Welcome to our 2015 sustainability report & highlights

This year our printed report has two parts: the full sustainability report and a removable highlights document. There is also a separate databook that can be found online, along with more information, at www.glencore.com/sustainability

Sustainability Report 2015

Our sixth sustainability report reviews our activities and performance in 2015. It details how we address our most material risks and opportunities; it is aimed at employees, investors, business partners, customers, governments and NGOs.

Highlights 2015

Our 2015 sustainability highlights booklet provides a succinct overview of our activities and achievements during the year. It is designed to be read as a standalone document or as part of the full sustainability report.

Sustainability online

Further information on our sustainability activity, plus more detailed data on our key sustainability indicators, is available on our website: www.glencore.com/sustainability
We are one of the world’s leading integrated producers and marketers of commodities. Our commodities are grouped into metals & minerals, energy products and agricultural products.

Further details on our sustainability approach and performance can be found on our website [www.glencore.com/sustainability](http://www.glencore.com/sustainability).
Conducting maintenance on a solar panel at the Rolleston coal operation, Australia
Chairman’s statement

I am pleased to present Glencore’s sustainability report for 2015. This has been a challenging year for everyone in the resource sector. Commodity prices fell to multi-year lows, reflecting reduced demand from commodity-consuming countries and oversupply after years of investment in new volumes. The financial and equity markets were also volatile.

Our decisive approach in responding to the fundamentals of the market has ensured a robust balance sheet for Glencore, with enough flexibility to respond to changing market conditions. However, we recognise that our decisions have greatly affected some of our people and host communities. Wherever these have led to job losses we have tried to limit them as much as possible. When redundancies have been unavoidable, we have worked with our employees, local governments and labour unions to minimise the effects, both with compensation and with ongoing support and help.

Safety
Whatever else may be happening across our business, safety remains our highest priority. Tragically, ten people lost their lives at our operations during 2015. This is unacceptable to the Board and to me; we continue to strengthen the safety culture at all our assets, regardless of their location or previous safety performance. We are reducing the loss of life at our sites every year, and I believe that our goal to eliminate fatalities across the Group is realistic and achievable.

With the terrible incident that took place at the Katanga copper mine in the Democratic Republic of Congo in March 2016, we are again reminded of the overwhelming importance of focusing on safety at our operations. We are saddened to report that we believe that seven of our colleagues died in the event. The Board HSEC Committee and I have visited the site following the incident; our thoughts are with the families, and we offer them our sincere condolences.

Creating shared value
We are committed to creating value for our shareholders, and we recognise that to do so we must consider sustainable, long-term benefits for all our stakeholders. In 2014 we developed a set of performance metrics to better understand our socio-economic contributions; this year we tested them in pilot studies at several locations. These metrics will help us monitor what we contribute to our host communities and governments through the wages, taxes and royalties we pay, as well as our contributions to their health, education and infrastructure systems.

We support transparency in dealing with government revenues as a way to battle corruption and enable equitable revenue distribution.

Leading from the top
The Board continues its active involvement in the evolution of Glencore’s approach to sustainability. We review every fatality with senior operational management, to understand the causes and eliminate them. In 2015, we also revised the Glencore Code of Conduct, oversaw the design and testing of a Group HSEC assurance process, and supervised development of a catastrophic hazards register.

The Board also maintains close involvement with external and internal stakeholders. Peter Coates, Chair of our HSEC Committee, hosted our roadshow for socially responsible investors this year, and I met with a number of individual investors. Members of the HSEC Committee participated in the annual summit, bringing together senior management and safety professionals from our varied operations. HSEC Committee meetings are open to other members of the Board; their expertise gives our discussions new insight.

Every year, we visit operations to better appreciate local challenges and the steps taken to address them; this year, the Board visited mines at Lomas Bayas and Collahuasi in Chile, and Antamina in Peru.

Building for the future together
The global community took two important steps towards a sustainable future in 2015: first was the launch of the UN Sustainable Development Goals, which are building blocks for equitable, socially inclusive and environmentally sustainable economic development. The second was the climate change summit in Paris, where global leaders pledged to hold any increase in the world’s temperature to “well below 2°C” compared to pre-industrial levels, pursuing sustainable development through low-carbon growth.

The measures required to achieve these goals will bring substantial changes to the way all businesses operate. We are committed to playing a role in that development; this publication reports on some of the steps we have already taken in this direction.

Anthony Hayward
Chairman

Anthony Hayward, Chairman
Overview

Chief Executive Officer’s review

Safety
Safety remains our top priority at every level of the Group. We are sad to report that ten people lost their lives while working at Glencore operations in 2015. No fatality is acceptable, and we are committed to our goal of zero fatalities.

Loss of life at our operations continues to decrease year on year. We are spurred on to continue identifying and managing fatal hazards and driving behavioural change to achieve our goal. We can also see that our efforts to implement strong standards and transform safety cultures at our “focus assets” are starting to bear fruit. These are assets in remote locations with specific legacy issues: a leading example is Kazzinc, a zinc facility in Kazakhstan with a workforce of almost 27,000 people. In 2015, Kazzinc achieved its first year without fatalities since we took operational control.

SafeWork has now been implemented at all our assets and is still delivering safety improvements. Last year we set a target of a 15% reduction across the Group in our total recordable injury frequency rate (TRIFR) and lost time injury frequency rate (LTIFR). We have over-performed against our LTIFR target, while TRIFR figures are on track to meet our 2020 goal. In addition, the number of new occupational disease cases has reduced by 40%.

In March 2016, there was a fatal incident at the Katanga copper mine in the Democratic Republic of Congo. It is with deep sadness that we must now assume any individual who was in the open pit at the time did not survive, meaning that seven of our colleagues have lost their lives. The Board HSEC Committee and I visited the site following the incident. We express our sincere condolences to the family, colleagues and friends of the individuals who died as a result of this tragic incident. We are providing all appropriate support to those affected.

Strengthening our financial situation
In the face of demanding market conditions, our management team implemented tough measures to tackle the imbalance between demand and supply this year. This included reducing or halting production where demand for our commodities is insufficient. These difficult decisions have strengthened Glencore’s balance sheet and will significantly reduce our net debt. We continue to run a large number of low-cost assets that are cash generative, focus on cost control and deliver sustainable returns.

Although reducing our production volume has had an immediate negative impact on those of our people and host communities affected, we believe that it is better to keep resources in the ground for better times, and ensure sustainable futures for our assets.
Creating value for society
We are committed to contributing to socio-economic development within our host regions. We employ local people whenever we can; we source from local businesses; we support education and health programmes in our host regions; and we ensure that our infrastructure is scaled up for shared public use wherever possible.

In 2015, we carried out a number of pilot studies to help us better understand our contributions, following on from the performance metrics we created in 2014. These metrics allow us to monitor our contribution to our host communities and governments through wages, taxes and royalties, and via our support for their health, education and infrastructure systems.

We will roll these metrics out to our assets in 2016, allowing us to start developing a Group overview of the financial and non-financial value we create for our host countries. This will also support our goal of continuous improvement.

Safeguarding human rights
Glencore became a member of the Plenary of the Voluntary Principles on Security and Human Rights (Voluntary Principles) Initiative this year. The Voluntary Principles bring together governments, extractive sector businesses and non-governmental organisations to discuss how best to keep operations safe and secure while encouraging respect for human rights.

We have been implementing the Voluntary Principles at those of our assets with a high risk of human rights breaches since 2013. We have reported our progress in our annual sustainability reports. Our membership of the Voluntary Principles Plenary will help us make further progress in optimising our approach to human rights and sharing knowledge and leading practice.

Climate change
In December 2015, world leaders, corporations, NGOs and members of civil society gathered in Paris to discuss how the global community should address the impact of climate change. We recognise that climate change issues are part of the political, societal and regulatory landscape in which we operate. We believe that all carbon strategies need to reflect the realities of global energy demand and supply, and balance this with the societal and economic aspirations of all countries.

Engagement with stakeholders
We are continuing with our open door policy on stakeholder engagement. We believe that a constructive approach to engagement, regardless of the stakeholders’ views, is essential for maintaining our licence to operate.

During visits to Prodeco and Cerrejón, our local teams highlighted the issues they face with the local community, particularly the impact of an extended drought. The Swiss visitors met community residents and observed the various initiatives we support to bring real change to the region. A short film documenting this trip is available on our website and YouTube channel.

Looking forward
Forecasts for 2016 indicate that the challenging economic climate will continue. We remain committed to balancing expenditure control with maintaining our progress in safety and managing our environmental and societal impact.

The proactive steps we have taken this year to strengthen our balance sheet have already led to a significant reduction in our net debt; we believe that this, and similar future decisions, will give us the flexibility to prosper regardless of market conditions.

None of this would be possible without the hard work and commitment of all those working for the Glencore Group. I’d like to thank you all for your continued support.

Ivan Glasenberg
Chief Executive Officer
Who we are

Glencore plc is one of the world’s largest diversified and integrated producers, processors and marketers of commodities. We market and distribute physical commodities sourced from third-party producers as well as our own production. We also provide financing, processing, storage, logistics and other services to both producers and consumers of commodities.

We are a major producer and marketer of over 90 commodities. Our operations comprise over 150 mining and metallurgical, oil production and agricultural assets. Our activities are supported by a global network of more than 90 offices in over 50 countries. We employ around 160,000 people, including contractors.
Our company is structured into three business segments:

**Metals & Minerals**
These businesses include the production and trading of copper, zinc & lead, nickel, ferroalloys, alumina & aluminium and iron ore. We have interests in both controlled and non-controlled industrial assets that include mining, smelting, refining and warehousing operations.

**Energy Products**
These businesses cover industrial and marketing activities for coal and oil, including controlled and non-controlled coal mining and oil production operations, and investments in strategic handling, storage and freight facilities.

**Agricultural Products**
This business is focused on grain, oilseeds products, sugar, pulses and cotton. It is supported by controlled and non-controlled storage, handling and processing facilities in strategic locations.

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Rest of the World
58% of our procurement contracts in Kazakhstan were with local suppliers.
See Regional report: Rest of the World for more details.

Africa
$1.37 million invested in infrastructure, mainly water and power distribution, in Namibia.
See Regional report: Africa for more details.

South Africa
47,000 community residents benefited from our healthcare and education programmes.
For more information, visit www.glencore.com/sustainability.

Australia
$1.9 billion spent on annual wages and salaries.
See Regional report: Australia for more details.
We divide the assets and activities of our business into two categories: industrial, which is related to commodity production and processing; and marketing, which covers trading and sales activities, as well as the infrastructure and resources used to transport products to customers.

We take our responsibilities to our people, to society and to the environment very seriously, and align all our activities with the relevant international standards. In 2014 we signed up to the United Nations Global Compact, a set of principles covering human rights, labour, environment and anti-corruption. We were also admitted to the International Council on Mining & Metals (ICMM) and endorsed its sustainable development framework principles. In March 2015, we joined the Voluntary Principles on Security and Human Rights Initiative.

We work in accordance with the relevant international frameworks for a number of specific issues. These include the Core Conventions of the International Labour Organization (ILO), the UN Guiding Principles on Business and Human Rights (UNGPs), and the Extractive Industries Transparency Initiative (EITI). There are more details on this in the Governance chapter.

How we do it
- Safety is our top priority
- We identify, understand and mitigate our environmental risks
- We engage with local communities and stakeholders
- We respect human rights
- We use renewable energy sources when possible

What we deliver
- Our presence brings lasting benefits to the regions in which we operate
- We make significant payments to governments in our host countries
- We create value through local employment and procurement, training and skills development
- We invest in local communities, health, education and infrastructure
- We focus on catastrophic hazard management

What we provide
- Our commodities are part of society’s everyday products
- Our logistics business transports commodities to the places that need them most
- We promote responsible behaviour throughout the commodity chain through direct relationships with our customers and business partners
Water quality monitoring at Kerale Dam near our Collinsville coal operation, Australia.
Overview

Our business model

Strategic imperatives:  

<table>
<thead>
<tr>
<th>Explore, acquire &amp; develop</th>
<th>Maintain robust and flexible balance sheet</th>
</tr>
</thead>
</table>

Inputs:

Assets and natural resources
- We wholly own or have a significant ownership in our assets, in which we make long-term investments. We prioritise being a competitive, low-cost producer.
- Our resources and reserves are high quality and long life, enhancing the scale and quality of our marketing business.
- We are a disciplined producer and align supply to demand.

Our people and partners
- Over many years, we have cultivated and established long-term relationships with a broad range of suppliers and customers across diverse industries and geographies.
- Our highly skilled and professional workforce of around 160,000 employees and contractors is located on six continents.
- We interact with many diverse stakeholders around the world. We are committed to building transparent and constructive relationships with our partners to deliver sustainable, long-term benefits to all of our stakeholders.

Outputs:

Sustainable business

Safe and healthy workplace | Long-term value for communities | Socio-economic contributions | Skilled workforce

Principal risks and uncertainties:

KPIs:

Total recordable injury frequency rate (TRIFR) | Water withdrawn | Greenhouse gas (GHG) emissions | Community investment spend
Focus on cost control and operating efficiencies

**Financial discipline**
- We deploy capital in a disciplined manner, which creates value for all of our stakeholders. We have a long track record of value creation across economic cycles.
- Our hedging strategies protect us against price risks and ensure that our marketing profitability is primarily determined by volume-driven activities and value-added services rather than absolute price.

**Unique market knowledge**
- Our scale and global reach give us valuable insight into market flows and access to real-time information.
- Our long experience has allowed us to build extensive market knowledge and insight, as well as full logistics capabilities.
- As a commodity producer and marketer, we are uniquely positioned to generate value at every stage of the commodity chain.

**Process & refine**
Our expertise and technology advantages in processing and refining activities enable us to optimise our end products for a wider customer base.
Our smelting and refining facilities provide volumes that are utilised by our marketing teams.
Our ownership of processing and refining assets increases our flexibility and optionality and provides security of supply as well as enabling us to gain valuable market knowledge.
We purchase and process additional products as required from smaller operators that do not enjoy the same economies of scale.

**Blending & optimising**
Through our presence at every stage of the commodity chain, we are able to provide a wide range of product specifications resulting in a superior service for our customers.
Our ability to blend and optimise products, through using both our own and third-party volumes, means we are better placed to meet the exact requirements of our customers.
Working with third-party suppliers provides a fuller oversight of supply.
This allows us to gain valuable market and local knowledge and to better understand the balance between supply and demand.

**Logistics & delivery**
Our logistics assets allow us to handle large volumes of commodities, to fulfil our marketing obligations and to take advantage of demand and supply imbalances.
We have global storage and logistics assets in key strategic locations, including metal warehouses accredited by the London Metal Exchange and numerous oil and grain storage facilities worldwide. The broad range of value-added services we offer fulfils the needs of customers that do not have the equivalent internal capability and make us a preferred counterparty as well as strengthening our long-term relationships.

**Financial performance**

*Returns to shareholders* | *Value for our stakeholders*

**Adjusted EBIT/EBITDA** | **Funds from operations (FFO)** | **Net funding** | **Net debt/FFO to Net debt** | **Net income**
Our strategy

Our objective is to grow total shareholder returns while maintaining a strong BBB/Baa investment grade credit rating.

**Strategic priority**

Integration of sustainability throughout the business

**Strategic objectives:**
- We take an approach of continuous improvement with regards to our sustainability actions and performance. We believe that by being a better operator with a reputation for doing things the right way, we will be regarded as a partner of choice by the governments of our host nations and the communities living near our operations.
- A key part of our commitment to operating responsibly is to develop, maintain and strengthen our relationships with all of our stakeholders. We engage in a transparent and open manner and recognise that constructive relationships are essential for our social licence to operate.

**Key performance indicators:**
- Safety
- Water
- GHG emissions
- Community investment spend

**Strategic priority**

Maintaining a robust and flexible balance sheet

**Strategic objectives:**
- We are committed to maintaining and strengthening our balance sheet to ensure it is capable of supporting growth and shareholder returns regardless of the commodity price environment.
- Preserving a robust capital structure and business mix in line with our commitment to strong BBB/Baa investment grade rating status.
- Continuously evaluating opportunities for acquisition, development and disposal, particularly when assets no longer support core business.

**Key performance indicators:**
- Adjusted EBIT/EBITDA
- Funds from operations
- FFO to net debt

**Strategic priority**

Focusing on cost control and operating efficiencies

**Strategic objectives:**
- Continuously seek to increase the net present value of our business by improving the competitiveness of our assets through an ongoing focus on cost management and logistical capabilities, including operating safely and efficiently.
- Relentlessly leverage the scale and capabilities of our marketing activities to extract additional margin throughout our entire business model and provide a superior service to customers and a reliable supply of quality product.
- A disciplined approach to supply in response to market conditions.

**Key performance indicators:**
- Adjusted EBIT/EBITDA
- Funds from operations
- FFO to net debt
- Net income
Our sustainability approach

Our approach to sustainability is embodied by Glencore Corporate Practice (GCP). This consists of three tiers: our values, our Code of Conduct and our Group HSEC policies. GCP is supported at asset level by operational policies, created for the specific needs of individual assets, with compliance determined by performance monitoring and assurance.

Our values reflect our purpose, our priorities and the fundamental beliefs by which we conduct ourselves. They define what it means to work at Glencore, regardless of location or role.

Our Code of Conduct defines the essential requirements of our values and sets out the standards we require our people to meet and fully understand. Departments and assets decide the best way to convey the Code locally, including specialised training.

Our Group HSEC policies detail our management processes and procedures, which are integrated into corporate decision-making processes.

GCP is supported at the operational level by individual policies pertaining to local risks.

We monitor our performance using a Group GCP database and via a full assurance process at both Group and asset level.

Values
- Safety
- Entrepreneurialism
- Simplicity
- Responsibility
- Openness

Code of Conduct

Group HSEC policies
Detail our management processes and procedures

1. Health and safety
2. Emergency response and crisis management
3. Catastrophic and fatal hazards management
4. Environmental management
5. Communities and stakeholder engagement
6. Human rights
7. Product stewardship
8. HSEC assurance
9. HSEC management framework
10. Risk management framework

Operational policies
Group HSEC policies are implemented and adapted locally

Performance and alignment
Data reporting, risk management and assurance by HSEC teams at group, division and asset level tracks our performance and alignment with policies.
Our sustainability approach continued...

Applying the framework

Board HSEC Committee

Our Board HSEC Committee sets the strategic direction for Glencore sustainability activities and oversees the development and implementation of strategic HSEC programmes.

The committee comprises four Board members, including our Chairman and CEO; it is chaired by a Non-Executive Director. It meets during each Board meeting to review progress on delivery of the Group HSEC strategy, our dashboard of key performance indicators (KPIs), and any significant HSEC issues and/or material HSEC risks, as well as to examine the HSEC assurance reports.

In the event of a fatality or a major incident, the committee receives detailed reports from the management of the relevant operation. These cover the nature of the incident, the actions taken and details of subsequent investigations.

Our sustainability teams

Our Group-level and departmental sustainability teams provide guidance and thought leadership. Our Group sustainability team develops and oversees implementation of HSEC policies and improvement programmes, as well as delivering HSEC assurance processes. It also reviews the sustainability aspects of our Code of Conduct and revises them as necessary. It provides regular updates to the Board HSEC Committee, both formally through the committee’s scheduled meetings, and on an ad hoc basis when required.

The Group and departmental HSEC teams focus on catastrophic and fatal hazard management, identify relevant HSEC trends, analyse stakeholder perceptions and their understanding of Glencore, and record and report progress against KPIs.

Our larger assets have individual sustainability teams; along with departmental teams, they are responsible for implementing Group HSEC policies at their operations and making sure that we achieve our sustainability goals. They manage the HSEC risks specific to their commodities or regions, and deliver department-level HSEC assurance.

Oversight from the top

Oversight and ultimate responsibility for our Group HSEC strategy, the GCP framework and its implementation across the Group rests with our senior management team. This includes our CEO and CFO, and the heads of our commodity businesses.

Sustainability risk management framework

Our approach to sustainability management is anchored in our processes for the identification, assessment and mitigation of risk. The Glencore risk management framework and its supporting guidelines, which apply to all our assets, outline these processes. The framework is aligned with international standards and provides a standardised approach to managing our health, safety, environment, community and reputational risks, as well as those linked to the management of financial and legal issues.

Our assets use the framework to identify hazards, particularly those with potentially major or catastrophic consequences, and to develop plans to address and eliminate, or mitigate, the related risks. Management tools such as protocols, training packages, software and reporting processes, are available. We also require assets to develop protocols for addressing hazards that could cause fatalities.

In 2015, we continued implementation of our SafeWork fatal hazard protocols, and focused our efforts on identifying all catastrophic hazards across the Group. These form the basis of the Group HSEC assurance process. In 2016 this will concentrate on assessing catastrophic hazard management at the majority of our underground mines and operations with high risk tailings storage facilities, and reporting results to the Board HSEC Committee.

Assessing our sustainability performance

Our HSEC assurance policy specifies activity at both Group and departmental/asset levels.

In 2015 we rolled out the Group HSEC assurance programme, which focuses on ensuring that our catastrophic hazards and associated risks are being managed effectively. Twelve assurance activities were completed at various assets, covering a different set of catastrophic topics for each, agreed by the Board HSEC Committee.

The annual plan is approved by our Board each year; those responsible for the assurance activities report back to the Board regularly on performance including key findings, observations and good practices.

A typical assessment includes two subject matter experts, predominantly from within the business but not from the asset under assessment. In some cases external experts are engaged. The experts work against clearly defined and agreed criteria, informed by international standards and leading practice. They make recommendations and we track agreed corrective actions on a quarterly basis.

To complement Group assurance activity, each department implements their own internal and external assurance activities, covering areas such as catastrophic hazards, fatal hazard protocols, HSEC policies, legal compliance and HSEC data.
Our 2015 sustainability strategy

In 2015, we revised our Group sustainability strategy, considering our aims against four core pillars: health; safety; environment; and community & human rights. This review involved the sustainability teams from our individual assets and commodity departments as well as technical experts, to ensure that the revised strategy fully supports our business requirements.

Our revised strategy has clearly defined imperatives, objectives, priority areas and targets. It will enable us to meet legislative requirements, manage the catastrophic hazards associated with our business, and maintain our societal licence to operate. Departments and assets have aligned their annual HSEC plans to the strategy.

The strategy’s four core pillars and connected imperatives are:

- **Health**: Become a leader in the protection and improvement of our people’s and communities’ wellbeing.
- **Safety**: Become a leader in workplace safety, eliminating fatalities and injuries.
- **Environment**: Minimise any negative environmental impact from our operations and apply the precautionary principle in decision-making.
- **Community & human rights**: Foster sustainable growth and respect human rights wherever we operate.

In addition to these pillars, our materiality assessments for 2015 have identified three further focus areas:

- **Our people**
- **Governance**
- **Product stewardship**

Our activities in these seven areas are detailed in this report. We will review this strategy each year to ensure that it continues to fulfil the needs of our business.
Continuous improvement of our assets’ performance and regular reporting are core aspects of our approach to sustainability. We review and update our targets on a regular basis as part of our strategic review; this includes a mix of qualitative, short-term and medium-term targets.

### Commitment

#### Our people: safety
- No fatalities
- Further 15% reduction of Group LTIFR against 2010 baseline of 2.74
- 15% reduction in Group TRIFR against 2014 baseline of 5.82 (in line with the 50% target for 2020)

#### Our people: health
- No new occupational diseases from current exposure
- No workers with lead/cadmium levels above established/legal limits

#### Environment
- No major or catastrophic environmental incidents
- Develop a Group water management strategy
- Align water use metrics and launch water balance tool
- Develop action plan based on assessment of storage facilities for tailings (residues of mineral processing)

#### Society

##### Community investment
- Continue to spend 1% of annual Group profits on community investment
- Establish partnerships to strengthen project delivery on the ground
- Operations to conduct independent perception surveys every three years

##### Human rights
- Support consistent training on Voluntary Principles across Group
- Review approach to grievance handling against the principles of the United Nations Global Compact

##### Our people: workforce
- Build on the success of current graduate trainee programmes and continue to develop divisional leadership training
- Launch eLearning platform for new hires and training our existing workers, including compliance, IT security, Code of Conduct
- Ensure that this is approached consistently across all regions and continue to develop new ways to attract and retain talented people regardless of age, gender or race

##### Governance: continual improvement of GCP framework
- Substantial implementation of Group HSEC policies and internal assurance programme by the end of 2015
- Launch revised code of conduct
- 14 Group assurance reviews on material and catastrophic HSEC hazards across every department in the Group

##### Product stewardship
- Register substances produced/imported in low volumes with REACH (deadline 2018)
- Assess Korean REACH obligations and prepare for action to ensure compliance
- Ensure our mixtures are classified with European regulations on classification, labelling and packaging of substances and mixtures (CLP) before 1 June 2015
- Start review of safety datasheets to keep them up to date
- Launch a product stewardship policy

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**Key**

- ✓ Achieved
- ➔ On track
- ✗ Not achieved
### Results

<table>
<thead>
<tr>
<th>Results</th>
<th>2016+ target</th>
<th>Find out more</th>
</tr>
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<tbody>
<tr>
<td>✗ Not achieved</td>
<td>• No fatalities</td>
<td>See pages 36 to 39</td>
</tr>
<tr>
<td>✗ 16% reduction achieved during 2015</td>
<td>• 50% reduction of Group LTIFR by the end of 2020, against 2015 figure of 1.32</td>
<td></td>
</tr>
<tr>
<td>✗ 52% reduction achieved between 2010 and 2016</td>
<td>• 50% reduction in TRIFR by 2020 taking 2014 figures as baseline</td>
<td></td>
</tr>
<tr>
<td>✗ 13% reduction achieved</td>
<td>• No new occupational diseases from current exposure</td>
<td>See page 40</td>
</tr>
<tr>
<td>✗ Ongoing monitoring and testing; relocation of workers nearing site limits</td>
<td>• No major or catastrophic environmental incidents</td>
<td></td>
</tr>
<tr>
<td>✗ Achieved</td>
<td>• Implement the water management framework across the Group and assess assets identified as having high water-related risk</td>
<td>See pages 54 to 61</td>
</tr>
<tr>
<td>✗ Strategic water management framework developed and shared with the business</td>
<td>• Independent inspection of all surface tailings dams at least every three years</td>
<td></td>
</tr>
<tr>
<td>✗ Metrics aligned and incorporated into GCP</td>
<td>• $94 million spent</td>
<td>See pages 46 to 49</td>
</tr>
<tr>
<td>✗ Achieved</td>
<td>• Continue to spend 3% of annual Group profits on community investment</td>
<td></td>
</tr>
<tr>
<td>✗ Not achieved due to operational changes</td>
<td>• Assets to implement Group societal value scorecard framework</td>
<td></td>
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<tr>
<td>✓ On track; this is a continuous target</td>
<td>• No serious human rights incidents</td>
<td>See pages 50 to 51</td>
</tr>
<tr>
<td>→ Reviewed during ongoing Voluntary Principles implementation</td>
<td>• Continue to strengthen trainee programmes and develop leadership training</td>
<td></td>
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<tr>
<td>→ Completed; revised guidance to roll out in 2016</td>
<td>• Continue to support and foster development of talented people regardless of age, gender or race through local employment, internships, scholarships or training</td>
<td></td>
</tr>
<tr>
<td>→ On track: this is a continuous target</td>
<td>• Become an employer of choice in the marketplaces where our main offices and industrial operations participate</td>
<td></td>
</tr>
<tr>
<td>→ On track/completed</td>
<td>• 28 assessments scheduled for 2016, including two outstanding from 2015 programme</td>
<td>See page 34</td>
</tr>
<tr>
<td>✓ Completed</td>
<td>• Register substances produced/imported in low volumes with REACH (deadline 2018)</td>
<td>See pages 32 to 33</td>
</tr>
<tr>
<td>✓ We are closely monitoring developments, assessing our role and evolving our strategy</td>
<td>• Assess Korean REACH obligations and prepare for action to ensure compliance</td>
<td></td>
</tr>
<tr>
<td>✓ Completed</td>
<td>• Group review of occupational exposure levels to incorporate into health strategy</td>
<td></td>
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<tr>
<td>→ Phase 1 of review (oil products) close to completion; preparation for phase 2 (metals) ongoing</td>
<td>• Continue phase 2 of review and initiate phase 3 (complex metal products)</td>
<td></td>
</tr>
<tr>
<td>✓ Finalise our conflict minerals policy</td>
<td>• Conduct self-assessment on implementation of product stewardship policy, analyse results and follow up</td>
<td></td>
</tr>
<tr>
<td>✓ Completed</td>
<td>• Finalise our conflict minerals policy</td>
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Overview

What we report on

Materiality review
We conduct a materiality assessment each year to establish what is material to our annual sustainability reporting. Our assessment draws information from three key elements:

<table>
<thead>
<tr>
<th>1</th>
<th>Understanding issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Regulatory developments</td>
</tr>
<tr>
<td>3</td>
<td>Feedback mechanisms</td>
</tr>
</tbody>
</table>

In line with the Global Reporting Initiative (GRI) guidance on materiality, our assessment process begins with a Group-wide review of material topics at global and local levels. This identifies topics raised during structured engagement activities, by a broad range of internal and external stakeholders. It considers the issues that affect our peers and the entire sector, assessing media coverage and feedback from local communities.

We report on issues with global interest or impact, or that affect more than one region. The regional sections at the end of this report focus on actions taken to address issues that are material to those locations.

We consider a topic material if senior management determines that it may significantly affect our business operations or have a significant impact on any of our stakeholders.

This assessment is then approved by the Board HSEC Committee.
Global material issues

Engagement, both on regulatory matters and with our stakeholders, is common to all the material topics identified in the table below.

Regulatory engagement
Our activities are heavily regulated. Our operations can be significantly affected by evolving local and national government legislation and policy, as well as international regulations. We develop constructive relationships with all levels of government in our host countries, as well as fostering public dialogue and contributing to legislation development in sectors that affect our business. We devote significant resources to ensuring compliance with all permit requirements.

Stakeholder engagement
We engage with all stakeholder groups to build meaningful relationships and understand their expectations and aspirations. This minimises our negative societal impact, optimises the value we bring to local communities, and maintains our licence to operate. Recent market conditions have meant that some local communities and NGOs have been extremely critical of the mining sector as a whole, making open and transparent engagement ever more important. The geographies and markets in which we operate are extremely complex and we conduct dialogues on local, national, regional and international levels.

### Stakeholders to whom it matters most

<table>
<thead>
<tr>
<th>Stakeholders to whom it matters most</th>
<th>Our position</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Our people</td>
<td>The safety of our people is our top priority. We believe all fatalities and injuries are preventable and that safe workplaces result from a strong safety commitment on the part of both management and workforce. We continually work to improve our safety performance across the Group. See pages 36 to 39.</td>
</tr>
<tr>
<td>• Labour unions</td>
<td>We constantly look for ways to improve our health management and contribute to public health programmes in our host countries, working with local authorities and community representatives to tackle the major issues in different regions. Although challenges vary widely across the Group, we are developing a consistent approach across our assets. See page 40.</td>
</tr>
<tr>
<td>• Our host governments</td>
<td>Our activities have a range of actual and potential environmental impacts; we work to eliminate or minimise these. Where this is not possible we compensate for them. We will continue to improve how we minimise impacts through real-time monitoring and continual review of mine closure plans. The impacts include the generation of significant quantities of waste, including rock, tailings and slag, and various effects on air quality. Our mining, transport and logistics activities produce emissions that include GHGs. Our assets use significant levels of water and energy; we are aware of the need to share water resources to ensure equitable access for all. A number of our assets are entering suspension or closure; we will continue to monitor our environmental impacts throughout. See pages 54 to 61.</td>
</tr>
<tr>
<td>• Our host communities</td>
<td>We engage with our host communities through regular dialogue, and work closely with them to maximise the value our business creates for them and for society. We actively seek broad-based, ongoing support from our local communities, including indigenous people and vulnerable groups, as part of our licence to operate. This includes grievance mechanisms to receive, record and act on complaints. We are committed to respecting the human rights of our workforce and host communities. See page 46.</td>
</tr>
<tr>
<td>• Our businesses partners</td>
<td>We recognise and uphold the rights of our people to a safe workplace, freedom of association, collective representation, just compensation, job security and development opportunities. We prohibit child, forced, or compulsory labour. We are committed to working honestly and openly with labour unions across the Group. In times of operational changes, we work with our employees, labour unions and host governments to identify and agree alternative opportunities, severance packages and support during transition. See page 42.</td>
</tr>
<tr>
<td>• Our investors</td>
<td>The payments we make to our host governments in the form of taxes and royalties often represent a significant proportion of their incomes. Levels are determined by the relevant national, regional or local governments in accordance with local laws and regulations. We work with a variety of stakeholders on this topic and support increased transparency around the redistribution/reinvestment of such payments. We support the Extractive Industries Transparency Initiative (EITI). See pages 47 to 48.</td>
</tr>
<tr>
<td>• Governments</td>
<td>Good product stewardship is inherent to our value chain; it is an important element in compliance with regulations and maintaining public and environmental health. It allows us to deliver competitively priced goods and services, and provide the information necessary for safe handling, use and disposal. See pages 32 to 33.</td>
</tr>
</tbody>
</table>
This is our sixth annual sustainability report. Last year’s report described our activities to develop and roll out an enhanced sustainability strategy to reflect our enlarged, unified Group. In 2015, we continued to consolidate our Group approach in the context of a greater societal and stakeholder interest in climate change and resource efficiency.

This sustainability report complies with the core level of the Global Reporting Initiative (GRI) G4 sustainability reporting guidelines, including the metals and mining sector supplement. We have a separate online GRI index with further details, at www.glencore.com/sustainability

As signatories to the principles of the United Nations Global Compact (UNGC), this report serves as our advanced level UNGC Communication on Progress, outlining our support for its broader development objectives and our work on implementing the principles. It also serves as our report on how we are applying the ICMM sustainable development principles and position statements since our admission to membership in 2015.

The report’s GRI compliance has been independently assured by Deloitte LLP (Appendix 2).

Boundaries and scope

This report includes information and data from our industrial and marketing activities, including only assets where we have operational control, and excluding investment, trading and holding companies. We exclude environmental data from our warehouses and silos, ports and offices as their contribution is insignificant, contributing less than 1% to the relevant indicators.

The report contains data for the full year 2015. Acquisitions are only included if they were integrated before 1 July 2015. Closed sites (or sites in the care and maintenance phase of their lifecycles) report on a limited indicator set, reflecting their reduced activities and workforce. Data from divestments is included until the month before disposal. Workforce numbers are the exception to this rule, as they are based on the end of year status. As a result, this report does not include workforce data from any assets disposed of before 31 December 2015.

In January 2016, Sherwin Alumina Company filed for Chapter 11 bankruptcy; data from this asset is included in our figures for 2015, but it is not otherwise addressed in significant detail in this report.

Data and information

The data in this report is taken from Glencore’s GCP reporting systems. The metrics in this report reflect those used in the commodity markets and sectors in which we operate and are primarily based on GRI indicators, including indicators from the GRI metals and mining sector supplement.

In some instances, figures from previous years have been restated to reflect improvements in our data collection, analysis and validation systems. All figures stated in this report represent the latest available data unless remarked upon in the text.

Implementing the Intergovernmental Panel on Climate Change (IPCC) global warming potential (GWP) measures, according to the Panel’s Fifth Assessment Report (AR5), has required restatements.

Selected 2015 KPIs within this report were subject to limited assurance (see Appendix 2) by Deloitte LLP. Where data for previous reporting years has been restated, Deloitte LLP has not undertaken additional work to review accuracy and completeness. No assurance is provided over restated data. Any restatements of assured data are explained.

We may change our approach to how we report our data in future sustainability reports without prior announcement; we may also change the reporting of specific data and its interpretation.

Glencore made disclosures to the Dow Jones Sustainability Index and the CDP’s climate change and water programmes in 2015.

Related publications

We have published a number of standalone reports in 2015 that are connected to our sustainability activities. All of these reports are published on our website.

This year we have a separate online databook, which meets GRI indicator requirements. This is available at www.glencore.com/sustainability

There is a list of Glencore’s publicly available policy documents at www.glencore.com/who-we-are/our-values/policies/

There is a list of our current associations and memberships at www.glencore.com/assets/sustainability/doc/2015-List-of-associations-and-memberships.pdf
Governance

Climate change position statement & scenario modelling strengthened

ICMM action plan completed

Revised Code of Conduct rolled out

7,000 safety datasheets maintained
In this section

- Compliance (24)
- External commitments (26)
- Climate change (28)
- Product stewardship (32)

Labelling final product from Mutanda’s copper mine, Democratic Republic of Congo
Governance

Compliance

Approach
We seek to maintain a culture of ethical behaviour and compliance throughout the Group, rather than simply performing the minimum required by laws and regulations.

To support this, we have implemented our Group compliance programme that includes a range of policies and guidelines.

Our permanent and temporary employees, directors and officers as well as contractors (where they are under a relevant contractual obligation) must, in addition to complying with applicable laws and regulations, comply with the Group compliance policies that apply to their duties.

The Business Ethics Committee
The Business Ethics Committee (BEC) comprises senior representatives from across our businesses and management, and two of our external counsel; it reports to the Board Audit Committee. The BEC develops and reviews our policies, guidelines and principles on business ethics, including the prevention of bribery and corruption, and assists in questions related to their application. The policies and guidelines developed by the BEC are implemented by our Group compliance departments, local compliance coordinators and business ethics officers together with our operations. The BEC has a subcommittee which is a smaller subset of BEC members and reports to the BEC; it is able to meet on an ad hoc basis. The BEC meets at least two times per year and the BEC subcommittee at least four times per year.

Group compliance policies
The Glencore Corporate Practice (GCP) is our governance framework that encompasses our Group values, Code of Conduct and other policies and guidelines, such as those developed by the BEC. The GCP represents our commitment to uphold good business practices and to meet or exceed applicable laws and external requirements. We will not knowingly assist any third party in breaching the law, or participate in any criminal, fraudulent or corrupt practice in any country.

We seek to prevent such misconduct through training programmes and strong leadership, underpinned by internal policies, procedures and controls. The Group compliance policies are made accessible to employees via the local compliance coordinator, the Group intranet or the intranet of the specific operation at which they work. Our managers and supervisors are responsible for ensuring that employees understand and comply with the policies. Relevant employees must confirm their awareness and understanding of our compliance requirements in writing every year.

Certain operations implement their own policies in addition to Group policies. These are designed to address their specific requirements, while being consistent with our Group values, Code of Conduct and policies.

Local compliance coordinators, guided by the Group compliance departments, support our employees in day-to-day business considerations, particularly those seeking advice on ethical, lawful behaviour or policy implementation. Employees may access the telephone, email and postal contact details of our local compliance coordinators via the Group intranet, their local intranet and notice boards.

In accordance with the Code of Conduct, anybody working for Glencore who breaches the law, the Code of Conduct or other policies may face disciplinary action that could include dismissal.

We revised our Group Code of Conduct in 2015, to remove the focus on integration (our Xstrata and Viterra operations now being fully integrated), avoid duplication with the HSEC policies that were revised in 2014, and reflect changes to our programme for reporting potential misconduct, Raising Concerns. We rolled out the revised Code of Conduct to all operations and offices during the year, and distributed bulletins to ensure that our workforce was made aware of the revisions. The Code of Conduct is easily available to all employees; we also use it in many of our business activities, including recruitment, induction, supplier briefings and external engagement activities.

In 2015, 395 employees were dismissed for breaching the Code of Conduct, compared to 378 in 2014. The dismissals were predominantly related to failures to follow safety instructions or policies, or misappropriation of company property.

Bribery and corruption
Bribery is a criminal act in most countries, with severe penalties. We conduct continuous analysis for corruption risks within our businesses; our Group compliance and internal audit functions are brought in if necessary.

Glencore’s global anti-corruption policy is part of the GCP. It is available on the Group website. It contains our clear position on bribery and corruption, which is that offering, paying, authorising, soliciting or accepting bribes is unacceptable.

Glencore is a member of the Partnering Against Corruption Initiative (PACI). Members collaborate on collective action and share leading practice in organisational compliance. The initiative is based on a commitment to zero-tolerance on bribery and implementation of practical and effective anti-corruption programmes.
Training

Our marketing employees receive induction sessions and ongoing training on sanctions, the prevention of bribery and corrupt payments, anti-money laundering, anti-trust, confidential information and conflicts of interest. Industrial operations carry out their own training programmes, designed to address their specific requirements while being consistent with our Group values, Code of Conduct and policies.

In 2015 27,754 employees and contractors took part in eLearning training on the Code of Conduct, which includes guidelines on raising concerns. In addition, 18,933 undertook eLearning training on our global anti-corruption policy, which includes guidelines on giving and receiving gifts and entertainment. While the target audience of the Code of Conduct training was administrative and supervisory employees and contractors, the training on anti-corruption targeted those whose function may require them to interact with third parties. By expanding the scope of the target audience for eLearning, we reached more of our people: in 2014, 19,622 employees and contractors undertook combined Code of Conduct and anti-corruption training.

Most of our people do not have regular access to a computer; we undertake their training with more traditional training forms, including induction sessions, pre-shift general training and toolbox talks.

Reporting misconduct

If one of our people encounters a situation that appears to breach the Code of Conduct or our policies, that person must raise this promptly with his or her immediate supervisor or manager. Alternatively, the individual may raise the concern with another appropriate manager, local compliance coordinator, business ethics officer or BEC member. The BEC includes representatives from our external legal advisers, to whom misconduct can be reported independently.

If a concern remains unresolved through local channels, it can be referred to the Group’s Raising Concerns programme, via email (CodeofConduct@glencore.com) or the online form at www.glencore.com/raising-concerns. In countries with low levels of internet access we have telephone numbers, made known to our people via notice boards. Calls are free and routed to a regional compliance contact who speaks the local language. Those who call or use the online form may choose to raise their concerns anonymously. The Raising Concerns programme is accessible by substantially all of our employees and contractors.

Nobody working for Glencore will suffer demotion, penalty or any other disciplinary action for raising a concern in good faith.

In 2015, the Raising Concerns programme received 140 reports from employees, contractors or third parties regarding situations in which Group policies appeared to be breached. The reports were predominantly related to human resources (unequal treatment and abuse), fraud and procurement irregularities.

Below: Training at Bulga coal mine, Australia
## External commitments

### Human rights
- International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work
- UN Guiding Principles on Business and Human Rights (UNGPs)
- UN Universal Declaration of Human Rights
- Voluntary Principles on Security and Human Rights (Voluntary Principles)

### Transparency
- Extractive Industries Transparency Initiative* (EITI)
- Global Reporting Initiative* (GRI)

### Product stewardship
- UN globally harmonised system for classification and labelling of chemicals (GHS)
- London Bullion Market Association (LBMA) Responsible Gold guidance

### Progress in societal, economic, environmental, health and safety concerns
- International Council for Mining and Metals* (ICMM)
- CDP climate change and water programmes* (CDP)
- United Nations Global Compact* (UNGC)

* Standalone reports that we create as part of our commitments to the UNGC, ICMM, EITI, GRI and CDP can be found at www.glencore.com/sustainability

### Regulatory engagement
We develop constructive relationships with the national, regional and local governments of our host countries, and maintain regular dialogue with them. We may do this individually, collectively with other organisations, or as part of an industry association. Regular contact allows us to plan for regulatory changes and better react to them.

We foster public dialogue and contribute to the development of sound laws and regulations in areas that affect our business. In all dealings with governments, we work to the highest ethical standards.

We engage with regulators at all levels of government through regular meetings, audits and site visits. In 2015, our operations engaged with regulators on topics that included mine expansion permits, site-specific environmental regulations and demonstrating compliance with applicable laws and regulations.
Our ICMM application: completing the action plan

In early 2014, we applied for admission to the ICMM, an industry association dedicated to addressing the sustainability challenges facing the sector. The application process required us to demonstrate that sustainability management is fully integrated into our business, and that our policies and systems are aligned with the ICMM sustainability framework. We undertook an assessment of our policies and procedures to fulfill this requirement. The assessment, together with an action plan to close the gaps identified, was reviewed by a panel of independent experts, which also conducted site visits and interviews with senior management.

Drawing on interviews with more than 30 senior managers and a review of over 100 documents, we demonstrated that we already address the key aspects of the ICMM sustainability framework. Our submission included our strategic two-year action plan for continued alignment with the ICMM framework.

We reported on our progress on this plan in 2014. More information on how we are applying the ICMM sustainable development principles and position statements can be found throughout this report.

We are proud of achieving membership of the ICMM, and are participating actively in its working groups and other activities.

Our strategic action plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Results</th>
<th>Status</th>
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<tbody>
<tr>
<td><strong>Implementation of HSEC policies and supporting framework</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site-based assessment of existing practices followed by action plans for closing gaps</td>
<td>• Annual site-based self assessments demonstrated substantial compliance with HSEC policies</td>
<td>✓ Completed</td>
</tr>
<tr>
<td>Development of a Group fatal hazards register (including societal and human rights risks at our operations and mitigating actions)</td>
<td>• Register completed and incorporated into Group risk management systems</td>
<td>✓ Completed</td>
</tr>
<tr>
<td>Group implementation of the SafeWork initiative to address safety performance</td>
<td>• SafeWork programme implemented and rolled out; see page 38 for details</td>
<td>✓ Completed</td>
</tr>
<tr>
<td><strong>Commitment to continuous improvement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review Code of Conduct to align with HSEC policies and address stakeholder concerns</td>
<td>• Code of Conduct updated, based on detailed external benchmarking and internal review, and rolled out to all operations in 2015</td>
<td>✓ Completed</td>
</tr>
<tr>
<td>Review of existing HSEC policies, and development of additional policies and guidance, to address the relationship between the natural environment and our host communities</td>
<td>• Product safety policy launched in 2014</td>
<td>✓ Completed</td>
</tr>
<tr>
<td>• Water strategy developed in 2014 and progressed in 2015, with the aim of better understanding and managing our water-related impacts on local communities</td>
<td>• All HSEC policies to be reviewed and updated in 2016 as part of our commitment to continuous improvement</td>
<td></td>
</tr>
<tr>
<td>• See pages 18 to 19 for an overview of our engagement with key stakeholder groups, and page 46 for our approach to stakeholder dialogue</td>
<td>✓ Completed</td>
<td></td>
</tr>
<tr>
<td>• Strategic partnership with CARE launched in 2014 to help strengthen our contribution on the ground</td>
<td></td>
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<tr>
<td>• Ongoing engagement with civil society at all levels of the organisation, including a fact-finding mission to Colombia to understand and address key NGO concerns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Group community &amp; stakeholder engagement policy to be updated in 2016</td>
<td></td>
<td></td>
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<tr>
<td><strong>Implementation of HSEC assurance programme</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification of material issues through pilots; rollout of full assurance cycle in 2015</td>
<td>• Assurance process designed, and 12 reviews carried out in 2015</td>
<td>➡ On track</td>
</tr>
</tbody>
</table>
Glencore’s position on climate change
In December 2015, the Paris Agreement committed participants to keeping any “global temperature rise this century well below 2°Celsius” and “to drive efforts to limit the temperature increase even further to 1.5°Celsius above pre-industrial levels.” This broad consensus among nation states will see a global shift towards a lower carbon economy, supported by appropriate policies and bringing significant economic changes. It is within this framework that we have developed a position on climate change, to ensure the long-term sustainability of our global business.

Glencore recognises the global climate change science as laid out by the Intergovernmental Panel on Climate Change (IPCC). We note that this science predicts temperature increases as a consequence of the greenhouse effect, which will have major implications for the world and its communities.

Glencore believes that, along with the Paris Agreement, this science will drive a greater number of decisions, policy developments and programmes to restrict greenhouse gas (GHG) emissions. These changes will affect our business and underlying operations by shaping how we produce and market natural resource commodities.

Our response, and our management of climate change issues, can be grouped into four broad areas:
1. Internal risk assessment and materiality assessment
2. Management of our energy and carbon footprint
3. Proactive engagement with a range of stakeholders
4. Support for the development of low-emission technologies

Glencore’s business already operates in a number of jurisdictions where carbon regulation and policies have been introduced. We believe that the corporate sector is an important stakeholder in the process of developing climate change policy, with valuable contributions to make towards the development of effective, efficient and equitable climate change policy.

Carbon disclosure
We openly and transparently disclose our carbon and energy footprint. We participate in the CDP (formerly the Carbon Disclosure Project) and report on our CO₂ emissions in accordance with the Greenhouse Gas Protocol. In 2015, our CDP disclosure score was 99 out of 100, with a performance rating of C (on a scale from A to E).

We continue to undertake activities related to monitoring, measuring and managing our energy and emissions footprint. We have other mandatory reporting obligations in many of the jurisdictions where we operate.

Our emissions profile varies across our different business units, reflecting the diversity of our business.

Glencore is a significant producer of energy products and also a significant energy consumer. Energy is a key input and cost to our business and a material source of our carbon emissions.

We take energy and carbon regulation into consideration as part of our business planning and investment decision processes. Our business proactively takes steps to understand and manage our footprint, and continues to invest in solutions to use energy more efficiently and reduce emissions from the production and end use of our products.

Carbon pricing
Glencore supports a pragmatic and practical global approach that prioritises a least-cost and logical transition into lowering global emissions.

We support policy mechanisms aimed at achieving cost-efficient emissions reductions without compromising the development goals of nation states.

We believe market mechanisms are a sound tool to regulate carbon emissions, provided that they are designed to be equitable.

We believe there are multiple ways to achieve the world’s climate change goals. In relation to pricing carbon, we support the following principles:

• Clear policies to allow a predictable and measured transition to a long-term price for carbon
• Using revenues from carbon pricing to manage the transition to a low-carbon future
• Maintaining international trade competitiveness across sectors and preventing carbon leakage
• Broad-based application across sectors
• Policies that are simple and effective to implement
• Support for low-emission technology development (including for fossil fuels)
• Ensuring the price of carbon flows through to users at the end of the supply chain
Managing the risks and identifying the opportunities relating to climate change

<table>
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<tr>
<th>Risks</th>
<th>Opportunities</th>
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<tbody>
<tr>
<td>Climate change will pose additional risks to our business if not assessed and managed appropriately. We have incorporated general business risk management into all aspects of our operations through a risk management process that establishes a common methodology for identifying, assessing, treating and monitoring risk. Our assets will continue to adapt to material changes in the physical and regulatory environment as a result of climate change. We will continue to monitor these changes and ensure that our business approach and processes have the flexibility to manage these risks. Our industrial assets are required to regularly report on an extensive number of climate-related metrics, which could contribute to disruption in operations or access to critical infrastructure. We require our assets consider these factors as part of normal long-term business planning.</td>
<td>As markets change due to the economic and environmental impact of climate change, our business is well placed to respond by virtue of a diverse global portfolio of natural resource assets, supported by an industry-leading global marketing and logistics network. As our business does not rely on a single commodity or function, we have greater resilience to the economic impacts of climate change. The breadth of our business also brings economies of scale throughout the supply chain, in finance, freight, logistics, storage and product customisation. As we operate in markets that are fragmented and periodically volatile, our breadth and scale also allows us to benefit from the resulting price differentials. Glencore’s broad range of products will be required for the transition to a lower-emission economy. Copper, aluminium, steel and cement are required for renewables-based power stations as well as energy efficient infrastructure and the electrification of the transport sector. Coal is an essential input for 70% of steel, 90% of cement and 41% of electricity produced around the world. Nickel and cobalt are required for energy storage and therefore are likely to play an important part in electromobility.</td>
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</table>


We will continue to integrate new climate change challenges and opportunities into our business strategy and planning. This includes consideration of exposure to physical and regulatory climate change risks, along with action to mitigate or adapt to these risks. Our objectives and key activities as part of this work are to:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Key activities</th>
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<tbody>
<tr>
<td><strong>1. Monitor and manage the drivers of climate risk</strong></td>
<td>• Monitor NDC implementation and the progress of key countries towards achieving targets&lt;br&gt; • Monitor changes to the regulatory, technological, economic and physical environments applicable to our businesses, both where we operate and in jurisdictions that affect our suppliers and customers (eg weather risks, technology disruption and carbon pricing)&lt;br&gt; • Continue to engage in public policy processes in our countries of operation</td>
</tr>
<tr>
<td><strong>2. Refine our risk assessment process to manage climate change risks and opportunities</strong></td>
<td>• Develop internal climate change policy scenarios&lt;br&gt; • Continue to monitor broader energy market dynamics and supply chains&lt;br&gt; • Develop a risk and opportunity management framework to assess and respond to climate change risks and opportunities</td>
</tr>
<tr>
<td><strong>3. Address climate change impacts and regulatory changes</strong></td>
<td>• Continue internal Group GHG emission measurement and reporting&lt;br&gt; • Continue to integrate climate change into business planning at relevant levels&lt;br&gt; • Set an internal GHG reduction target where economically viable</td>
</tr>
<tr>
<td><strong>4. Investment and community engagement</strong></td>
<td>• Continued carbon disclosure to stakeholders&lt;br&gt; • Continued participation in public policy developments on climate change</td>
</tr>
</tbody>
</table>
Climate change and stranded assets
To determine whether further investment into development of coal resources is warranted, we maintain a comprehensive market assessment to continually update our supply and demand projections and assess the economic justification for investment to convert resources into marketable reserves.

We note that some commentaries on coal “stranded assets” infer that company valuations are calculated inclusive of coal resources rather than just marketable reserves; these commentaries also treat coal as a homogenous product. This is a fundamental misunderstanding of not only how companies approach “resources” as a source of investment optionality rather than committed investment, but also the dynamic and segmented nature of coal markets and the marketability of a range of coal products.

Our operations have the proven flexibility that allows us to manage coal quality to meet market opportunities and requirements. Combined with our global trading network, this provides us with a distinct competitive advantage in complex market environments.

We believe that the realities of future global energy demand and supply will continue to support our business, fully utilising coal reserves and supporting future optional investment in resource conversion.

The longevity of the seaborne coal trade is well supported in multiple global energy scenarios. These scenarios all require volumes far in excess of Glencore’s existing reserve base and will necessitate resource conversion to meet demand. The drive for improved energy efficiency will continue to support demand for high-energy, low-ash coal products.

Coal’s competitive position as a long-term energy supply source is underpinned by its low cost of extraction and transportation. The delivered cost of coal, compared to other power generation fuels, continues to support investment in new coal-fired generation in numerous developing economies. Glencore’s modelling of coal’s competitive position compared to alternate power generation technologies shows that the demand for coal will continue to grow in multiple markets dependent on imported product.

Carbon target
We have identified the systematic management of energy and carbon considerations across our business as a key focus area in our HSEC strategy. For this reason we have started work on determining how an internal carbon target could be applied for our business. This project will consist of a phased review across our commodity businesses, with the following steps:

1. Maintaining an understanding of our energy and carbon footprint on a long-term business planning basis
2. Reviewing historic and existing energy and carbon initiatives at individual assets and sharing these learnings across the Group
3. Deploying a common set of guidelines, templates and tools to assist assets in assessing, costing and ranking potential energy and carbon reduction opportunities
4. Identifying options for achieving meaningful reductions across the Group, including energy savings, efficiency measures, abatement or mitigation
5. Determining how a carbon target could be effectively and meaningfully applied either to parts of our business or the entire Group

We determined that the 25 facilities within our Group with the highest GHG emission levels are most material to our considerations. These facilities account for approximately 70% of our total Scope 1 and 2 GHG emissions.
Across these facilities, our ferroalloy and coal assets account for the majority of our GHG emissions. Over half of the GHG emissions from those 25 facilities are derived from coal mines, smelters or refineries, with most of those facilities located in Australia and South Africa.

For this reason our carbon target project will initially focus on our ferroalloy and coal business to determine what, if any, meaningful energy savings or emission reductions can be made by those assets.

**Our contribution to reducing emissions**

Glencore is committed to a role in the reduction of global GHG emissions. For some time, we have invested in a range of projects and initiatives to reduce emissions, both from our operations and the use of our products.

Since 2009 our Australian coal business has abated over 11 million tonnes of CO₂e GHG emissions, this includes:

- Using waste coal mine gas for power: coal business in Australia has total installed capacity of 44 megawatts that utilises methane emissions from our coal operations and converts the methane into energy which is used onsite. This is used to supplement existing energy sources at a number of assets; there are more details in the Environment chapter.
- Flaring waste coal mine gas: we have installed flares at coal mining operations that have the necessary supply and concentration of methane; these use coal seam gas drainage to capture methane gas, then flares to burn it off, producing carbon dioxide (which has a lower GHG impact) and water vapour.

**Wind power in Quebec**

Raglan, our nickel-copper mine in Nunavik, northern Quebec, has constructed a 120 m high wind turbine and storage facility, the largest in the province.

Energy is Raglan’s second largest budget item, as its remote location means it cannot connect to the hydroelectric grid or natural gas network. A combination of climate change considerations, environmental impact limits and rising diesel costs gave us a strong business case for exploring renewable energy solutions. Arctic weather conditions at the site provide some of the world’s richest wind resource. Raglan began investigating opportunities to include wind power in its energy mix.

The project was unprecedented in scale. It was a private-public partnership between Raglan Mine, TUGLIQ Energy (a Canadian power producer specialising in remote and complex energy diversification for mining sites) and the federal and provincial governments.

In its inaugural year, the 3 MW wind turbine and storage facility has already saved 2.1 million litres of diesel and reduced GHG emissions by 5,850 tonnes. Based on these results, we estimate that the turbine will save more than $40 million in fuel-related costs over its projected 20-year lifetime.

We hope that this successful pilot will have transformative impacts across northern Canada, helping to pave the way for the more widespread adoption of greener energy alternatives.

**Water power in Kazakhstan**

In Kazakhstan, Kazzinc operates the Bukhtarma hydroelectric plant, which has a total generating capacity of 675 MW. The plant is integrated into Kazakhstan’s national electricity grid as a peak producer. There are more details in the Environment chapter.

**Supporting research and studies**

In addition to the work we are doing to reduce GHG emissions, we continue to support low-emission coal technology projects and GHG-related studies, including:

- **The Callide Oxyfuel project**: a AUD245 million large-scale demonstration project in Queensland, Australia. This world-first project proves the suitability of oxyfuel technology for capturing CO₂ from new and existing coal-fired power stations. Completed in March 2015 at the Callide A power station, it involved burning coal in a mixture of oxygen and recirculated exhaust gases instead of air for 10,000 hours, providing a concentrated stream of CO₂ suitable for storage. The project is a joint venture between CS Energy, the Australian and Japanese governments, ACA Low Emissions Technologies (ACALET), Glencore and Schlumberger, as well as Japanese participants J-Power, Mitsui & Co Ltd and IHI Corporation.
- **The CTSCo CO₂ storage project**: an upcoming carbon capture and storage project and CO₂ hub in the Surat Basin, Queensland. With funding support from ACALET and the Australian and Queensland governments, CTSCo has undertaken a pre-feasibility study (including a 1,200m deep exploratory well into the storage zone) and is undertaking a feasibility study at a total cost of AUD40 million. The work involves a 3D seismic survey, updating of a CO₂ storage plume model and post-combustion capture CO₂ source and transport studies in conjunction with a coal-fired power station.
Product stewardship

Approach
We aim to deliver competitively-priced commodities that meet our stakeholders’ needs and contribute to global society, while progressively reducing any associated risks.

A thorough understanding of our products’ properties allows us to produce, transport and store them safely. Our commitment to understanding the full impact of our products is enshrined in our Group product stewardship policy. We disseminate this knowledge via industry consortia and our involvement with the development of industry regulation. We also engage with our customers to keep them informed.

Spreading understanding of our products
We work continuously with experts, industry consortia and our peers to study the properties and impacts of our products throughout their lifecycles. This helps us to ensure that our products conform to international standards, including REACH, and to control any risk to the environment or human health. This focus on healthy workplaces is in line with our new health strategy (see Our people: Health), helping to establish appropriate occupational exposure limits (OEL) and recommendations for appropriate personal protective equipment.

We share with regulators what we know about the impact of our products throughout their lifecycles. This includes ongoing engagement with regulators around the world on climate change legislation as well as occupational health and safety regulations and environmental legislation.

Product safety and other properties
We use this information to maintain over 7,000 safety datasheets covering all our products, including variants for different languages and legal entities. The datasheets reflect the classifications developed by consortia such as REACH, ECHA and others; they provide information on OELs and the precautions workers should take during handling. They are available in all 24 official EU languages, plus others such as Mandarin, Japanese and Korean where appropriate.

Our centralised database is integrated with many of our regions’ sales and marketing systems, allowing them to automatically issue datasheets to customers on purchase. If a Glencore marketer attempts to bring a product into one of these ports without REACH clearance, our product stewardship team is automatically alerted, allowing them to request sufficient information to check the product before shipping.

Informing the supply chain
We share our understanding of our product value chains and the associated risks with our peers, customers and other stakeholders. We help our customers implement their own material stewardship strategies, inform them of regulatory decision-making and generally help minimise risk to human health and the environment.

For instance, we provide customers from the US electronics industry with documentation to show that our products do not contain minerals sourced from conflict-affected and high-risk areas. This helps them ensure their compliance with the Dodd-Frank Act. We provide similar evidence to support compliance with other legislation, such as the Restriction of Hazardous Substances Directive and REACH.

We complement our Group compliance programme with site-specific programmes to meet local or product-specific regulations. For example CCR, our refinery in Montreal, Canada, introduced a policy and procedures for responsible global supply chain management in 2012 to demonstrate that its gold is conflict-free and complies with high anti-money laundering standards. The policy also complies with guidelines from the Organization of Economic Cooperation and Development (OECD) and the London Bullion Market Association’s (LBMA) Responsible Gold Guidance. In 2013, CCR enlisted Ernst & Young, an approved LBMA auditor, to audit those policies and procedures. The audit focused on our supply chain verification process for raw materials, which aims to ensure that none of our purchases of gold-bearing material support human rights abuses or non-state armed groups; it also aims to eliminate bribery, the fraudulent misrepresentation of the origin of gold, and money laundering. CCR was re-certified by the LBMA in 2014 and 2015. In 2016, CCR will undergo a “reasonable” assurance audit to maintain its conflict-free gold certification. CCR’s conflict-free gold policy, compliance and audit reports can be found at www.affinerieccr.ca.

Below: Zinc balls
Coming full circle
We not only send out information to our supply chains; we also bring learnings from other stakeholders back to our operations and assets. This includes continual improvement of our facilities and procedures to allow for the potential health impacts of production activities. In one example, the discovery that exposure to nickel compounds may increase the risk of lung and nasal cavity cancer has led to changes in the way we protect workers at our nickel mines and refineries. This includes PPE use, regular health monitoring and job rotations to minimise exposure.

Supporting innovation in product efficiency and safety
We actively support research and innovation via industry consortia, including representation on the boards of the Nickel Consortium Group and Cobalt REACH Consortium. We work with REACH authorities and the International Maritime Organisation to contribute to materials testing and general understanding of the hazards associated with ore and concentrate shipping.

Our agricultural assets in Canada and Australia work closely with industry groups to address increasing global demand for safe, reliable food sources. We participate in the Canadian Roundtable for Sustainable Crops (CRSC) to work towards sustainability in the Canadian crop supply (see our North American regional report for a case study). We are part of Australia’s National Working Party on Grain Protection, Grain Industry Market Access Forum, and its Grain and Plant Product Export Industry Consultative Committee, and we actively support the Plant Biosecurity Corporate Research Centre, which studies the integrity of harvested grain.

Our agricultural trading offices and production assets comply with standards that include Good Manufacturing Practices (GMP+) for animal feed; the European Code of Good Trading Practice; ISO quality management certifications; and FSSC 22000 Food Safety System certification. When we introduce a new quality management standard at our assets, we work with leading inspection, verification, testing and certification companies.

Products that we trade or produce are subject to risk-based contaminant monitoring to ensure they comply with applicable legislation.

Regulatory changes are actively followed up to ensure we continue to comply with applicable legislation.

Ensuring integrated product management throughout our value chain
We are committed to addressing product safety considerations in all our extraction and production processes. This includes efforts to minimise greenhouse gas (GHG) emissions and energy use at our industrial assets and to maximise reuse of our waste products.

Our industrial assets work closely with our marketing teams, with our traders regularly visiting industrial sites. We promote cooperative networks within the Group to ensure that lifecycle management is incorporated in all phases of production and sales. Our traders meet with our customers regularly to share advice on process safety and good practice.

Below: Inspecting copper cathode at the Lomas Bayas mine, Chile
Our people

524 LTIs across the Group; down from 694 in 2014

Read more on page 38.

8 million+ hours of training for our workforce

Read more on page 42.

155 new cases of occupational disease (259 in 2014)

Read more on page 40.

A formal Group health management strategy developed

Read more on page 40.
Promoting SafeWork at Mapani, Zambia
Our people

Our people continued...

Approach
We believe that all occupational fatalities and injuries are preventable, and that we can create and maintain safe workplaces for all our people with strong safety leadership. Risk management is at the heart of our approach.

We let our people know that we expect every individual to take responsibility for their own safety and for that of their colleagues and host communities.

Along with our industry peers, we report on our safety performance to the International Council on Mining and Metals (ICMM) every year, to promote practice in the improvement of safety performances.

Fatalities
We are saddened to report that ten of our people lost their lives while working for us in 2015, of whom three were contractors. The deaths all took place at underground operations.

This compares to the 16 fatalities we saw in 2014 and represents a cumulative improvement connected to the introduction of our SafeWork initiative in 2013. Since then we have seen a 62% reduction in fatalities and 70% reduction in incidents involving fatalities.

Improvements at our focus assets
While many of our assets have leading safety performances, a minority are still implementing processes to improve their safety standards. These assets require special focus and have specific improvement programmes designed for the challenges particular to their circumstances: we call these our focus assets.

We have seen some significant improvements at focus assets in 2015. There were seven fatalities this year, compared to 13 in 2014 and 16 in 2013. These deaths took place as part of four fatal incidents at these assets, compared to 12 in 2014 and 14 in 2013.
0 fatalities at the focus assets of Kazzinc in Kazakhstan, our sites in the DRC and our agricultural assets in the FSU

62% reduction in fatalities since the introduction of SafeWork in 2013

52% improvement in our lost time injury frequency rate (LTIFR) since 2010

Key
- Focus assets
- Non-focus assets where fatalities occurred in 2015
Our people continued...

Kazzinc, our zinc asset in Kazakhstan, which saw four deaths in 2014, has had no further fatalities since September 2014 (15 months in total), with LTIFR and TRIFR figures also reduced. Mutanda, one of our DRC copper assets, saw no fatalities in 2015, with none for the last 39 months. Our agricultural assets in the former Soviet Union have also operated for 13 months without fatalities.

We regret to report that Mopani in Zambia experienced three fatal incidents, resulting in six deaths, compared with two incidents leading to three deaths in 2014. Sinchi Wayra in Bolivia saw one fatality, the same number as in 2014.

Injuries

Our focus on workplace injuries in 2015 continued to produce significant improvements in our lost time injury frequency rate (LTIFR), and a reduction in our total recordable injury frequency rate (TRIFR). Our long-term target is a 50% reduction in TRIFR by the end of 2020, against an initial baseline figure of 5.82 established in 2014.

Our 2015 LTIFR was 1.32, compared to 1.58 in 2014 and 1.88 in 2013. This is a 52% improvement compared to our baseline from 2010 (2.74). Our 2015 TRIFR was 5.06, a 13% improvement compared with 2014.

We recorded 524 LTIs in 2015 (excluding fatalities), compared to 694 in 2014.

Safety management

A strong safety culture is built on clearly demonstrated leadership commitment. Our senior managers at corporate, department and asset levels take responsibility for leading our safety strategy and communicating it across the workforce. Senior corporate and departmental managers make regular visits to assets as part of this commitment.

Our Board oversees the Group’s safety performance, progress and any issues, via the Board HSEC Committee. Any fatality must be reported to the CEO, Board HSEC Committee and Group sustainability team within 24 hours, with independent third-party assistance on site within 72 hours. The committee reviews every fatal incident with the senior management of the department and asset affected, and circulates any relevant lessons across the Group.

SafeWork

We began to implement our SafeWork initiative in 2013. This is a risk-based framework designed for our assets to use as a basis for their own individualised safety improvement plans. The initiative’s aim is to provide everyone with the knowledge and tools to perform every task safely; the overall message is that every individual has the authority to stop unsafe work.

Implementation across the Group continued in 2015; 90% of our people have now signed a commitment to observe the life-saving behaviours and fatal hazard protocols. These protocols were introduced incrementally during the SafeWork rollout, starting with the six hazards associated with the greatest loss of life.

In 2014, our assets began developing action plans to close any gaps in their existing safety initiatives compared to the general SafeWork requirements, as well as those specific to the fatal hazard protocols; this continued in 2015. A progress review on compliance with fatal hazard protocol requirements was scheduled for February 2016.

This year we completed the rollout of SafeWork tools and resources, which include virtual reality training materials for each fatal hazard, forms and spreadsheets for implementation, and risk awareness training.

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1 LTIFR = number of lost time injuries (LTIs) recorded per million working hours. LTIs are recorded from the first rostered day where the worker is absent after the day of the injury. LTIs do not include restricted work injuries (RWIs) or fatalities.

2 2014 baseline has been adjusted to reflect improved data quality.
Promoting a risk-based safety culture

We believe an effective safety culture is based on sound risk management. Our safety risk management is based on a comprehensive Group risk management framework, along with our Group HSEC policies. We also provide our line managers with risk management tools, systems and guidelines to help them maintain a safe work environment and effective controls.

Over the coming years, our risk management process will focus on improving the integrity of plant, equipment, structures and processes. We will continue to train our people on hazard awareness and risk assessment, verification of control effectiveness, and having the courage to choose life-saving behaviours if controls are ineffective or not in place.

Learning for continuous improvement

Our assets report and share high potential risk incidents (HPRIs) every week, along with lessons learned, to prevent repeat incidents. This emphasis on reporting and recording HPRIs has been vital to our progress in safety management and fatality reduction; identifying trends as they arise, and taking corrective action, helps to prevent systemic issues. 338 HPRIs were reported in 2015, compared with 278 in 2014 and 155 in 2013. These increases are a positive sign and in line with our expectations, as they reflect a growing maturity of Glencore’s safety reporting culture.

Our CEO Ivan Glasenburg hosted Glencore’s second annual safety summit, attended by members of the Board HSEC Committee, commodity department heads and safety managers from around the Group. This year the summit focused on fatality prevention as well as catastrophic hazard and critical control management. Its key outcomes were a strengthened resolve and commitment to completely eliminate loss of life and to prevent catastrophic incidents, as well as to continue sharing leading practice between different assets.

Catastrophic hazard management and critical controls

Having rolled out the fatal hazard protocols, we are continuing our work to establish systematic management of catastrophic hazards in line with the new ICMM guidelines. Each of our commodity departments has identified its relevant catastrophic hazards and created a hazard register, as well as carrying out reviews of the relevant controls and critical controls. The Board HSEC Committee has set requirements and will continue to review progress on critical control management and performance.

Dealing with business partners

We expect our contractors to comply with the same safety requirements as our direct employees, and to meet our safety training standards. We terminate contracts with partners who do not fulfil this expectation.

In joint ventures where Glencore does not have operational control, we expect all major incidents to be reported from asset level, via departments, to a Group level; we then encourage the operational management teams to investigate appropriately.

Our agricultural division has undertaken independent audits at a number of joint ventures, to ensure that all safety issues are clearly highlighted for the managers of those assets to address. At Cerrejón, our coal joint venture, we appointed an expert from Prodeco to lead the investigation into its most recent fatality; all Cerrejón partners have agreed to review the subsequent report.

Below: Safety briefing at our iMpunzi coal asset, South Africa
Our people continued...

Health

1 Healthy workplaces
Assessing, monitoring and controlling health risks to our people and host communities

We require our assets to conduct health risk assessments, and to implement appropriate controls and monitoring systems. Employees and contractors alike are required to wear appropriate personal protective equipment (PPE) that has been checked for integrity. Monitoring systems track potentially hazardous exposures; workers who may be exposed are tested regularly for toxins such as lead and cadmium; we also establish procedures to eliminate or minimise exposure at source. Other common hazards include heavy loads, noise, diesel exhaust particles and acid mist.

2 Fit for work
Ensuring that our people’s physical capability is compatible with the demands of their working environments

Our people undergo pre-employment work assessments and annual medicals. We recognise that lifestyle choices may have a significant impact on their ability to perform their jobs safely; we have introduced drug and alcohol testing at assets where this has been identified as a risk. We are also aware of the dangers of workplace fatigue and are reviewing our approach to the identification and management of this risk.

3 Fit for life
Recognising the value of our contribution to the wellbeing of our people and our host communities

Our assets run health and wellbeing initiatives designed to reflect the needs of their individual workforces. A number of our operations are located in regions with significant health challenges, ranging from malnutrition to HIV/AIDS and malaria. Our health programmes include the families of our workforce, while our community development activities feature a range of programmes that target broader regional public health issues.

Approach
Managing risks to the health of our people is essential for their long-term wellbeing. It also helps us to maintain our productivity and reduce the likelihood of workplace compensation claims. We use a variety of onsite programmes to manage occupational diseases and exposure to health hazards; we extend many of these health programmes to the rest of our host communities, to combat regional health problems and promote healthy lifestyles.

Occupational health management strategy
During 2015, we developed a formal Group health management strategy. This addresses the health risks facing our workforce, their families and the communities inside and outside our gates. The strategy has three pillars, which build on what we have already accomplished at individual assets. We aim to systematise the work already done and support our assets in understanding and managing the health-related risks they face. We also aim to capture and promote leading practice throughout the Group.

We will roll out the strategy in 2016. Our aim is to become an industry leader in the protection and improvement of our people’s and communities’ wellbeing.

Our performance
In 2015, 94% of our sites reported no new cases of occupational diseases, compared to 91% in 2014 and 88% in 2013. Overall, we have reduced the total number of new occupational disease cases across the Group from 259 to 155. This is the result of several programmes:

- Reviewing our metrics and definitions to ensure full alignment with the ICMM definitions, and that they are used consistently across the Group; this has been a particular priority at two of our focus assets, Mopani and Kazzinc
- Reviewing assets with particularly high levels of new cases, focusing on the use and maintenance of PPE and local medical record-keeping; Kazzinc is an example where it was necessary to completely overhaul occupational disease management practice, which has already yielded significant results

At our South African operations, our efforts to combat HIV/AIDS through a combination of education, testing, counselling and treatment have allowed those of our workforce who are HIV+ to maintain productive lives. We continue to work with NGOs and local government to strengthen our outreach efforts to schoolchildren and other community members to educate them about this disease.
Approach
We uphold the International Labour Organization Declaration on Fundamental Principles and Rights at Work. We recognise and uphold our people’s rights to a safe workplace, freedom of association, collective representation, just compensation, job security and development opportunities.

We hire workers based on ability, without discrimination of any kind, and reward them based on their contributions and skills, in line with market conditions.

We prioritise employing people who live in the regions close to our assets. This extends to investing in education projects, skills development programmes and apprenticeships for local people.

Employment is one of the most obvious signs of the economic benefits we supply to our host countries. We provide families with their livelihoods, via direct employment at our operations and indirect employment via contractors and our use of local suppliers.

Equal opportunities
We hire, promote, reward and develop our people according to their ability and success. Our remuneration policies are generally tied to experience, ability and performance, with rewards for self-improvement and ambition. We review our pay and incentive practices regularly.

Our assets generally offer pay levels above the local minimum wage for their locations. We also ensure that working hours are not excessive by monitoring rosters, shifts and other recording procedures, in compliance with local legislation and agreements with unions or works councils.

We offer regular assessments of skill levels and competence, with the aim of spotting good performance, talent and potential and offering suitable reward, development and support.

Diversity
We believe that diversity is essential to our business and prohibit discrimination on the basis of race, nationality, religion, gender, age, sexual orientation, disability, ancestry, social origin, political or other opinion, or any other bias. We do not tolerate any form of racial, sexual or workplace harassment. Our position is included in all training materials for new and current employees, and reinforced regularly in management training.

Workforce
We aim to employ workforces that reflect the demographics of the communities in which we operate. At many of our assets, achieving gender parity is a major challenge, as they are either geographically remote, use shift working rostering, or both. In these regions, we focus on maximising local employment instead, including any vulnerable communities represented there.

For example, Raglan Mine in Quebec is one of the largest local employers and trainers of Inuit people (who comprise over 20% of its workforce). Raglan has supported several entrepreneurial and cultural programmes for many years, with extensive community engagement flowing from the asset’s impact and business agreement with the community.

In Australia, Mount Isa Mines runs an indigenous employment programme that was runner up in Queensland Resources Council’s Best Company Indigenous Initiative Award for 2015. The programme targets young local indigenous people, providing job-readiness and mining-specific training. Female trainees have made up 40% of the total intake since the programme began in May 2014. McArthur River Mining also targets indigenous employees: in 2015 almost 17% of its workers were indigenous people.

In 2015, 16% of our employees and 18% of our managers across the Group were female; over 40% of our marketing employees are women.

We do not allow child labour to take place anywhere within the Group; during 2015, our youngest employee was aged 15 and worked at Correcta, an agricultural asset in Brazil, as an administrative trainee. None of our employees aged under 18 are allowed to carry out hazardous work.

We have formal, transparent mechanisms for reporting labour grievances and for whistleblowing; these reflect local conditions, such as internet availability and languages spoken, to ensure ease of use. They are communicated to all workers through dedicated training and visual material, such as posters, available widely throughout work sites. There are more details in the Compliance chapter.

In 2015 there were seven cases of discrimination reported at three separate sites. These all concerned racial discrimination; we took disciplinary action in all cases.
Turnover and retention
Our turnover for 2015 was 19% (compared to 12% in 2014). About 20,000 of our people left due to divestments and reduced production. Our turnover figures fluctuate for a range of reasons. Low market prices for certain commodities have led us to take the difficult decision to divest, close or temporarily suspend a number of assets, resulting in a sizeable retrenchment in 2015. Every effort has been made to provide support to the affected people and to our local communities during this difficult transition.

All the commodities that we produce or market have experienced significant price drops in recent years, due to a slowdown in economic and industrial growth in key consumer countries, such as China, Brazil and Russia. We have also seen an over-supply of our key commodities as assets have ramped up to full production. This combination has led us to move some of our assets into a “care and maintenance” phase, or to reduce production volumes, leading to significant retrenchments.

We make every effort to minimise the impact of redundancies on our employees and our host governments and communities. We engage extensively with all those affected to ensure they are aware of our planned and potential actions. Our severance and compensation packages significantly exceed local legislation, and we work with our people to find suitable alternative employment wherever possible. Many of our assets also offer specific support to employees with low financial literacy, including basic financial management training. We continue to support existing community initiatives and to diversify local economies.

In all cases our severance agreements have been negotiated and explicitly approved by local unions. The care that we take to involve and engage with the workforces affected is reflected by the fact we have seen no strike action or social unrest as a result.

Career development
Our heavily decentralised approach allows individuals to take significant responsibility. Our people are accountable for their contributions to our businesses around the world, including the creation of long-term relationships with our stakeholders.

Appropriate succession planning and retention strategies must reflect the local working environment; for this reason we encourage our assets and departments to develop their own strategies. Some of the initiatives currently in use around the Group include:

- Regularly reviewing the skills of our current workforce against future business requirements and taking steps to make sure they will match; this includes training employees in the skills required for advancement
- An online database to spot critical workforce gaps, ensure that current employees receive appropriate training, and recruit short-term hires or transfer suitable employees from other teams
- Talent and succession planning to develop an overview of the skills available across each division, and ensure future critical roles and leadership positions are covered
- A six-month structured leadership development programme
- External leadership training courses that may include masters-level study and qualifications, with financial support and study leave
- Sending talented individuals on short-term international assignments to disseminate technical and organisational experience throughout the Group
- Our recruitment programmes target recent graduates and provide training and mentoring to help them develop their careers

During 2015, our employees and contractors participated in over 8 million hours of training, the same figure as in 2014.

Labour relations
We recognise and uphold the rights of our workforce to a safe workplace, collective representation and freedom of association. We are committed to working honestly and openly with labour unions at all our locations and treating employees with respect.

As trade unions play different roles at our assets depending on geographical region and industrial sector, our assets engage with the unions active at their sites in different ways and at different levels.

73% of our employees are represented by an independent trade union or covered by a collective bargaining agreement.

During 2015, there were 10 strikes at our assets lasting longer than one week. One strike was at our rice assets in Uruguay, another at our crushing plants in Argentina, and the rest took place across six different assets in South Africa. In all cases we actively engaged with the relevant unions and our employees, and the strikes ended with agreements being reached.

Our people continued...
Learning skills at the Mopani Central Training Centre, Zambia
Society

$4.5 billion paid in tax and royalties

Pilot of our scorecard to assess the shared value we create for society

Operational grievance mechanisms reviewed to ensure transparency, accessibility and alignment with the UN Guiding Principles

$15.1 billion spent with local suppliers

Read more on page 47.

Read more on page 51.

Read more on page 48.
Minera Alumbrera copper, gold and molybdenum mine in Argentina supports agricultural activities as part of its socio-economic development programme projects run in the nearby communities.
Approach
We are committed to building and maintaining constructive, lasting relationships with our host communities and other local stakeholders.

There are two elements that we consider when dealing with society. The first is our impact on our host communities and wider society; the second is any risk to our business from societal expectations and the political landscape. We require that our assets identify their stakeholders, taking particular care to determine vulnerable groups, such as women, children and indigenous people.

To help us consistently measure and report on our socio-economic contributions, we have developed a socio-economic contribution scorecard.

Stakeholder dialogue
Our Group community & stakeholder engagement policy requires our assets to develop transparent, constructive and inclusive relationships with their host communities.

Each asset must complete a stakeholder assessment, covering all stakeholder circumstances, needs and concerns, as well as potential impacts, risks and opportunities for that asset. From this assessment the asset must design an engagement strategy, which may include procedures for information sharing, consultation and collaboration. This strategy is aligned with the asset’s business objectives and changes to its lifecycle, as well as local concerns and the broader socio-economic situation in the region. Senior management at each asset are aware of progress in implementing these strategies, which we also report on to the local communities involved. We require assets to review the strategies at each stage of their lifecycle to ensure that we continue to be aware of stakeholder priorities and needs.

We provide our stakeholders with information in a wide range of ways, tailored to the local context, that vary across the Group. These include radio broadcasts, site publications, regular town hall meetings, and individual meetings with the community. We also have mechanisms to receive concerns, including free mobile SMS hotlines, complaints registers and dedicated offices within local communities. All concerns received through these mechanisms are regularly reported to senior operational and departmental management, and to the Board HSEC Committee on a quarterly basis. All complaints and grievances are registered and investigated; we let complainants know results and any follow-up actions in culturally and locally appropriate manner.

In 2015, we received 1,742 complaints from our surrounding communities. We are currently reviewing our complaint topic categorisation to find the indicators that will be most meaningful for stakeholders, but the majority of complaints dealt with lack of access, and damage, to property; noise; odours or fumes; water; and dust.

All our assets must carry out community perception surveys every three years, to check on the effectiveness of their engagement strategies.

Managing operational changes
The challenging financial climate has meant we have needed to reduce production or temporarily suspend operations at certain assets. We are working closely with the local communities to minimise loss of livelihood and other negative consequences. We also see this period as an opportunity to review our community development programming to ensure its continued authenticity and effectiveness. We are working closely with our stakeholders in this area.
Creating value for society

Approach
Our business activities make a significant contribution to the national and local economies in which we operate. The most significant derive from employment and procurement, but we try to ensure that we maximise contributions from throughout our value chain.

Our aim is to minimise dependency on our operations, and promote healthy, sustainable communities with diversified and resilient local economies. This is particularly important as changing market conditions may continue to affect our business.

Socio-economic contribution
In 2014, we began to develop tools to improve and systematise our understanding of our socio-economic contributions. These tools will help us improve our management of contributions to our host regions. Our work drew on external knowledge as well as our own internal expertise from multiple regions, including countries with both developing and established regulatory environments.

During 2015, we developed a set of metrics for use with our data collection and performance management systems. We piloted these metrics in Zambia and across our operations in Australia to test their relevance. We also tested them externally by submitting them to external peer review through development specialists.

The approach includes a scorecard of 10 KPIs, selected to help us understand and communicate how the full spectrum of our activities contributes to local economies. Our 2015 pilot included the launch of a Group data collection process. This is still being refined, but it has identified performance highlights that can be found in the regional sections towards the end of this report.

Going forward, we plan to combine the scorecard with our existing community and stakeholder engagement systems. This will ensure a balanced understanding of how our development efforts affect our assets, both positively and negatively, and support management decisions on the design of asset-level community development strategies. The scorecard currently focuses on understanding the tangible results of our investments, but over time, the data collected will give us a better understanding of how our development activities affect local economies, supporting our objective to deliver shared value for both Glencore and our host communities. Finally, we plan to make the scorecard more flexible, to reflect local societal specificities, particularly the presence of various vulnerable groups.

Our most significant economic contribution to our host countries comes from employment, sourcing goods and services, and the payment of taxes and royalties.

Payments to governments
We pay all relevant taxes, royalties and other levies in amounts entirely determined by the legislation of relevant national, regional or local governments. We strongly support transparency in the redistribution and reinvestment of these payments and are active participants in the Extractive Industries Transparency Initiative (EITI). We comply with the EU Accounting and Transparency Directives; in line with those provisions we will publish separate annual reports detailing material payments made in 2015 to governments, broken down by country and project.

Economic value added in 2015

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<tbody>
<tr>
<td></td>
<td>Group</td>
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<tr>
<td>Revenues</td>
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<tr>
<td>Payments to suppliers</td>
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<td>Economic value added</td>
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<td>Royalties and taxes</td>
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<td>Payments to providers</td>
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<td>Community investment</td>
<td>94</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>4,475</td>
</tr>
<tr>
<td>Economic value</td>
<td>(9,908)</td>
</tr>
</tbody>
</table>

1 For presentation purposes, all figures in this table have been rounded to the nearest unit.
2 In line with the requirements of the EU Accounting Directive, details of payments to governments will be published in a standalone report; some numbers stated above may differ to those in the standalone report, as this will use the definitions required by the directive.
3 Revenues include sales, intercompany sales, and other income.
4 Operating costs are all costs of goods sold, excluding salaries, employee wages and benefits; community investments noted separately.
5 Total net refunds from government on VAT, GST, sales tax and excise duties not included; this amounted to $1,854 million; taxes and royalty payments for Chad and Equatorial Guinea amounting to $373 million not included.
6 Employee wages and benefits exclude all contractor-related costs; these are shown in operating costs.
7 Payments to providers of capital consist of dividend payments and interest expenses. Provider payments do not include any principle repayments of loans.
During 2015, the tax and royalty payments made by our industrial and marketing activities was over $4.5 billion. Our 10 highest payments made to governments this year were:

**Payments to governments by country (2015)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Payment ($ million, excluding VAT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1,517</td>
</tr>
<tr>
<td>Argentina</td>
<td>631</td>
</tr>
<tr>
<td>Democratic Republic of Congo</td>
<td>532</td>
</tr>
<tr>
<td>Canada</td>
<td>354</td>
</tr>
<tr>
<td>Colombia</td>
<td>216</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>189</td>
</tr>
<tr>
<td>South Africa</td>
<td>153</td>
</tr>
<tr>
<td>Peru</td>
<td>124</td>
</tr>
<tr>
<td>Zambia</td>
<td>106</td>
</tr>
<tr>
<td>Switzerland</td>
<td>86</td>
</tr>
</tbody>
</table>

NB: Total net refunds from governments on VAT, GST, sales tax and excise duties, amounting to $1,854 million, are not included. Does not include taxes and royalty payments for Chad and Equatorial Guinea amounting to $373 million.

**Local employment**

A key contribution to socio-economic development is employment, both directly and via contractors. To support local markets and provide further economic uplift, we invest significantly in workforce development, as well as offering our host communities training for non-mining jobs. In 2015, 78% of our workforce were local residents, as were 63% of our managers.

We emphasise diversity in our training initiatives, particularly given our own limited capacity to offer additional employment in the current economic climate. We seek to work with local governments, education authorities and community representatives to identify skill gaps and find the best ways to meet the needs and expectations of our stakeholders. We fund and operate training centres and programmes around the world that include complete secondary education, as well as artisanal skills for the mining sector and elsewhere.

We are committed to employing locally wherever possible.

**Local procurement**

We use local suppliers whenever we can, to reduce our costs and provide our host communities with alternative employment opportunities. Our development of local procurement bases also helps our host governments to fulfil their development objectives. In 2015, we spent $15.1 billion (38% of total spend) with local suppliers.

Some of the regions where we operate lack strong local businesses. Our community and procurement teams work together to identify needs and develop support programmes for local businesses, to help them meet our quality standards and our expectations with regard to conduct. We want to help these businesses grow and become nationally and even internationally competitive.

**Enterprise development**

We work to support and promote businesses based close to our assets to drive local economic diversification.

Our approach varies from region to region, but can include:

- Encouraging our large international suppliers to build partnerships with local businesses
- Financing or constructing business parks and centres to host local entrepreneurs and support their growth
- Training for small businesses
- Programmes targeting local businesses, to help them meet local and international quality standards

We work with local government agencies to support training and help develop and implement business plans. In one example, Prodeco, our coal asset in Colombia worked with a local mayor to establish an entrepreneurship centre, which has trained 350 people since September 2015.
Infrastructure

Many of our operations are located in remote and underdeveloped areas; here we can contribute by sharing infrastructure, such as roads, water and electricity, with our host communities. This will grant local people safer and faster access to other towns and markets, meet local water needs and facilitate access to education and healthcare.

Community development

Our community development programmes are an integral part of our community and stakeholder engagement strategies. They help to further improve the prosperity and resilience of our host communities by supporting access to basic services, such as education and health for the vulnerable and under-served groups, such as children, women, and groups affected by illness and conflict.

In 2015

- 78% of our workforce were local residents, as were 63% of our managers
- We spent $15.1 billion with local suppliers
- We supported over 7,300 entrepreneurs based close to our operations
- We spent over $134 million on shared infrastructure; our most significant investments each year are in power (over $68.5 million), roads (over $56 million/around 1,000km in 2015) and water processing and distribution (over $5.6 million)
Human rights

Approach

Our general approach is aligned with the International Labour Organization (ILO) Core Conventions and the Protect, Respect and Remedy framework from the UN Guiding Principles on Business and Human Rights (UNGPs). It is outlined in our Group human rights policy and overseen by our Board HSEC committee.

The UNGPs have three requirements for companies to demonstrate that they are fulfilling their responsibilities. We meet these requirements as follows:

<table>
<thead>
<tr>
<th>UNGP requirement</th>
<th>Glencore commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express a commitment to human rights through a policy statement.</td>
<td>Glencore’s commitment to human rights is stated in our Code of Conduct, which is clearly communicated to all employees and contractors.</td>
</tr>
<tr>
<td>Perform human rights due diligence to identify, prevent, mitigate and account for potential human rights breaches.</td>
<td>Our operations conduct risk assessments at key phases of their lifecycles. The assessments may cover issues related to labour and workplace, use of security, our business partners, and interactions with stakeholders and vulnerable people. The risks are logged in the operational risk register; progress in addressing them is reported to senior management and the Board as appropriate. In dealing with our business partners, we expect that they meet the requirements of our Code of Conduct and Group human rights policy. In particularly sensitive cases, such as in the selection and appointment of security contractors for our assets, we review their backgrounds to ensure they have no history of involvement in human rights breaches.</td>
</tr>
<tr>
<td>Provide remediation where business enterprises are identified as having caused or contributed to breaches of human rights.</td>
<td>We expect our people to avoid complicity in human rights breaches and to uphold international standards at our assets, regardless of location or function. Our operations have grievance mechanisms that enable stakeholders to raise concerns without fear of recrimination. In addition, our Group internal reporting mechanism is available to stakeholders who wish to escalate their concern. We investigate and assess all concerns reported through these mechanisms, and report back to the complainant on the results of the review. In 2015, we reviewed the approaches used by assets to design their individual complaints and grievance management mechanisms, to ensure consistency with the criteria supplied by the UNGPs. We will be rolling out guidelines in 2016.</td>
</tr>
</tbody>
</table>

Security and human rights

Our Group human rights policy requires our assets to conduct risk assessments for conflict and security concerns. If these risks are identified, our assets must align their practices with the Voluntary Principles. At these assets, we have worked to:

- Establish a formal agreement with private and public security providers, which states our expectations for the conduct of personnel deployed at our assets and agrees a mechanism for incident investigation and escalation
- Develop a locally-appropriate approach to training for all security personnel, to ensure understanding of international human rights standards and our expectations for their conduct (this may be carried out by our personnel or via third parties with a mandate to engage with local peacekeeping forces, and will typically address issues such as use of force, use of equipment and conduct in situations of public unrest)
- Implement ongoing performance monitoring through supervision by our security staff and regular meetings with host communities to identify and discuss any concerns
- Track the human rights record of any potential partner, including public security forces, paramilitaries, local and national law enforcement, and private security firms; and consult with other companies, government officials and wider civil society to share their experiences with private security firms

We developed guidance for this process in 2014, covering deployment, conduct and performance monitoring for both public and private security providers. We have distributed the guidance to our security, compliance and community relations departments to be used as a master checklist; individual assets may need to include additional measures depending on their local conditions. The guidance specifically requires assets to report any concerns with public security providers to the appropriate local authorities, and to collaborate with any subsequent investigation.

Further to this, in 2015 we reviewed our Group risk framework to reflect the risk of security-related human rights abuses. To ensure responsible security management is embedded in our broader efforts to respect human rights, we have also reviewed our grievance mechanism design across the Group to ensure these mechanisms are fully accessible to local communities.
In March 2015, we were admitted to the Plenary Group of the Voluntary Principles on Security and Human Rights. We look forward to our participation and the opportunity to strengthen our approach to security management through dialogue and sharing of leading practice among the Group’s members.

In 2015, 1,675 security officers received human rights training at our operations.

**Working with our business partners**

The standards we expect of our suppliers are detailed in our Code of Conduct, global anti-corruption policy and Group human rights policy. These comply with International Council on Mining and Metals (ICMM) principles and international standards including OHSAS 18001, the ILO conventions and the UNGPs.

Our assets consult regularly with their host governments and local communities about the impact of their security arrangements. We also monitor private security providers to ensure they operate in a manner consistent with our standards.

While some of the countries where we work have a higher risk of security-related human rights breaches, we expect our people to avoid complicity and uphold international standards everywhere. If security risks are identified, we screen our security contractors’ human rights performance and their ability to comply with our policy. We also ensure we have contracts that reference the Voluntary Principles, and memoranda of understanding that state our commitment to upholding human rights.

**Engagement with vulnerable groups**

Some of our stakeholders have faced economic and social discrimination in the past. These may include indigenous people, women, children, disabled and elderly people, and victims of conflict. Wherever we operate, we look for these groups during our stakeholder assessments and determine the most appropriate ways to engage with them. We try to understand and respect their religious, cultural and social concerns, and identify opportunities for their inclusion and advancement.

**Engagement with indigenous people**

Some of our assets are located on or near the traditional lands of indigenous people. We have formal agreements at a number of these, including indigenous land use agreements (ILUAs) in Australia and impact benefit agreements (IBAs) in Canada. Wherever we work, we engage in open and continuous dialogue with indigenous communities to understand their culture, views and aspirations. This helps us work with them to minimise our impact and maximise the benefit we bring to them. Our policy and approach are aligned with the ICMM Position Statement on Indigenous People and Mining.

**Managing grievances and complaints**

We require our assets to operate grievance mechanisms, to receive and address concerns from external stakeholders. Depending on the location and context of the asset, these mechanisms may range from informal complaints channels to formal dedicated grievance mechanisms. Channels for communication include dedicated phone lines, complaints registers at public places, SMS hotlines and the offices of assets in local towns. Where necessary, complaints are recorded with witnesses present, as are the results of investigations.

Further to this, in 2015 we reviewed our grievance mechanisms to ensure consistency and alignment with the UNGPs. As a result, we created internal guidelines on the general principles and specific considerations that assets must consider when designing or reviewing a grievance and complaints mechanism.

The guidance focuses particularly on accessibility, and local stakeholders’ awareness of the mechanism, as well as the reporting and investigation of all complaints. The sophistication and formality of each grievance mechanisms is determined by a risk assessment that considers dimensions such as existing legal frameworks in the area of operation and existing or future operational impacts on host communities.

The guidance will be rolled out in 2016.

**Resettlement**

We seek to avoid resettlement wherever possible. When it cannot be avoided, we proceed in accordance with the International Finance Corporation (IFC) Performance Standard 5: Land Acquisition and Involuntary Resettlement. Throughout, our priority is to ensure that all affected stakeholders have full participation. Following any resettlement, we seek to ensure the communities involved can maintain productive livelihoods through ongoing monitoring. We undertook this process in 2015 with the Plan Bonito community, near our Calenturitas coal mine in Colombia, which we resettled in 2014. In 2015, we conducted ongoing resettlement activities at five sites: Goedgevonden, Ulan, Rolleston, Wonderfontein and Calenturitas.
Environment

Strategic water management framework developed

18% of total energy use from renewables

0 catastrophic, major or moderate environmental incidents

Read more on page 55.

Read more on page 57.

Read more on page 54.
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54 Environmental management
55 Water
57 Energy and greenhouse gas emissions
59 Land management
61 Waste management
Approach
Our Group environmental policy is based on both international and industry-specific environmental standards. It follows the plan-do-check-act method. The policy requires our assets to undertake detailed risk assessment reviews, identify appropriate mitigation actions, and determine the capital expenditure required. Our assets maintain environmental management plans based on these reviews, which focus on:

- Maintaining the integrity of our facilities to avoid environmental incidents
- Efficient resource use
- Preserving protected areas and biodiversity
- Closure planning and rehabilitation

Assets update these plans at each stage of their lifecycles, and incorporate them into overall risk registers and management plans.

Working from Glencore’s HSEC management framework, we require our industrial assets to implement environmental management systems that include standard elements such as:

- An environmental policy
- Planning, implementation and operation
- Measurement, recording and evaluation
- Review and corrective actions and continuous improvement

In addition, 39% of our industrial metals & mineral assets have externally verified environmental management systems.

As our business encompasses a wide range of operational activities across different geographical locations, it would be difficult to establish blanket Group environmental targets appropriate for every operation, site and project. Instead, we require performance management at a local level.

Partners
In contracts with suppliers and contractors we seek to include minimum requirements for environmental management.

We also participate in supply chains where we do not have operational control, including working with the third parties who ship and store our products. We engage with our customers, suppliers and service providers to limit the environmental impact of our activities throughout these chains.

In joint ventures where Glencore does not have operational control, we seek to influence our partners to adopt policies and procedures similar to ours wherever possible. We may choose to terminate contracts with partners who do not fulfil this expectation.

Environmental incidents
Our activities involve the use, transport and storage of large quantities of both hazardous and non-hazardous materials. We also operate facilities where operational failures could result in incidents with the potential to cause significant harm to the environment or surrounding communities, as well as damage our reputation.

We are committed to eliminating material environmental incidents, and incurring no fines, penalties or prosecutions.

We have a five-level incident classification scheme, from catastrophic (category 5), through major, moderate and minor, to negligible (category 1). We also report and record high potential risk incidents (HPRIs): events that could have resulted in a serious environmental incident. The Board HSEC Committee reviews any category 4 or 5 incident with the relevant senior management teams and shares any learnings across the Group.

We reported no moderate, major or catastrophic environmental incidents in 2015.

In 2015, we paid $231,643 in environmental fines, compared to $790,031 in 2014.
Approach

Water is an essential input for our industrial activities. We ship products over maritime and inland waterways; these products could contaminate the water if spilled. In addition, many of our assets are located in water-stressed areas, with some in areas of extreme scarcity. Other assets must manage surplus water from rainfall or mine dewatering. Concerns regarding the long-term availability and quality of water, and security of access to water, have significantly increased as a result of changes to demography and climate.

This means that our material considerations with regard to water are:

- Ensuring that all users have access to high quality water
- Ensuring that we preserve the quality and availability of local water sources
- Protecting the maritime and inland waters that we use for transport

Our aim is to responsibly manage our water impact without material adverse impact on the quality and quantity of any water body, and without compromising other users’ access to water.

We report to the CDP water disclosure programme every year.

Water scarcity

A 2014 analysis of our assets’ locations showed that around half of our operations are located in “water stressed” regions; some of these were classified as regions of “scarcity” and others as regions of “extreme scarcity.” These definitions were taken from the World Business Council for Sustainable Development water tool. This analysis was the basis for our Group water strategy, which had five primary objectives:

1. Identification and assessment of our material water impacts, risks and opportunities
2. Gaining an understanding of our water footprint
3. Development and implementation of water management plans covering each of our assets’ lifecycles to avoid, minimise or mitigate the impacts and risks
4. Improvement of our water management performance, including identifying and setting water-related targets
5. Ongoing engagement with significant stakeholders and public reporting on our progress

Over the next two years, we plan to focus on:

- Developing and implementing water management guidelines that are appropriate for our assets; each asset’s risk profile will determine the stringency of the requirements that apply
- Identifying sites with high water-related risk
- Assessing the current water management practices at those high-risk sites to identify potential areas for improvement
- Introducing an appropriate water balance tool to help high-risk assets use a standard approach to reporting water use
- Collating existing case studies on sound water management practices (eg flood management, water diversion, water efficiency methods and technologies) from around the Group; sharing the results amongst our assets

In 2015 we aligned our water indicators, metrics and definitions with the Water Accounting Framework (WAF) of the Minerals Council of Australia. We will begin to apply these in 2016; we will use them to develop a more detailed water balance model. This will help us benchmark our progress more clearly against the wider industry and help identify areas for operational improvement and increased efficiency across our business.

At assets where there are significant risks relating to water and its availability we require water management plans that cover each stage of the operation’s lifecycle. Assets develop their plans in collaboration with local communities and other stakeholders in the catchment area. They will also develop water intensity and water efficiency targets. Each asset’s water efficiency measures vary according to local needs, but may include:

- Reducing water loss via evaporation
- Switching to lower-quality water sources wherever possible
- Treating and reusing operational waste water
- Researching new sources of water (eg desalination)
- Deepening water storage dams to improve storage capacity
- Establishing water efficiency committees
- Improved tailings management (eg setting targets for water recovery from tailings)
- Employing best-practice agronomic techniques that improve water efficiency
We plan to run a pilot project to test a catchment-based approach to water management. A catchment is a land area through which all surface and subsurface water drains into a single body of water, as well as the downstream water affected by the land area’s discharge. In line with the International Council on Mining and Metals (ICMM) recommendations, we are taking a catchment-based approach as this looks at the interconnected activities and issues in the catchment as a whole, rather than considering them all separately, or only considering a specific site’s input/output balance. It encourages organisations to consider how competing demands on water resources can create pressure and potentially lead to conflict. The results of the pilot study will provide the scope for rollout across the Group.

We also work with local communities, authorities, agricultural and other industry users to create water use strategies at many assets. These are designed to ensure sustainable, equitable access and robust water management by all stakeholders in the catchment area. They cover efficient water use, water reuse/recycling, responsible waste water disposal and maintenance of equipment that could affect water quality.

For example, some of our underground mines require continual dewatering. We work with local communities and utility providers to ensure that this water can be reused locally. Our industrial sites are also working to recycle and reuse water wherever possible, to reduce their consumption of potable water.

Preventing water contamination

Our waste water treatments vary depending on the requirements of the sector and region, but usually include pH neutralisation and the removal of heavy metals, suspended solids, oils and greases. We monitor the quality of the water we discharge as it leaves our assets as well as within the water bodies it enters, such as rivers and estuaries.

We are implementing new technologies to help minimise or eliminate uncontrolled water discharge. In one example, we have constructed a water treatment plant at a closed site in British Columbia as our water storage capacity was reaching its limits. The plant uses lime neutralisation to create high density sludge (HDS), a non-hazardous waste that we dispose of with our tailings.

We maintain a fleet of owned and chartered vessels; those we own adhere to the appropriate requirements to avoid spills and water contamination. Our chartered vessels are vetted in accordance with our chartering standards. We use double-hulled vessels as a key guard against leakage. In the unlikely event of a spill, we have emergency response plans to minimise damage.

Our operational and maintenance procedures are aligned with relevant international standards, including the OCIMF/ICS guidance and MARPOL regulations and the Ballast Water Management convention for all ballast water exchanges.

In 2015 we recorded no significant incidents related to water.
Approach

Many of our assets have significant energy requirements; it is a major element of our operational costs across the Group. We work continually on improving our energy efficiency; our commodity businesses have bespoke energy efficiency plans and carry out regular energy audits.

In 2015 we generated 37 million tonnes of Scope 1 and 2 emissions, compared to 36 million tonnes in 2014. Our net total energy usage was 242PJ, the same as in 2014.

25 of our sites emit 70% of our total Scope 1 and 2 GHG emissions; these sites are mostly located in Australia and South Africa. This group of sites is the primary focus of the study on carbon reduction and target setting that we carried out in 2016.

Reporting changes

This year the Greenhouse Gas (GHG) Protocol guidance defining Scope 2 emissions has changed, incorporating location and market-based elements. The definition change has led us to report three separate values for this indicator in 2015. We report on the first value, used in this section’s charts, to align with our previous external reporting; it is based on the old definition, which uses grid emission factors with no emissions attributed to contractual purchases of renewable electricity.

We include the other two values in the databook connected to this report, available at www.glencore.com/sustainability/. The second value is the new “location-based” definition, which applies grid emission factors to all purchased electricity, regardless of contractual purchase arrangements for renewable electricity. The third value is the new “market-based” definition, which details GHG emissions from contractual arrangements; supplier-specific emission factors have been applied when relevant and available, but where they are not, the country’s residual or grid emission factor has been applied. The International Energy Agency and a number of governmental bodies have also provided updates for grid emission factors.

In addition, our figures for GHG emissions from fossil fuels now consistently include methane and nitrous oxide as well as carbon dioxide (CO2). These updates have required us to restate previous figures.
We use renewable energy sources where we can. In Kazakhstan, Kazzinc operates the Bukhtarma hydroelectric plant, which has nine 75MW turbines with a total generating capacity of 675MW. Bukhtarma generated around 3 billion kilowatt hours of electricity in 2015, covering up to 68% of Kazzinc’s electricity requirements. If this energy were generated by a conventional fossil fuel-based power plant, it would have released the equivalent of 1.5 million tonnes of CO₂. In addition, almost all the electricity used by our assets in the DRC and Zambia, which run some of the Group’s largest operations, is generated from renewable energy (hydropower).

We use waste gas from our coal mines to supplement power generation at a number of our Australian operations. Particular examples are Oaky Creek (installed capacity 24MW), Bulga Underground (9MW), Tahmoor (7MW) and Teralba (4MW): 44MW installed capacity in total. An additional 15MW is due to be commissioned at Oaky Creek in May 2016.

We have flares installed at those Australian underground coal mines with the necessary supply and concentration of methane. In 2015 these sent more than 60,000 tonnes of methane to flares and over 20,000 tonnes to coal mine waste gas power stations, resulting in the abatement of over 1.4 million tonnes of CO₂e. This is a 39% reduction compared to 2014, as a result of:

- Cessation of mining at Ravensworth mine
- Decommissioning of the United facility
- Very little gas being drawn at Teralba due to raised water levels in its decommissioned underground mine
- Reduced methane concentration and volume in gas drainage at Newlands and Oaky Creek
- Delays in production at Bulga that reduced post-mining gas drainage

Below: Environmental monitoring at our San Juan de Nieva zinc asset, Spain
Land management

Approach
Glencore is a significant land manager, owning over 500,000 hectares of land and leasing over 1.7 million around the world.

We respect legally designated protected areas and adhere to associated regulations; we do not explore or mine in World Heritage areas.

Our assets undertake responsible land stewardship at each stage of their lifecycles; this not only reduces our operational risk, but minimises our liabilities when our mines close and influences our legal and societal licence to operate.

We make efforts to recognise the cultural heritage of local indigenous people when planning our operations, as we understand that they may have a unique connection with the land.

Rehabilitation and closure management
We require each individual asset to have a closure plan to ensure a responsible exit. This plan must be continuously maintained, including appropriate financial provisions. Our assets develop their closure plans in collaboration with their local communities and ensure that they monitor the societal risks and opportunities associated with closure.

In addition, our mining assets continually rehabilitate the areas they disturb, ensuring that the land is restored to a state that is suitable for the final land use agreed in the original mining permit. Each asset creates a comprehensive management plan before operations begin, which identifies each year’s success factors and ensures they can be measured and monitored regularly.

We generally try to use the topsoil removed at each site immediately; when this is not possible, we store it for future reuse. We keep records of what each area looked like before we disturbed it, to restore topographical features where possible. Where appropriate we identify threats to local biodiversity and help protect affected species. We engage with local communities to identify appropriate post-mining land uses and try to make them possible.

Agricultural land
Our agricultural assets make continual efforts to minimise their environmental impact and maintain the long-term productivity of our arable land. They consult the best available agronomic consultants, using precision farming methods that include no-till farming, controlled traffic farming and variable rate technology. Other practices, such as windrow burning, are used to decrease reliance on insecticides, fungicides, herbicides and similar products.

In addition to continually refining our existing technologies, in 2016 our Australian assets will increase the percentage of new crop varieties, which give a bigger yield, in their crop mix, as well as trialling some new varieties. Our Southern Australian farms are increasing the proportion of legumes in their crop rotations, as these naturally create nitrogen in the soil, reducing the nitrogen fertiliser required. We are also planning to roll out variable rate technology to our fertilisation methods, having seen good results in trials during 2015.

Biodiversity
Our assets incorporate biodiversity considerations into their environmental impact assessments, along with any risks that our impact on biodiversity may have for local communities. If significant biodiversity impacts cannot be avoided or mitigated offsetting measures are applied. We disseminate scientific data and promote the latest biodiversity assessment practices wherever possible.

We support the development and implementation of scientifically sound, inclusive and transparent procedures that integrate land use planning, biodiversity, conservation and mining.

Areas identified as having high biodiversity value include a mining site belonging to Prodeco in Colombia, which is located near the forest reserve of Serranía de los Motilones (a protected area).

Our smelting operation in the Philippines is close to a mangrove forest; we have constructed a protective dike enclosure and maintain a fish sanctuary in partnership with the Department of Environment and Natural Resources.

Part of our US alumina operation is located near the Aranasas Federal Wildlife Refuge, the National Estuarine Research Reserve and protected wetlands.

Land disturbed vs land rehabilitated to date

<table>
<thead>
<tr>
<th>Year</th>
<th>Total land disturbed</th>
<th>Total land rehabilitated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>94,625</td>
<td>27,462</td>
</tr>
<tr>
<td>2014</td>
<td>111,431</td>
<td>27,465</td>
</tr>
<tr>
<td>2015</td>
<td>117,724</td>
<td>27,412</td>
</tr>
</tbody>
</table>
Our Australian Rolleston site is partially located in the protected Brigalow Belt Bioregion, a semi-evergreen vine thicket, brigalow and bluegrass ecosystem.

Mount Isa Mine in Australia has a regional water source, Lake Moondarra, located within our mining lease, approximately 10km from mining operations. The lake is recognised under several agreements as having conservation value related to migratory birds; it is listed as a wetland of national significance.

Our Koniambo operations in New Caledonia are located in an area of high biodiversity value where 80% of the plant species are endemic, as well as most of the reptiles in the mine site area. In addition to undertaking progressive site rehabilitation, we produced a detailed biodiversity management plan in 2007, followed by a protected area management plan in 2011 and a rare species management plan in 2014. Our objectives are to avoid net loss of biodiversity, maintain large conservation areas onsite (approximately 825 hectares) that minimise the risk of fire and invasive exotic species, and perform in-house research into these rare species.

Our Mutanda operation, in the DRC, is located in the Basse-Kando Hunting Zone, at a distance of 5km from the Kando river. Mutanda seeks to limit any impact of its operations through diligent environmental management and developing and implementing progressive rehabilitation plans.

Below: Overseeing water management at Collahuasi copper mine, Chile
Waste management

Approach
Our assets continually review their waste management procedures and identify opportunities for improvement, to minimise the impact of the waste we produce.

Mineral waste
Most of the waste that Glencore generates is mineral and includes tailings, slag and rock. Our assets have rigorous management systems in place to dispose of waste while preventing environmental contamination. We continuously review our waste management processes, and identify and implement opportunities for improvement. We reuse as much waste as possible. For example, we use waste rock to backfill our mines, and fill roads with non-hazardous tailings.

In 2015 we produced 2,084 million tonnes of hazardous and non-hazardous mineral waste, 7% less than 2014. We recycled or reused 13 million tonnes of mineral waste.

Our metal and coal assets generate tailings (residues of mineral processing), which are stored in purpose-built tailings storage facilities. These are specially designed ponds filled with tailings and water; over time, the water evaporates while the tailings settle, gradually filling the dam. At this point, the dam is capped, sealed and rehabilitated. Our tailings facilities are monitored continuously to ensure integrity and structural stability. Flooding and seismic activity are the main natural phenomena that may affect them. Our assets evaluate natural phenomena and incorporate these considerations into their tailings facility designs where relevant.

Mineral waste

<table>
<thead>
<tr>
<th>Year</th>
<th>Hazardous mineral</th>
<th>Non-hazardous mineral</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>2,135</td>
<td>2,244</td>
</tr>
<tr>
<td>2014</td>
<td>2,135</td>
<td>2,244</td>
</tr>
<tr>
<td>2015</td>
<td>2,084</td>
<td>1,128</td>
</tr>
</tbody>
</table>

Mineral waste recycled

<table>
<thead>
<tr>
<th>Year</th>
<th>Hazardous mineral</th>
<th>Non-hazardous mineral</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>2014</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>2015</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

In 2014, we conducted a survey of all Group tailings facilities, supervised by the Board’s HSEC Committee. The survey investigated the key characteristics, risks and controls of our tailings facilities, as well as their design and construction. Glencore’s corporate sustainability team analysed the results and presented the key findings to the HSEC Committee, which required all surface tailings facilities to undertake an independent inspection no less than every three years.

Our 2016 assurance programme will specifically include a review of all priority tailings facilities by subject matter experts. These assessments will be peer reviewed. We have also reviewed and updated the critical controls for tailings facilities in our RiskManager tool, to help our assets develop catastrophic hazard management plans.

Air emissions
We comply with relevant regulatory limits and international standards wherever we operate.

Our metallurgical smelters emit sulphur dioxide (SO₂), dust and nitrogen oxide (NOₓ) as both stack and fugitive emissions. Stack (or point) emissions emanate consistently from a fixed source (such as a smelter furnace), whereas fugitive emissions emanate irregularly from diffuse sources.

Our open-cut mining assets emit dust (also referred to as particulate matter or PM) during excavation and when moving material. We monitor dust levels within affected communities and minimise dust in a number of ways that includes dust suppression, construction of berms to prevent dust travelling to communities, optimising our blasting activities, watering our haul roads and using protective coatings on product and waste storage facilities.

26 assets began implementation of new infrastructure or programmes to reduce fugitive dust emissions in 2015, mostly within our zinc division. 14 assets, mostly from our zinc and copper divisions, started initiatives to reduce stack emissions. Three assets began new SO₂ reduction initiatives.

Mineral waste recycled

<table>
<thead>
<tr>
<th>Year</th>
<th>Hazardous mineral</th>
<th>Non-hazardous mineral</th>
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</thead>
<tbody>
<tr>
<td>2013</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>2014</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>2015</td>
<td>13</td>
<td>13</td>
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</table>

Emissions (SO₂, NOₓ and dust)

<table>
<thead>
<tr>
<th>Year</th>
<th>SO₂</th>
<th>NOₓ</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>607</td>
<td>69</td>
</tr>
<tr>
<td>2014</td>
<td>431</td>
<td>71</td>
</tr>
<tr>
<td>2015</td>
<td>366</td>
<td>30</td>
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</table>

1 Restated due to improved data collection

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Regional reports
Overseeing operations at Impumzi coal complex, South Africa
Regional reports:

Africa
(excluding South Africa)

Our activities in Africa span a number of countries. We have assets in the African Copperbelt (Zambia and the DRC), oil operations in Chad and Cameroon, oil interests in Equatorial Guinea and operations in Namibia and Burkina Faso. These employ a workforce of nearly 29,000 employees and contractors.

In 2015:

- **54%** of our Chad employees were local
- **2,231 people** participated in our DRC co-operatives, supporting over 22,000 dependents
- **73%** of Mopani’s vendors are locally incorporated companies
- **$65 million** spent on INGA II mega-energy project in the DRC in 2015
Our people: safety

As ever, the safety of our people was our top priority in 2015; we worked hard this year on the continuing implementation of SafeWork, our Group safety initiative. We have adapted its procedures to suit our host countries’ existing safety cultures.

A key feature of this adapted approach is the use of safety conversations, where managers and supervisors are encouraged to stop any examples of unsafe work or practice that they see, regardless of whether the workplace or workers are under their direct control. These conversations can range from an informal five-minute conversation to a full meeting. The aim is visible felt leadership, with a consequence management approach that combines mentoring, praise and reprimand. In 2015 an average of 342 supervisors at our Katanga operations conducted around 19,000 of these SafeWork conversations.

We also undertook a significant programme to implement catastrophic hazard management, including risk assessments and development of management plans. Katanga completed fatal hazard protocol training for a number of key hazards (energy isolation, working at height and in confined spaces, and mobile equipment) and are well on the way to completing those outstanding. At Mutanda, we trained 4,232 people in the SafeWork principles, and completed baseline risk assessments and self-assessments on the fatal hazard protocols.

SafeMining at Mopani

In 2015 Mopani continued rolling out the SafeWork initiative; this was first introduced to our employees and local communities in 2014, under the banner of SafeMining. We disseminate SafeMining messages through internal memos, emails, notices, monthly newsletters, our intranet, management briefs and roadshows, at the workplace and in the community.

SafeMining was introduced after we determined that a significant proportion of incidents leading to injury or loss of life could be avoided if all our people take responsibility for making safety a way of life in their own operational areas. In this way, the initiative seeks to eliminate the potential for catastrophic incidents, fatalities and injuries and prevent occupational diseases.

Our long-term objective is to eliminate fatalities and occupational diseases, and achieve a lost time injury frequency rate (LTIFR) of less than 0.5.

At the end of 2015, we had reached 2,357 workplace supervisors and 105 managers with various safety messages concerning SafeMining’s 12 fatal hazard protocols and nine associated life-saving behaviours. We also carried out training in a range of first aid and rescue skills for both employees and contractors. 1,916 employees and contractors were awarded competence certificates in first aid this year.
Kitwe’s emergency response call centre

In 2015, Mopani completed the construction and equipping of an advanced emergency communication and control centre (ECCC) at its Nkana mine in Kitwe, at a cost of $653,000. This was to improve the coordinated response to emergency situations at its operations, following the successful pilot of a satellite call centre at Mufulira in 2014.

Located at Mopani’s corporate offices, the Nkana ECCC is our main emergency call centre. It holds up-to-date equipment such as an online intelligence system, which analyses all data received and expedites responses. The ECCC also houses various categories of life support mechanisms for surface and underground staff, to enable a prompt 24-hour response and provide critical care to accident victims within the “Golden Hour” (the period following a traumatic injury in which prompt medical treatment will most likely prevent death). A full team of mine rescue, medical and trauma, firefighters and hazmat responders is always on hand.

Apart from ensuring effective centralised emergency event control, deployment and management, the ECCC will also help successful post-emergency investigations and reviews.

Advanced life-support ambulances

In 2015, Mopani acquired two advanced life support ambulances at a cost of $181,000. The two life-saving vehicles are stationed at our emergency communication and control centres (ECCC) in Mufulira and Kitwe, to ensure rapid response to emergency situations.

The ambulances are instrumental in ensuring that all emergency victims have immediate access to advanced medical and first-aid services. They have built-in advanced life-support equipment that enables paramedics to offer critical care at incident sites before transportation to medical facilities.

In 2015, 24 employees, drawn from a broad spectrum of emergency respondents that included firemen and medical staff, underwent intensive six-week training in basic paramedic life support skills.

The ambulances are also available to members of the public involved in road traffic incidents in the Kitwe and Mufulira districts, as part of Mopani’s community development efforts.
Africa continued...

Our people: health

We work to identify and address potential health risks, both to our workforce and to the broader community. In Zambia and DRC, HIV/AIDS and malaria are major public health issues. The programmes we run to tackle these diseases have contributed to reduced death rates and less long-term ill health locally, reducing hospital attendance and lowering absenteeism at our operations.

Our main focus is prevention, but the programmes cover care and treatment for those who need it.

Public health: Zambia

Mopani’s HIV Care programme offers testing and treatment to its employees, their dependents and the local community. It is aimed at increasing access to antiretroviral treatment (ART) and quality HIV-related care.

Since 2004, we have enrolled over 18,000 individuals, of whom 15,905 were enrolled on ART. AIDS-related deaths have reduced for HIV Care participants (from 225 in 2006 to 76 in 2015), and the number testing HIV-positive has declined from 39.2% in 2005 to 10% in December 2015. This is as a result of awareness campaigns and voluntary counselling for both Mopani workers and the larger community. These educational and support services are conducted by Mopani-trained peer educators; they include information for people to keep seeking positive behavioural traits, voluntary counselling and testing, and ongoing treatment.

One effective way to reduce HIV is preventing transmission from mother to child (PMTCT). The HIV testing acceptance rate among antenatal mothers in the programme increased from 41% in 2005 to 100% by December 2015. Encouraging men to become involved in sexual reproductive health programmes increased their attendance from 0% in 2005 to 77% by December 2015. Mopani’s medical department, which deals with the hospitals and clinics run by Mopani, has previously pioneered treating HIV+ mothers and their partners regardless of their white blood cell count (an indicator of how well their immune systems are working). This maximises suppression of the virus in the mother, which ultimately reduces transmission to the baby. The approach has now been adopted as standard by the Zambian Ministry of Health. To date, transmission of HIV from mother to child has reduced from 37% in 2005 to 0% by December 2015.

Malaria in Zambia

We refer to our malaria programme as integrated, because it not only treats the infected but also addresses the main cause of the disease, by tackling mosquito breeding grounds and undertaking preventative activities.

In Zambia, Mopani’s medical department runs health education sessions on malaria prevention, treatment and care for its employees and the local community. They train community support groups, comprising employees, their families and local residents, to assist with preventative activities. In the event of illness, employees and their families are diagnosed and treated at Mopani hospitals and clinics.

The incidence of malaria in Mopani catchments has reduced from 216/1000 population in 2000 to 12.45/1000 in 2015. This compares to the national incidence rate in 2014, which was 407/1000.

Malaria incidence rates (2000–2015)
Public health: DRC

HIV/AIDS still carries a socio-economic stigma in DRC; legal protection for sufferers is still in its early stages. The government has not yet started to promote voluntary testing widely or prominently; ART availability is also limited.

Our assets Katanga and Mutanda offer testing to their workforces and their families. They also support the DRC government’s national programme to tackle HIV/AIDS (referred to as “PNMLS”) by running a training programme for peer educators in local communities; this trained 32 educators in 2015. They also carry out awareness campaigns for local communities and high-risk groups, such as truck drivers.

In 2014 Katanga began collaborating with the nearby Mwangeji hospital to help local people living with HIV/AIDS, educating them in the importance of ART (provided by the hospital) and helping them to develop income-generating activities suited to their medical condition.

Our people: workforce

Falling commodity prices have led us to the difficult decision to suspend or curtail some of our activities in the DRC and Zambia. Production is due to resume in the DRC in late 2017; full production will resume in Zambia in early 2018. During this time, we will complete expansionary and upgrade projects, which will improve operational and environmental efficiency in the DRC and materially reduce operating costs in both regions.

We did not make these decisions lightly, and worked closely with our host governments and the labour unions at our assets to manage these processes. In particular, we provided support to workers who have lost their jobs. In the first instance, we identified employment opportunities elsewhere in the business where possible. In Zambia, where such opportunities were not available, we worked with labour unions to offer voluntary departure programmes and agree retrenchment packages that went well beyond local regulatory requirements. In addition, our assets offered a range of benefits, including emotional and financial counselling, and training programmes. All retrenched employees also retained HIV/AIDS treatment for the rest of their lives and other benefits, such as healthcare and school tuition support, for certain periods of time.

In 2015, Katanga ran a successful voluntary departure programme; it covered many of the same activities, working with national and local government throughout the process. Employees were kept informed via regular forums. Those who we were able to retain are still undertaking training and schemes for skills development.

The restructuring processes at our African assets were completed in full agreement with local government and labour unions; to date, we have not experienced any legal or community opposition at any of these locations.
Society & human rights

Throughout our operations, we prioritise local contractors and suppliers. In Zambia, our copper asset Mopani has approximately 2,200 vendors on file, of which 73% are locally incorporated companies. In 2015, we spent around $844 million through nearly 600 contracts with these suppliers.

This focus on local procurement helps to reduce costs and provide our host communities with employment opportunities outside of our operations. Our development of local procurement bases also helps Zambia to fulfil its national development objectives.

In addition to direct sourcing, we encourage foreign companies to form joint ventures with local businesses; the aim is to help local suppliers improve service delivery as a result of new equipment and skills transfer. Some of these joint ventures are now wholly owned and operated by Zambian entrepreneurs, such as ZINPRO Zambia and Redpath-Rig Resources.

Boosting local employment in the African Copperbelt

In certain poor regions with low levels of employment, we may find that local communities expect Glencore to contribute significantly to local employment. However, there is only a limited number of roles, even for those with skills suited to modern mine work.

In 2014, Mutanda, our DRC copper asset, started a pilot programme called *Wote Pamoja Tujenge Mugini* (All together we build the village) to address this disparity. The programme focuses on identifying employment opportunities for people living around the mine.

Community liaison officers conducted several sensitisation sessions with local communities to explain the initiative and promote participation. We provided flyers and CV templates in Swahili and helped people complete their applications. These forms became the basis of a personnel database for potential local employees. In 2015, we were able to connect 70 people from that database with employers from among our cleaning and construction contractors. This is in addition to the 336 local people directly employed by Mutanda.

Mopani has created a number of platforms for collaboration with local businesses including both regularly scheduled and *ad hoc* liaison sessions with individual suppliers and supplier associations. We also contribute to capacity-building activities for local businesses, in collaboration with government agencies for small enterprise development.
Expanding the skill base of our host community

In 2014, our copper asset Mopani built the Mopani Central Training Centre, a $15 million apprentice training centre, to train learners in various engineering and mining skills. We also use the centre to upskill our current employees and contractors. In 2015 we expanded the centre with a $6 million investment in mining simulation infrastructure, including a fully-equipped replica underground mine, to complement the existing engineering and electrical facilities.

In 2015, 190 engineering apprentices, mostly drawn from the local community’s high school leavers, received upkeep allowances, meals and accommodation and recreation facilities. The centre’s capacity is 314 students; all students enrolled will also be offered full sponsorship. 43 learners drawn from Mopani’s employees and contractor companies will begin training in 2016.

In addition, 6,717 Mopani employees and 4,490 contractors took various refresher courses at the centre, along with 22 vocational students from local tertiary institutions.

While the engineering students at the centre pursue long-term craft/trade qualifications, the mining simulator will initially offer short courses to our people. These include pipe laying, track laying, construction, cage tenders & attendants, loco operation, dump truck operation, utility vehicle operation, load haul dumper operation, drill rig operation and bolster operation, as well as first-aid & rescue skills. Once fully operational the simulator will offer professional courses on skills in basic operations and blasting, supervisory skills, management & leadership, health & safety, shaft construction and maintenance. The virtual reality training in explosives is considered a global leader; students will use the world’s largest touchscreen for marking and blasting training. The simulation allows the centre to offer formal training in blasting qualifications and skills recognised by the Technical Education, Vocational Entrepreneurship Training Authority (TEVETA).

The school also accommodates a fully-equipped first-aid clinic and control room for emergency response training purposes.

Graduates of the training centre will be offered employment at Mopani.

Alternative livelihoods for DRC artisanal miners

Our DRC assets are located in regions where artisanal and small-scale mining occurs. This is mining carried out by individuals, using hand tools and basic extraction methods. It is often dangerous, particularly as women and children sometimes take part. It also frequently involves theft or damage to our equipment; as such it is a material risk to our operations. We do not support artisanal mining, nor process or purchase any material derived from artisanal mining in the DRC. We have developed robust due diligence processes to ensure this material does not enter our supply chain.

We engage with local communities, working to raise awareness of the risks linked to artisanal mining, as well as promoting alternative sources of employment. In 2015, our DRC assets ran 68 cooperatives offering a range of activities, including agriculture and farming, welding, sewing and carpentry. So far we have helped 2,231 people, who support around 22,310 dependents. 68% of the participants were women, with 10% being exceptionally vulnerable people like widows, people with disabilities and those living with HIV/AIDS. Half of those taking part in the cooperatives are ex-miners; 60% of their dependents are children, who have been able to stay in school because their families can now afford the fees.

In 2015, the average revenue per person from growing crops grew to $400 per season, from $75 in 2013. All participants have reached at least self-sufficiency. Average yields have increased almost threefold, with the average revenue per hectare almost doubling. The new average revenue from livestock varies greatly but has at least doubled in most cases. Revenues are either re-invested in the project or used to supply essentials for residents, such as school fees, healthcare and housing. We have also started running programmes to keep children out of artisanal mining. In 2015, we ran a summer camp for 1,500 children from local communities, in conjunction with the local educational authorities. This allowed us to engage with mothers to raise their awareness of the dangers of artisanal mining, particularly for children. We plan to run similar programmes going forward.
Africa continued...

Bringing hydroelectric power to a region without stable infrastructure

Katanga and Mutanda, our copper assets in the DRC, are working on a major infrastructure project to generate hydroelectric power that both we and our surrounding communities will use. We have been working on the project, Inga II, for four years. We have invested $368 million in the project, with $65 million spent in 2015. We have also supplied technical expertise and resources, to refurbish the Inga II hydroelectric plant and turbines and upgrade transmission lines to allow access to power generated by a dam on the river Congo.

Once fully ramped up, Inga II will supply 450MW of electricity. This will help to supply local communities as well as our operations.

Working with the Voluntary Principles in the DRC

Our copper assets in the DRC use private security contractors to protect their operations and their people. They also collaborate with the Mine Police, a section of the Congolese National Police with the specific mandate to secure mine sites. In addition, military forces ensure the safe transportation and storage of explosives, in accordance with national regulations.

As part of our implementation of the Voluntary Principles at these assets, we have started training in human rights and the Voluntary Principles. Private security contractors receive human rights training every year; in 2015 we trained 1,111 contractors and 258 employees. Our security departments conduct awareness sessions for the Mine Police, which cover our standards and expectations on human rights and the use of force. In 2015, 125 mine police officers attended these sessions.

In 2015, our assets also signed memoranda of understanding with the Mine Police. These address our expectations with regard to international standards on human rights as well as the Voluntary Principles. The memoranda also cover rules of engagement, our requirement for personnel background checks, and mechanisms for reporting and acting on concerns and potential breaches.

Our assets have developed systems to implement the memoranda, which include transparent compensation mechanisms. We have a range of mechanisms to let local stakeholders communicate concerns; our assets publicise these mechanisms via local radio, in posters, and community meetings. Security managers participate in community meetings to discuss any concerns with security management. All complaints are recorded by our Community Liaison officers, with a tribal chief or other nominated community leader present. Complaints are reported to senior operational management and investigated; complainants are informed of any action taken.

The recent division of provinces in the DRC has delayed our operation’s participation in external forums this year. Katanga and Mutanda currently participate in regular meetings organised by the new provincial authorities on security, communities and artisanal mining.
Local community investments in the DRC

In remote and developing regions we will often support local communities by investing in infrastructure for their sole use, as well as healthcare and education.

In 2015 Mutanda contributed $680,000 to infrastructure for the sole use of its host communities. This comprised $220,000 spent drilling five wells, and $460,000 on construction at two schools. The first was a new elementary school in Kisenda; previously local children at that level had to travel to Lualaba. The second was an extension for a school in Kando, creating a secondary school block; previously local children had to travel to Kolwezi.

Mutanda’s direct beneficiaries in 2015 numbered: 689 (education and the new schools); around 20,000 (local wells); and 37,000 children (vaccination campaigns in the Lualaba health zone).

In the same year, Katanga contributed $1.6 million towards the Lualaba bridge as well as investing an additional $400,000 in two wells for the sole use of communities in Luilu. Their direct beneficiaries numbered: 2,231 (community development); 25,000 (malaria spraying); 3,166 (education initiatives); 50,000 (Luilu water supply), with communities also indirectly benefiting from a campaign to clean up local roads and drains in Kolwezi.
Regional reports:

South Africa

We began marketing activities here in 1974, and mining in 1988. We now have a strong presence in the coal and ferroalloy sectors. We are a major contributor to local, provincial and national economies, with a workforce of over 27,000 employees and contractors.

In 2015:

91%
of our South African coal and ferroalloys procurement contracts (71% of our budget) were with local suppliers

98% of employees at these divisions were local people

Our assets supported 161 local entrepreneurs with loans, business parks and mentoring

$5+ millionspent on infrastructure that we share with the public (predominantly water distribution, roads and healthcare)

47,000+ people helped by our healthcare and education programmes
**Key**

**Operations**
- Offices
- Pacorini metals warehousing
- Port facilities & storage
- Oil infrastructure

**Commodities**
- Copper
- Zinc & lead
- Nickel
- Ferroalloys
- Coal
- Oil
- Iron ore
- Agricultural products

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**KPIs**

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<td>New cases of occupational diseases (per million hours worked)</td>
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<tr>
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<td>Payments to governments ($ million)</td>
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</table>
South Africa continued...

Governance

We engage with the government on key regulatory changes, and to ensure issues material to our business are addressed effectively.

Engaging with legislation via industry associations

Glencore Ferroalloys is a member of the Ferro Alloys Producers Association (FAPA); as chair of the environmental subcommittee, it represents FAPA on the Business Unity South Africa (BUSA) forum. BUSA is the official industry stakeholder platform for the South African government to engage with business; it is actively involved and engaged in the drafting of climate change legislation. This includes setting carbon budgets, drafting GHG emission inventory reporting regulations, and drafting carbon tax legislation.

When the government needs to engage with our specific sector, it uses the FAPA platform. Glencore Ferroalloys submits official comments on draft legislation (including the recent draft carbon tax bill) via FAPA and BUSA. We use these forums to ensure that our position is in line with the rest of our sector and to highlight material issues for our business and ensure they are addressed effectively.

Our people: safety

Ensuring the safety of our workforce is our number one priority. Our operations have developed a number of ways to address the key risks facing our people, ranging from influencing their behaviour and lifestyle choices through comprehensive alcohol testing, to developing ways to communicate the behaviour we expect in low-literacy communities.

A collision avoidance system designed for mining sites

Our ferroalloys department is currently working on innovative collision avoidance technology for underground and surface mining vehicles. We refer to it as a People Vehicle Detection (PVD) system. The range of challenges at different sites means that we have had to create new techniques and combine different detection technologies. For example, some assets use vehicles that move between our underground mines and the surface, requiring a PVD system with the flexibility to work in both scenarios.

Our proposed PVD system would warn pedestrians of any stationary or moving vehicles around them, while alerting operators to pedestrians and other vehicles. The system would also automatically stop vehicles upon entering a designated danger zone.

No single technology currently available can provide the data needed to predict “dangerous proximity” reliably, so the PVD uses multiple detection techniques to achieve reliability, accuracy and comfort (ie minimising the irritation of multiple alerts for users).

Underground vs surface work

Drivers have poor visibility in underground working environments, as the vehicles have a very low profile, with a visibility angle typically 180° or less. In contrast, the drive for increased productivity means that surface mining vehicles are generally immensely large, this also prevents full visibility in all directions for drivers.

The PVD system is still in a trial and development phase as at publication; a pilot site has been identified and installation has started. A full trial will be conducted; the system will only be considered for rollout once proven to be successful.
HIV/AIDS

Glencore Coal in South Africa has two employee wellbeing partners: Re-Action! and Life Occupational Health, who have combined their programmes to help ensure that we spread the message on healthy living throughout the division. They cross-refer employees to each other and work closely with our own wellbeing committees and the coal HR team.

The organisations offer complementary services: Re-Action! conducts health risks assessments and delivers HIV counselling and testing (HCT), while Life provides a range of psycho-social assessments and counselling.

In the 2015 HIV/AIDS testing campaign, about 67% of employees participated in HCT testing and 71% are enrolled in treatment and care to date. This significant take-up is partly thanks to the department’s wellbeing champions, who talk to their colleagues about the benefits of getting tested and knowing your HIV status.

Life completes the cycle by offering our people and their dependents support that ranges from primary healthcare to counselling. This includes psycho-social counselling, financial advice, legal advice and an online wellness portal with information, articles and self-assessments. The partnership with Re-Action! makes the referral process easy; following HIV screening, any participant who is affected emotionally by the results can receive counselling. This help is extended not only to the employee affected, but also any dependent family.

Another example is Glencore Coal’s chronic illness management system; this is part of our healthy lifestyle programme, monitored by Life. Each employee visits our occupational health centre if they have been identified with a chronic illness, such as diabetes or hypertension.

In South Africa, HIV/AIDS is a major challenge, threatening the health of our workforce and host communities. We offer treatment as well as testing and support programmes.
South Africa continued...

Our people: workforce

Changes in commodity prices have forced us to reduce some of our operations, requiring us to retrench a portion of our workforce. We worked closely with our employees, government and labour unions to manage this process.

Retrenchment: Glencore Coal & Glencore Ferroalloys

During retrenchment, procedure at our coal assets dictates that when the individual is a member of a union, the union must be notified; and that non-union employees must be met with and notified privately. There is a 60 day minimum consultation process. Avoidance measures (ie transferring the individual to a new position) are explored and exhausted before any retrenchment takes place.

Glencore Coal’s notice period is two months; we also offer support with emotional assistance and retraining. There is a voluntary option of further financial assistance or skill training (welding, etc) to allow people to start their own business. This package is comparable to the market.

Our ferroalloys division has a specific procedure for assets undergoing retrenchment. If we identify a particular asset as experiencing stress or financial stress, we estimate how long operations can continue and decide whether the asset can restructure the current model, or if it must shut down.

The procedure includes a “Future Forum” with the unions to discuss the sustainability of the current operation. If operations cannot continue in their current form, we begin consultation meetings (a 60-day process) to raise issues and evaluate alternatives (eg reducing hours, more overtime).

If this does not yield results, we notify the union and send letters of retrenchment to individual employees. Then we further consult and discuss retrenchment packages, which far exceed what the law and industry dictate. Retrenchment decisions are either made on a “last in, first out” system, or based on the skillsets of individuals.

Glencore Ferroalloys provides a year of trauma/emotional counselling and financial counselling. Workers can also elect to take additional skills training (eg plumbing, electrics, welding) in lieu of an additional month’s salary. Then if an appropriate position becomes available, we will give them first consideration for rehiring.

If workers become ill or injured during retrenchment, Glencore Ferroalloys will continue to supply medical treatment at our on-site medical clinics. They also remain on the share scheme, either until their death or for so long as the scheme exists; they are never cashed out.

Countering local unemployment

In 2015, Glencore Coal implemented a skills development programme to address the high local levels of unemployment. Neighbouring communities had been increasing demands to be given employment within local operations. While our assets do offer some local employment opportunities, this has not addressed the region’s widespread unemployment, mainly because the core services at our assets cannot take on a great number of people in the current economic climate.

The main objectives of our skills development programme are:

• To assist local communities in developing employable skills
• To focus on youth development
• To identify transferable skills within the community that also encourage entrepreneurship
• To reduce dependency on our assets

339 community members have been enrolled into the programme so far. This project was recognised at the South African Colliery Managers Association’s 2016 awards ceremony.
Environment

Our South African operations continuously monitor their environmental performance and develop management systems to minimise their impact on the environment, particularly on water.

In South Africa, our Lydenburg chrome smelter is implementing a range of projects to improve water and waste management. First initiated in 2002, the projects have involved extensive design and consultation phases. These resulted in the construction of a pollution control dam, which will help improve rainwater capture and prevent contamination of the local river.

The smelter has also begun a water balance project focusing on the monitoring and control of water flow around the plant. Contaminated water captured in the pollution dam will be used as process water within the plant, and electronic flow meters will be installed to help identify and rectify leaks quickly. Further improvements are scheduled throughout 2016, as the site begins preparation for the new process water dam and a new slimes dam.

Society & human rights

To support our aim of fostering sustainable growth, we focus our efforts on supporting education – both school-based and vocational – and livelihood activities that help reduce dependence on the mines and enable successful entrepreneurs and communities.

Eastern Limb Training Centre

Glencore Ferroalloy’s Eastern Limb Training Centre plays a significant role within the Sekhukhune community, Limpopo Province, South Africa. The centre has partnered with the South African Mining Qualification Authority to create the MQA Generic Engineering Level 1 skills programme. This allows local residents to obtain an entry level, nationally-recognised certificate that is desirable to mining companies, helping them to work in the mining sector and giving them a general introduction to engineering. This community project ran from 2014 to 2015, with 225 community learners, and was funded by the MQA.

The training centre also runs the MQA Engineering Level 2 programme, funded by our assets. Learners studying for this qualification are trained in a specific engineering discipline such as electrical work, instrumentation or diesel mechanics. Our assets’ community development teams help to find candidates with the minimum entry requirements (Manufacturers’ Health & Safety Association (MHSA) hazard and risk assessment). Learners can earn credits towards the National Certificate in Engineering and other engineering qualifications.

Eastern Limb also runs the MQA Engineering Level 4 programme, which offers learners higher-level credits towards their National Certificate in Engineering and other engineering qualifications.

The centre is accredited for the 40% of the course that consists of theoretical and workshop learning. Glencore assets offer the practical workplace training that makes up the remaining 60%. Learners must complete the theoretical and practical phases, submit a portfolio of evidence and undergo a summative assessment. Certification allows employment in practical roles such as electricians and welders.

In 2015, 2,007 community members completed a training course at the centre.
Community development initiatives in South Africa

Multi-purpose community centre (Thusong Service Centre)

During 2012 our chrome smelter asset, Lydenburg, donated $0.97 million to construct a multi-purpose community centre, the Thusong Service Centre, for the 12,000 residents of Mashishing in Mpumalanga, South Africa. This was part of a government initiative to establish centres in rural areas offering access to government services such as:

- Social development
- Department of agriculture
- Local economic development
- South African Revenue Services (SARS)
- Health & welfare services
- South African Police Services (SAPS)
- South African Social Services Association (SASSA)
- Home affairs

The Thusong centre also offers extra facilities:

- A computer centre to increase the community’s IT literacy and supply internet access, particularly to younger community members
- A library with a wide provision for both reading and research
- A music academy, administered by the Casterbridge Music Development Academy, with the capability to develop skills to a formal level
- An early childhood development centre managed by Cotlands, a South African children’s charitable organisation, that offers early childhood development programmes and life skills

Local government do not usually fund these projects, instead relying on sponsorship, donations and grant funding from the public/private sectors. The national government departments that occupy these centres pay rent to local government to cover maintenance, care and other relevant expenses.

Previously local residents had to travel 100km to Nelspruit to access such services.

Agricultural project

Glencore Eastern Mines committed $1.13 million to help develop agricultural activity from subsistence farming in the Greater Tubatse Municipality, Limpopo Province. The project works with local farmers, the Department of Agriculture, the Department of Mineral Resources, and other stakeholders, to address local poverty, job creation and nutrition among the Ga-Pasha community, through growing and selling fresh produce.

A local cooperative was registered in 2015, with three male and three female members. All had experience of growing mangoes, oranges, tomatoes, onions, cabbages, carrots, beetroots and spinach.

The project has 10 hectares available for producing field crops, in rotation with fruits and vegetables.

The project has been a success so far despite the current severe drought. It is currently selling its wares to local businesses and communities, as well as the regional hawkers’ association, at very competitive prices. Individual customers can buy fresh produce close to home, allowing them to improve their day-to-day nutrition. Small local farmers are engaged and selling their crops helps to stimulate the small-scale farming economy.

Foodbank project

We created the Rustenburg Food Bank project, in partnership with Rustenburg local government and the South African Department of Social Development, and co-funded it from 2009–2012. During this period, we contributed ZAR9 million, while the Department of Social Development supplied ZAR4 million.

We implemented an inclusive stakeholder engagement process to get buy-in from key stakeholders, including our local communities.

The food bank employed 54 local agencies to identify indigent poor and disadvantaged families in line with South African social welfare guidelines. The initial service aimed to feed 2,200 people with 800,000 meals each month, with plans to grow; Glencore funding is mainly used to buy food but a small percentage goes to project management and to pay service providers.

The project has been extended to include training for local small-scale farmers to help the community become self-sustaining in food; we also buy fresh produce from them. At the moment we are supporting 11 small farmers in this way.
Gobetse construction and services

We run a number of initiatives to help small local black-run businesses develop and prosper. In one example, Lion Smelter in Limpopo Province, South Africa, gave employment opportunities to a local Steelpoort company during a long-term project to construct a new smelter. Steve Mokota owns Gobetse Construction, a small local business with core competencies that include building/construction, renovations, maintenance and related activities.

We linked Gobetse Construction up with our Business Support Centre and assisted the company with relevant business incubation, support and statutory compliance services, as part of the development process.

We put the business in contact with our main building contractor to ensure the necessary trade skills and training could be obtained.

We made the opportunity official by signing up to an offtake agreement; 30% of the total value of this specific opportunity within the main contract was ringfenced for Gobetse Building & Construction.

This initiative gave the company financial stability and sustainability and the opportunity to create several jobs for local people. It was able to grow to a level where it won more work from other mines and sectors in the Steelpoort region.

Extending facilities for young learners in South Africa

Glencore Coal in South Africa, has made many investments in its host region. This includes the Tweefontein Optimisation Project, an $800 million brownfield development project 110km north-east of Johannesburg, that began in 2010. An important community development element of the project is the upgrade and relocation of the Makause Combined School, situated in Phola township in Mpumalanga. The Makause school project is part of a relocation of 120 families from rural Tweefontein to Phola.

The $5.87 million state-of-the-art school was made possible by a partnership between Glencore South Africa and the government’s Department of Basic Education. The new Makause Combined School has doubled in size and caters for pre-primary, primary and secondary grades. It has 32 classrooms, science laboratories, home economics facility, wood and metal workshops, library, computer centre and a hall that accommodates 1,200 pupils. It was completed and handed over to the Department in 2015.

In addition, we provided $0.22 million in funding for the Infinite Family project (also known as LaunchPad), situated at the Mehlwana Secondary School in Phola. We worked in partnership with Infinite Family, a global mentoring organisation. This project is aimed at learners from disadvantaged communities such as Phola, who lack adequate adult role models and who face a future of limited economic opportunities. They are often orphans and vulnerable children.

Built from renovated shipping containers, the LaunchPad facility has a fast internet connection and a battery power back-up. It has video technology and a secure internet platform to connect these learners with adult mentors around the world for weekly face-to-face discussions. Through this secure platform, the mentors and mentees work on homework assignments, conduct web searches in a safe and protective manner, and share life experiences. Learners can explore careers and build new skills using a range of interactive tools including email, blogging, video chats and virtual white boards. Sessions focus on developing their technological literacy, career preparation, communications and life skills.

We believe that bringing trained adult role models into the lives of such learners will help them develop the resilience, resourcefulness and responsibility that can lead to better opportunities.
Regional reports:

Australia

Australia is an important region for our global business; we have operated there for nearly 20 years. We are a major Australian employer, with around 16,500 people working across industries that include coal, copper, cotton, grain and oilseeds, nickel, oil and zinc. In 2015 we continued to make significant contributions to the regional, state and national economies, by employing people, sourcing from local communities, and paying taxes to our host governments.

In 2015:

- 1.48 million tonnes CO₂e of fugitive emissions abated from our Australian coal operations
- 45% more water reused and recycled than in the previous year; use of freshwater decreased by 8%
- 22% reduction in lost time, restricted work and medical treatment injuries
- $1.5 billion paid to government in taxes, royalties and other levies
- 749 hectares of land rehabilitated in 2015
- 45 new graduate positions filled and 69 apprentices hired
Key

Operations
- Offices
- Pacorini metals warehousing
- Port facilities & storage
- Oil infrastructure

Commodities
- Copper
- Zinc & lead
- Iron ore
- Coal
- Nickel
- Oil
- Ferroalloys
- Agricultural products
- Alumina & aluminium

KPIs

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<td>Workforce</td>
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<td>New cases of occupational disease (per million hours worked)</td>
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<tr>
<td>Community investment¹ ($ million)</td>
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<tr>
<td>Payments to governments² ($ million)</td>
<td>916</td>
<td>1,776</td>
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</table>

¹ Community investment figures quoted may vary in country of origin due to different definitions and inclusions.
² Total net funds from governments on VAT, GST, sales tax and excise duties are not included.
Australia continued...

Our people: safety

The safety of our workforce is the single most important aspect of managing our operations. There were no fatalities at any of our Australian assets in 2015 and the number of lost time, restricted work and medical treatment injuries decreased by 22% compared with the previous year.

Many of these improvements were made as a result of Glencore’s SafeWork initiative, which focuses on identifying the most common fatal hazards and addressing them through effective communication and the implementation of the right behaviour. It continues to guide our approach to creating and maintaining safe workplaces at all our Australian assets.

Assurance for our catastrophic hazard management

During 2013 and 2014, Glencore Coal embarked on a new approach to catastrophic hazard assurance. This assurance programme allows us to focus down on specific topics, using field verification activities such as physical inspections and interviewing workers, while also gauging the maturity of each asset’s safety culture. A robust safety culture is critical to managing catastrophic hazards effectively but is often overlooked in an audit regime.

We intentionally removed scoring from the assurance programme. It follows a five step approach:

- Step 1: establish criteria
- Step 2: each asset performs a self-assessment
- Step 3: assurance team reviews the assessment
- Step 4: assurance team reports
- Step 5: verification

The criteria for assurance are established by external and internal experts. Each asset then assesses itself against those criteria. The assurance team reviews that assessment and seeks clarification as required before visiting the site to conduct targeted field verification activities. After preparing their report, they select a cross-selection of assets for verification after the programme is completed (generally three to nine months later). We undertook a pilot programme examining activities relating to the hazards connected to “underground gas and explosions” in 2014, followed by assessments of “vehicle interaction” and “underground strata” activities. We have begun planning for assessing “opencut strata” in 2017.

We have had the new approach peer reviewed by an independent expert to assess its robustness and adequacy and to identify areas for improvement.
Murrin Murrin: targeting manual handling injuries

Our definition of manual handling covers tasks that involve bending, lifting, carrying, pulling, pushing or restraining, as well as operating machinery and exposure to vibration. In particular, hand injuries account for over 50% of recordable injuries at Murrin Murrin, our nickel asset in Western Australia.

In 2014, following a review that highlighted the prevalence of hand and finger injuries among manual handling injuries, Murrin implemented a long-term strategy based on eight fundamental principles. The subsequent manual handling injury prevention initiative focused on:

- Increased training and awareness
- Risk assessment and controls
- Promotion of safe manual handling techniques
- Development of safe manual handling management strategies
- Emphasis on communicating within workgroups throughout the management hierarchy

More than 600 employees and contractors completed the mandatory training. In addition, there were site-wide bulletins, quarterly reports and a manual handling risk register, with risk assessments for all major tasks. We updated our injury register to categorise these types of injury and assist in identifying major risk factors, tasks and affected body parts for each work group.

In 2014 we reduced manual handling injuries to around half the previous year’s level, with a target of a further 30% reduction for 2015, which we achieved.

Our people: health

We strive to maintain a healthy working environment for our workforce.

Mates in Mining

In Australia, the leading cause of death for men aged 25 to 44 and women aged 25 to 34 is suicide. Every year over 2,500 people commit suicide in Australia; around 75% of these are men.

Research has shown that men in semi-skilled occupations are at particularly high risk for suicide. Suicide rates among male operators and labourers in the Australian construction industry are very high. Data is not readily available for the Australian mining industry, but our workforce is predominantly male and aged between 25 and 44, with many employed as operators and in manual labour.

The World Health Organization estimates that for every death by suicide, three survivors will be left with a physical or mental illness that prevents them from ever returning to their normal work duties and 12 will require time off work.

Glencore Coal Australia has been working with industry peers and the national charity Mates in Construction to establish the Mates in Mining initiative. This initiative offers programmes developed specifically for mine workers, building on leading international practice in community-based suicide prevention. The Mates in Mining model for suicide prevention has been independently tested and found to be associated with lower suicide rates in the construction industry.

The initiative will do three things on site:

1. Raise awareness about suicide and issues that can cause suicidal thoughts
2. Make it easy to get help for oneself or a friend having a hard time
3. Offer appropriate and accessible help for workers in need

We are currently conducting pilot programmes at our Clermont and Glendell assets to help establish an industry-wide model.
Murrin Murrin employees embrace health and wellbeing

Our entire workforce share responsibility for creating, fostering and maintaining a culture of safe work. A healthy lifestyle is particularly important for those working in remote areas, such as our Murrin Murrin nickel operations, which is 890km from Perth in Western Australia.

Labour mobility is important for our business, particularly for our more remote assets. Our goal is a trained, competent and motivated workforce; we actively promote health and wellness programmes for our workers. We offer a range of lifestyle and family-friendly rosters, in keeping with our commitment to encouraging and promoting a healthy work/life balance.

Counselling
Our Employee Assistance Programme (EAP) provides free professional counselling to our employees and their dependents to help resolve both personal and work-related problems. It is confidential, voluntary and available after hours.

Health education
Monthly initiatives help keep our people informed and motivated. These include half-hour presentations based on the latest research and data, with an emphasis on practical application. Subjects in 2015 included sleep management, mental health, cardiovascular health, sprains and strains, diabetes, asthma and weight loss. Additional information is provided via the Murrin Health e-News newsletter. We also encourage our people to participate in site-based and community activities like walking, running, cycling and swimming. Our on-site dining room displays healthy eating information, including recommended daily intakes and facts about diabetes.

Health checks
We carry out comprehensive health assessments on our employees and contractors, including body composition, cholesterol, blood sugar, blood pressure, cardiovascular fitness, strength, flexibility and stress. These assessments allow our people to monitor their fitness and set personal health goals, such as weight loss or improved fitness.

Fitness
Regular after-hours fitness classes are consistently well attended. They include yoga, boxing, circuit training and interval training, and are suitable for all fitness levels. Murrin Murrin’s accommodation facilities include a gym, a 25m swimming pool, tennis and basketball courts, cricket nets, a soccer field, a beach volleyball court and a golf range.

These and other health and wellbeing initiatives are underpinned by Murrin Murrin’s Fitness For Work programme. The programme’s goal is to ensure that everyone is in a suitable physical, mental and emotional state to carry out their job properly, in a manner that does not threaten their health or safety, or that of others.
Our people: workforce

As difficult economic conditions forced us to review a number of our operations, we have worked closely with our people to manage how these changes affect them.

Throughout 2015 our Australian assets continued to invest in employee wellbeing and lifestyle programmes, training and career development initiatives, and entry-level programmes for critical professional roles.

We believe that the best thing that we can do for our business, people and key stakeholders is to operate profitably, safely, responsibly, efficiently and competitively to ensure the long-term sustainability of our Australian assets.

We are committed to providing extensive support for employees affected by our operational changes and to meeting our obligations in a timely way. We have made it a priority to find alternative employment for those affected. In some cases we have offered voluntary redundancies in the first instance. In all cases we have met National Employment Standards, and often exceeded them. We also provide wide-ranging transitional support, including re-training and upskilling opportunities, career planning, financial management and job search assistance.

Fast facts for 2015

<table>
<thead>
<tr>
<th>Training</th>
<th>87 hours per employee</th>
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<tbody>
<tr>
<td>Graduates</td>
<td>45 new graduate positions</td>
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<tr>
<td>Apprentices</td>
<td>69 apprenticeships</td>
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<tr>
<td>Scholarships</td>
<td>11 new scholarships awarded</td>
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</tbody>
</table>

The global economic situation resulted in a number of retrenchments across our Australian assets in 2015. Every retrenchment decision is difficult to make and we acknowledge their significant impact on our people, their families and the wider community, particularly in remote and regional areas.

Environment

Management of our impacts on land, air and water remain core to our commitment to protect the environment.

Rehabilitation

Rehabilitation continues to be a major focus area for our Australian operations. In 2015, we successfully rehabilitated 749 hectares of land. We are committed to progressively rehabilitating and restoring the land we disturb during mining operations, as well as when mining activities have ceased.

To date, we have rehabilitated over 11,600 hectares, or around 23% of the total land area disturbed by our operations.

Our focus is on minimising our active mining footprint to the smallest possible area and returning the rest of the land to self-sustaining native ecosystems, agricultural use or other suitable purposes that meet government requirements and the expectation of our communities.

Supporting best practice rehabilitation in the industry

Glencore has worked with the Minerals Council of Australia to promote leading rehabilitation standards across the industry. These three examples act as a showcase.

- **Mangoola natural landform rehabilitation**: this open cut coal mine is developing a ‘natural landform’ as part of its mining site rehabilitation; we expect to complete this in around 2026. It will cover the entire 1,300ha disturbed by our activities, making it the largest natural landform project in the Hunter Valley. The traditional overburden rehabilitation approach, with uniform slope angles and flat-top dumps, using contour drains and drop structures to manage water flow, would not fit into the surrounding landscape. We determined that an undulating landform with naturally occurring vegetation would look more natural and provide a more stable long-term landform. We used specialist software to model onsite dump parameters and soil types, with comparisons to the natural land around it. This will provide a theoretically stable landform, based on fluvial geomorphic landform design. The model will be used by mining engineers to develop appropriate dumps and ramps to produce a natural-looking landform. Following this successful trial, we will use the natural landform initiative at other sites, including Ravensworth and Bulga Coal open cut mine.
Australia continued...

- **Liddell open cut coal mine**: we rehabilitated land into high quality grazing pasture, demonstrating that mined land can be returned to productive, sustainable farming. Successful grazing trials delivered strong results at market. For the first phase of the trial concluding in June 2014, cattle grazing on rehabilitated land grew faster and averaged an extra 79kg in weight over cattle on neighbouring pasture. This meant that they returned a 25% higher price per head at market. The second phase of the trial, which was run over 2015, showed a similar trend with cattle on rehabilitation pastures outperforming those grazing on natural pastures where mining had never occurred.

- **Westside open cut coal mine**: we completed rehabilitation of the site in April 2012, just two months after mining operations ceased. We have successfully returned the land to high quality native vegetation, which is now home to a diverse range of flora and fauna. Recent monitoring found seven threatened species on the rehabilitated site, including the grey-headed flying fox, masked owl, greater broad-nosed bat, little bentwing bat, powerful owl and squirrel glider.

**Managing the impacts of mine closure**

We are focused on operating our assets in a safe, efficient and responsible manner. This also means managing the socio-economic and environmental legacy we leave behind well after our mining operations have closed down.

With the challenges currently facing the global resources sector we continue to safely, efficiently and responsibly manage our Australian operations. In some cases, this has led to the difficult decision to place select assets into care and maintenance, or close operations sooner than originally planned.

All our mining operations either have detailed or conceptual mine closure plans, depending on whether they are scheduled to close within five years, or if they have more than five years of operations remaining. These plans aim to assess the socio-economic impacts of mine closure on our host communities and plan for the necessary environmental obligations post-closure. Specific impact assessments are carried out to identify societal impacts on local communities and the measures necessary to manage them.

Glencore also conducts annual assessments of our rehabilitation liability, with detailed reviews undertaken across all our Australian coal operations in 2015.

**Air quality**

During 2015 our Australian assets continued to work on meeting our own air quality requirements. In many cases, these requirements go beyond compliance with existing legislation, regulations or licence conditions, demonstrating our desire to minimise our environmental impact. We have instituted a range of measures to minimise dust and improve air quality across our coal, copper, nickel and zinc assets, including:

- Using water trucks, wheel washers, road sweepers and dust suppressants
- Altering or ceasing operations at open cut mines during adverse weather conditions, including restrictions on blasting
- Placing water sprays on conveyors and stockpiles
- Installing dust control centres that continuously monitor dust levels through:
  - Video camera surveillance technology
  - Observation of real-time dust monitoring equipment results
- Incorporating Trigger Action Response Plans (TARP) for appropriate response to dust levels
- Introducing truck simulators, for training operators in specific procedures for protecting air quality
- Undertaking temporary rehabilitation: seeding disturbed areas to minimise exposed land even if the land is likely to be re-disturbed in the near future
- Installing real-time air quality monitoring systems with integrated weather stations at many

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**Mount Isa Mines: sharing air management data**

In 2015, Mount Isa Mines (MIM), our copper and zinc-lead-silver asset in North West Queensland, developed two new industry-leading online tools to provide the Mount Isa community with open and transparent information about our air quality management.

Supported by extensive environmental and health impact studies, the Queensland Government granted MIM an amended Environmental Authority (EA) in September 2015. The EA included lower air quality limits and required that we continue improving our environmental performance, including building on existing community awareness campaigns on air quality management in Mount Isa.

MIM created a smartphone app and an online real-time air quality portal to give the community a direct view of Glencore’s comprehensive air quality monitoring network. These tools were developed during 2015 and launched in early 2016; they provide information on our SO2 management activities, with air quality data uploaded hourly.

Since 2012, MIM has invested more than AUD5 million in air quality system improvements. MIM monitors air quality 24 hours a day, seven days a week, with one of the most intensive air quality monitoring networks of any Australian city.
McArthur River Mine: environmental progress

McArthur River Mine (MRM), located in the Gulf of Carpentaria in the Northern Territory, is a world-class zinc-lead mine containing the second largest zinc deposit in the world. MRM is focused on operating in a safe and responsible manner. The mine is an important part of the Northern Territory’s resources sector and makes a significant contribution to the economy.

MRM has faced some environmental challenges, including the management and storage of waste rock. We continue to address these challenges openly and have made good progress, including:

- Eliminating emissions from our waste rock area
- Further improving the stability of our tailings storage facility
- Conducting a thorough fish testing programme, which determined that although a small number had elevated levels of lead, they are restricted to a creek on our site that is inaccessible to the public, and where fishing is not permitted
- Continuing to revegetate the McArthur River channel, leading to an increase in native fish numbers such as barramundi and sawfish

The Independent Monitor report in December 2015 covered MRM activities from October 2013 to September 2014. It noted improved performance in a number of areas, including managing seepage from MRM’s tailings storage facility; revegetation of the McArthur River channel; and expanded environmental programmes for groundwater, dust, soil, and marine/aquatic environments.

Throughout all our activities, we have continued to engage openly and regularly with all our key stakeholders. This includes the local community of Borroloola, a variety of independent scientific experts, a number of media organisations and Northern Territory government ministries that include the Department of Mines and Energy, the Department of Primary Industry and Fisheries and the Department of Health.

Society & human rights

In Australia we engage with communities across the country, from capital cities to rural and regional towns and small remote indigenous communities.

Proactive engagement with these communities is an essential part of our approach to managing sustainability and business risk, and maintaining our licence to operate.

In 2015 we continued to make significant contributions to Australia’s regional, state and national economies. Our most significant contribution came from our core business activities: employing people, sourcing from local communities and payments to our host governments.

Fast facts

| Local jobs       | Nearly 87% of our employees and around 68% of our operational managers were engaged from, or living in, the local communities in which we operate |
| Local goods and services | Nearly 60% (over $3.6 billion) of our spend on suppliers, goods and services went to local businesses |
| Supporting local business | Over 50,000 of our suppliers and contractors were local |

Supporting community initiatives

Despite difficult economic conditions Glencore has maintained its commitment to supporting important community initiatives across our operations. In 2015, this included initiatives in health, education, enterprise and job creation, societal and community development, environment and capacity building. Our focus has been to support initiatives that fulfil longer-term community requirements and that, while having an immediate impact, can eventually become self-sustaining.
Fostering positive relationships with our growers

Glencore’s Agricultural Products business makes a significant contribution to Australia’s agricultural industry. It runs one of the leading grain marketing, storage and logistics networks in Australia.

Strong and positive relationships with our grain growers are important to us. We engage with growers to make sure that our services continue to meet the needs and expectations of growers, and to ensure our exhaustive understanding of production from the farm level upwards.

Your Opinion Matters online portal
Growers can give us feedback at any time through an online portal called Your Opinion Matters. Feedback is automatically directed to the relevant person within the business and followed up within 48 hours.

Annual surveys
We conduct an annual review of our storage and handling operations and the services we provide to grower customers. This includes an online survey sent to all grower customers. In 2015, 280 surveys were completed: 45% of respondents stated that our delivery and operations had improved, with 92% believing it had improved or was comparable to the 2013/14 harvest.

Strategic site committees
Our Viterra storage and handling business has a grower representative structure, to further facilitate effective consultation. This consists of strategic site committees, which provide local information and advice to inform Viterra’s storage and handling operations. We consult with the committees on grower feedback, service levels and future trends that may lead to changes in site operations, to improve customer satisfaction and service delivery during harvest.

Industry and community investment
We sponsor grower groups involved in research, development and extension, to enhance the productivity and profitability of farming enterprises. We also contribute to various community clubs, groups and events, in regional grain growing areas, to further support our relationship with growers.

Community complaints
There was a significant decrease in the number of community complaints recorded at our operations in 2015. The majority of complaints received in Australia related to our Mangoola coal asset, which has many local residents living nearby. The number of complaints about Mangoola was significantly reduced in 2015; it received 182 complaints in 2015, compared to 404 in 2014 (a 55% reduction) and 534 in 2013 (a 66% reduction).

Across Australia, we recorded 504 complaints, compared to 729 in 2014.

Indigenous engagement
An important part of our commitment to creating shared value for our communities is our focus on practical efforts to help address issues affecting the indigenous communities close to our assets. We try to develop constructive relationships with indigenous people based on respect, meaningful engagement, trust and mutual benefit.

Some of our operating regions are remote and have been inhabited by indigenous people for centuries. We recognise the unique role they play in global culture and respect their customs, interests and rights. Our assets implement formal agreements or policies to manage their engagement with indigenous communities.

Glencore acknowledges Aboriginal and Torres Strait Islander peoples as first Australians and we respect their rights and interests in Australia’s lands and waters. We are committed to working in partnership with indigenous Australians to support the effective management of natural resources and to deliver improved socio-economic outcomes for indigenous communities.

A turtle boat for the Gudjuda Rangers

A $139,000 sponsorship by Glencore has provided a 6.2m vessel to assist the Gudjuda rangers, part of the Queensland Indigenous Land and Sea Rangers. It will improve important turtle research off the north Queensland coast, and enhance other activities, such as wetland care and management, as well as helping the local community in the event of natural disasters such as flooding and cyclones. The new vessel is not only a great asset for the group, but has also been the catalyst for new skilling programmes for the Gudjuda Rangers, including coxswains certificates, vessel operation competency and safety management systems training.
Mount Isa Mines: employment programme for indigenous people

Our iconic Mount Isa Mines (MIM) asset in north-west Queensland has a long history of working with the Kalkadoon people. Since signing an Indigenous Land Use Agreement (ILUA) in 2011 we have continued to work with the Kalkadoon people to deepen our relationship and achieve better community development and employment outcomes.

In 2014 we revised an existing indigenous employment programme to train and mentor local indigenous people working for us as trainees, and transition them into full-time jobs across our business. We work in partnership with a number of local organisations on this programme, including work-ready training provider Myuma, which is run by indigenous people.

The AUD1.3 million programme provides training and mentoring opportunities for up to 48 local people every year; to date, 80 people have successfully completed the programme.

After our recruitment process, trainees attend a 12-week programme at the Myuma Group Vocational Training and Employment Centre to introduce them to the mining industry in a safe and supported environment. Trainees live at a residential campsite where they gain key qualifications, have access to indigenous mentors, and experience the values and work ethic required for full-time employment.

Our trainees then enter a 12-week supported employment programme at MIM to get first-hand experience in an underground mining environment, with the guidance and support of a dedicated full-time supervisor and mentor. Those who successfully complete the first two stages have the opportunity to apply for full-time employment at our operations.

In 2015 we expanded the programme to include Ernest Henry Mining, an asset near Cloncurry. A surface programme has also been introduced at the MIM copper concentrator to offer more job diversity.

Eighteen graduates of the programme are now in full-time employment at MIM, either directly with Glencore or as contractors. In 2016 we will begin to partner successful graduates with experienced indigenous employees from across our workforce to provide ongoing mentoring and support, and improve long-term employment outcomes.

Agricultural advances

No-till farming
Mechanical cultivation processes lead to a breakdown in soil structure, decreased microbial activity and decreased water use efficiency, resulting in decreased production potential. For this reason we have introduced no-till farming methods at Australian agricultural assets.

Summer weeds are controlled via chemical rather than mechanical means. Stubble from the previous crop is left on the fields whenever possible, with all moisture from summer rains conserved for the winter crop. The crop is planted in one operation; a small disc or narrow tine creates the seed furrow, seed & fertiliser is placed in the furrow, then a closer plate and press wheel ensure good seed soil contact. Soil between rows is untouched.

Precision farming
Fields are mapped using methods that include satellite imagery, electromagnetic surveys and soil tests, to create a zone map of each field’s soil characteristics. We create variable rate application GPS maps for our farming machinery. For example a seeder’s GPS controller automatically adjusts the nitrogen and phosphorus based on exact soil characteristics rather than an average for the field.

At harvest yield maps determine the exact amount of phosphorus removed across the field, we use that data for the next seeding to ensure we only add back the same amount.

These technologies ensure fertiliser is only placed where needed, cost is minimised and production maximised. They also promote improved soil structure, microbial activity, moisture conservation, soil moisture holding capacity and plant rooting depth, increased plant-available moisture and therefore increased production potential.
We have operated in North America for over a hundred years; today our assets employ around 12,000 people, including contractors. Our assets include nickel, copper and zinc operations and projects, as well as agricultural facilities, recycling plants and technology businesses.

In 2015:

- **$2 million** spent on education, healthcare and other local projects, including skills development for aboriginal peoples, benefiting over 600,000 people.
- **83%** of procurement budget spent with North American suppliers.
- **1,000+** local entrepreneurs supported.
- **20 years** of the Raglan agreement, which addresses business development in the local community.
Key

**Operations**
- Offices
- Pacorini metals warehousing
- Port facilities & storage
- Oil infrastructure

**Commodities**
- Copper
- Iron ore
- Zinc & lead
- Coal
- Nickel
- Oil
- Ferroalloys
- Agricultural products
- Alumina & aluminium

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**KPIs**

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North America continued...

Our people: safety

The safety of our workforce remains our number one priority. This focus is reinforced by a fatality that occurred at the Nickel Rim South Mine.

We regret to report the death of one of our people in October of this year at the Nickel Rim South Mine in Sudbury, Ontario, the last such event in 14 years. A miner with close to 20 years of service was found unresponsive next to a scoop tram he had been operating. We were saddened by this loss, but also determined to learn from this tragedy. We carried out a thorough investigation into the incident, and produced a video simulation of events, along with a presentation on the key organisational learnings to be shared across the workforce. We found that while engineering controls can address the root causes of the incident, we must do more to improve the effectiveness of critical controls, such as use of seatbelts, and not assume that, once implemented, they will remain effective without constant, consistent reinforcement and enforcement.

Our people: health

We are committed to maintaining a healthy work environment for our people throughout the life of our operations, and continue to invest in innovative solutions to emerging challenges.

Substituting cleaner electrical equipment for diesel

Our nickel mines in the Sudbury basin, Canada, are getting deeper, which is creating new challenges. These include increased costs for the ventilation and air cooling required to maintain a healthy work environment.

Ventilation is generally required to dilute and clear away contaminants that arise from the mining process. We are currently researching battery technology as a possible solution to reduce mobile equipment emissions and thus ventilation requirements in our deeper mining assets. We hope to prove that the technology is feasible for new expansions. We purchased a personnel carrier that uses 100% recyclable lithium iron phosphate batteries. This was commissioned and started use onsite at Fraser Mine in May 2015.

Our workers reported that they were satisfied with the new vehicle, as it produces very little noise and no heat or emissions, while still driving as its diesel equivalent. A downside is that shifts must be planned to ensure there are opportunities to charge the battery. However, there are a wide range of health benefits for our people that include the elimination of diesel particulate matter, no off-gases from diesel engines, less heat generated and less humidity, as well as reduced noise levels.
Environment

Our operations can have direct and indirect impacts on the environment. We work to minimise our potential effect; we comply with, or exceed, relevant regulations.

In 2015, we have made progress on a number of initiatives to manage our environmental impact, particularly on air and water.

We also make recycling a priority throughout our business and have significant recycling operations at our copper and nickel facilities in North America, which keep hundreds of thousands of tonnes of waste out of landfills.

Improving dust reduction at the Port of Quebec

We have a long relationship with the Port of Quebec in Canada; they provide the infrastructure we need to meet customer demand. Our facilities in the area include railway tracks, a storage dome, a screw-type ship unloader, enclosed conveyor systems and a number of bag filter dust collectors, all of which lie on land leased to us by the port.

Each year, about 30 ships travel to and from the Port of Quebec, carrying approximately 175,000 tonnes of our nickel concentrate and 130,000 tonnes of nickel matte. The concentrate from our nickel mine in Northern Quebec travels through the port and goes to our smelter in Sudbury, Ontario. Once processed, it is shipped through the port to Nikkelverk, our refinery in Norway.

We have maintained our continuous improvement programme at the port. This focuses on dust suppression, including a dry fog system for ship loading and unloading, and enclosure of the conveyor that loads ships. In December 2015, our port facilities were recommended for ISO 14001 certification, following a series of third-party audits.

In October 2015, Quebec City’s Public Officer of Health published a report on the presence of nickel in the nearby community of Limoilou. This indicated that the nickel in the air was not a health risk. It also made five recommendations to improve air quality in Limoilou, including asking the Port of Quebec to “use good practices of handling, storage and other uses of nickel” and to use available technology to minimise dust. It calls for continued emissions monitoring at the source, but also close to residential areas, and calls for all parties to share their data.

We meet these recommendations by continuing with extensive air quality monitoring in and around our operations; we plan to work with Quebec City on its general air quality study, as well as other environmental factors such as noise and exposure to affected soil in Limoilou.

Recycling e-scrap at the Horne smelter

The use of electric and electronic products has increased significantly over the past few years. Shorter product lifecycles, and the growing number of ways in which these products can be used, is making them more of a burden on our environment. Recycling these products provides a viable, environmentally-friendly alternative to landfill or other disposal methods.

Our Horne smelter, located in Rouyn-Noranda, Canada, has been recovering copper and precious metals from end-of-life electronics for over 30 years. It is one of the world’s largest recyclers of electronic products. We close the loop between processors, manufacturers and consumers.

We receive end-of-life electronics from North America, Europe, Asia and South America. The materials are sampled for accurate value determination and processed to produce copper anodes. These are shipped to our CCR Refinery in Montreal for further refinement into products for sale.

To facilitate local electronics recovery, the Horne smelter holds a community Recycling Day each year. The public is encouraged to bring in their unwanted electronic equipment for recycling and invited onsite to learn more about copper and precious metal recycling, as well as our environmental performance. Since we started this programme in 2007, our Recycling Day has attracted over 10,000 people, and diverted significant quantities of end-of-life electronics from local landfills.
Tailings management and infrastructure

In 2015, Raglan Mine, our nickel asset in northern Quebec, renewed its commitment to environmental stewardship, social responsibility and corporate governance by updating its tailings policy. This ensures our tailings facilities are managed responsibly in accordance with the Mining Association of Canada’s Towards Sustainable Mining (TSM) initiative. Raglan has implemented a robust management framework for tailings and associated infrastructure, and pledged to:

- Consult stakeholders in the development of new tailings management commitments
- Allocate all resources needed to support the framework
- Build awareness of the policy and its commitments among employees
- Apply the Mining Association of Canada’s guide on tailings management
- Regularly revise its continuous improvement policy and commitments
- Devise an effective tool for evaluating and tracking progress against the policy

In 2005, we established the Raglan Steering Committee, a multidisciplinary team selected for their specific knowledge, experience and reputation, to study the long-term effects of climate change on tailings management and reclamation. They have ensured that our existing mine tailings reclamation process meets the needs of both Raglan and current environmental standards and regulations. However, this process was developed during Raglan’s early years, at a time when anthropogenic climate change was not widely recognised.

It is now generally accepted that there will be geographical impacts from climate change that make it possible that northern Quebec may lose some or all of its permafrost layer within the next 200 to 300 years. As our current reclamation strategy relies on the permafrost, we need to revise it. This will involve selecting the best possible terrain covering, and developing a robust and sustainable reclamation process to ensure that our reclamation efforts remain effective for years after Raglan Mine has gone.

Sound environmental management is a priority for Raglan; it is committed to minimising its environmental impact and demonstrating leadership in key areas of environmental management. There is more information in Raglan’s Towards Sustainable Mining Progress Report 2014 at www.mining.ca.

Partnering with First Nations communities to increase salmon populations

Following the 2013 closure of Brunswick Mine, in eastern Canada, Glencore partnered with the local Pabineau First Nation community to increase the Atlantic salmon stock in Little River. This river is downstream from the Brunswick site, which had previously discharged effluent into the waterway since the 1960s. Construction of a modern effluent treatment plant and other enhancements over the years have improved the water quality since that initial period, but the salmon population remained below historical average figures.

Our closure plans for the mine included an adaptive environmental management plan for Little River. One element of the plan is our work with the Pabineau community. This began with the community investigating locations for the work, based on its previous experience with salmon enhancement programmes for other local rivers. In 2014, 13,000 salmon fry were released from streamside incubation boxes; with a further 50,000 in 2015. In 2016, we plan to release another 50,000 fry.

Initial results show an increase in fish density. We completed a comprehensive aquatic effects monitoring programme in 2015. This was part of a three-year monitoring cycle required by the government department Environment and Climate Change Canada.

The partnership has also allowed members of the Pabineau community to develop skills in environmental monitoring; they have demonstrated a strong commitment to rebuilding this resource for the future.
Society & human rights

We aim to foster sustainable growth wherever we operate. In Canada, this means close engagement with our host communities, including First Nations, Métis and Inuit peoples, both during the life of the operation and following its closure.

Partnering to create a lasting legacy in Timmins

Kidd Operations in Timmins, Ontario is the world’s deepest base metal mine, operating at nearly 3km below the earth’s surface for the last 50 years. We are making use of leading-edge technology, such as automated underground loaders and ventilation-on-demand, to meet the challenges of deep mining and extend the mine’s working life to 2021.

Kidd Operations is driven by the desire to see its host community thrive. We recognise that local non-profit organisations contribute to the vibrancy of our local community; we engage with these stakeholders to contribute to their long-term sustainability. This includes recognising Kidd employees’ volunteerism and investing in large-scale projects, such as an expansion of Timmins’ only non-profit assisted living facility for senior citizens.

This asset has built a local reputation as a corporate leader in community development. This leadership caught the attention of the Ontario Trillium Foundation (OTF), an agency of the government of Ontario and the largest grant-making foundation in Canada.

Kidd Operations and the OTF announced their creation of the CAD1 million Kidd Operations-Ontario Trillium Foundation Legacy Fund. The partners will each invest CAD500,000, to be made available to local non-profit organisations after Kidd winds up operations. This innovative public-private partnership fulfils both organisations’ shared vision for a sustainable non-profit sector; this is essential for building a healthy and vibrant community.

This partnership marks the first time that the OTF has partnered with a corporation, breaking the ground for future partnerships with industry to benefit communities across Ontario.
20 years of the Raglan Agreement

In 2015, the Raglan Mine and its Inuit partners celebrated 20 years of trust and respect, the foundations of which reside in a critical document: the Raglan Agreement.

The Raglan Agreement is a trailblazing partnership that set an example for the industry in 1995. It was the first Impact and Benefit Agreement (IBA) in Canada to be negotiated and signed directly between a mining company and an Aboriginal group. It has since been used as a standard for leading practice to be followed by other Canadian mining companies.

The Raglan Agreement ensures that the partnership between Raglan Mine in northern Quebec, and the local Nunavik aboriginal communities is rooted in a meaningful respect for the Inuit people, culture and lands. It is a formal agreement that assures that we contribute positively to the Nunavik’s social, economic and cultural wellbeing, in particular that of the nearby communities of Salluit and Kangiqsujuaq.

Over the past 20 years, Raglan has proudly stood by its commitment. The mine is one of the region’s largest employers and trainers of Inuit people (who comprise over 20% of its workforce) and has supported several entrepreneurial and cultural programmes in the area.

Along with upholding the basics of the Agreement, Raglan has also looked forward to find ways of creating sustainable activity in Nunavik that will benefit future generations. In that spirit, Raglan’s Community Social Involvement programme recently began to support two new projects. These are an ice monitoring project, aimed at identifying the impact of climate change on marine infrastructures in Nunavik; and a project to create greater food security for the people of Salluit, in the form of fish and seafood.
Supporting aboriginal people in the mining sector
Glencore helps to support aboriginal people to enter the mining industry through its sponsorship of the Canadian Aboriginal Minerals Association Annual Conference. This conference gathers industry and community leaders from across the country to examine a wide range of related issues. Topics covered in 2015 include relationship building, strengthening environmental capacity and incorporating traditional knowledge in mining projects.

Working with the Canadian Roundtable for Sustainable Crops
Our agricultural assets in Canada work closely with national industry groups, notably the Canadian Roundtable for Sustainable Crops (CRSC), which includes grower, industry, customer and consumer organisations.

Over the next three years, the CRSC plans to deliver the Canadian Statement of Grains Sustainability and the Canadian Standard of Grains Sustainability, a national standard for Canadian grain cropping practices. CRSC members are currently working on two projects to contribute to those solutions.

Sustainability metrics platform
In January 2015, the Canadian government approved three years of funding to create a sustainability metrics platform, along with a data catalogue, to support the development of the grain sustainability standard. The new platform will align with, and bring together, existing codes of practice and operating programmes into one universal approach.

The metrics platform is intended to be a definitive reporting platform on sustainability metrics for the Canadian grain, oilseed, pulses and specialty crops sector at a regional or “macro” level. It will integrate the best available research data on sustainability metrics for different grain growing regions, enabling full regional reporting for each commodity.

CRSC pilot
This is a pilot of the Canadian Statement of Grains Sustainability, which will ensure that the grain sustainability standard is both relevant and acceptable to producers. CRSC intend for the pilot to create a comprehensive statement on key field production sustainability indicators for grain in Canada. It will follow a similar approach to that recently used by the Canadian Roundtable for Sustainable Beef, with significant emphasis on producer engagement and extensive industry input.

- Phase 1: Consider indicators from existing programmes, and evaluate within the context of a Canadian cropping system, in accordance with CRSC core principles and criteria
- Phase 2: Set a baseline of sustainable production indicators to be applied at a macro level, based on either practice or outcomes
- Phase 3: Involve growers in qualitative and quantitative testing of the indicators to identify and explore any implementation gaps or challenges
- Phase 4: Work with the CRSC’s Research and Assessment Committee and Communications Committee to disseminate the results

The statement pilot builds on the 2014 CRSC feed barley pilot, which led to creation of a carbon footprint for Western Canadian barley, scheduled for completion in December 2016.
Regional reports:

South America

Our operations in South America encompass coal mines in Colombia, copper assets in Argentina, Chile and Peru, and zinc assets in Bolivia and Peru, as well as various agricultural facilities. Our workforce comprises around 26,000 employees and contractors.

In 2015:

- **55%** of our Colombian procurement contracts are with local suppliers.
- **$570,000** invested in community development initiatives to help over 27,000 people in Colombia.
- **47%** of our Argentinian procurement contracts are with local suppliers.
- **30,000+** Argentinians benefit from our community investment programmes, mainly via hospitals.
- **$1.8** million invested in road infrastructure in Peru and over $4 million on community development.
- **$600,000+** spent supporting 130 local entrepreneurs in Chile. Over $1 million spent on community investment for around 15,000 Chileans.
- **68%** of our Chilean procurement contracts are with local suppliers, while the vast majority of our employees are local.
- **1,187** Argentinian farmers and small businesses supported.
KPIs

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South America continued...

Our people: safety

Our first priority is to maintain safe workplaces for our people. Our assets have been building a positive safety culture in South America for some years; we are starting to see positive results.

Focusing on safety in Colombia

Prodeco, our coal asset in Colombia, has been building on our Group SafeWork initiative to develop a safety programme for its own operations, called Yo Trabajo Seguro (I work safely). Prodeco commissioned development of this programme in 2014, to assist with the implementation of SafeWork and tailor the initiative’s fatal hazard protocols to Prodeco’s specific needs.

Yo Trabajo Seguro uses the OHSAS 18001 health and safety management standard as a framework, with systems development and implementation priorities based on requirements from Group policies. It should be fully implemented by the end of 2016.

The programme was developed through a collaborative process involving Prodeco’s entire workforce. This participation has encouraged our people to feel ownership for the programme’s activities and to feel that they want the programme to succeed. Prodeco is developing a strong safety culture and establishing support for the programme with workers at all levels.

Strong visible safety leadership is a key part of the programme’s success. Zero tolerance on safety breaches and strict consequence management has resulted in a disciplined workforce.

In common with the Group safety approach, Yo Trabajo Seguro has a strong focus on risk management.

Focusing on risk management

As with all Glencore assets, Prodeco has undertaken an analysis identifying the catastrophic and major risks to its business. These are recorded in its risk registers, along with the necessary critical risk controls. We are currently working to implement an assurance system to monitor these controls as well as the level of oversight from senior operational management.

Prodeco is training its supervisors, operators and technicians in hazard identification and seeing steady improvement. We have introduced the popular “Take 5 for safety” approach, to encourage everyone to stop and think about all the possible risks involved in each task and how to mitigate them. Workers must also use a job safety analysis to improve personal safety for each task.
Our people: health

Occupational health at Prodeco

To achieve our goal of zero harm and keep our people healthy and productive, we focus on the effective management of occupational health risks. Our management teams set and maintain high occupational health standards, and strive for continual improvement. We encourage our people to have healthy lifestyles and participate in our wellbeing programmes.

Health focus
Prodeco continuously identifies, evaluates and controls factors that might affect our peoples’ health in our workplaces. We conduct internal audits on our occupational health management systems at regular intervals.

Employee participation
We encourage all our people to participate in the identification of health hazards, risk assessments and setting appropriate controls. We carry out an employee consultation on any operational change that may have occupational health implications; our employees are represented on occupational health matters.

Health education
We conduct continuous education on occupational health topics, with a particular focus on the factors that are most relevant to each individual’s role. We teach our people how to safeguard their own health and encouraged them to think about their colleagues as well. Education emphasises the importance of the correct use of personal protection equipment (PPE), including hand, head, respiratory, hearing and eye protection.

We also train employees on the prevention of musculoskeletal diseases; this training includes muscle strengthening, the need for correct work postures and the importance of stretching.

We encourage our people to exercise and stretch during mid-shift breaks, to assist in preventing muscle spasticity and to normalise blood flow.

We also provide training on healthy lifestyles to encourage physical activity, a balanced diet and the prevention of cardiovascular disease, diabetes and hypertension. To prevent fatigue-related illness, training also includes sleep hygiene, family life, abstinence from psychoactive substances, including alcohol, and the health risks of smoking.

Health checks
We have also introduced a voluntary programme of health assessments, which include tests of BMI, cholesterol, blood sugar, blood pressure and fatigue, for employees. Many of our people have taken part in these assessments and are receiving treatment where necessary. The health checks are becoming increasingly popular as the participants encourage their colleagues and friends to take part and become more health aware.
South America continued...

Environment

Our assets focus on mitigating their impacts on the environment, continuously monitoring their performance for potential improvements. We work with affected communities, and monitor development of new technologies to help us improve our performance.

Environmental monitoring in Espinar province

In recent years, the Peruvian Ministry of Environment has coordinated an environmental monitoring project that involves the sampling of local water, soil, air, animals and sediment in the Espinar province, an area of approximately 2,280km². Planning for this project started in August 2012. In addition to the participation of Peru’s National Water Authority (ANA) and Agency for Environmental Assessment and Enforcement (OEFA) in the monitoring project, the initiative combines the efforts of several national and regional governmental organisations:

- General Environmental Health Bureau (DIGESA)
- Regional Health Bureau of Cusco (DIRESA CUSCO)
- National Centre of Occupational Health and Environmental Protection for Health (CENSOPAS)
- National Animal Health Centre (SENASA)
- Geological Mining and Metallurgical Institute (INGEMMET)
- Provincial Municipality of Espinar Professional Partnership (MPE)

Following initial collection and assessment of the information obtained by the national and regional governmental organisations, the Ministry of the Environment issued a report in June 2013. This was made available to interested parties such as the Espinar municipality, community roundtables, Antapaccay and other mining and exploration companies.

The report detailed samples of surface water, underground water, drinking water, air, soil and sediment that were taken at 481 points throughout the province. The samples were tested on 40 to 50 different factors, including pH, electrical conductivity and heavy metals. The results were consolidated by the Ministry of the Environment, to form an initial study to determine what further environmental monitoring might be required.

Following this initial monitoring project, a provincial environmental health surveillance system was created, with annual monitoring activities carried out by ANA and OEFA. Results are disseminated to the public via town hall-style meetings, radio shows, newsletters and roundtables with local government, community and local mine representatives.

Water

During the monitoring project, sampling took place in the basins of the Cañípia, Salado, Apurímac, Condoroma and Huichima rivers, with the majority of points in the Cañípia and Salado basins. The critical parameters for surface water were heavy metals, dissolved oxygen, pH and conductivity levels.

Of the 12,000+ measurements taken, only 2.2% (266) exceeded limits set by Peru’s national environmental quality standards (ECA). ANA, OEFA and INGEMMET tested surface and underground water and determined that the presence of metals in water was due to the natural mineral content of the soil geochemistry around the Cañípia and Salado river basins, and not a result of mining activity. The Salado river in particular is characterised by the presence of metals, due to its origin in the thermal waters of Chaquella.

Air

DIGESA and OEFA tested air samples and found that airborne dust (particulate matter smaller than 10 microns (PM 10)) measurements were within ECA limits at all sampling points but one. This was in the city of Yauri-Espinar; it was concluded to be due to traffic emissions and lack of pavements in the city.

Toxin tests on animals

SENASA conducted toxicological tests on livestock samples (sheep, cattle and alpaca) provided by farmers in the province, to evaluate metal concentrations in their vital organs. Results confirmed that cause of death in all cases to be diseases related to consanguinity, malnutrition and parasites (liver fluke, hydatid disease), rather than the presence of metals. The levels of metals found were within the limits determined by the Codex Alimentarius or “Food Code” standards (set by the UN Food and Agriculture Organisation and the World Health Organization) and European regulations on food safety. In addition, the results did not indicate that toxins were related to the cause of death in any case, or to defects in newborn animals.
Recognition for good environmental practice in Peru

In 2015, Peru’s Environmental Assessment and Enforcement Agency (OEFA), part of the government’s Ministry of the Environment, held its first awards for good environmental practice. The awards recognise and incentivise excellent environmental practices by corporations. They particularly focus on activities that reduce environmental impact and improve sustainable use of natural resources in ways that go beyond Peru’s legislation for businesses.

This year, OEFA recognised nine companies from different market sectors; Antapaccay was one of only two from the mining sector. OEFA recognised Antapaccay for two of its recent environmental programmes. The first involved a range of energy efficiency measures, intended to reduce Antapaccay’s carbon footprint. Measures included swapping out conventional lighting for energy efficient alternatives, fitting LED lighting and installing motion sensors for lighting. These measures have also helped to reduce Antapaccay’s operating costs.

The second initiative recognised was a tree planting programme, originally established to offset Antapaccay’s carbon footprint. The programme included a feasibility study, a forestry management plan completed under the guidance of internal specialists, employing local people to cultivate fruit trees, vegetables, and ornamental and exotic plants in suitable areas, and studies on carbon capture and the survival of forest tree species. In addition, there was the creation of the Sacha Wasi greenhouse nursery. This now cultivates 100,000 plants each year, that are planted on Antapaccay and local community land, including school grounds.

Increasing efficiency and reducing emissions in Chile

Our Altonorte copper smelter, near the Antofagasta port in northern Chile, has been implementing an improvement programme for its environmental performance since 2011, starting with a series of short-term actions to optimise operations. In total, the programme has cost around $150 million.

We took a phased approach to developing an integrated stack emissions management system, which included creation of a centralised control room to improve operational efficiency.

During the annual plant maintenance shutdown, we took the opportunity to determine the most efficient type of catalyst for use in the last phase of the process at our acid plants.

Implementing these measures in 2011 and 2012 allowed us to reduce SO2 emissions by about 10%.

A new initiative

During 2012, we initiated one of our key improvement projects, Technological change for reducing SO2 emissions. This initiative was approved by the region’s environmental authorities in 2012 and began implementation in 2013 with the replacement of a rotary dryer for a steam-driven one. The new dryer began operation in early 2014. The next stage was constructing a double absorption acid plant, which was completed in May 2015.

This initiative led to a further 40% decrease in emissions compared to 2010; as of December 2015, the plant now captures 96.8% of all SO2 emissions.

In addition to that initiative, we are improving our primary gas management system; we expect this to give us robust control of the acid plants. We have implemented a continuous emission monitoring system, which includes self-assessment and external audits. We are also developing a project to determine improved processes to increase the efficiency of copper treatment.

Compliance with our policies and external standards

All these initiatives are part of the process for implementing Altonorte’s sustainable development policy. The policy encompasses Chile’s new standards for foundries and smelters, and helps us position ourselves as one of the nation’s leaders in environmental performance. The initiatives comply with Chile’s new standards, which come into effect in December 2016.
Mine closure planning at Alumbrera

Each mining asset maintains a closure plan to ensure a responsible exit after operations cease. We also require assets to actively engage with their workers on many topics, including significant organisational changes such as closures or divestitures. In these circumstances we expect assets to consult and communicate with our people and provide support if possible.

Alumbrera, our copper asset in Argentina, announced a new life-of-mine plan to its employees at the end of 2015. We are communicating this plan to all employees through the union safety committee.

The new plan includes revised specifications for certain environmental features, which include defining the final thickness of cover for our waste dumps and tailings dam. The final determination will be the result of 12 years of research, as well as lab and field-scale trials. We have also undertaken revegetation studies to gather data.

We are currently completing detailed engineering systems for installing the covers. This includes the working methods, schedule and equipment required, as well as a mining plan that includes appropriate cover material.

By July, we plan to have the first advanced engineering plans ready, for both the final profile of the tailings dam surface, and the dam design itself, including diversion channels and the final spillway.

We will distribute these documents to our stakeholders and the relevant regulators, as well as to YMAD, our partner in the Alumbrera joint venture.

Building partnerships with the state in Colombia

In May 2015, Prodeco signed up to a partnership with Colombia’s State Department for Social Prosperity (DPS), to facilitate community investment projects intended to reduce poverty in the Cesar region. These projects cover four areas:

- Income generation
- Basic social services
- Social infrastructure
- Reconciliation and peace building initiatives

The partnership gives Prodeco access to Colombia’s state network of social agencies, allowing us to have their support in this work. It is run by a strategic committee, which meets four times per year to oversee the partnership’s progress. A separate operating committee oversees individual project progress.

Prodeco has already begun developing initiatives in this partnership, many of which have focused on social services. In one we worked with the principals of all 10 public schools in the Cesar region to develop a project for improving education quality levels. We then received a proposal from Colombia’s Ministry of Education (MEN), via the DPS partnership, offering to support the project for use as a pilot programme with potential for implementation across the entire country.

The programme’s first stage was an analysis of each school’s existing education quality levels. This was completed in December 2015 and discussed with the school principals. The next step in 2016 will be to engage an operator to implement the quality initiatives, supported by MEN, and aligned to a MEN methodology and KPIs.

Society & human rights

We have invested almost $2 million in the various enterprise development programmes we run in South America, which support around 5,000 people.

In addition, we have spent over $2 million on roads, $0.5 million on healthcare infrastructure (including hospital and specific ward construction in Argentina) and $400,000 on water distribution infrastructure. In Colombia, we have helped to create a development centre for small enterprises, based on the United Nations development model, to help vulnerable families start up businesses.
Community development initiatives

**Development programme for Peruvian cattle breeders**

In 2013, Antapaccay decided to formalise its activities to support subsistence cattle farmers in the Espinar province, where the copper asset is located. This programme is focused specifically on local families who depend primarily on cattle breeding for their livelihood. Since formalising the programme, Antapaccay has invested around PEN7.8 million ($2.2 million), addressing four main areas:

- Animal health services and artificial insemination
- Creating pasture and fodder
- Improving water availability for animal consumption
- Improving local crop production for human consumption

The programme's success stems from directly and fully involving the local families and community leaders affected, allowing us to manage the project in a fully participatory and transparent manner. The impact of the programme has been significant, assisting over 3,000 families from 69 different sectors within Antapaccay’s area of influence. During 2015, we ran:

- 224 deworming campaigns to control parasitic diseases, that included more than 53,000 cows, sheep, llamas and alpaca
- Artificial insemination programmes for genetic improvement, involving over 1,700 dairy cows from 570 separate producers in the surrounding area
- Artificial insemination programmes for genetic improvement involving approximately 500 Corriedale sheep from the herds of 36 families
- Technical and sanitary assistance for over 82,000 animals

In addition, Antapaccay has planted nearly 2,500ha of fodder oats in dry lands and created 481ha of permanently cultivated alfalfa pastures. We helped local communities to harvest 450ha of fodder oats during 2014 and 2015, and conducted an evaluation of oat productivity in high Andean areas.

Through these initiatives, the province’s milk productivity and quality has significantly improved, benefiting the local families who depend on it. The project has established synergies with PLACME, Antapaccay’s milk collection plant, within Espinar’s dairy production chain.

**FILASAC: wool and fibre production plant**

Antapaccay, our Peruvian copper asset, runs an initiative to support alpaca and sheep breeders in the province of Espinar. The FILASAC plant is in the Pallpata district; it was established in October 2014. It offers local breeders fair market prices, as well as product collections with the option of free mechanical shearing, training programmes and technical advice.

FILASAC provides local employment and trade opportunities for Pallpata and across Espinar. It coordinates with district municipalities and community leaders to organise collections based on each community’s needs, with its main purposes being to:

- Develop a wool market for alpaca and sheep breeders
- Ensure fair and transparent prices for fibre collections
- Guarantee fair weighing with electronic scales
- Train producers in shearing and fleece practices, and product classification
- Price wool and fibre products based on quality classification, to maintain incentives for high quality producers
- Widen producers’ options for selling fibre and wool in Espinar
- Contribute to fibre and wool price regulation by establishing quality standards and offering training in those requirements

FILASAC runs an ongoing training programme for breeders, both at the plant and in the field. It offers free shearing during collection days, and contributes to breeding knowledge and improved shearing methods. Programmes include:

- **Shearing school:** theoretical and practical training in electromagnetic shearing, allowing producers to join the labour market and become trainers themselves, as well as providing technical support to their communities
- **Fibre and wool classification:** theoretical and practical training in the national regulations for product classification, with opportunities for internships in the plant

FILASAC visits community agricultural fairs to demonstrate its training and run shearing competitions. So far the plant has conducted 111 collections from 47 local communities; 44 collections took place at the fibre plant and the remainder were from community collection points at individual farms. Over the last 14 months, FILASAC has bought more than 63,000lb of fibre and 350,000lb of wool; it has paid PEN1.65 million to some 850 producers. In addition, 244 producers have had training so far; the first group of 25 shearers is being currently trained.
PLACME: a dairy processing plant in Espinar

PLACME is a cornerstone project run by Antapaccay, our copper asset in Peru, to support local milk producers. The dairy, established as a non-profit project, offers Espinar dairy producers a fair market for milk from cows and alpaca. It collects 16,300 litres of milk each day, via six collection routes, from dairy farming communities across Espinar.

PLACME is recognised by local, regional and national markets as producing high quality dairy products, including Andean mature cheese, Edam cheese, mozzarella, yoghurts, butter, milk and blancmange. It is currently considered to be one of the best milk product producers in South Peru, with products entered for many events, including Expoalimentaria, Mistura, Congreso Nacional de Quesos Madurados (National Congress of Matured Cheese) and Expovinos.

In addition to complying with relevant national procedures and regulations, PLACME is the only company in the Cusco region with a Hazard Analysis Control Certification Point (HACCP).

The project’s aim is to develop dairy farming as a sustainable activity with a secure market. It has generated employment, economic income and business development for the province. The goal is to expand production and product range, and become a self-sustaining business. PLACME is already contributing to the sustainable development of Espinar’s cattle breeders in a number of ways:

- Establishing a self-sustaining not-for-profit dairy processing plant
- Giving local cattle breeders the best market price
- Collecting milk directly from farms, 365 days of the year
- Serving as a link between cattle breeders and the dairy market
- Positioning Espinar as a regional and national level milk producer
- Producing dairy products of excellent quality

In addition, PLACME also runs technical training programmes, which include courses on: improving breeding and productivity practices, including Good Milking Practices (BPO); milk hygiene and quality; correct use of milking machines; antibiotic management; and the optimum use of cattle feed.

It also runs the more extensive Cattle Breeder School programme: five days of theoretical and practical training at Gloria stable in Vitor-Arequipa.

PLACME also offers producers onsite technical assistance, to identify factors that may affect milk productivity or quality.

As of 2015, over 500 families from across Espinar have benefited, with over 400 breeders receiving training. The quality of breeding practices and milk produced in the province has increased steadily, along with production levels. In one example, the Huisa Ccollana community’s average production level per cow has increased from 4 litres/day to 12 litres/day.
CREE Educational Resource

Antapaccay, our copper asset in Peru, runs an educational initiative that supports teachers in providing students with Regular Basic Education (EBR) as well as offering EBR to local parents. It provides educational programmes for urban and rural schools throughout the province of Espinar. It also contributes to the local economy, employing 14 people directly and procuring from over 40 local suppliers.

This is a new educational model for Peru, combining high standards and advanced education technology. Based on an initial analysis of Espinar’s education levels, including school conditions and infrastructure, and the standards of teacher training, CREE’s aims are to:

- Improve education in Espinar in a creative and innovative manner, with the active participation of the educational community
- Improve Espinar’s ranking in the Ministry of Education and Regional Department of Education in Cusco (DREC)’s student census evaluation (ECE) of second and final-grade primary students
- Increase the number of students attending COAR schools at different cities in Peru
- Train teachers at all levels and improve their academic performance
- Develop academic, cultural, sports and artistic activities

COAR refers to the Peruvian national educational initiative Colegios de Alto Rendimiento (High Performance Schools), created for high-achieving students in the third to fifth grades to help them achieve their educational potential.

CREE runs educational programmes in four areas:

- **Academic support**: most of the schools in Espinar have large gaps in education, infrastructure and implementation methodology. CREE provides academic and methodologic support through the generation and provision of educational resources, equipping laboratories and providing technology that schools currently lack. In addition, it gives extra support to second and sixth-grade primary students with the lowest ECE grades; it also provides assistance to higher performing second-grade secondary students during their COAR application process, with general academic support for all Espinar schools
- **Talent development**: discovering and strengthening the artistic, intellectual and academic talents of Espinar’s youth, reinforcing their natural skills
- **Teacher training programmes**: covering teaching methodologies, use of educational resources and technologies that enable teachers to strengthen their own knowledge, aptitude and abilities
- **Schools for parents**: ongoing support including nutrition and psychological programmes

There is a specific programme for children with learning difficulties, whether diagnosed by CREE or other educational institutions.

In addition, a number of scholarships are given to students in secondary and tertiary education.

All programmes have ongoing support from CREE psychologists. CREE has facilities for communications, mathematics, IT, biology and chemistry, physics, English, arts and handicrafts, music, early learning, nutrition and nursing and psychology. It also has a playroom, 250-seater auditorium and library.

CREE runs a radio programme managed by students, a polyphonic choir and an Andean orchestra. It hosts an annual ExpoCREE, this is a presentation of Espinar’s talent, as well as demonstrations of educational projects and resources created during the year.

In 2015, 1,620 teachers and students from 23 educational institutions participated in programmes at CREE. 820 parents received nutritional information.

Espinar is now the highest ranking province in the Cusco region for students’ results in mathematics and second for reading comprehension, with the highest percentage in a satisfactory level.
Regional reports:

Rest of the World

Our presence in Europe and the FSU (the former Soviet Union) includes our headquarters in Baar, as well as a large zinc asset in Kazakhstan, a nickel refinery in Norway, zinc/lead assets in Spain, Germany, Italy and the UK, and many agricultural and logistics assets. This region also includes a significant nickel operation in New Caledonia, in the southwest Pacific Ocean. The total workforce comprises over 45,000 employees and contractors.

In 2015:

- $1.5 million invested in local power distribution networks.
- 29% of our procurement in New Caledonia was with local suppliers.
- 78% of our employees in New Caledonia were local.
- 90 local entrepreneurs supported in New Caledonia.
- $211,000 spent supporting 850 local entrepreneurs in Kazakhstan.
- $1.3 million invested in power generation and distribution in Kazakhstan, as well as roads.
- 58% of our procurement in Kazakhstan was with local suppliers; all of our employees were local.
- 16,000 people benefited from health and education programmes in New Caledonia.
KPIs

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<th>2013</th>
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<tr>
<td>Workforce</td>
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<td>Fatalities</td>
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<td>1.75</td>
<td>1.42</td>
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<td>New cases of occupational diseases (per million hours worked)</td>
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<td>Scope 1 GHG emissions (thousand tonnes)</td>
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<td>3,146</td>
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<td>Scope 2 GHG emissions (thousand tonnes)</td>
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<td>Water withdrawal (million m³)</td>
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<td>Community investment ($ million)</td>
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<td>34</td>
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<tr>
<td>Payments to governments ($ million)</td>
<td>283</td>
<td>517</td>
<td>676</td>
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</tbody>
</table>
Rest of the World continued...

Our people: safety

Maintaining safety leadership is a priority across our operations.

SafeAgri

Our FSU assets maintained a strong focus on their safety culture in 2015, which will continue. We began to roll out the SafeAgri programme, based on the Group SafeWork initiative; work began in March with safety leadership sessions in Russia and Ukraine. All FSU asset leaders, country managers and senior HSEC management were present.

To deal with the large number of assets in the FSU, we identified a team of 15 additional local SafeAgri trainers. Each trainer was responsible for training supervisors and employees and initiating the SafeAgri rollout for a specific a group of FSU assets.

We carried out an issue-based risk assessment, which determined many action plans for improvements, which we implemented accordingly. Agriculture’s HSEC team increased the number of announced and unannounced site visits at FSU assets during 2015 (over 10 visits). Each visit focused on safety interventions and coaching site managers in leadership and the SafeAgri programme. To track the implementation of SafeAgri, monthly progress reports were discussed.

Our people: health

We seek to understand and address causes of occupational illnesses amongst our workforce.

A focus on occupational diseases at Kazzinc

During 2015, Kazzinc, our zinc asset in Kazakhstan, has undertaken a number of measures to address the workplace-related health risks facing their people. Kazzinc focused in particular on strengthening its systems for assessing and monitoring our people’s blood lead levels. It also worked on steps to prevent levels from rising, and to reduce levels if they are too high.

We worked with a local public healthcare centre to establish baselines and conduct periodic tests. Monitors track lead at our assets and our people work to a task rota that ensures minimal exposure. Individuals with higher lead levels are transferred to other duties that do not involve contact with lead, to reduce exposure. Kazzinc has also undertaken a comprehensive review of work conditions, and introduced a number of personal protective equipment changes and upgrades to minimise the risk of musculoskeletal or respiratory diseases.

Going forward, one of Kazzinc’s top priorities is to lower its occupational disease rates, as the asset focuses on identifying and eliminating causes.

Environment

We make use of new technologies to minimise our impact on the environment.

Agricultural improvements: no-till farming

Our Russian farming assets started to develop no-till farming methods recently; about 5% of our land is cultivated this way, and we intend to increase this figure. Seeds are deposited directly into untilled soil by opening a narrow slot trench or hole.

This offers minimal soil disturbance, and allows soil to be permanently protected by vegetation, significantly reducing soil erosion and conserving water in the soil. After several years this method can lead to higher crop yields. We also believe it reduces climate change risks.

Although it will increase the chemical usage per hectare for plant protection (herbicides and N₂O emissions), it will decrease GHG emissions from the soil, and reduce the use of fossil fuel and synthetic nitrogen fertiliser. We expect operational costs per hectare to reduce, due to lower fuel consumption and fixed costs per hectare.
Efficient energy management

Nikkelverk in Norway was founded in 1910, and various owners have upgraded and expanded the facility over the years. Today, it is one of the most efficient nickel refineries in the world; over the last two years, it has successfully implemented several energy management programmes. From great to small, these include initiatives based on pressurised air, steam, ventilation, reusing waste heat, and process improvements.

We have implemented a systematic approach to energy efficiency improvements in our quality system. Norske Veritas provided auditing for the first ISO 50001 (the international energy management standard) revision in December 2015, with accreditation to take place during the first quarter of 2016. Early improvements have included eliminating the leakage of pressurised air and reducing steam losses via better installation, eliminating leakages and removing any steam pipes that are no longer in use. We have also stopped using paid-for electricity to heat our buildings, instead using waste heat from our operations. Three significant energy initiatives implemented in 2015 will provide energy savings of over 30GWh annually. These projects have been made possible through $6 million in funding from ENOVA (the Norwegian government energy fund).

• We have installed new nickel electrowinning tanks with improved electrical contacts and energy-efficient anodes, reducing overall energy consumption and lowering operational costs. We expect this to provide energy savings of 5GWh per year.

• In our cobalt electrowinning assets, we have started using waste heat from our sulphuric acid plant to replace electrically-generated steam. This is used both internally, to heat our facilities, and externally, for heating within the local district. We will be selling the equivalent of between 20 and 40GWh every year to the district, and saving 10GWh internally.

• We are working to replace any remaining older anodes at our nickel electrowinning assets with new, energy-efficient box-anodes, as a four-year programme running from 2014 to 2017. Once the programme is completed, we expect it to provide energy savings of 17GWh per year and improve the stability of our electrowinning process.

Working with the community on redundancies

Koniambo Nickel has contributed significantly to development of industrial development capabilities in New Caledonia’s Northern Province since it began operations there. Unfortunately, recent commodity price drops have combined with technical challenges, leading us to the difficult decision to retrench 250 employees and 750 contractors in 2015.

Throughout the decision-making period, Koniambo has maintained timely and transparent dialogue with local contractors, business partners, tribal leaders and the provincial government. It has also provided support for its workforce, host community and local small businesses.

Before the recent economic downturn, Koniambo ran a training initiative, in partnership with the provincial government, that trained 866 current and prospective employees. 51 completed pre-employment training in mine operations, seven undertook an 18-month superintendent training programme, and 44 completed a 12-month management development programme.

Society & human rights

We work in partnership with our communities and recognise that maintaining a constructive dialogue is especially important in challenging times.

Koniambo Nickel also provided community schools with $175,000 to improve sanitation and learning environments.

Koniambo worked closely with tribal leaders and sub-contractors to mitigate the impact of downsizing. We held town hall meetings with sub-contractors, while its procurement team supported sub-contractors in diversifying their client bases, and helped them join business assistance programmes managed by the provincial government. Koniambo also co-funded welding and scaffolding certification training with the provincial government, as well as HSE training and accreditation for first-line supervisors working for 16 local contractor companies. Nine employees achieved a health and safety certificate in 2015.
Glossary

ASM
Artisanal and small-scale mining.

backfilling
Filling mined voids with non-hazardous material generally sourced from mine residues, to ensure long-term stability of excavations and minimise the effects of seismic activity.

business segment
Glencore operations are divided into three business segments: Metals & Minerals, Energy Products and Agricultural Products. Each segment manages its own marketing, sourcing, hedging, logistics and industrial investments.

“care & maintenance” phase
A phase in the lifecycle of an asset where production is stopped, but with the potential to recommence operations at a later date; we manage conditions to ensure that the asset remains in a safe and stable condition.

CDP
CDP is an international, not-for-profit organisation that provides a global system for companies and cities to measure, share and disclose environmental information. See www.cdp.net for further information.

closure plan
A formal document detailing a costed conceptual outline of how the operation will be closed, taking into account the options available to deal with prevailing social and environmental issues.

CO₂e
Carbon dioxide equivalent is the universal unit of measurement for the global warming potential (GWP) of greenhouse gases, where one unit of CO₂e is the GWP for one unit of carbon dioxide. This unit allows us to discuss the equivalence of different GHGs in terms of their GWP. The GWPs used in this report are 1 for CO₂, 28 for methane and 298 for nitrous oxide, as per IPCC’s 5th Assessment.

commodity departments
Each of Glencore’s business segments are divided into a number of commodity departments, eg copper, nickel and ferroalloys within the Metals & Minerals business segment. See pages 6 to 9 for a full list.

community investments
Donations and investments given to the communities connected to our operations.

concentrate
A natural commodity consisting of extracted and processed mineral ores; the first step towards producing refined minerals and metals.

direct energy
Energy used and generated by our operations, including energy generated by combustion in boilers, furnaces and vehicles owned or controlled by us. Sources include coal, coke, diesel, gasoline, biomass, biodiesel, fuel oil, jet fuel, kerosene, LPG, naphtha, natural gas, propane and recovered electricity generated on site. See indirect energy.

ECHA
The European Chemicals Agency is an agency of the European Union that manages the technical, scientific and administrative aspects of the REACH system and drives implementation of the EU’s chemicals legislation.

EITI
The Extractive Industries Transparency Initiative aims to strengthen governance by improving transparency and accountability in the extractives sector (oil, gas and mining). EITI promotes revenue transparency by monitoring and reconciling payments from mining businesses and government revenues at the country level.

ferroalloys
Various iron alloys that have a high proportion of one or more other elements, eg manganese, chrome or silicon.

fugitive emissions
Emissions that emanate irregularly from many diffuse sources, such as gas leakages from equipment, and, in the case of dust, the movements of trucks and machinery in dusty areas.

GCP
Glencore Corporate Practice, our corporate responsibility framework and management programme.

GHG
Greenhouse gas.

Greenhouse Gas Protocol
Standards and guidance for corporate accounting and reporting on GHG emissions, which help governments and business leaders to understand, quantify, and manage GHG emissions (eg CO₂). The protocol separates GHG emissions into different scopes depending on source.
GRI
The Global Reporting Initiative is a network-based organisation that develops and disseminates voluntary sustainability reporting guidelines; there is a specific supplement for the mining and metals industry.

grievance process
A formal mechanism that local community members or other stakeholders can use to register concern about real or perceived actions by nearby operations, with the objective of resolving problems before they escalate.

hazardous
Dangerous, as defined by national legislation.

HPRI
High potential risk incidents are incidents that could have potentially resulted in a catastrophic (Category 5) or major (Category 4) outcome.

hours worked
Total hours worked by employees and contractors at our industrial sites, including overtime but excluding any scheduled or unscheduled absence (eg holidays or sickness) during the reporting year.

HSEC
Health, safety, environmental and/or communities.

ICMM
The International Council on Mining and Metals is an industry trade body dedicated to establishing and promoting leading sustainability practices.

IFC
The International Finance Corporation is part of the World Bank Group; it finances private sector ventures and projects in developing countries and provides these with advice and guidelines.

ILO
The International Labour Organization is a United Nations agency that seeks the promotion of social justice and internationally recognised human and labour rights.

ILO Declaration
The Declaration on Fundamental Principles and Rights at Work was adopted by the ILO in 1988, with the core categories of collective bargaining, discrimination, forced labour and child labour.

indirect energy
Energy used by our sites, but supplied by third parties, often as electricity. This includes electricity, steam and heating/cooling. See direct energy.

“industrial activities”
Glencore term covering assets and activities related to commodity production and processing, as separate from marketing activities. See marketing activities.

IPCC
The Intergovernmental Panel on Climate Change assesses scientific, technical and socio-economic information on the risk of human-induced climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).

ISO 9001
A quality management system standard (not a performance standard) issued by the International Organization for Standardization (ISO). It is a voluntary standard that can be independently audited by certifying bodies.

ISO 14001
A management system standard, similar to ISO 9001, but covering environmental impacts and risk.

LBMA
The London Bullion Market Association is an international trade association, representing the London market for gold and silver bullion, which promotes refining standards, trading documentation and the development of good trading practices.

LTI
Lost time injuries are recorded when an employee or contractor is unable to work following an incident.

Before 2014, Glencore recorded lost days from the calendar day following the incident, while Xstrata recorded days from the next rostered day after the incident. As a result, combined LTI figures from before to 2014 are not based on a consistent definition.

From 2014, we record lost days as beginning on the first rostered day that the worker is absent after the day of the injury. The day of the injury is not included. LTIs do not include Restricted Work Injuries (RWI) and fatalities. Historic data has been restated to exclude fatalities, as we used to include these in 2013 and before.

LTIFR
LTIFR is the total number of LTIs recorded per million working hours.
“marketing activities”
Glencore term covering trading and sales activities as well as the infrastructure and resources used in transporting products from our industrial sites to customers. See industrial activities.

MARPOL
The main international convention for preventing ships from polluting the marine environment, whether by operational or accidental causes.

mixtures
In the context of product safety regulations, a mixture or solution comprising two or more substances, where each substance is defined as a chemical element and its compounds in the natural state, or obtained by any manufacturing process, including any additive necessary to preserve stability and any impurity deriving from the process used.

nitrogen oxides
A range of related chemical compounds, collectively indicated as NOx, which can react to form GHGs. Examples are nitric oxide and nitrogen oxide.

occupational disease
Any chronic ailment or illness that occurs as a result of work or occupational activity; these are typically identified as being more prevalent in a given body of workers than in the general population, or in other worker populations. An occupational disease is different from an occupational injury.

OCIMF
The Oil Companies International Marine Forum is a voluntary association of oil companies with an interest in the shipment of crude oil and products.

OECD
The Organisation for Economic Co-operation and Development is an international organisation that provides a forum in which governments can work together to share experiences and seek solutions to tackle economic, social, environmental and governance challenges.

overburden
The rock and soil that lies above a coal seam or ore body and must be removed for mining activities.

petajoule
A measure of energy equivalent to a thousand trillion joules, or 10^{20} joules, usually used to express energy consumption by cities or major industries.

PM
Particulate matter, or dust, usually from industrial sources.

protected area
A location that receives protection because of its natural, ecological or cultural value.

REACH
Registration, Evaluation, Authorisation and Restriction of Chemicals is the European Union’s chemicals control act.

stranded asset
A financial term to describe an asset that has become obsolete or non-performing well ahead of its useful life, and must be recorded on a company’s balance sheet as a loss of profit.

sulphur dioxide
A chemical compound (SO\(_2\)) produced by various industrial processes, including the combustion of sulphur-containing fuels. SO\(_2\) is a pollutant gas and a precursor to particulates in the atmosphere. It can be captured and converted to saleable sulphuric acid.

tailings
The residue of an industrial process, especially residue that contains mineral ore.

TRIFR
Total Recordable Injury Frequency Rate = number of fatalities + lost time injuries (LTIs) + restricted work injuries (RWIs) + medical treatment injuries (MTIs) per million hours worked.

UNGPs
The United Nations Global Compact principles cover human rights, labour, environment and anti-corruption.

Voluntary Principles
The Voluntary Principles on Security and Human Rights (Voluntary Principles) Initiative is a multi-stakeholder initiative involving governments, companies and NGOs, which promotes a set of principles for oil, gas, and mining companies to guide them in providing security for their operations in a manner that respects human rights.

waste rock
Mineral wastes produced during mining, excluding overburden. It includes the parts of ore deposits that are not processed for economic reasons. Waste rock is either used for backfilling or stored at the surface.
water discharged
Total of water effluents discharged over the course of the reporting period to subsurface waters, surface waters, sewers, treatment facilities, etc.

water stress
According to the World Business Council for Sustainable Development, water-stressed areas are defined as having less than 1,700m³ of water available per person per year.

water withdrawal
Total amount of water drawn into the boundaries of the reporting organisation from all sources for any use over the course of the reporting period. Includes surface water, ground water, rainwater, municipal water and waste water from third parties.

WHO
The World Health Organisation is the directing and coordinating authority for health within the United Nations system, which sets many internationally-recognised norms and standards.

workforce
References to our workforce include both employees and contractors.
Assurance statement

Deloitte

Independent assurance report to Glencore Plc on selected information in the 2015 Sustainability Report

An overview of the scope of our assurance work
We have been engaged by Glencore Plc (“Glencore”) to perform a limited assurance engagement on the following selected sustainability information (“Subject Matter”) presented in Glencore’s sustainability report for the year ended 31 December 2015 (“the Report”).

Selected Subject Matter for assurance
Glencore’s assertion in relation to:

- The alignment of its policies to the International Council on Mining and Metals (ICMM)’s 10 sustainable development principles and position statements as stated in the section entitled ‘The ICMM application process’ on page 27 (ICMM Subject Matter 1)
- The approach that it has adopted to identify and prioritise its material sustainable development risks and opportunities as stated in the section entitled ‘What we report on’ on pages 18–19 (ICMM Subject Matter 2)
- The existence and status of implementation of systems and approaches used to manage and report the selected material SD risks and opportunities and related key performance indicators presented in Table 1 (ICMM Subject Matters 3 and 4 respectively)
- Its self-declaration regarding having prepared this report in accordance with the Global Reporting Initiative (GRI) G4 Core Option (ICMM Subject Matter 5) on page 20, and available on Glencore’s website http://www.glencore.com/ sustainability

Table 1: ICMM Subject Matters 3 and 4

<table>
<thead>
<tr>
<th>Approach to addressing selected material risks and opportunities</th>
<th>Report page reference</th>
<th>Key performance indicators</th>
<th>Assured figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatalities</td>
<td></td>
<td>Total number of fatalities (employee and contractor)</td>
<td>10</td>
</tr>
<tr>
<td>Injuries</td>
<td>36–39</td>
<td>Total Recordable Injury Frequency Rate (employee and contractor)</td>
<td>5.06</td>
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<tr>
<td></td>
<td></td>
<td>Total Lost Time Injury Frequency Rate (employee and contractor)</td>
<td>1.32</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational health</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Public health</td>
<td>40</td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water use</td>
<td></td>
<td>Total water withdrawal (m³)</td>
<td>952</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total water discharge (m³)</td>
<td>815</td>
</tr>
<tr>
<td>Energy use</td>
<td></td>
<td>Total direct energy consumption (PJ)</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total indirect energy consumption (PJ)</td>
<td>108</td>
</tr>
<tr>
<td>Waste management</td>
<td>54–61</td>
<td>Total hazardous and non-hazardous mineral waste (million tonnes)</td>
<td>2,084</td>
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<tr>
<td>Land use and closure management</td>
<td></td>
<td>Total number of Catastrophic (class 5) and Major (class 4) environmental incidents and spills</td>
<td>0</td>
</tr>
<tr>
<td>Climate change</td>
<td></td>
<td>Total direct carbon emissions (million tonnes CO₂)</td>
<td>23</td>
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<tr>
<td></td>
<td></td>
<td>Total indirect carbon emissions (million tonnes CO₂)</td>
<td>14</td>
</tr>
<tr>
<td>Air quality/emissions</td>
<td></td>
<td>Total emissions of sulphur dioxide (thousand tonnes SO₂)</td>
<td>366</td>
</tr>
<tr>
<td>Community &amp; human rights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respecting human rights</td>
<td></td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
</tr>
<tr>
<td>Engagement with communities &amp; stakeholders Making a contribution to society</td>
<td>47–51</td>
<td>Total amount of community investments (S$m)</td>
<td>94</td>
</tr>
<tr>
<td>Our people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work conditions</td>
<td></td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
</tr>
<tr>
<td>Workforce attraction &amp; retention</td>
<td>41–42</td>
<td>Number (representation) of women on the Board</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
<td>Number/% of female employees</td>
<td>16,382/16</td>
</tr>
<tr>
<td>Management of operational changes</td>
<td></td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
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<tr>
<td>Engagement with labour unions</td>
<td></td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
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<tr>
<td>Governance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes and royalty payments to governments</td>
<td>47–48</td>
<td>Total amounts of payments to governments (S$m)</td>
<td>4,507</td>
</tr>
<tr>
<td>Product stewardship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory compliance</td>
<td></td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
</tr>
<tr>
<td>Access to market</td>
<td>32–33</td>
<td>Reported KPI not within scope of current year assurance</td>
<td></td>
</tr>
<tr>
<td>Public and environmental health</td>
<td></td>
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</tbody>
</table>

Additional information
The Subject Matter has been assessed against the criteria provided in the ICMM Sustainable Development Framework Assurance Procedure and the definitions and approaches in the Glencore Corporate Practice (GCP) database field definitions document available upon request from Glencore, (“Reporting Criteria”).

Our assurance conclusion

Based on our procedures described in this report, nothing has come to our attention that causes us to believe that the selected Subject Matter, stated above and on the indicated pages of the Sustainability Report, for the year ended 31 December 2015 have not been prepared, in all material respects, in accordance with the Reporting Criteria.

Respective responsibilities of Directors and independent assurance provider

The Directors are responsible for the preparation of the sustainability information and statements contained within the Report. They are responsible for determining Glencore’s sustainability objectives and for establishing and maintaining appropriate performance management and internal control systems from which the reported information is derived.

Our responsibility is to express a conclusion on the selected subject matter based on our procedures. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE 3000) Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with the independence and ethical requirements and to plan and perform our assurance engagement to obtain sufficient appropriate evidence on which to base our limited assurance conclusion.

We performed the engagement in accordance with Deloitte’s independence policies, which cover all of the requirements of the International Federation of Accountants’ Code of Ethics and in some areas are more restrictive. The firm applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The evidence gathering procedures for a limited assurance engagement are more limited than for a reasonable assurance engagement which is akin to a financial audit, and therefore less assurance is obtained than for a reasonable assurance engagement.

Work performed

Our limited assurance procedures included, primarily:

- Making enquiries of management and senior executives to obtain an understanding of the overall governance and internal control environment, risk management, materiality assessment and stakeholder engagement processes relevant to the identification, management and reporting of sustainability issues and selected performance indicators.
- Evaluation of the design of controls and functionality of the Group sustainability information management and reporting database (GCP database) at a corporate level.
- Analytical reviews and trend analysis of reported data per asset at a corporate level.
- Conducting physical and desk top reviews at a sample of assets, selected on a judgemental basis on materiality of contribution to reported group KPI data, geographic coverage (Africa, Asia, Australia, Europe, North & South America) and commodity coverage (Aluminium, Coal, Copper, Ferroalloys, Nickel, Zinc and Agriculture). This work was performed to:
  - corroborate consistency in understanding and application of Glencore corporate sustainability policies and the GCP field definitions
  - identify systemic challenges to sustainability management and data measurement, collection, reporting and control processes, or issues pervasive to region, department and/or group, for the selected subject matter

We believe that our evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally non-financial information, such as that included in the Report, is subject to more inherent limitations than financial information, given the nature and methods used for determining, calculating and sampling or estimating such information.

Our work has been undertaken so that we might state to the Company those matters we are required to state to them in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Glencore for our work, for this report, or for the conclusions we have formed.

Deloitte LLP
London, United Kingdom
6 May 2016
We welcome feedback on this report or on any other aspect of sustainability at Glencore. You can send general comments to gcp@glencore.com.

Otherwise you can contact:

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