; however, the information is incomplete and can be reported from 2016 onwards.

(8) Reported specifically at De Beers' operations.

### Production and throughput

	2017	2016	2015	2014
Production volumes				
Diamonds ('000 cts)	33,454	27,339	28,692	32,605
Platinum (produced ounces) (koz)	2,397	2,382	2,337	1,870
Copper (kt)	579	577	709	748
Nickel (t)	43,800	44,500	30,300	37,200
Iron Ore – Kumba (Mt)	45.0	41.5	44.9	48.2
Iron Ore – Minas-Rio (Mt)	16.8	16.1	9.2	0.7
Metallurgical coal (Mt)	21.3	30.4	33.5	33.2
Coal South Africa (Mt)	60.5	64.4	61.3	67.0

### Taxes paid directly to government by category and country (\$'000)

	South Africa	Chile	Australia	UK	Brazil	Peru	Zimbabwe	Namibia	Canada	Botswana	Other	Total
Profits	578,433	203,624	246,395	22,305	773	1	4,416	79,060	493	11,078	57,324	1,203,902
Royalties and environmental	195,454	33,097	334,142	0	30,534	0	378	43,248	15,981	0	15	652,849
Transactions	2,569	1,087	0	1,743	36,349	0	1,863	7,046	34	32	(653)	50,070
Labour	24,032	37,371	39,835	18,343	35,295	1,924	592	3,786	5,931	170	10,772	178,051
Capital gains	0	0	0	0	0	0	0	0	0	0	0	0
Other	21,314	7,810	14,089	7,000	982	39	2,992	458	5,987	421	(13)	61,079
Total borne	821,802	282,989	634,461	49,391	103,933	1,964	10,241	133,598	28,426	11,701	67,445	2,145,951
Total collected	454,000	112,484	100,674	74,055	64,228	3,952	15,019	65,162	31,750	19,843	20,142	961,309
Total	1,275,802	395,473	735,135	123,446	168,161	5,916	25,260	198,760	60,176	31,544	87,587	3,107,260

### Human resources

	2017	2016	2015	2014	2013
Full-time employees (annual average)	67,095	82,869	99,908	101,074	85,763
Employees below 30 years of age	13	14	16	16	_
Employees between 30-50 years of age	68	67	65	65	_
Employees more than 50 years of age	19	18	19	19	_
Women in management (%)	26	25	25	25	24
Women as % of total workforce	19	18	18	18	16
Contractors (annual average)	31,018	32,559	41,451	51,320	57,818
Resignations (%)	2.3	2.2	1.9	2.0	2.4
Redundancies (%)	0.7	7.1	3.5	4.1	0.6
Dismissals (%)	1.4	1.8	1.4	1.5	1.4
Other reasons for leaving (%)	4.0	3.5	4.2`	2.7	2.4
Historically disadvantaged South Africans in management (% of South African management)	66	62	60	64	62

#### Socio-economic 2017 2016 2015 2014 2013 CSI expenditure (\$ million) 88 84 124.1 135.8 127.5 CSI expenditure (% of pre-tax profit) 1.7 3.0 2.8 2.2 1.0 Businesses supported through enterprise development initiatives 64,291 58,257 40,217 38,681 48,111 Jobs created/sustained through enterprise development initiatives 120,812 96,873 76,543 64,927 47,070 10.0 16.1 Total supplier expenditure (\$ billion) 9.0 8.8 12.3 Procurement: local expenditure (\$ billion) 2.1 2.0 1.5 1.8 1.6 Procurement: local expenditure (% of total) 23 23 15 15 10 Procurement: BEE expenditure in South Africa (\$ billion) 2.6 [2.9] 3.1 3.0 3.8

# COMMITMENTS TO EXTERNAL INITIATIVES AND MEMBERSHIPS

### COMMITMENTS TO EXTERNAL INITIATIVES/STANDARDS

- UN Guiding Principles on Business and Human Rights
- UN Resolution on human right to water and sanitation (64/292)
- UN Global Compact
- UN Women's Empowerment Principles
- Office for the Commissioner for Human Rights Guidelines
- Voluntary Principles on Security and Human Rights
- ISO Standards
- ISO 14001 (Environmental)
- ISO 14064 (GHGs)
- ISO 14065 (GHGs)
- ISO 26000 (Social Standards)
- ISO 50001
- Occupational Health and Safety Advisory Services (OHSAS) Standards
- OHSAS 18001
- World Health Organization (WHO) Standards
- HIV/AIDS Standard
- TB Standard
- International Finance Corporation
- Environmental and Social Performance Standards
- Edge Business certification standard
- International AIDS Transparency Initiative (IATI)
- Extractive Industries Transparency Initiative (EITI)
- Bettercoal Initiative
- Responsible Jewellery Council (RJC) and certification to the RJC's Code of Practice
- Kimberley Process (participation through the World Diamond Council)
- KIN Development Partner Framework
- ICMM Sustainable Development Principles

### STRATEGIC PARTNERSHIPS

- Business Action for Africa
- Danish Institute for Business and Human Rights
- Fauna & Flora International
- International Alert
- TechnoServe
- Shift
- UNAIDS
- Women in Mining

# **GRI STANDARDS CONTENTS INDEX**

GRI 101	: Foundation	
Indicator	Disclosure	Reference
1.1	Stakeholder inclusiveness	Annual Report (AR): 14
1.2	Sustainability context	Sustainability Report (SR): 17
1.3	Materiality	SR: 18
1.4	Completeness	SR: 18. Boundaries are described in the relevant sections.
1.5	Accuracy	SR: 71-74
1.6	Balance	SR: throughout document
1.7	Clarity	SR: throughout document
1.8	Comparability	SR: throughout document
1.9	Reliability	SR: 71-74
1.10	Timeliness	Financial year-end: 31 December. Report release date: 05 March.
0.01.400		
	2: General disclosures	
Indicator	Disclosure	Reference
102-1	Name of organisation	Anglo American
102-2	Activities, brands, products and services	SR: 02-03; 15
102-3	Location of headquarters	London, United Kingdom
102-4	Location of operations	SR: 02-03; 15
102-5	Ownership and legal form	AR: 163-172; 203
102-6	Markets served	AR: 11-13
102-7	Scale of the organisation	SR: 02-03; AR: 36-39
102-8	Information on employees and other workers	SR: 22; 24. Anglo American does not currently report gender data per region or employment contract type. Gender reporting will be refined once the new Group diversity strategy is defined.
102-9	Supply chain	SR: 15
102-10	Significant changes to the organisation and its supply chain	AR: 163-172. There were no significant changes to the supply chain.
102-11	Precautionary Principle or approach	Anglo American supports the intent of the Precautionary Principle, but has not expressed a specific commitment in the public domain.
102-12	External initiatives	SR: 79; 84
102-13	Membership of associations	SR: 79
102-14	Statement from senior decision maker	SR: 04-05; 08-09
102-16	Values, principles, standards and norms of behaviour	SR: 15; 19-20
102-17	Mechanisms for advice and concerns about ethics	SR: 20
102-18	Governance structure	SR: 14-15; 63-116
102-40	List of stakeholder groups	AR: 14
102-41	Collective bargaining agreements	SR: 24
102-42	Identifying and selecting stakeholders	SR: 34
102-43	Approach to stakeholder engagement	SR: 34
102-44	Key topics and concerns raised	SR: 18
102-45	Entities included in the consolidated financial statements	AR: 163-164

102-46	Defining report content and topic boundaries	SR: 18
102-47	List of material topics	SR: 18
102-48	Restatement of information	SR: 76-77; AR: 199-200
102-49	Changes in reporting	No material changes
102-50	Reporting period	1 January 2017 - 31 December 2017
102-51	Date of most recent previous report	2017
102-52	Reporting cycle	Annual
102-53	Contact point for questions about the report	SR: Back page
102-54	Claims if reporting in accordance with the GRI Standards	This report has been prepared in accordance with GRI Standards (Core option)
102-55	GRI content index	SR: 80-86

### Material topic – GRI 201: Economic performance

Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	AR: 16-33; 156-159. SR: 44; 64
103-2	Management approach and components	AR: 16-33; 156-159. SR: 41; 44; 64
103-3	Evaluation of the management approach	AR: 16-33; 156-159. SR: 44; 64
201-1	Direct economic value generated and distributed	SR: 44
201-2	Financial implications and other risks and opportunities due to climate change	SR: 64
201-3	Defined benefit plan obligations and other retirement plans	AR: 156-159
201-4	Financial assistance received from government	None received.

### Material topic - GRI 203: Indirect economic impacts

Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	There is an ever-increasing expectation for mining to play a developmental role in host countries and communities. Indirect economic impacts associated with mining can have a materially beneficial influence on local livelihoods and on Anglo American's social licence to operate. Indirect economic impacts are relevant throughout the business and in developing countries in particular.
103-2	Management approach and components	SR: 34-36; 41
103-3	Evaluation of the management approach	Performance is evaluated through Social Way compliance monitoring.
203-1	Infrastructure investments and services supported	SR: 44
203-2	Significant indirect economic impacts	SR: 43-44

### Material topic – GRI 204: Procurement practices

Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 41-42. Local and responsible procurement is an effective way of delivering value from mining to local stakeholders and is one of the most commonly cited expectations of mining companies. The topic is relevant throughout the business and in developing countries in particular.
103-2	Management approach and components	SR: 41-42
103-3	Evaluation of the management approach	SR: 41-42. Total local procurement expenditure is measured on an annual basis to track progress against targets.
204-1	Proportion of spending on local suppliers	SR: 41-42
GRI 205	: Anti-corruption	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 17. Ethical business conduct is material throughout the Group.
103-2	Management approach and components	SR: 20
103-3	Evaluation of the management approach	SR: 20
205-1	Operations assessed for risks related to corruption	SR: 20. Anglo American's disclosure focuses on bribery risk, which is the most material aspect of corruption for the business.
205-2	Communication and training about anti-corruption policies and procedures	SR: 20

ndicator	Disclosure	Reference
301-1	Materials used by weight or volume	SR: 54
Materia	ıl topic – GRI 302: Energy	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 63-66
103-2	Management approach and components	SR: 63-66
103-3	Evaluation of the management approach	SR: 63-66
302-1	Energy consumption within the organisation	SR: 77
302-4	Reduction of energy consumption	SR: 63
Matoria	ıl topic – GRI 303: Water	
	-	
Indicator		Reference
103-1	Explanation and reporting boundary	SR: 57-61
103-2	Management approach and components	SR: 57-61
103-3	Evaluation of the management approach	SR: 57-61
303-1	Water withdrawal by source	SR: 60
Materia	ıl topic – GRI 304: Biodiversity	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 48-51
103-2	Management approach and components	SR: 48-51
103-3	Evaluation of the management approach	SR: 48-51
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SR: 50-51

Μ	laterial	. topic –	GRI	305:	Emissions
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Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 54-55; 63-66
103-2	Management approach and components	SR: 54-55; 63-66
103-3	Evaluation of the management approach	SR: 54-55; 63-66
305-1	Direct (Scope 1) GHG emissions	SR: 77
305-2	Energy indirect (Scope 2) GHG emissions	SR: 77
302-3	Other indirect (Scope 3) GHG emissions	SR: 63
305-5	Reduction of GHG emissions	SR: 63
305-6	Emissions of ozone-depleting substances	SR: 77
305-7	Nitrogen oxides, sulphur oxides, and other significant air emissions	SR: 77

### Material topic – GRI 306: Effluents and waste

Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 52-54; 56-61
103-2	Management approach and components	SR: 52-54; 56-61
103-3	Evaluation of the management approach	SR: 52-54; 56-61
306-1	Water discharge by quality and destination	SR: 77
306-2	Waste by type and disposal method	SR: 77
306-3	Significant spills	SR: 47

Indicator	Disclosure	Reference
307-1	Non-compliance with environmental laws and regulations	SR: 47
GRI 308	3: Supplier environmental assessment	
Indicator	Disclosure	Reference
308-1	New suppliers that were screened using environmental criteria	SR: 39
M 1 1		
	al topic – GRI 401: Employment	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 22-24
103-2	Management approach and components	SR: 22-24
103-3	Evaluation of the management approach	SR: 22-24
401-1	New employee hires and employee turnover	SR: 23; 78
Materia	al topic – GRI 403: Occupational health and safety	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 25-33
103-2	Management approach and components	SR: 25-33
103-3	Evaluation of the management approach	SR: 25-33
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	SR: 32; 76
403-3	Workers with high incidence or high risk of diseases related to their occupation	SR: 30
Materia	al topic – GRI 404: Training and education	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 22-24
103-2	Management approach and components	SR: 22-24
103-3	Evaluation of the management approach	SR: 22-24
404-1	Average hours of training per year per employee	Anglo American measures training in monetary terms as well as the number of individuals in structured programmes. SR: 23.
404-2	Programmes for upgrading employee skills and transition assistance programmes	SR: 22-23
404-3	Percentage of employees receiving regular performance and career development reviews	SR: 23
Materia	al topic – GRI 405: Diversity and equal opportunity	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 22-24; AR: 31
103-2	Management approach and components	SR: 22-24; AR: 31
103-3	Evaluation of the management approach	SP- 20-21- AP- 31

103-3	Evaluation of the management approach	SR: 22-24; AR: 31
405-1	Diversity of governance bodies and employees	SR: 24; 78. AR: 72
405-2	Ratio of basic salary and remuneration of women to men	AR: 115 (The gender-pay gap ratio was reported for the UK in 2017. Additional data will be disclosed for operations outside of the UK in 2018.)

### GRI 407: Freedom of association and collective bargaining

Indicator	Disclosure	Reference
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	No operation is considered at risk regarding freedom of association and collective bargaining. The number of high-risk suppliers is not disclosed, but the risk is managed via the Anglo American Responsible Sourcing Standard. SR: 39

Indicator	Disclosure	Reference
408-1	Operations and suppliers at significant risk for incidents of child labour	No operation is considered to be at significant risk for incidents of child labour The number of high-risk suppliers is not disclosed, but the risk is managed via the Anglo American Responsible Sourcing Standard. SR: 24; 39. No instances child labour were reported in 2018.
GRI 409	P: Forced or compulsory labour	
Indicator	Disclosure	Reference
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	No operation is considered to be at significant risk for incidents of forced or compulsory labour. The number of high-risk suppliers is not disclosed, but the risk is managed via the Anglo American Responsible Sourcing Standard. One potential incident of forced labour was uncovered in 2017. SR: 24; 39.
GRI 410	): Security practices	
Indicator	Disclosure	Reference
410-1	Security personnel trained in human rights policies or procedures	SR: 37
GRI 411	: Rights of Indigenous Peoples	
Indicator	Disclosure	Reference
411-1	Incidents of violations involving rights of Indigenous Peoples	SR: 37
Materia Indicator	al topic – GRI 412: Human rights assessment	Reference
103-1	Explanation and reporting boundary	SR: 18; 36-38. Human rights impact assessment is relevant throughout the business.
103-2	Management approach and components	SR: 36-37
103-3	Evaluation of the management approach	SR: 36-37
412-1	Operations that have been subject to human rights reviews or impact assessments	SR: 36
412-2	Employee training on human rights policies or procedures	SR: 36-37
Materia	al topic – GRI 413: Local communities	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 18; 35
103-2	Management approach and components	SR: 34-37
103-3	Evaluation of the management approach	SR: 35
413-1	Operations with local community engagement, impact assessments, and development programmes	SR: 34
GRI 414	: Supplier social assessment	
Indicator	Disclosure	Reference
414-1	New suppliers that were screened using social criteria	SR: 39
414-2	Negative social impacts in the supply chain and actions taken	SR: 39
Materia	al topic – GRI 415: Public policy	
Indicator	Disclosure	Reference
103-1	Explanation and reporting boundary	SR: 20
103-2	Management approach and components	SR: 20
103-3	Evaluation of the management approach	SR: 20
415-1	Political contributions	SR: 20

GRI 416	: Customer health and safety	
Indicator	Disclosure	Reference
416-1	Assessment of the health and safety impacts of product and service categories	SR: 54
GRI 419	: Socio-economic compliance	
Indicator	Disclosure	Reference
GRI 419	Non-compliance with laws and regulations in the social and economic area	None
Omissio Code	ns Topic	Reason for omission
GRI 202	Market presence	GRI 202-1 and 202-2 are not currently reported. Plans are in place to report or the proportion of senior management hired from the local community in 2018.
GRI 402	Labour/management relations	Labour relations are critical to Anglo American and are discussed on pages 23-24 of the Sustainability Report. However, GRI 402-1 cannot be reported on meaningfully given the diverse nature of the business.
GRI 406	Non-discrimination	Details associated with potential incidents of discrimination are confidential.
GRI 417	Marketing and labelling	Not applicable to the mining industry.
GRI 418	Customer privacy	Not applicable to the mining industry.

# ICMM AND GLOBAL COMPACT PRINCIPLES

#### INTERNATIONAL COUNCIL ON MINING AND METALS

As a member of the International Council on Mining and Metals (ICMM), Anglo American adheres to the 10 ICMM Principles, which serve as a best-practice framework for sustainable development in the mining and metals industry. We are also signatories to ICMM Position Statements on various issues that are critical to the mining industry.

### Anglo American complies with the ICMM Sustainable Development Framework, Principles, Position Statements and reporting requirements

Our compliance with ICMM requirements is addressed throughout this report and a comprehensive account of our approach is available on **www.angloamerican.com**. This account includes the following elements of the ICMM Assurance Procedure:

- the alignment of our sustainability policies against the 10 Principles and mandatory requirements of the Position Statements
- our process for identifying specific sustainable development risks and opportunities
- the existence and implementation of systems and approaches for managing sustainable development risk and opportunities
- our performance across a selection of identified material sustainable development risks and opportunities
- our disclosure in accordance with the GRI G4 core option and related Mining and Metals Supplement.

### **10 Principles**

Principle 1: Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.

Principle 2: Integrate sustainable development in corporate strategy and decision-making processes.

Principle 3: Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities.

Principle 4: Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks.

Principle 5: Pursue continual improvement in health and safety performance with the ultimate goal of zero harm.

Principle 6: Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.

Principle 7: Contribute to the conservation of biodiversity and integrated approaches to land-use planning.

Principle 8: Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals.

Principle 9: Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.

Principle 10: Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance.

#### **Position statements**

- Water stewardship
- Tailings governance
- Indigenous Peoples and mining
- Principles for climate change policy design
- · Mining partnerships for development
- Transparency of mineral revenues
- Mining and protected areas.

### UNITED NATIONS GLOBAL COMPACT

Anglo American is a signatory to the United Nations (UN) Global Compact Principles, through which we commit to:

- Supporting and respecting the protection of internationally proclaimed human rights
- Ensuring that we are not complicit in human rights abuses
- Upholding the freedom of association and the effective recognition of the right to collective bargaining
- Eliminating all forms of forced and compulsory labour
- Ensuring the effective abolition of child labour
- Eliminating discrimination in respect of employment and occupation
- Supporting a precautionary approach to environmental challenges
- Undertaking initiatives to promote greater environmental responsibility
- Encouraging the development diffusion of environmentally friendly technologies
- Work against corruption in all its forms, including extortion and bribery.

Our approach to complying with the UN Global Compact Principles is integrated throughout this report.

# CONTACTS AND OTHER INFORMATION

### COMMENTS OR QUERIES RELATED TO THIS REPORT

Hermien Botes Lead: Systems and Reporting hermien.botes@angloamerican.com

### **OTHER REPORTS**

### Anglo American

Annual Report Tax and Economic Contribution Report Climate Change supplement Modern Slavery Act statement Voluntary Principles on Business and Human Rights report

### **Business units**

De Beers Report to Society Anglo American Platinum Integrated and Sustainability report Copper Sustainable Development and Financial Report Kumba Iron Ore Integrated Report and Sustainable Development Review

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