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Rio Tinto

2013 Sustainable development

Supporting our licence to operate

Strategy

Sustainable development supports our licence to operate

Our commitment to sustainable development

Rio Tinto's vision is to be a company that is admired and respected for delivering superior value, as the industry's most trusted partner.

As a leading global mining and metals business, our activities touch many thousands of people – including our shareholders, our employees, our host communities and governments, our suppliers and our customers – in all corners of the world. With this comes great responsibility, and also great opportunity to make a positive difference to our stakeholders' lives.

As well as managing the financial and technical risks that our organisation faces, we are committed to managing the sustainable development risks we face at every stage of our businesses' life cycles. By maximising the societal, environmental and economic benefits of our activities – and minimising negative impacts – we optimise business value, gain and build our stakeholders' trust, and support our licence to operate.

> Sustainable development is commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"[1]. While it cannot be achieved by one organisation on its own, we believe that our business can make an important contribution to the ongoing, global transition to sustainable development.
>
> Source [1]. Our common Future, Report of the World Commission on Environment and Development, World Commission on Environment and Development, 1987. Published as Annex to General Assembly document A/42/427, Development and International Co-operation: Environment August 2, 1987, available on the website.

Delivering sustainable contributions

Our operations provide the opportunity to bring shared value to the places where we work, and the metals and minerals we produce contribute to higher living standards and support development.

We operate over extended time horizons, and this long-term commitment provides opportunities for us to plan, implement and deliver contributions to social wellbeing, environmental stewardship and economic prosperity.

We are often a significant employer and taxpayer in our host countries, and invest in infrastructure that can be shared with local communities. We generate economic and social development through local procurement, job creation, training and skills transfer. And we support community programmes in a sustainable way by helping build local capacity.

But we also recognise that – if not managed properly – our operations can have a negative impact on society and the environment. For example, we recognise the increasing competition for scarce resources, such as water and land, and help to look for solutions that balance everyone's needs. We aim to minimise the greenhouse gas emissions that come from our operations. And we endeavour to ensure that we do not adversely impact the way that a community operates, the lifestyles of its people, or its cultural heritage.

Our approach

An understanding of the risks we face, and the impacts we have, minimises the threats to our business success. This maximises the value we are able to deliver for our shareholders, and the communities and governments which host us.

Our approach begins with *The way we work* – our global code of business conduct. This is supported by our corporate policies, strategies and standards that lay down the minimum acceptable requirements for performance. Our policies are supported by management and governance systems to make sure they are implemented appropriately across the Group.

The safety of our people and our values – accountability, respect, teamwork and integrity – are the core of our approach. They help us to build and protect our reputation.

We monitor and report against our performance using established metrics with a suite of Group-wide goals and targets. We review and challenge our performance to ensure we remain focused on the risks that matter most to us and to our stakeholders.

We have set new Group targets for 2014 and beyond that focus on our most significant challenges. They encourage our operations to prioritise the risks that are most relevant to them.

We are implementing a new operating model for our business, to ensure we have the right people, doing the right work, in the right location. This change will make sure that we are a more focused, more resilient and leaner organisation.

Engaging with our stakeholders

We are a business that invests in, and operates, long-life, low-cost operations. Our relationship with our stakeholders is essential to achieving and maintaining our licence to operate, and ensuring we have access to the mineral resources, people and capital we need to execute our business strategy.

A culture of transparency and trust is necessary for successful and responsible mineral development. We establish this through honest engagement with all our stakeholders. By taking an active and leadership role within organisations such as the International Council on Mining and Metals, we help to inform and promote industry best practice.

We work in partnership with people and organisations outside Rio Tinto, such as leading universities, non-government organisations and industry suppliers, who possess expertise we do not have to help us resolve some of the challenges we face in our business – including biodiversity loss; climate change and its impact on water and energy; and poverty and corruption.

We will continue to improve existing relationships and explore opportunities to forge valuable new ones.

Chief executive's message

Our focus on sustainable development provides long-term business value

Sam Walsh AO, chief executive

2013 was our 140th year in business, and the year we reset our focus on delivering greater value for our shareholders. We will achieve this – and set ourselves on course for the next 140 years and more – by relentlessly executing our strategy to invest in and operate long-life, low-cost, expandable operations in the most attractive industry sectors.

We will build on our strengths; on the industry-leading capabilities we have in areas such as exploration, marketing, and technology and innovation. I also firmly believe that our focus on sustainable development provides real and long-term business value. It is an important enabler of our business strategy and a source of competitive advantage.

If we don't demonstrate strong performance in the area of sustainable development – minimising negative impacts and maximising the benefits of our activities for our stakeholders – then we may adversely impact our licence to operate. And, in turn, impact our ability to deliver what we have promised to the owners of our business.

All of the employees in our company greatly value our commitment to making a positive contribution to society. Being part of an organisation that looks after its people, has strong values, cares for the environment, and brings social and economic benefits to its host communities, helps our employees feel engaged to continue contributing to the value we collectively deliver.

Safety

We have seen some great achievements in our sustainable development performance in 2013 – and I want to touch on some of these. But first, I want to acknowledge the disappointing safety performance we had during 2013.

Although we have made significant improvements in our safety performance over the last decade, I am not satisfied when we have fatalities at any of our sites. Regrettably, in 2013, three people lost their lives while working at Rio Tinto managed operations. We need to refocus and intensify our efforts towards those actions that will significantly improve our safety performance. In the 21st century, we should not be experiencing fatalities in our business.

I expect safety to be the most important focus area for all of our people, every day, in every task they do. Nothing is more important. It is essential that we learn from tragic events, and from near misses that could have had tragic outcomes, so that we prevent further loss of life.

Targeting continuous improvement

We have clear Group-wide sustainable development goals and targets which we use to monitor our performance and ensure we retain a focus on the most important issues and risks to the business. Several of our five-year targets came to an end in 2013, and I am pleased to report that we beat our target performance in the areas of occupational illness, greenhouse gas emissions intensity and freshwater use. However, as already mentioned, we did not achieve our goal of remaining fatality-free. Nor did we meet our communities

target, and despite improvements in our health performance, we finished short of our noise exposure metric.

We have developed new targets that are taking effect in 2014. They have been designed to ensure we continue to focus on managing our areas of critical risk, and enabling our operations to concentrate on their material challenges. By helping our businesses to direct efforts towards local priorities, the targets will promote improved performance and efficiency, and thus support our commitment to deliver greater value.

External recognition

It is gratifying to receive external recognition for our sustainable development performance – not only because our people deserve to see their hard work rewarded, but also because it helps us extend our influence and promote better standards across our sector and industry as a whole.

In 2013, we were recognised for our industry-leading Taxes Paid report with the PwC "Building Public Trust Award for Tax Reporting in the FTSE 350 Extractive Sector". Every year, we publish a breakdown of the global taxes we pay. This transparency helps us explain how our business makes a significant economic contribution to the countries in which we operate. It promotes government accountability and plays a role in combating corruption.

We also took great pride in the launch of the inaugural 100 Global Inspirational Women in Mining Project. Thirteen of the 100 women featured were from Rio Tinto – leaders and role models who were nominated by their peers for their contribution to the mining industry. We continue to focus on increasing the representation of women in our workforce, and in our senior management, and I would like to congratulate the people recognised by this project for inspiring others to consider the opportunities that our industry offers.

Vision, values and value

Rio Tinto's vision is to be a company that is admired and respected for delivering superior value, as the industry's most trusted partner.

Our values – accountability, respect, teamwork and integrity – and our code of conduct are an underlying strength for Rio Tinto. They are part of the way we think and form the foundations upon which we are building a stronger business. It is our responsibility to continue harnessing our values, and translate them into bigger and better results for all our stakeholders.

It gives me great personal pride to be leading this organisation. Every day, I see our people living our values – and delivering value – and restoring this great company to where it should be. That is, a company that people want to invest in; that customers, suppliers, governments and communities want to work with; and that employees are keen to work for.

I encourage you to explore our 2013 Sustainable development report, to learn more about how we are managing the risks that are most important to us and to all our stakeholders, and to see our commitment in action.

Sam Walsh AO
Chief executive

Our business

Making long-term commitments to our operations, to our neighbours, and to the land

Rio Tinto is a leading international mining group headquartered in the UK, combining Rio Tinto plc, a London and New York Stock Exchange listed company, and Rio Tinto Limited, which is listed on the Australian Securities Exchange.

Our business is finding, mining, and processing mineral resources. We produce metals and minerals – aluminium, copper, diamonds, thermal and metallurgical coal, uranium, gold, industrial minerals (borates, titanium dioxide and salt) and iron ore – that help fulfil vital consumer needs and improve living standards.

The nature of our business means that a mine or smelter may operate for many decades. We therefore make long-term commitments to our operations, and to the people and land that are impacted by our activities. This commitment continues long after a mine has produced its last tonne of ore, or a smelter has produced its last tonne of metal.

Our aim is to deliver greater value for our shareholders, by investing in the best quality opportunities that will deliver returns across the cycle. As we work, focused on this core aim, our activities also give us the opportunity to create value for our other stakeholders, and bring long-lasting, positive change.

Mines and mineral processing plants can have dramatically positive effects on the communities, regions and countries where they are established, so we make careful decisions throughout an operation's life in order to maximise those opportunities.

Successful sustainable development outcomes help us achieve not just a licence to operate, but also a licence to grow.

Life of our operations

Sustainable development is embedded at every stage of our business model. Our focus on long-life operations means we are an active part of a community, usually for many decades, bringing direct and indirect contributions to local, regional and national economies.

It can take ten to 20 years from initial exploration, through project evaluation, to reach the stage of investment approval, construction and operation. Then, the active life of our mines or other facilities may last for many decades more. Our Bingham Canyon copper mine in Utah, for example, is still in operation after more than a century.

Finally, when an operation reaches the end of its life, we close it safely and rehabilitate the land, often restoring functioning ecosystems and striving to return the natural biodiversity of the area. Our sites are restored for the sustainable benefit of local communities and the natural environment. They might be transformed into housing, industrial facilities, leisure or community assets, or into landscapes that are farmed or returned to native vegetation.

We need to evaluate all the effects – both opportunities and challenges – that our operations can present for a region, and how we will address them. For instance, they can bring opportunities for local employment, local supply, and infrastructure development. But they may also lead to additional demands on resources like water, or necessitate the resettlement of local people.

Some of our sustainable development work is continuous throughout all stages of our operations – such as our focus on safety, health and stakeholder engagement. In other areas, the work may be more specific to a particular part of the life cycle – like product stewardship during the operations phase.

Exploration

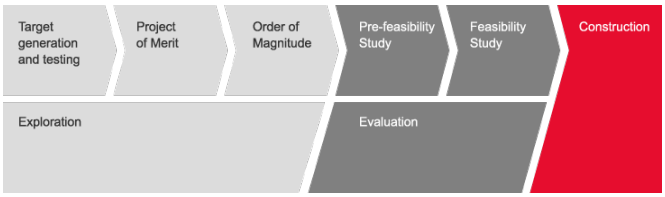
Exploration is an integral part of the sustainable development equation for Rio Tinto. Its purpose is to discover or acquire mineral resources that add value to our business, in line with our strategy. Our experienced in-house exploration team has a proven track record of discovering Tier 1 orebodies: the highest-value deposits that are profitable throughout the commodity cycle. They also identify opportunities for brownfield expansion of existing assets.

Wherever our exploration teams operate, we find ways to work to the highest international standards. These teams are often the first contact that we have with our future neighbours. From the earliest stages of exploration, we make sure we engage fully with our new host communities to understand and respond to their needs. Respecting the diversity of local communities, we engage in a direct and personal way that is tailored to the specific needs of each region, village, or individual stakeholder.

Rio Tinto Exploration operates its own exploration programmes where possible. This gives us the ability to direct the technical aspects of the programme towards our goal of discovering Tier 1 mineral deposits. And it also gives us direct control of the health, safety, environment and communities aspects of the programme. On a day-to-day basis, our Exploration group contributes to improvements in local health and safety practices, community involvement and consultation, and employment of local people.

Projects

We have a structured approach to project development that we apply consistently throughout the Group.



Moving a project through the development stages represents a progressive increase in confidence that the project meets the technical and economic parameters of our investment criteria. We develop orebodies with long-term value in mind.

We allocate investment only to the highest-return opportunities. If we take the decision to invest, the project moves into an implementation phase, which includes detailed engineering, procurement and construction management, and then into production.

To meet demand for our products, we are moving into parts of the world that are increasingly remote and undeveloped, and have more complex geologies. Having a disciplined approach to project planning is more important than ever, and sustainable development is always at the forefront of our thinking.

Operations

We are strongly represented in Australia and North America, with significant businesses in Asia, Europe, Africa and South America.

Some of our interests are in operations and ventures that we do not manage. We actively engage with our joint venture partners and non-managed operations around sustainable development, through formal governance structures and technical exchanges. In this way, we endeavour to make sure that the principles of *The way we work* – our global code of business conduct – are respected at all times.

Closure

We recognise that good performance in closure management enhances our reputation and enables us to maintain access to land and capital, to continue establishing new projects with the support of local communities. We firmly believe that when we close an operation, the land should be left in a condition capable of being used by others and that is at least compatible with the natural landscape.

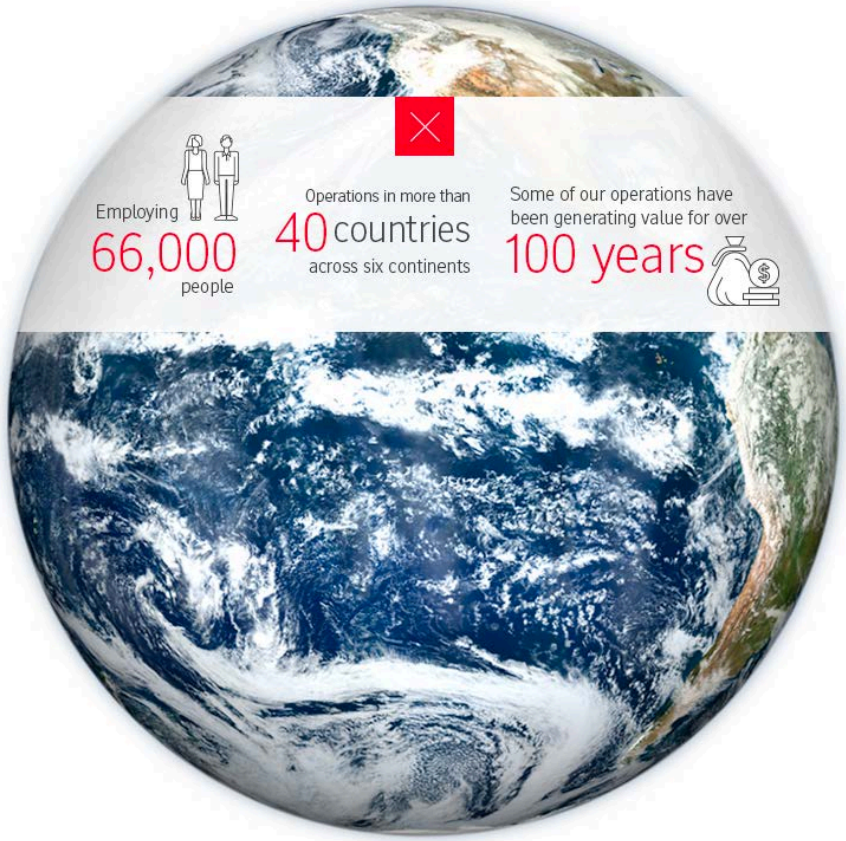
Closure planning is an essential part of the life cycle for every Rio Tinto operation, to ensure we achieve sustainable development objectives when a mine or plant comes to the end of its working life. We integrate closure planning throughout an asset's life cycle, from the earliest stages of project development. This planning work includes seeking sustainable and beneficial uses for the land when an operation eventually closes, and aims to minimise financial, social and environmental risks after closure.

Through our rehabilitation efforts at both our businesses and at the corporate level we are reclaiming and restoring mine-affected areas.

Where we operate

Our diverse global footprint

Rio Tinto operates in more than 40 countries across six continents, including in some of the most difficult terrains and climates. We employ about 66,000 people, whose health and safety is paramount.



Our businesses include open pit and underground mines, mills, refineries, smelters and power stations – including a significant hydropower portfolio – as well as a number of research and service facilities. We also own and operate infrastructure that takes our products to our customers, including railways, ports and ships.

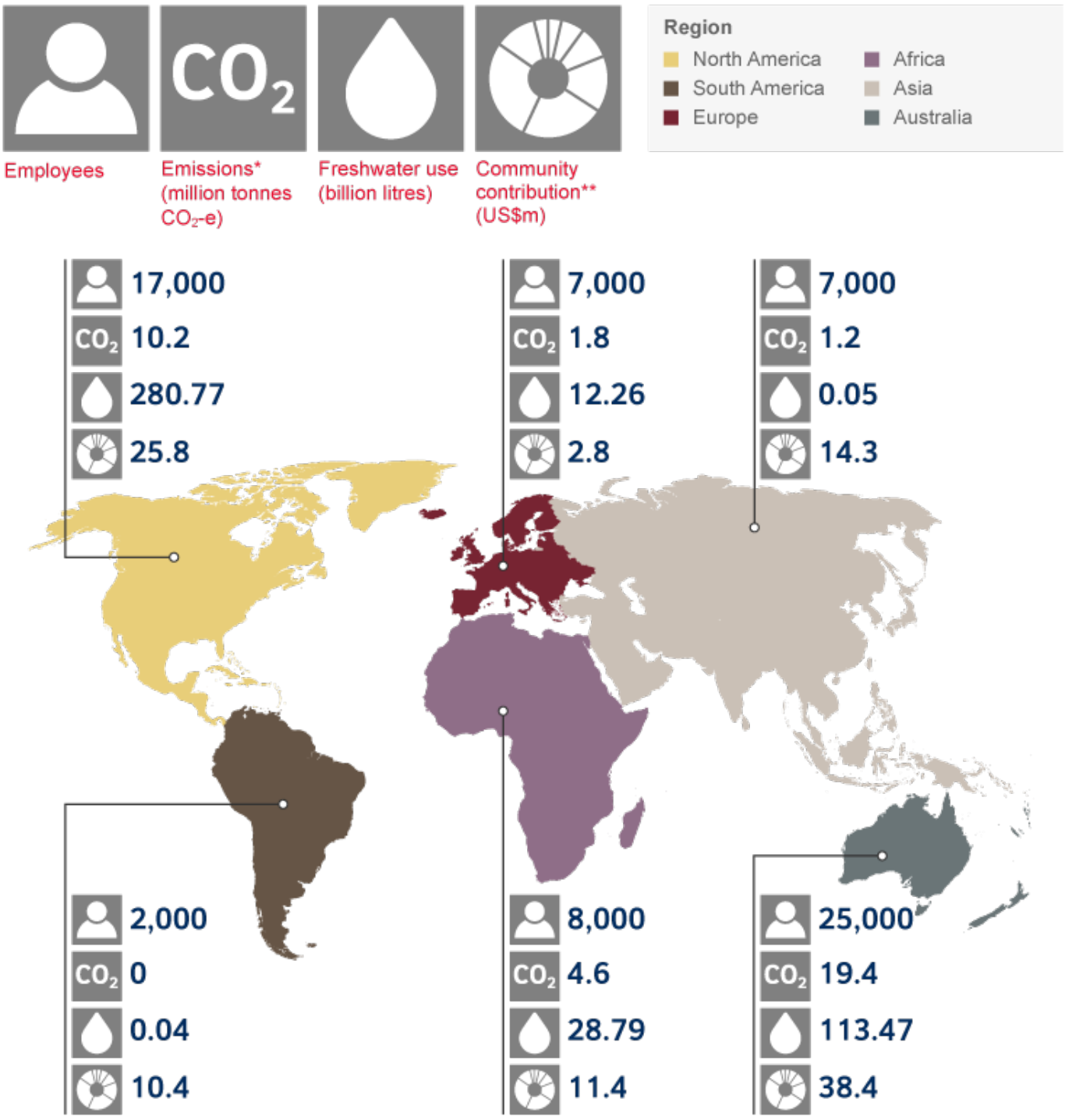
The locations of our mines are driven by the locations of good orebodies. This often means we have to overcome the challenges of remote, undeveloped locations and construct significant infrastructure to get our minerals and metals to our customers. As well as the railways, mining camps and warehouses that we need to run our operations, we often build roads, ports, schools and healthcare facilities that are of wider benefit to local people and national economies.

Some of our mines have already been generating value for more than a century, such as our Bingham Canyon Mine in Utah. Others, meanwhile, are much newer. Our Oyu Tolgoi mine in Mongolia, for instance, began production in 2013, and is at the beginning of what should be a long and productive life.

Having this wide range of assets and experience, and Group-wide systems and approaches, means we can share our knowledge across our global portfolio, and push for continuous improvement.

We collect data on our sustainable development performance right across the business, and report annually through a number of channels. Explore the map below to see how some of the data we compile breaks down at the regional level.

Regional data



* South America emissions are 2,365 tonnes of carbon dioxide equivalent (CO_2-e)

** Community contribution excludes US$0.6 million due to the method of collection and does not include Rio Tinto management costs and direct payments

Our products

Making modern life work

Our products make modern life work. It is hard to imagine living a day without using a metal or a mineral in one of their numerous everyday applications.

Switch on your kettle or toaster at breakfast? We need copper wires to bring electricity into our homes. The daily commute? Our transport infrastructure depends on iron ore, coal and aluminium. Reading this report on your smartphone or tablet? Borates are used to make the screen thin and strong.

And on and on throughout the day – at home, at work, in transportation, and for recreation and communications – minerals and metals make their way into every part of our lives.

Sustainable benefits

Rio Tinto's activities make a major contribution to economic growth, and deliver diverse benefits, like the development of skills and infrastructure. And our products themselves contribute to sustainable development.

For instance, many of our metals and minerals are used in environmentally beneficial applications. Aluminium is used to make lighter vehicles that have lower fuel consumption. Borates are used in insulation and the blades of wind turbines.

Uranium is one of the most powerful natural sources of energy. Its nuclear properties are harnessed to produce electricity without carbon dioxide.

Our products have positive social and economic impacts. Access to electricity transforms life styles, and the power generated by our energy minerals plays a role in alleviating poverty in developing countries.

Metals and minerals also help look after our health, like titanium dioxide, which is an important compound in sun protection creams. Or copper, used for fixtures and fittings in hospitals because it has natural anti-microbial properties.

Product stewardship

Just as we take responsibility for our operations beyond their working lives, we also take a life cycle approach to product stewardship. Our product stewardship programme is focused on understanding, managing and communicating regulatory, social, health and environmental risks – both opportunities and threats – throughout the full life cycle of our products.

We focus on maximising the opportunities and minimising the threats that come from the production, use and disposal of our products. We don't do this in isolation, but work closely with scientists, customers, suppliers, communities, regulators and NGOs to improve our collective understanding.

Our sustainable development performance, including our product stewardship activities, helps set us apart from our competitors as a preferred supplier of metals and minerals. For instance, our aluminium business has one of the lowest carbon footprints in its sector and the Rio Tinto Kennecott gold refinery has become the first mining company to have received the Responsible Jewellery Council Chain-of-Custody standard.

What is important to us

Focusing on the issues that matter most

Social

- ★ Safety
- ★ Communities
- ★ Health
- Remote site health and medical emergency response
- Managing occupational health risks
- Managing fitness for work
- ★ People
- Resettlement and compensation

Environment

- Air
- Biodiversity
- ★ Climate change
- Energy
- Land
- Waste
- ★ Water

Economic

- ★ Economic contributions
- ★ Non-managed operations and JVs
- Suppliers
- Tax

Governance

- Business resilience
- ★ Closure
- Engagement
- ★ Human rights
- ★ Integrity and compliance
- Internal controls
- Product stewardship

★ Issues of highest materiality reported in the Annual report

The diversity of our operations, and the varied environments and geographies where we work, mean that each of our sites has its own set of sustainable development priorities that it must integrate into its activities.

On a daily basis, across our operations, we take accountability for sustainable development issues. These considerations come into our business planning, into our operating and monitoring activities, and into our engagement with stakeholders.

Many of the broader issues that we address are common across multiple sites. Health management, for instance, is important at all of our operations. But the specific issues vary. Malaria remains a significant issue for some of our sites in more remote parts of the world, while for employees based in city offices, issues like ergonomic health are of greater concern.

Our materiality process

In order to be as transparent and clear as possible in reporting our sustainable development performance and approach, we use a materiality process. This tells us which issues are most important, or material, to our stakeholders and to our business. It helps us focus our reporting on these issues. We run this process annually as part of our corporate reporting cycle, to make sure that each year we provide the information that our stakeholders are looking for.

We developed our materiality process in line with the Global Reporting Initiative (GRI) guidance on materiality and completeness. This guidance specifies that sustainable development reports should cover topics and indicators that reflect the organisation's significant economic, environmental and social impacts or that would substantively influence the assessments and decisions of stakeholders. The GRI's mission is to make sustainability reporting standard practice for all organisations.

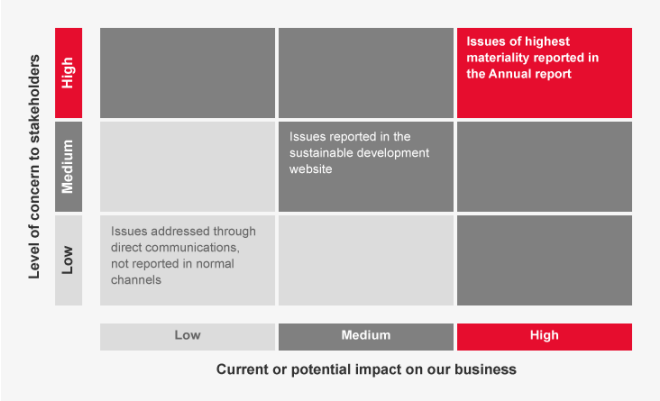
External and internal perspectives

The process involves identifying and prioritising issues affecting our business and its stakeholders over the next three years, taking internal and external perspectives into account. We gather information and opinion from a wide range of external stakeholders, including NGOs, suppliers, customers, partners and the media. From this, we assess the impact that sustainable development issues have externally, in terms of society and the environment, and our compliance with policies and commitments. We also consider how important the issues are for our stakeholders when they're making judgments about our sustainable development performance. And we look at how relevant the issues are to the wider mining and metals sector, and other industries.

We also evaluate how important the issues are to our business. We look at their potential impact on our financial performance, our brand and reputation, our stakeholder relationships, our production and ability to meet our customers' needs, and the possible legal and financial ramifications of non-compliance.

Materiality matrix

We create a matrix, which plots the level of concern to external stakeholders against the current or potential impact on our business. Each issue is given a rating of "low", "medium" or "high", from both internal and external perspectives. An impact can be either positive or negative.



Issues that are highly important to both our external and internal stakeholders are reported in our Annual report. Those of medium or high importance to external or internal stakeholders are reported on this website. We don't publicly report on all topics, but just because a topic is not reported here, it doesn't mean that we aren't managing it internally.

Future materiality assessments will evaluate whether an issue that is currently omitted has become sufficiently important to report on it again. This approach will streamline our report and improve transparency.

Our 2013 assessment

Our materiality assessment for 2013 consisted of three steps:

- identifying our material topics
- prioritising the significance of each
- validating the completeness of our analysis

With our 2012 materiality assessment results as a starting point, we reviewed a variety of information sources to identify potential material topics for 2013. A third-party provider helps gather information and feedback from our stakeholders, to help give us a broad and balanced view of the issues and views. Our analysis included the full scope of our business activities.

Having determined which topics were candidates for our 2013 materiality matrix, we then reviewed these with internal experts from each of our sustainability focus areas, to determine the validity and the relative importance of each. The results of the materiality assessment were reviewed and approved by senior management.

The results of the assessment are shown in the graphic at the start of this section.

Social

The trust that is built on solid relationships helps support our licence to operate

We are committed to providing a safe, healthy and inclusive workplace where our people can pursue challenging and exciting careers, and be rewarded for helping us deliver value. We build enduring relationships with our local communities that demonstrate mutual respect, active partnership, and long-term commitment, and aim to secure their broad-based support. The trust that is built on these solid relationships helps support our licence to operate.

You can view our detailed performance tables in the Performance data **section**

Safety

Building a zero harm culture

Our safety vision is that together we will create an injury and illness-free workplace where everyone goes home safe and healthy each day of their working life.

Safety is not about numbers – it's about people. The policies, standards and programmes we implement are important, but they alone will not deliver our safety vision. We are progressing on our journey toward a zero harm culture, where everyone knows that they make a difference and where all employees and contractors have the knowledge, competence and desire to work safely.

Approach

Our integrated safety approach combines a focus on injury reduction, elimination of fatalities and catastrophic risk management. Central to our approach is that passionate and effective safety leaders engage with their teams to build a zero harm culture. During 2013, all product groups have continued to strengthen safety leadership.

An integrated approach is important as we look to build and create a positive safety culture in all parts of our organisation, where everyone is committed to their own safety and the safety of their workmates.

We expect our leaders to be visible and passionate champions for safety. They willingly accept accountability for the safety of everyone working in their teams and consistently set high standards through their behaviour.

Maintaining and improving programmes to strengthen safety leadership across the entire business is paramount for building capability among our people.

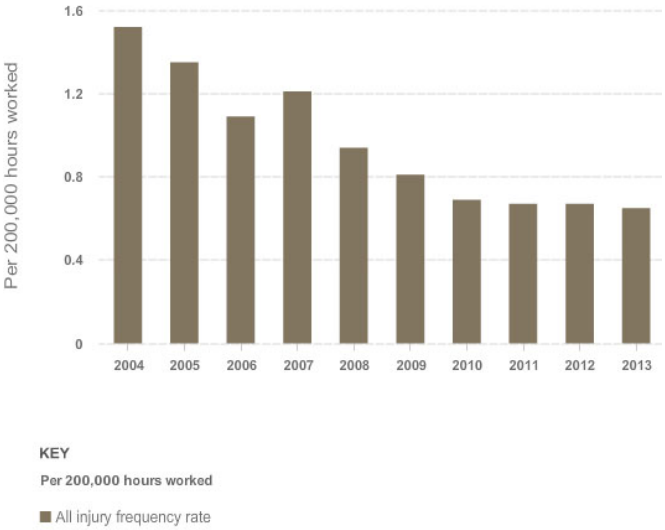
Critical safety risk management is another important element of our safety approach. Its aim is to ensure that the low-probability/high-consequence risks are understood and effective controls are in place at every site. This is why we have continued with our rigorous risk assessment processes and deploying critical control monitoring plans to drive effective risk management at an operational level. We have continued to improve specific risk management processes for catastrophic risks such as process and aviation safety.

In 2014 we continue to understand and learn from significant potential incidents. We will also work more closely with our suppliers and contractors to mitigate key risks and strengthen our process safety knowledge amongst our senior leaders and tighten our process safety framework.

Results

We continued to reduce injury rates across the Group in 2013. Our performance is measured by the all injury frequency rate (AIFR), which includes data for employees and contractors. At the end of 2013 our AIFR was 0.65. Over the last five years we have reduced our AIFR by 20 per cent. This improvement is being driven by the successful zero harm programmes within each of our businesses.

All injury frequency rate



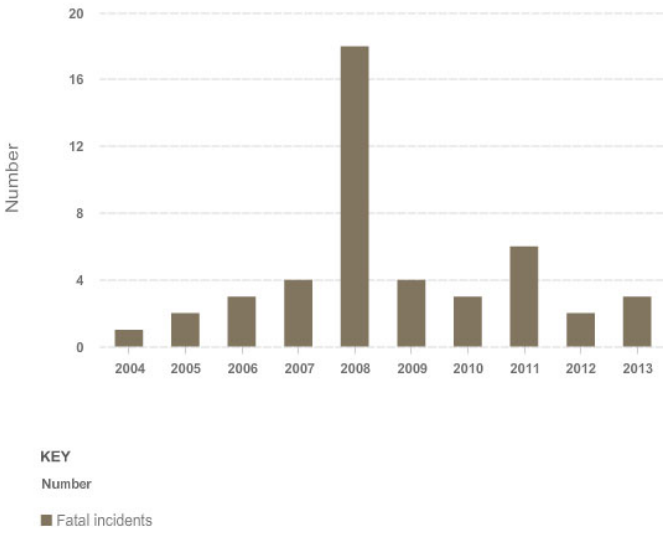
Our lost time injury frequency rate (LTIFR) was 0.42 per 200,000 hours worked in 2013. While our LTIFR compares favourably within the industry and across sectors, we are committed to making further improvements as we strive for our zero harm goal.

Regrettably, we did not meet our goal of zero fatalities in 2013. Three people lost their lives whilst working at Rio Tinto managed operations. The fatalities were caused by a mobile equipment incident during road maintenance at the La Granja project in Peru, a crush incident at Rio Tinto Alcan's Alma smelter in Canada and a crush incident at Richards Bay Minerals in South Africa.

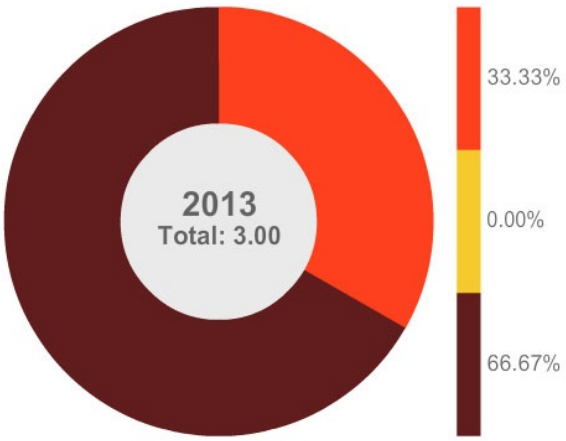
We provided support and counselling to the families and workmates affected by these tragic events and we have shared the lessons from these incidents across the Group. It is essential that we learn from these events if we are to achieve our target of zero fatalities. We are also placing significant focus on the effective investigation of incidents that have the potential to cause fatalities, so that we learn from them.

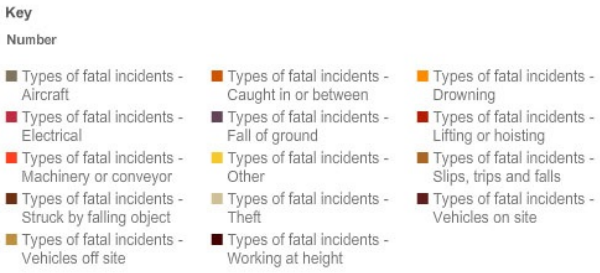
This focus on investigation and sharing lessons learned extends to our non-managed operations.

Fatal incidents



Types of fatal incidents





Safety transformation at Yarwun

Yarwun, an alumina refinery near Gladstone, Australia, was the winner of the Most Improved Site category in Rio Tinto's 2012 Chief Executive Safety Awards. Despite being faced with the major challenge of building a new operation that doubled the size of the refinery, the leadership team used the opportunity to approach safety in a completely different way, transforming Yarwun's performance in the process.

The A$2.5 billion five-year extension ramped up Yarwun's production capacity by an additional 2 million tonnes/year and increased the workforce by 50 per cent.

The site focused on four areas:

- Improving "safety interactions" (where leaders and team members hold targeted discussions to understand the risks and controls involved in an activity)
- Leading tool box talks and start-up meetings that genuinely engaged and involved the workforce
- Transforming the "Take 5" pre-task risk assessments
- Setting and living by effective safety standards

> The leadership team used the opportunity to approach safety in an completely different way

Production in the new operation as at end of 2013 was at 85 per cent capacity and the emphasis on improving safety hasn't stopped. For each quarter of 2013, there was 100 per cent closure of actions that were raised through root cause investigation of significant potential incidents. After some less than favourable employee comments in 2008, comments from the latest survey bear testament to the improvements that have been implemented – "Leaders seem to care about our safety", "We solve the problems we can influence", and "Incident analysis means improvement".

Communities

Strong partnerships for success

Good community relations are as necessary for our business success as the effective management of our operations. This belief is at the heart of our overall approach to communities work and is why we build good quality relationships with the people in the areas where we operate. It is essential that we understand the social, environmental and economic implications of our activities so we can optimise benefits and reduce negative impacts, both for local communities and for regional and national economies. We accept that we cannot meet everybody's concerns and expectations, but wherever we operate, we seek to do so with broad-based community support.

Approach

The way we work, our global code of business conduct, provides the foundation of our Communities and Social Performance work. Our Communities policy and standard provide the performance framework, while guidance notes describe preferred worksite practices. We refer to external policies such as the International Finance Corporation's (IFC) Performance Standards on Environmental and Social Sustainability and also support the International Council on Mining and Metals' position statement on Indigenous Peoples and Mining.

Our Communities target, adopted in 2009, required all operations to have locally-appropriate, publicly-reported social performance indicators in place which demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the UN Millennium Development Goals (MDGs).

Our approach to working with communities

Build knowledge

Baseline communities assessment

- Understand key social environmental and economic factors
- Gather data on demography, labour market, education profile and family and individual wellbeing
- Understand the current or potential impact of the business
- Identify potential risks and opportunities

Engage

Build relationships and partnerships

- Build relationships and partnerships with government agencies, community and non-government organisations, academics and other corporate entities
- Agree needs and ensure these are mutually understood and accepted
- Base partnerships on respective expertise and collaborative inputs

Develop

Develop communities programmes

- Programmes should reflect baseline assessments and consultation
- Programmes cover educational, health or livelihood initiatives and provide local employment, small business and contractor opportunities
- Programmes should build long-term local skills and knowledge
- Initiatives undertaken should encourage self help and avoid dependency

We work from a common Communities and Social Performance framework of building knowledge, engaging with communities and developing programmes. Work on the ground varies according to the local context. However, some common themes are:

Cultural heritage

We recognise and respect the cultural heritage of all communities in which we operate, particularly that of Indigenous traditional owners who have customary connections to land. We closely consult with local people to ensure the protection of their cultural heritage sites and values as we manage our businesses.

In 2011, we published *Why cultural heritage matters* to help our managers, employees and contractors understand why we value cultural heritage in our operations and how to effectively manage it as part of their engagement with communities.

Community agreement making

We seek to reach agreements, where appropriate, with land-connected host communities to gain access for exploration (land access agreements) and to develop mining operations (mine and regional development agreements). Most, but not all, of our community agreements are with local Indigenous communities. Recognition and respect of mutual interests underpin our agreement making. We make sure that the community groups entering into agreements have access to independent advice and expertise in negotiating them. We apply a participatory process so that local community members understand our operations and what is proposed in the agreement. Agreements arising from this process are evidence of Free, Prior Informed Consent (FPIC) as defined in the IFC Performance Standard 7, although we prefer to secure what we call broad-based, free, prior, informed support.

Gender

Women in communities often disproportionately bear the burden of change brought about by mining and other developments, as well as the inevitable changes that occur as communities evolve. Recognising the importance of understanding the social dynamics of relationships between men and women, we have developed a comprehensive gender guide, *Why gender matters*. The guide is designed to help all of our people better manage the gender considerations of communities work.

Human rights and communities

In 2011, the UN published its Guiding Principles on Business and Human Rights. This is now the global standard for preventing and addressing the risk of adverse impacts on human rights linked to business activity. The Guiding Principles are based on shared responsibility between nation states' "duty to protect" and a corporate "responsibility to respect". To support this initiative and help our own people understand their responsibility, in 2013 we produced *Why human rights matter*, a resource guide for integrating human rights into communities and social performance work. The guide was translated into multiple languages and widely distributed both within Rio Tinto and to external stakeholders and made available on the websites of Rio Tinto and its partners and stakeholders (including the Centre for Social Responsibility in Mining, University of Queensland and the Danish Institute of Human Rights, and the Business and Human Rights Resource Centre).

Results

In 2013, further progress was made in establishing indicators: 98 per cent of operations had the indicators in place required by our Communities target and 90 per cent had reported them publicly. The target is being extended to 2015 to better align with the timeline for the MDGs.

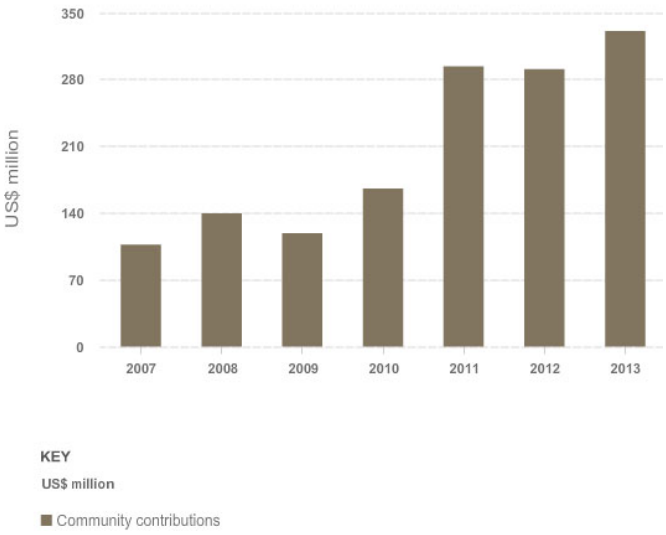
As part of refocusing community investments into strategic projects of enduring value, Argyle Diamonds has been seeking to grow the number of Indigenous enterprises throughout the East Kimberley region. The commitment is part of Argyle's Participation Agreement and our Reconciliation Action Plan. Argyle has formed a partnership with Gelganyem Trust and Many Rivers Microfinance Limited over three years to establish an Indigenous Business Hub (or "incubator").

At the La Granja copper project, Rio Tinto Minerals Peru (RTMP) has supported the formation and training of community-based committees to monitor the environmental impacts of project activities. This programme is executed in partnership with an NGO and via agreement with the local village governments. Each of the five directly-impacted villages has an environmental monitoring committee, which take turns performing monthly monitoring of project activities. The monitoring is linked to RTMP's Health, Safety, Environment and Quality (HSEQ) management system and the committees also report results directly to village authorities and citizens.

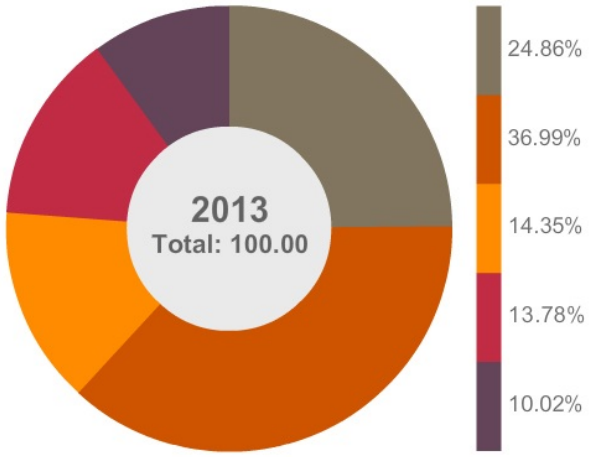
Rio Tinto Fer et Titane (RTFT) operates a more than 60 year old mine located on the North Shore of the province of Quebec in Canada. The company has implemented its First Nation Engagement Strategy, which involves relationship building, internal management of change and formal discussions to promote community development opportunities. RTFT and the Ekuanitshit Community have signed a Mutual Respect and Partnership Agreement, framing the relationship, and expressing the shared vision and values of both parties: those of mutual understanding, coexistence, common interests, and continuous dialogue.

In 2013, Rio Tinto businesses contributed to just under 2,200 socio-economic programmes covering a wide range of activities including health, education, business development, environmental protection, housing and agricultural development. We spent US$331 million on community programmes. Of this sum, 31 per cent went directly to community programmes. A further 60 per cent were direct payments into benefits-receiving trusts associated with community agreements. Our management costs for these contributions were nine per cent.

Community contributions

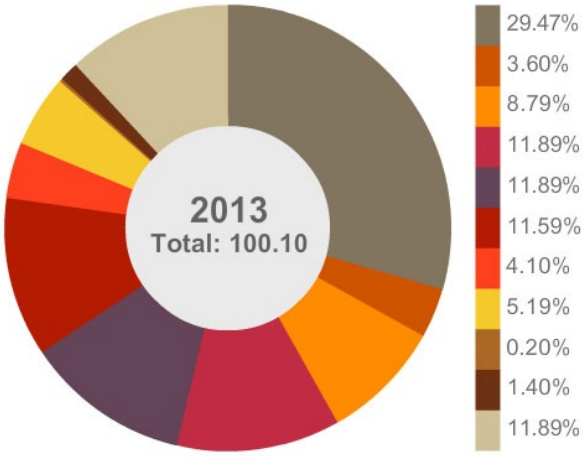


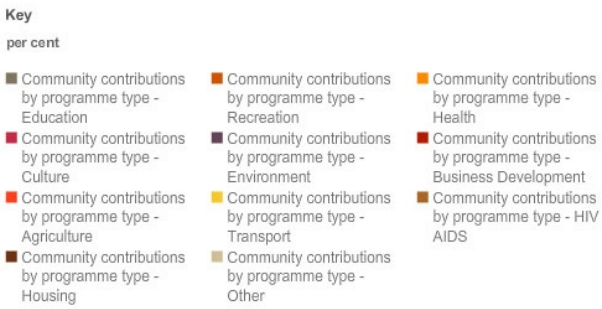
Community contributions by region



Excludes Rio Tinto management costs and direct payments.

Community contributions by programme type





Due to rounding, the sum may not total 100 per cent.

Building lasting relationships with Aboriginal Peoples

In 2013, Harvard University conducted a study, commissioned by Rio Tinto, on corporate-American Indian relations. As part of this, Harvard and Rio Tinto hosted two forums with industry and tribal leaders to discuss the outcomes. The study will be published in 2014.

Rio Tinto recognises that to secure and maintain access to land and resources, including attracting skilled and talented employees, we must continue to build and enhance our relations with Aboriginal Peoples.

The development of the Rio Tinto Canadian Aboriginal Engagement Strategy builds on our current best practices and provides a framework for all Rio Tinto's Canadian business units, from early stage and short-term exploration activities to ongoing operations. The strategy aims to increase our knowledge, understanding and engagement so that we build lasting relationships with Aboriginal Peoples based on trust, respect and mutual benefit.

Under the strategy, the following priority areas have been identified to strengthen our approach to Aboriginal engagement in Canada:

Working with Harvard on a new strategy for engaging with Canadian Aboriginal stakeholders

- Leveraging and building internal expertise and capacity within business units for engagement with Aboriginal Peoples
- Enhancing cultural awareness and diversity of Aboriginal Peoples within Rio Tinto
- Creating additional capabilities and opportunities for Aboriginal people through education, training, skills development, employment and business development

Award-winning heritage work

In 2013, Rio Tinto Iron Ore's Heritage Approvals team was awarded the group's Terry Palmer Award for Innovation, for its work with Aboriginal Traditional Owners in Western Australia.

In order to undertake any activity that disturbs the ground, Iron Ore must first carry out heritage surveys and gain stakeholder approval. This is required both by legislation, and by the Participation Agreements we have with Traditional Owner groups in the region.

In 2011, the Heritage Approvals team had a large backlog of approval requests, potentially placing growth projects at risk. This was due to a limited availability of Aboriginal Traditional Owners for heritage assessments, and a lack of a coordinated internal system for scheduling and prioritising the requests.

So the team negotiated with Traditional Owners to guarantee a regular supply of people to carry out heritage surveys. They also implemented commercial contracts to safeguard their availability. A roster system, a database and monitoring systems were developed, and the team streamlined the way in which heritage surveys were conducted.

Formal scheduling and long-term contractual arrangements had not previously been applied to heritage survey work, and the new approach paid off. In total, 2,138 days of heritage surveys were undertaken in 2012, exceeding target, and a 90 per cent increase over 2011.

The solution safeguarded Iron Ore's growth plans and strengthened its licence to operate

The solution safeguarded Iron Ore's growth plans by avoiding delays to key expansion targets, preventing the loss of millions of tonnes of production and hundreds of millions of dollars in profit.

The project has strengthened the Group's licence to operate by building better relations with Aboriginal Traditional Owners. And it also increased revenue opportunities for the Traditional Owners, helping Iron Ore to meet the business and employment requirements of the Participation Agreements.

As well as being recognised by the business for the success of the project, the Heritage Approvals team has been able to share the solution with other parts of Rio Tinto, and there is potential for it to be replicated by other product groups.

Health

Our people are our most important asset

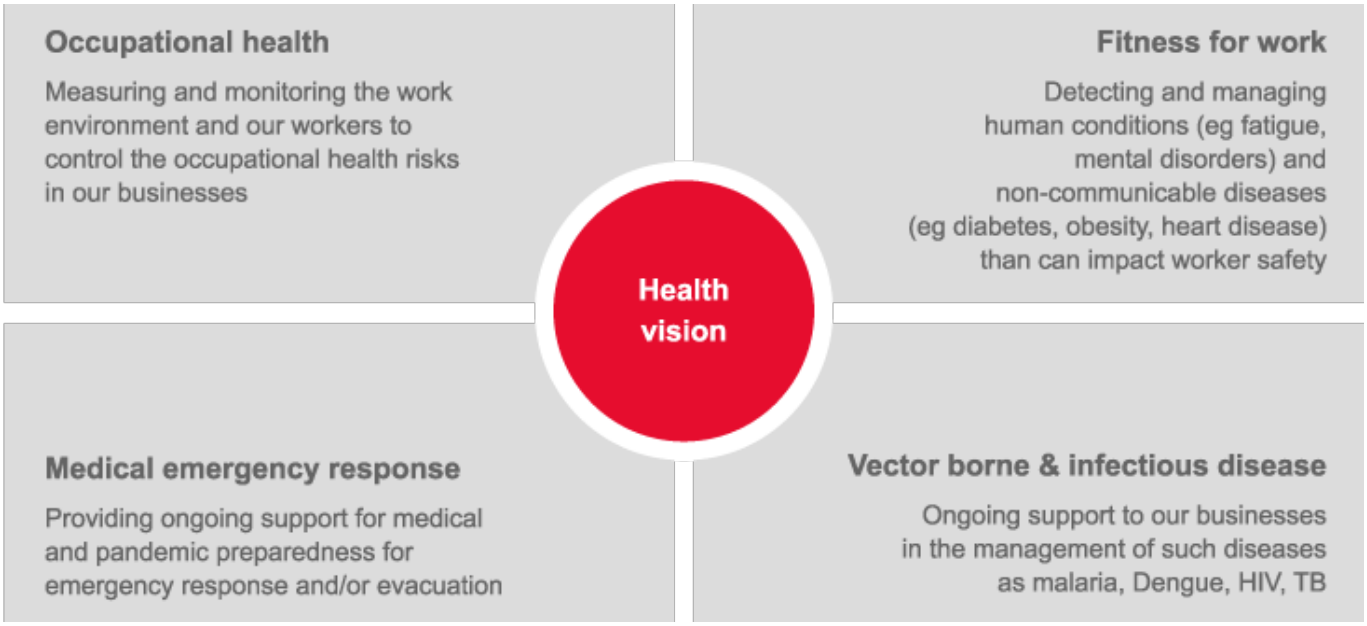
Our employees are our most important asset. Protecting, promoting and enhancing the health and wellbeing of our people is as vital as protecting their safety. We do this by identifying, and managing, the key occupational health risks to which they are exposed. This includes minimising occurrences of occupational illness, supporting our people to lead healthy lifestyles that contribute to their fitness for work, and helping them remain healthy as they travel and work at our more remote sites.

We operate in a number of countries where the prevalence of HIV/AIDS, tuberculosis (TB), malaria and other tropical diseases is high. As well as managing these diseases in the workplace, we are committed to helping establish health programmes for our local communities.

As part of our commitment to continuous improvement, we have set new Group health targets including:

- A year-on-year improvement in the rate of new cases of occupational illness per 10,000 employees annually.
- One hundred per cent of managed operations will have commenced implementation of critical control management plans to address their specific material health risks by 2015.

We intend to report our performance against these targets in the 2014 Sustainable development report.



Remote site health and medical emergency response

Keeping healthy, around the world

Our health management approach does not just remain in the workplace. At many of our sites, we have also established community health programmes, for instance in HIV/AIDS and malaria. This is important for our local communities as well as our workforce, who are all exposed to the local health conditions. Travel health issues – including the availability of adequate emergency medical response – are also an important health risk as we expand our operations into less-developed regions of the world.

Approach

Rio Tinto operates in a number of countries where the prevalence of HIV/AIDS, tuberculosis (TB), malaria and other tropical diseases is high.

We are committed to helping our communities enhance their capacity for managing these diseases. As part of this, we work closely with the international community, including government agencies and non-governmental organisations (NGOs), as well as local organisations which are concerned with these problems.

We have also worked with the International Council on Mining and Metals (ICMM) and other major mining associations to produce practical guidelines for the industry to improve the management of these diseases.

We will continue to pursue opportunities for private-public partnerships, to expand our community health programmes.

Dealing with HIV/AIDS and tuberculosis in the workplace

The global epidemic of HIV/AIDS poses a serious threat to the health of employees, their families, and communities surrounding mining and minerals operations. We have had an HIV standard in place for several years, which has helped our workplaces to achieve HIV prevalence rates significantly lower than our surrounding communities. However, the success of our workplace programmes will ultimately be influenced by the ability of our surrounding communities to develop effective prevention and treatment responses to the HIV epidemic.

We take our lead from the International Labour Organization Code of Practice on HIV/AIDS and the world of work. We do not tolerate discrimination towards employees who are diagnosed with the disease. Nor do we screen for it during the recruitment process, or use screening as a condition of employment.

We have a global, risk-based standard that has four key workplace components:

- prevention, awareness and education
- voluntary counselling and testing (VCT)
- wellbeing, counselling and treatment
- monitoring and evaluation, utilising ICMM's "Good Practice Guideline on HIV/AIDS, TB & Malaria", which identifies key indicators that should be regularly measured

Where we have operations in regions with a generalised HIV epidemic (as defined by UNAIDS) we actively encourage all employees to know their HIV status through voluntary testing. In this way, each worker can take the necessary steps to remain infection-free if negative, or avoid spreading the infection and access the appropriate support and treatment if positive. All employees and their nominated partner can have affordable access to treatment, care and support, including antiretroviral drugs (ARVs).

Employees infected with the HIV virus have reduced immunity and are also at increased risk of developing TB, which often leads to death when no treatment is available. We are currently working to characterise the Rio Tinto exposure to TB and raise the profile of TB in high prevalence areas.

Malaria and other tropical diseases

Malaria remains a significant problem in many developing countries, primarily in Sub-Saharan Africa (60 per cent of clinical cases and 80 per cent of global mortality), Latin America and Asia. Malaria is a significant health risk for employees based in affected regions and for those seconded or travelling to operations located in endemic areas.

We use our Malaria Management Framework and our Malaria Hotline, which is available to all employees 24 hours per day, to manage and prevent malaria incidents. The hotline is intended to provide advice and support in identifying the signs and symptoms of malaria for employees returning from malaria-endemic areas, as well as general preventative initiatives or measures.

We have developed and rolled out an e-learning module for malaria. A successful malaria control programme must include awareness, vector control, education, prevention of mosquito bites, chemoprophylaxis, early diagnosis and treatment. We continue to provide support to our businesses in developing effective malaria management programmes and we communicate the Rio Tinto recommendations for expatriates and visitors to malaria-endemic areas to take malaria chemoprophylaxis.

Travel health issues and medical emergency response

International travel, particularly to developing countries, can pose significant health risks that have a very real possibility of resulting in illness and even death. In addition, serious health risks may arise in areas where accommodation is of poor quality, hygiene and sanitation are inadequate, medical services are not well developed, and clean water is unavailable. There are mandatory minimum requirements for emergency medical response provisions at our sites.

We have developed pre-travel medical checks, which have been offered to business travellers at most of our key locations since 2010. We have also developed and implemented a pre-assignment medical check programme for international assignees and their families, and have reviewed the medical emergency response capability of our high-risk sites. We maintain ongoing support for medical emergency response and evacuation.

In 2014, we will update our Pandemic Influenza Framework, integrate pre-employment medicals into the existing pre-assignment medical check programme, offer post-assignment medicals for assignees returning from high-risk locations, and continue to oversee the appropriateness and adequacy of on-site medical facilities for our remote sites.

Results

The number of medical emergency cases among business travellers and international assignees increased by 37 per cent in 2013 compared with 2012. The most common cause for a medical emergency among Rio Tinto business travellers and international assignees in 2013 was gastrointestinal disorders, followed by vector-borne and infectious diseases. There were 25 emergency medical evacuation cases in 2013; most of them originated in Africa and in Asia.

HIV/AIDS is a critical public health issue in Namibia, as it is the country's leading cause of death. According to the UNAIDS Report 2012, the prevalence of HIV in Namibia is estimated at 13.3 per cent, which is among the highest globally.

In 2000, in line with Rio Tinto principles, Namibia-based Rössing Uranium Limited put in place an HIV/AIDS programme that responds to this epidemic among employees and the broader community. The HIV/AIDS programme forms an integral part of Rössing's overall wellness programme. It offers a holistic management approach whereby HIV and wellness are inseparable and the disease is managed in the same way as any other chronic condition. The programme's objectives are to make sure that all employees have access to specialised HIV/AIDS assistance, to inform and educate them to ensure high levels of awareness, and to retain HIV-positive employees in their appointed jobs.

Rössing has recorded the following successes with its HIV/AIDS programme:

- A successful "Peer Education Programme" which addresses a number of health issues including sexually transmitted infections, tuberculosis, malaria, mental health, alcohol and substance abuse and lifestyle diseases among employees and the community
- A sustained public education programme leading to 89 per cent of employees knowing their HIV status in 2013
- A successful partnership with the Namibian Ministry of Health and Social Services and local non-governmental agencies to facilitate widespread health education and condom distribution

Rössing's HIV/AIDS treatment success rate is 98 per cent - the highest in Namibia

- Treatment success rate is in excess of 98 per cent, which is among the highest in the country
- For all affected employees and their registered dependents, life-extending antiretroviral therapy is covered, including treatment of opportunistic infections
- The vast majority of HIV-positive employees are retained in their jobs through the use of various administrative tools, such as six month ill health retirement
- At present, more than 80 per cent of the 44 known HIV-positive cases have selected the Rössing clinic as their service provider, which is a clear indicator of the success of the HIV/AIDS management programme
- Since 2008, 59 Rössing peer educators have been trained to provide information and guidance to employees.

Managing occupational health risks

Minimising health risks in the workplace

Like any responsible employer, we take steps to minimise occurrences of illnesses that develop as a result of conditions and exposures in our workplaces. The nature of our business means we are especially vigilant of diseases caused by exposure to excessive dust, fume, noise, manual handling, vibration and to all forms of radiation. Our goal is no new cases of occupational illness. To support this, our occupational health policy and health performance standards, coupled with our targets and our approach to fitness for work, have been put in place.

Approach

We treat an illness as "occupational" if conditions in our workplace are thought to be the cause or to worsen it. The workplace does not have to be the only cause of the illness.

In 2004, we introduced our Group-wide occupational health standards to improve identification and management of health risks. These performance standards are integrated with our custom-built Health, Safety, Environment and Quality (HSEQ) management system to ensure consistent Group-wide application, on an exposure risk basis. We audit implementation of our standards and also benefit from sharing leading practices across the Group.

Some of our workers are more sensitive than others to contracting workplace-related diseases, so we emphasise prevention by specifically monitoring the individual's exposure to hazardous agents in the workplace and any potential impacts of these on their health, then implement appropriate exposure controls where relevant.

We have rolled out guidance and training in identifying and assessing critical health risks. We have also developed a formal process for identifying material health risks and critical controls, for which critical control monitoring plans are developed, in support of our new post-2013 target.

We have set a new Group target that all managed operations will have reviewed – and increased their focus on managing their health risks, through implementation of critical control management plans to address their specific material health risks, by the end of 2015. The plans establish an approach that will be applied for monitoring the ongoing performance of critical controls against material risks at individual sites. Performance measures and targets will be established for each critical control. To aid consistency of data quality, management and analysis, we continue to roll out an integrated database software package for managing occupational/ industrial hygiene and medical surveillance data.

Lung diseases related to long-term dust exposure are now rare in our workforce, demonstrating the effectiveness of our dust and fume control programmes. We have also made significant strides in reducing the number of new cases of occupational asthma within our aluminium smelters, although the potential for chronic disease due to smelter fume exposures remains.

Heavy equipment tends to be noisy, which is why noise-induced hearing loss (NIHL) is still a problem for us. While we recognise that further reductions in noise exposures for our employees will prove challenging, we are committed to continuing to improve our performance. We continue to develop engineering solutions and alternative ways of doing our work with reduced noise levels. We have a noise community of practice to share learnings and help develop more effective noise improvement strategies.

Musculoskeletal disorders remain a common form of new occupational illnesses, despite advances in technology rapidly reducing physical demands on our employees. We are continuing to seek ways of engineering out heavy lifting tasks and are reviewing available and proven ergonomic solutions to see if they can be applied more widely. We use a specifically dedicated software package to improve the assessment and sharing of controls for manual handling risks.

Results

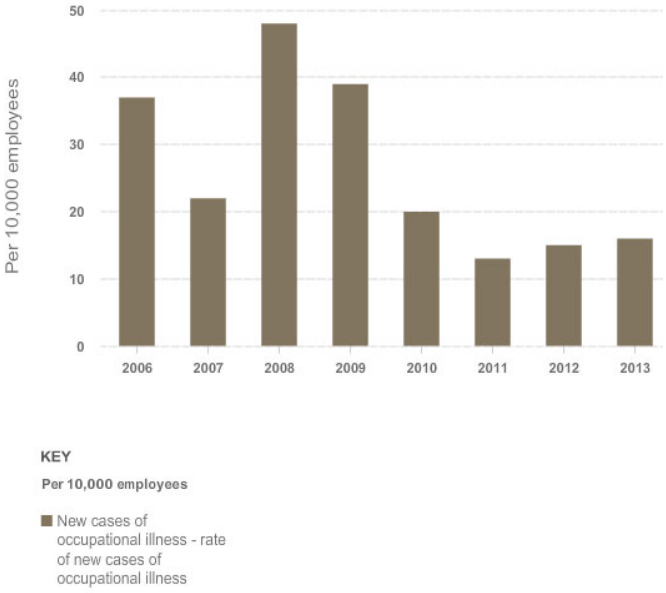
We have found that implementing our occupational health standards has led to a significant increase in our employees' awareness of health issues, and to noticeable improvements in performance.

In line with our standards, we continue to work on reducing radiation exposure to as low as reasonably practicable. Our monitoring has not recorded any employee above our 20 milliSievert (mSv) annual exposure limit for over a decade. Rio Tinto's exposure limit is well below the five year 20mSv and annual 50mSv limits typically found in international protocols.

In recent years, the rate of new cases of occupational illness at Rio Tinto operations has been decreasing.

We targeted a 30 per cent reduction in the rate of cases of occupational illness per 10,000 employees between 2008 and 2013. The main types of occupational illnesses recorded in our 2008 baseline are related to musculoskeletal disorders, noise-induced hearing loss and stress. The baseline excludes operations that were divested or flagged for divestment during 2009.

New cases of occupational illness



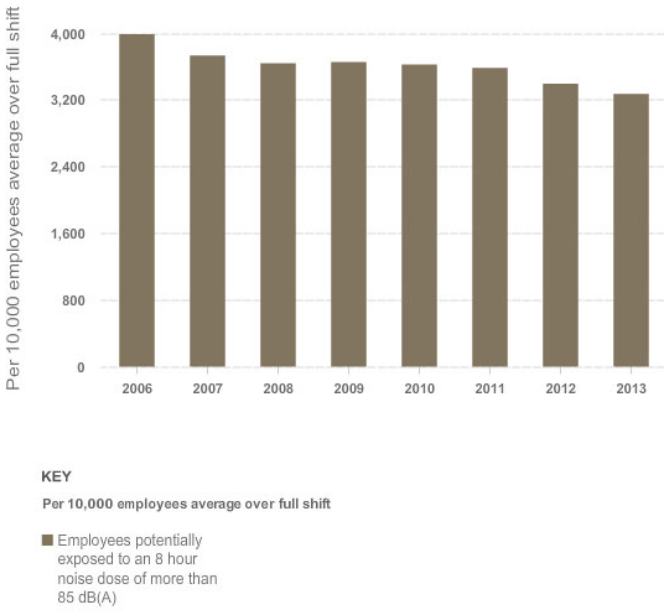
Data is for all Rio Tinto. The noise target includes all managed facilities, including corporate support offices and developments/projects (that were included in the original target setting process), but excluding acquisitions, HIsmelt® and announced divestments.

In 2013, we achieved a 68 per cent improvement in performance compared with 2008, with significant decreases in the number of reported cases of noise-induced hearing loss (81 per cent), musculoskeletal disorders (59 per cent) and stress (66 per cent), our largest contributors. This significantly surpasses our 30 per cent target.

We will continue to target a year-on-year improvement in the rate of new cases of occupational illness per 10,000 employees annually. Ongoing reductions in new cases of occupational illnesses will require further improvements in the management of risks posed by manual handling and noise exposure, as well as managing fatigue and supporting healthy lifestyles through workplace wellbeing and fatigue management programmes, where considered material health risks.

We also targeted a ten per cent reduction in the number of employees potentially exposed to an average eight-hour noise dose of more than 85 decibels (absent of hearing protection) between 2008 and 2013. We mitigate the risk of noise exposure above 85 decibels (averaged over eight hours) in the business by implementing hearing conservation programmes, which include use of hearing protection. However, reducing noise levels through engineering or similar solutions is our preferred approach. The target was designed to drive noise reduction by means other than the reliance on hearing protection.

Employees potentially exposed to an average eight-hour noise dose of more than 85 dB(A)



Data is for all Rio Tinto. The noise target includes all managed facilities, including corporate support offices and developments/projects (that were included in the original target setting process), but excluding acquisitions, HIsmelt® and announced divestments.

In 2013, the rate of employees reported as potentially exposed decreased by 3.1 per cent per 10,000 employees compared with 2008. This reduction fell short of our ten per cent reduction target. While this was in part due to better quantification of actual noise exposures throughout the target period (our baseline year data was under estimated) and divestment of some operations, we achieved genuine reduction in noise exposure due to:

- general administrative controls – limiting exposure times/job rotation/segregation of noisy activities
- mobile heavy equipment administrative controls – idle management during shift change and refuelling
- fleet replacement and formalisation of the "buy quiet" and equipment hire protocols in conjunction with procurement personnel
- improving inspection and maintenance of mobile equipment as part of preventative maintenance
- retrofitting/damping haul truck and dozer cabs (to improve seals, glass thickness, etc) and sound-proofing operator booths
- developing a better understanding of the sound level exposure in the cabs of haul trucks due to the contribution from commercial and two-way radios
- upgrading of noisy plant (eg replacement of old power stations with quieter gas fuelled units in the Iron Ore business)

This target has served its purpose of improving awareness and control of hazardous noise in the workplace and will be discontinued in favour of implementing critical control management plans to address material health risks relevant to individual businesses. This approach will allow our businesses to better direct their resources at the health risks of concern at their sites.

Knowledge sharing in noise management

Across Rio Tinto, many of our operations employ processes that are very similar, and that result in noise exposures to our employees. In the past, there has been duplication of effort, with multiple sites trying to identify and apply controls to the same issue, independently of each other. To avoid this duplication, and help our businesses resolve problems that have already been mitigated elsewhere, we established a noise community of practice.

It brings together those working in noise management and occupational health around the Group. An online forum helps community of practice members exchange information on noise controls with other business units, and promote excellence and cost-effectiveness in noise management. A number of solutions have been shared across Rio Tinto, and new ideas and projects targeting common noise sources continue to be created.

One of these projects identified that a key source of noise exposure for our heavy equipment operators resulted from their cabin environment and communications systems. A combined project across three of our product groups has identified a number of areas for improvement ranging from mobile equipment modifications and modified communication systems, through to changes in administrative procedures. These changes will enable further reduction of exposure to noise for this large group of employees across Rio Tinto.

A number of solutions have been shared across Rio Tinto, and new projects targeting common noise sources continue to be created

Managing fitness for work

Helping our people lead healthy lifestyles

Protecting and promoting our employees' health and wellbeing is vital. We believe in supporting our people in leading healthy lifestyles, so that health-related risks such as fatigue, stress and obesity, and diseases such as HIV/AIDS and tuberculosis will have a lesser impact on their safety, particularly in the context of an ageing workforce.

Approach

The nature of occupational illnesses is changing. Health conditions such as stress, fatigue and the normal results of ageing, such as reduced physical capacity, present different challenges from the traditional mining health issues. We recognise that as our workforce ages, musculoskeletal conditions and heart disease will become more prevalent in our workplaces. Our health results also show that stress and fatigue are becoming more common, perhaps in part due to our improving identification, understanding and management of these factors in the workplace.

Given the link between fatigue and safety, all of our businesses where people do safety-critical jobs are encouraged to run fatigue management programmes. Tools have been developed to facilitate fatigue management programmes and technology has been assessed to manage fatigued drivers.

In 2012, regional wellbeing networks were established in the Americas and in Australia to allow for sharing of best practices. Lessons learned in the various businesses are identified and shared within the region, and even between regions when applicable. Collaboration between the different businesses is encouraged when a common wellbeing issue is identified. Both Human Resources and Health, Safety, Environment and Communities teams are acting as catalysts in this collaborative process of wellbeing promotion and management across the regions.

Results

We increased our focus on fitness for work during 2013 through increased support for fatigue risk management: development of a fatigue semi-quantitative risk assessment (SQRA) tool; increased use of bio-mathematical modelling to improve our shift roster designs; and use of actigraphy to quantify actual fatigue risk and other health related factors.

We also had a team of researchers from Harvard Medical Schools conduct a mental health review for our Iron Ore operations, looking at gaps between our current mental health strategy and global best practice, among other aspects. The key recommendation from this review will be used to develop a mental health management framework aimed at sharing good practices and to provide support to our employees. In addition, we established a new Rio Tinto Health risk profile based on a Health Risk Assessment (HRA) and biometric data gathered in 2012 and 2013. This will help the business understand what aspects of its employees' wellbeing need the most improvement.

Our wellbeing programmes have had a positive impact on HRA participation rates and other health participation behaviours, such as increased visits to a doctor for skin cancer and blood pressure screening. The programmes have also helped identify cases where individuals were at high risk, prompting them to seek urgent medical advice on their potentially life-threatening conditions.

During 2013 we also:

- Started the deployment and roll out of Smart Cap technology within Rio Tinto Coal Australia, to support operators and leaders in identifying and managing fatigue within mining operations.
- Developed a fatigue semi-quantitative risk assessment (SQRA) to assist in the identification, quantification and management of fatigue-related risks within operational and corporate activities.
- Further deployed FAST, a bio-mathematical modelling tool to aid operations in roster design and reduction of fatigue-related risk at source.
- Delivered a range of fatigue and human performance webinars globally to facilitate learning, knowledge sharing and collaboration across the Group.

In 2014 we will develop a mental health management framework using the key recommendations from the Harvard mental health review and lessons learned from other mental health management initiatives across the business. We will also determine what new type of wellbeing challenges the various product groups believe could add value to the business.

Analysing fatigue-related risk

In 2013, the Rio Tinto Copper Concentrate Marketing (RTCCM) team undertook a Fatigue Management Improvement Project to define, measure and analyse fatigue-related risk. The project investigated work-related factors such as travel, hours of work and work schedules, and the linkage with lifestyle factors such as family commitments, diet, nutrition and exercise.

With specialist knowledge from Rio Tinto Health, the following approaches were used to define and measure data sets:

- **Fatigue risk assessment questionnaires** to evaluate employees' current status with relation to sleeping disorders, alcohol consumption and fitness for work
- **Bio-mathematical modelling** to evaluate modelling the risk associated with the current work schedules scientifically
- **Sleep Readibands / actigraphy** to measure factors such as hours of sleep per night, number of times awoken and percentage of time spent sleeping while in bed. These factors can be used to give the individual a confidential, holistic sleep report to help them make changes or improvements. In addition, team demographic reports were generated to highlight aggregated fatigue risk.

Personal engagement and intervention are key in achieving better results

RTCCM recognised that fatigue management is a shared responsibility between the company and its personnel, and is largely influenced by personal circumstances, behaviours and actions. For this reason, involvement in the project was voluntary and tailored to individual needs. At all times, strict confidentiality was maintained and individual data was never shared among the team. Personal engagement and intervention – such as one-on-one consultations with a fatigue management specialist to evaluate individual data and lifestyle factors – are found to be key in achieving better management of fatigue.

People

Investing in, and engaging, our workforce

A skilled, engaged and diverse workforce is critical to our business performance. Just as we carefully manage our capital investments to optimise the long-term value of our mineral assets, we use human capital planning to maximise the value our workforce delivers. At the same time, we build the skills and capabilities our people need to reflect our future requirements. Our People strategy, together with our employee commitment, forms the framework that guides how we attract, develop, engage and retain talented people, and aligns with our business strategy.

Approach

We invest in and engage our people over the long term, in line with our People strategy. We do this by fostering diversity, providing challenging and exciting work and development opportunities, and rewarding good performance, while being driven by quality leadership at every level. Together, we put our collective strengths to work, creating value for both the organisation and our employees.

We recruit based on skills and experience, to meet the requirements of each role. We do not discriminate on grounds of age, ethnic or social origin, gender, sexual orientation, politics, religion or physical abilities and we do not employ forced, bonded or child labour. We actively favour employment where local candidates meet job requirements and laws provide. Where local capacity does not meet our employment standards we – in partnership with communities and government – implement programmes to develop skill levels and work readiness. We help Indigenous people engage in the local economy through various strategies, including direct employment.

Our employees' diversity of skills, ideas and experience helps to ensure that we can find innovative responses to the challenges our business faces. We encourage collaboration within and across our businesses, cultures and countries to build cohesiveness and raise performance.

We are focused on increasing the representation of women, and achieving a better balance in gender in the short term, and in ethnicity and nationality in the medium term. We are also focused on developing a more diverse leadership team, specifically to ensure that local nationals in emerging regions have the capability and experience to lead our operations.

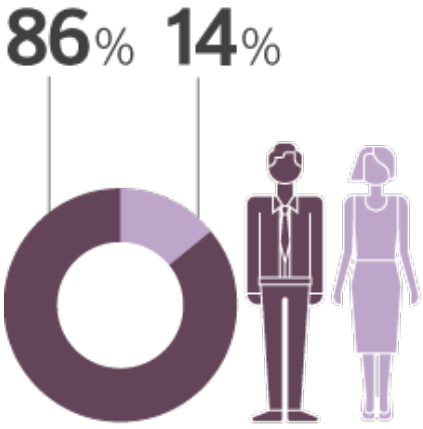
Our Group diversity targets for 2015 are:

- Women to represent 20 per cent of our senior management
- Women to represent 40 per cent of our graduate intake
- Fifteen per cent of our graduate intake to be nationals from regions where we are developing new businesses

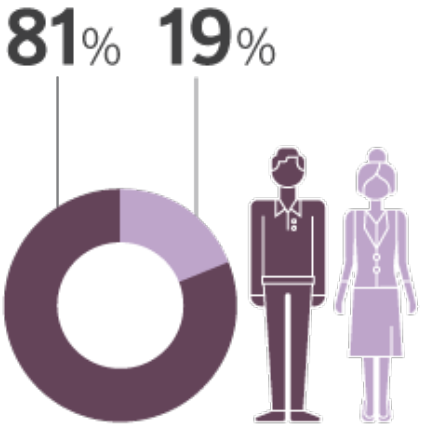
Transparency is part of our everyday work ethic. We conduct and act upon formal surveys that give our employees the opportunity to provide feedback on their experiences of the business and working environment.

We also have *Speak-OUT*, a confidential, free telephone line for our people to bring any concerns to the attention of senior management.

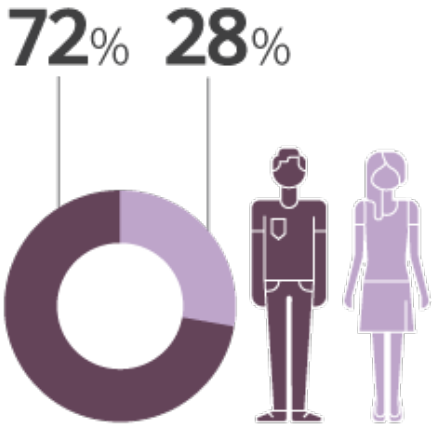
We continue to have a strong focus on development at all levels within the Group and offer an integrated and customised suite of development programmes. This is to make sure we have effective and comprehensive leadership in support of our business objectives. Our activities are based on an analysis of the technical, functional and leadership skills required for each role. *Leading at Rio Tinto*, our leadership framework, provides employees with the key competencies and behaviours we expect from our leaders.



SENIOR **MANAGEMENT**



TOTAL **WORKFORCE**



GRADUATE **INTAKE**

Our Group-wide performance and remuneration systems support consistent and transparent assessment of talent across the company. They also drive a performance-focused culture by making clear linkages between performance and reward, and enable employees to articulate their career aspirations.

We offer our employees a rounded total rewards package, the principles of which are consistent across the Group. They are designed to be competitive, in compliance with all applicable laws and regulations, and appropriately balanced in favour of variable pay linked to performance. Our global banding structure supports equity in both base salary and variable pay systems. Each role within our organisation is banded using the global banding structure and each band has a target variable pay opportunity.

Results

In 2013, women represented 14 per cent (female: 102; male: 608) of senior management, 17 per cent (female: two; male: ten) of the board, 19 per cent (female: 11,090; male: 48,435)[1] of our total workforce and 28 per cent (female: 118; male: 305) of our graduate intake. Our graduate intake in 2013 included 30 per cent of nationals from regions where we are developing new business.

Throughout 2013, we remained the largest private sector employer of Indigenous Australians, who represented approximately 7.5 per cent of our Australian workforce.

Approximately 884,000 attendances were recorded for training in leadership, technical and operational skills, and health, safety, and environment courses during 2013.

In 2013, we employed 66,000 people, including the Group's proportionately consolidated operations and equity accounted units. Of these, approximately 28,000 were located in Australasia, 17,000 in North America, 7,000 in Europe, and 8,000 in Africa.

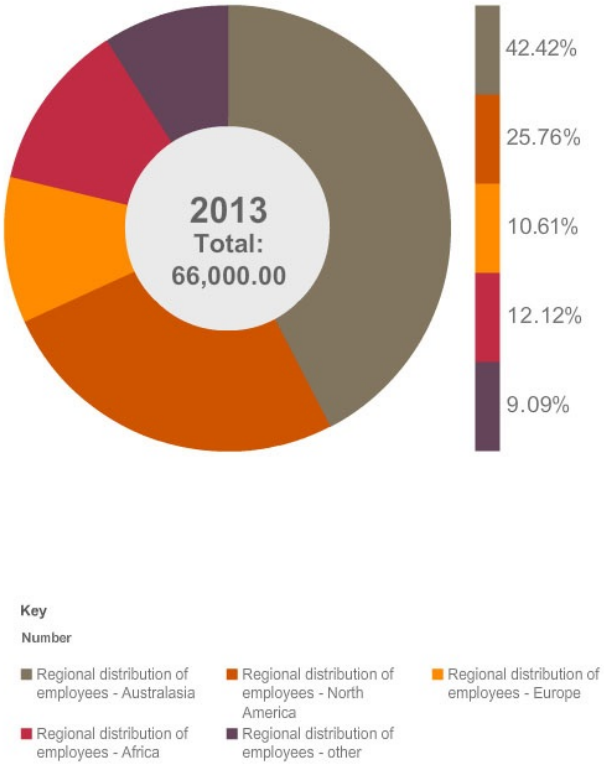
The global economic outlook remains challenging. So we continue to focus on transforming the Group's service and support activities, both within product groups and Group functions, by implementing a new operating model – with the right people doing the right work, in the right location. In some areas there have been significant employee reductions as a result of the transformation required to deliver simpler and more cost-effective support services. These changes will, however, ensure that we become a leaner, stronger and more resilient organisation.

As a result of our graduate talent strategy, we now have a Group graduate development framework in place. This provides the foundation for how our graduates will be developed over their two-year programme.

We use a number of communication tools to keep our employees informed of Group updates, news and announcements. This has included developing myRioTinto, an employee portal dedicated to their employment needs.

(1) Gender distribution for our total workforce is based on managed operations (excludes non-managed operations and joint ventures) as of 31 December 2013.

Regional distribution of employees



Rio Tinto College goes from strength to strength

Developing our people is an essential part of our success, now and in the future. We want to engage our people by providing opportunities for their personal growth, and help them develop to support and enable the growth of our organisation. Meanwhile, the concepts and formats of learning are shifting gear, with people looking for ready access to learning in online as well as traditional classroom environments.

Recognising these needs, our global Learning team developed a three-year roadmap to support the development needs of employees at all levels, in all roles across our operations. The initiatives are aligned with learning available at a local level, to ensure that all employees have access to development for their current and future roles.

Our employees are embracing development opportunities offered by the Rio Tinto College. Following the launch of the College in April 2012, employees can access a wealth of globally-endorsed learning opportunities anywhere and anytime.

Our employees are embracing the development opportunities on offer

Having already established five Academies in the areas of health, safety, environment and communities, human resources, leadership, marketing and stakeholder engagement, the addition of the Procurement Academy has strengthened our global offering in 2013. The College is giving all employees the opportunity to access development opportunities, to help them in their current roles and prepare them for future career options. In 2013, over 29,000 employees registered with the College to allow them access to development training 24/7, wherever they are in the world.

Indigenous training and employment at Weipa

Rio Tinto's vast Weipa bauxite mine is in the remote Cape York Peninsula of Far North Queensland, where more than 60 per cent of the region's population of 18,000 people are Indigenous. The Group, which is also Australia's largest private sector employer of Aboriginal people, is the region's biggest employer and main economic catalyst.

Today the mine is a model of best practice Indigenous engagement that many seek to learn from. Both federal and state governments applaud the site's contribution to promoting positive social shifts in the region.

Bringing enhanced stability to surrounding communities will generate sustainable value for both the mine and the company. It is an inclusive partnership that engages Traditional Owners in the business in a way that ensures Rio Tinto Alcan Weipa respects their sacred sites and culture and that the prosperity generated by the mine is shared.

Between 1997 and 2001, three Indigenous agreements formalised the way the company consults, engages and collaborates with Traditional Owners. These agreements capture the aspirations of the company and Traditional Owners to work together.

Rio Tinto is Australia's largest private sector employer of Aboriginal people

They lay the foundation for intergenerational benefits and sustainable economic outcomes for Indigenous people. Key among these outcomes is employment and training opportunities.

Rio Tinto Alcan's concerted efforts to engage with Traditional Owners around boosting Indigenous employment have yielded best-in-class results for Rio Tinto in Australia. Today a record 25 per cent of the mine's some 1,000 employees are Indigenous, with 16 per cent being local Aboriginal people.

Find out more

Resettlement and compensation

Maintaining and rebuilding social capital

We understand that the resettlement and economic displacement of people and communities can have significant adverse impacts on their future life, social fabric and livelihoods. Well-planned and well-executed resettlement and compensation can contribute to positive long-term relationships between Rio Tinto and our host communities. Conversely, poorly-managed resettlement can negatively impact host communities and also put our social licence to operate at risk.

It is essential that we apply the same rigour to resettlement and compensation that we apply to developing and operating the rest of our business. Our approach is guided by our global code of business conduct – *The way we work*, our Communities policy, standard and guidance notes. It is also guided by the International Finance Corporation's Performance Standard 5: Land Acquisition and Involuntary Resettlement.

From time to time, we acquire new businesses that have existing resettlement, economic displacement and compensation programmes in place. Some of these may not match our standards and we set out to rectify this as quickly as we can.

Approach

We explore all viable alternative project designs in order to minimise the need to resettle individuals and communities. Only where it is unavoidable do we resettle people or displace existing economic activity.

We do not view resettlement as a short-term relocation activity: our goal is to improve the livelihoods of those resettled and their future generations over the long term. Our intention is that resettled people will be better off over time as a result of resettlement – according to their own assessment and external expert review.

Maintaining and rebuilding social capital (the economic value derived from being in a social group) is an important aspect of resettlement planning and implementation. We recognise the importance of social and family networks, and the cultural and religious fabric of societies.

We carry out early and ongoing consultation with those affected, and provide opportunities for the community to participate in planning and implementing resettlement programmes. We work with community representatives to establish a mutually agreed format for communication, consultation and engagement. Major social changes such as resettlement can impact women and children disproportionately so we involve women in the resettlement decision-making, planning and implementation.

Wherever possible, we resettle communities as groups in order to minimise cultural and social impacts. A complaints, disputes and grievance procedure is set up and complaints are resolved in a timely way.

We provide compensation for economic displacement in a transparent, fair and publicly-declared manner. The compensation we provide is equal to or above what is required by law and we aim to reach agreement with host communities on the methodology for calculating compensation. Although compensating for the loss of social capital can be challenging, we consider it a key aspect of compensation. Where possible, we provide compensation in forms other than cash so that long-term goals and livelihood improvements can be achieved.

The Simandou iron ore project in Guinea, a partnership between Rio Tinto, the Government of Guinea, Chalco and the International Finance Corporation (IFC), is in the early stages of development. The project involves constructing a major port facility, over 650 kilometres of railway line, a mine site and a number of logistical supply camps.

A number of households will need to be relocated and approximately 5,500 households may require compensation and replacement land for economic displacement. The process we are following involves engagement with each of the affected communities. This is followed by extensive land custodianship studies that identify traditional lineages at a village and family level, user and occupancy rights, agronomy and land usage data, and the valuation of land, crops, and other assets. All parties are working to the IFC and Rio Tinto standards and the Guinean Mining Code, and with help from a national ministerial technical committee.

Regional Land Commissions help identify, acquire and distribute replacement land. At the local community level, there are village level resettlement committees. All impacted households will have an individual agreement that legally binds Simandou to compensation commitments.

Resettlement began in 2012. A significant number of agreements were made with households, family estates and communities to acquire land for the construction of the port at Forecariah, and ten individual households were physically relocated. All agreements were overseen by a third party under the Guinean legal system to ensure a transparent and fair process.

> "That's why Rio Tinto is highly respected by people affected by the project"
>
> Secretary General of Forecariah

At a workshop on resettlement convened by the Guinean Minister for Mines, the Secretary General of the prefecture of Forecariah said: "Rio Tinto is respectful with local authorities and people affected by the project. There is a permanent dialogue between Rio Tinto and the communities. That's why Rio Tinto is highly respected by people affected by the project and by the population of Forecariah".

Environment

Respect for the environment is central to our approach

Respect for the environment is central to our approach to sustainable development. Wherever possible we prevent - or otherwise minimise, mitigate and remediate - harmful effects that our operations may have. We have developed a range of practical programmes for environmental management, and work on these in partnership with our stakeholders - such as local communities and conservation groups. This collaborative approach helps us increase our understanding of the risks we face - both challenges and opportunities - and how best to manage them.

You can view our detailed performance tables in the Performance data **section**

Air

Finding ways to improve our air quality performance

Our operations release gases and particulates into the atmosphere that may have an effect on people and the environment. These emissions are the result of burning fossil fuels, moving ores and wastes, and smelting metals.

To avoid or minimise related health or environmental impacts, we constantly review our emissions, look for ways to improve our performance and apply controls. Our work is guided by our strict air quality control standard. We also monitor particulate gas and vapour exposure in the workplace, in line with our occupational health standards.

Approach

Our air quality strategy contains a statement of our principles for air management, supported by air quality objectives and associated programmes of work.

Our objectives are to:

1. Improve air emissions performance
2. Maintain and develop our social licence to operate by operating in a compliant manner
3. Engage and influence on air issues

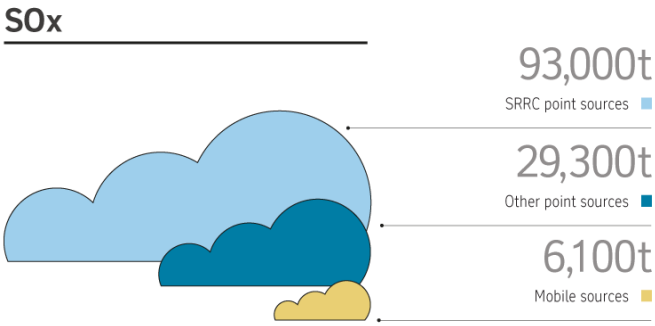
We audit our operations against the Rio Tinto air quality control standard, and implement any corrective actions required.

There are four major air emissions from our operations. We also report mercury air emissions at the Group level.

SO_X

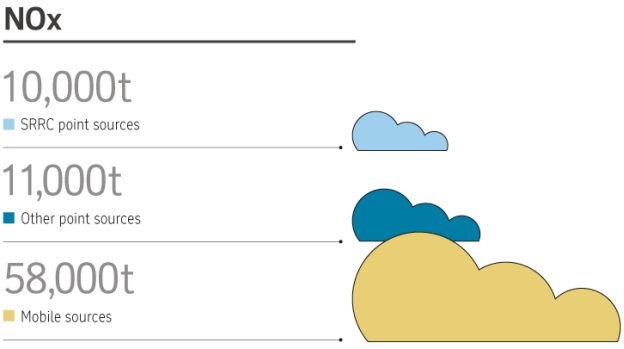
Oxides of sulphur (SO_X) emissions are mainly generated at our aluminium and copper smelters and our coal and fuel oil fired power stations.

- SO_X emissions from our copper smelters result from separating metal from sulphur-rich materials in the raw ore we mine
- SO_X from our aluminium smelters is released during the production of carbon anodes which are an essential part of the smelting process
- SO_X emissions from our power stations are a result of the naturally-occurring sulphur in the fuel source – coal or fuel oil
- SO_X emissions have been associated with effects on human lung function and on vegetation, and can also lead to acid rain under specific processes, though this has significantly declined in the last few decades.



NO_X

Oxides of nitrogen (NO_X) come from burning fossil fuels. They can cause respiratory problems and contribute to the formation of fine particulates in the atmosphere.



Fluoride

Particulate and gaseous fluoride emissions are generated in aluminium smelters when converting alumina to aluminium, and to a lesser extent from processes that consume coke and coal. Fluoride has been associated with effects on human health. It can be taken up by plants, enter the food chain, and affect the strength of teeth and bones.

Air continued

Particulate emissions

Particulate emissions are recognised as a general nuisance as well as a potential risk to health. Depending on the operation, dust can be generated by fuel combustion, the transfer of raw materials, windblown erosion of exposed areas and stockpiles, wheel-generated dust, and during blasting operations.

Particulates smaller than ten micrometres in diameter (PM_{10}) can be retained in the lungs. The composition of PM_{10} has an important influence on potential health impacts. PM_{10} from fuel combustion is generally more harmful than PM_{10} from diffuse sources such as the windblown erosion of exposed areas and wheel-generated dust.

Particulate emissions are associated with increased respiratory symptoms, such as as the aggravation of asthma and some lung diseases.

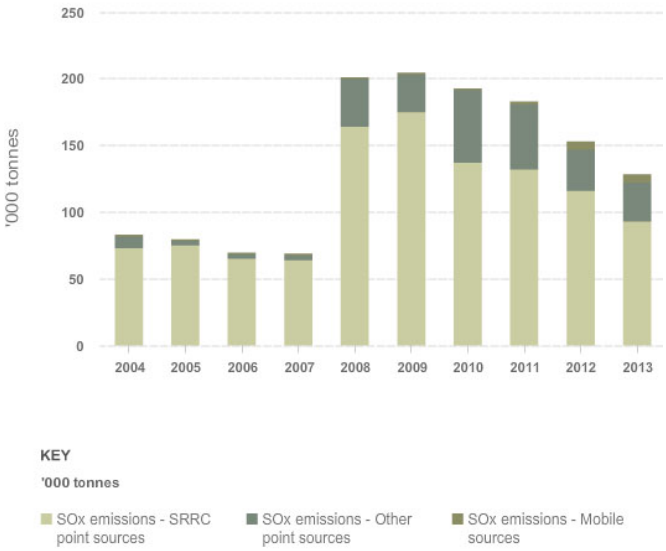
Mercury

Mercury is a naturally-occurring element that can be mobilised in the environment from natural sources and as a result of human activities, such as industrial combustion or other industrial processes.

Consistent with our commitment as a member of the International Council on Mining and Metals (ICMM), and its Mercury Risk Management Position Statement, we report mercury air emissions at the Group level. Many of our businesses already report such emissions at the national or local level through pollutant release inventories or other reporting frameworks. Air emissions of mercury are released from some of our alumina refining operations, other metal production processes, and our fossil fuel power generation.

Results

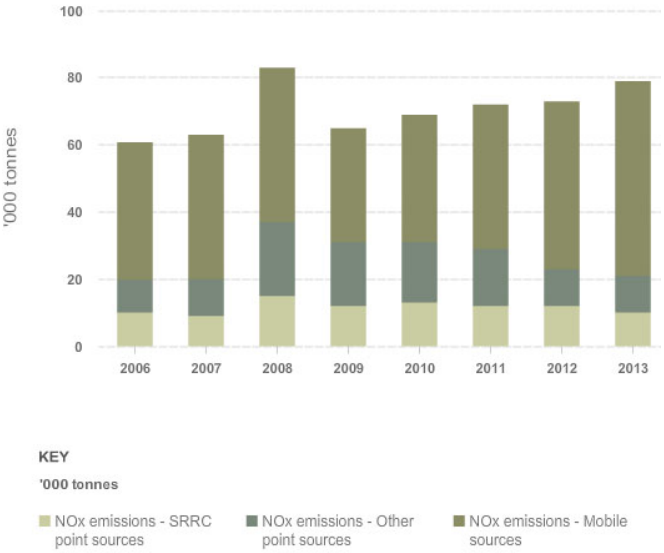
SO_X



Rio Tinto's sulphur dioxide (SO_2) and sulphur trioxide (SO_3) emissions are expressed as sulphur dioxide equivalents (SO_X).

In 2013, our operations emitted 128.7 thousand tonnes of SO_X gases to the atmosphere, a decrease of 23.8 thousand tonnes compared to 2012. Most of this reduction resulted from the divestment of the Palabora copper smelter. Emissions from stationary sources such as smelters, refineries, roasters and concentrators (SRRC sources) and power stations continue to account for the majority of our emissions (95 per cent in 2013).

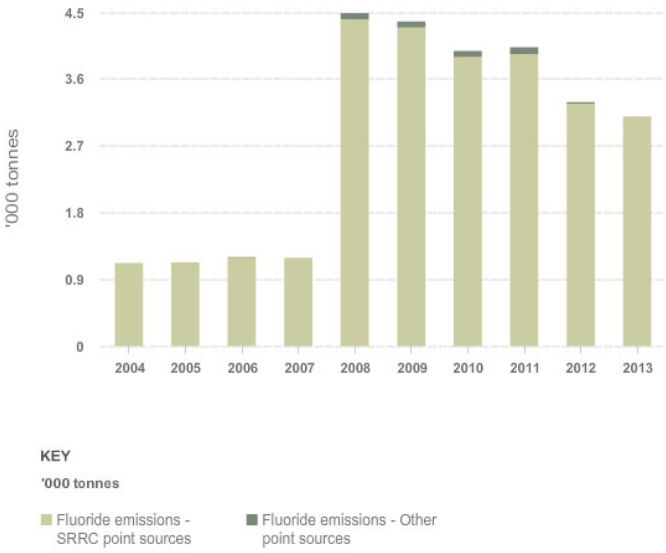
NO_X



Oxides of nitrogen (NO_X, a combination of NO and NO_2) emissions are expressed as equivalent nitrogen dioxide emissions (NO_2).

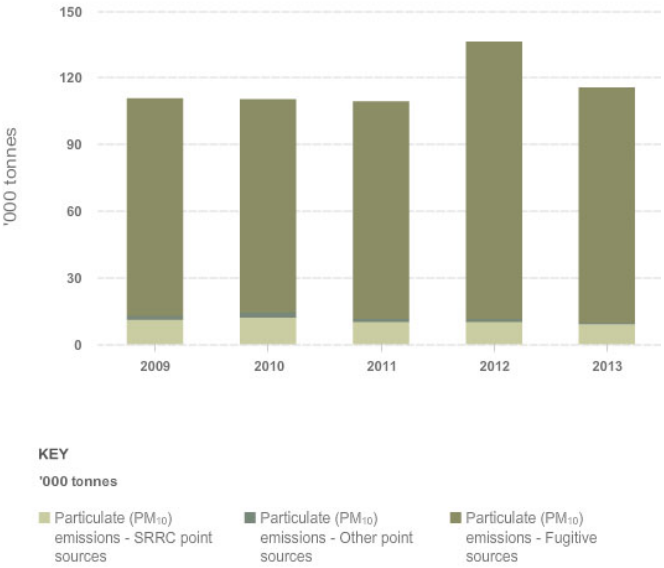
During 2013, total NO_X emissions were 78.2 thousand tonnes, an increase of 5.5 thousand tonnes from 2012. This was the result of increased fuel use, primarily from our shipping fleet. Emissions from stationary sources accounted for 20.1 thousand tonnes, with 58.1 thousand tonnes being emitted from mobile sources.

Fluoride



In 2013, our aluminium smelters contributed 99.5 per cent of our 3.1 thousand tonnes of fluoride emissions. This was a decrease of 183 tonnes from 2012 due to upgraded emission controls at one of our smelters.

Particulate emissions



Particulates less than 10 micrometres in diameter (PM_{10}) are released from our mining activities, our metal manufacturing processes, and our power stations.

In 2013, we released 115 thousand tonnes of PM_{10}, a decrease of 21.4 thousand tonnes from 2012. Emissions in 2013 were:

- 105.6 thousand tonnes from fugitive sources such as wind blowing on stockpiles, loading and unloading stockpiles, vehicles operating on unsealed roads and our blasting activities
- 9.4 thousand tonnes from our smelting, roasting, refining, concentrating and other stationary sources

Mercury

In 2013, total reported mercury air emissions from our metals processing and fossil fuel power generation were 407kg. This compares with 441kg reported in 2012 – the first year we publicly reported mercury emissions to air.

Engine idle reduction at Kennecott

As part of our commitment to sustainable development, Rio Tinto Kennecott implemented an engine idle reduction programme in late 2008. This programme has helped reduce greenhouse gas and other air emissions; save money due to reduced fuel consumption and vehicle maintenance; and increase vehicle availability within Kennecott's fleet.

As part of the programme, Kennecott installed idle monitors on more than 550 vehicles. These monitors help save fuel and protect the environment by reporting vehicle engines that have been idling for a designated amount of time. For Kennecott, reducing its emissions into the local airshed is of critical business importance.

Since the idle reduction programme's inception in late 2008, through to January 2014, Kennecott successfully saved 3,521,664 gallons of fuel, equating to US$11,261,380 in savings. Within that same timeframe, Kennecott reduced greenhouse gas emissions by more than 32,000 tonnes. The company has shared this success with many of its community partners and has hosted two annual idle-free workshops to share its success more broadly.

General managers are held accountable if their department does not meet the five per cent idling reduction target

One of the keys to the success of this programme was setting idling targets as key performance indicators for senior Kennecott management. Each week, general managers at Kennecott are held accountable if their department does not meet the five per cent idling reduction target.

Biodiversity

Understanding biodiversity impacts

Mining activities impact biodiversity and ecosystems, making our mining and refining projects high profile and sensitive for many stakeholders.

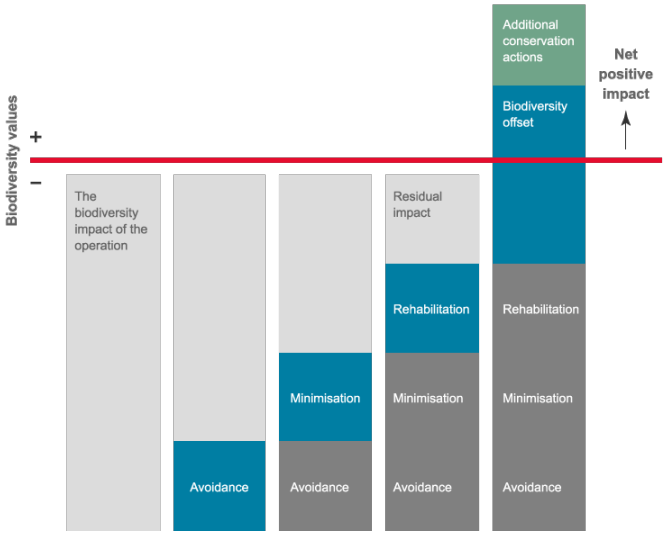
Since 2004 Rio Tinto has had a biodiversity strategy, which includes a goal to achieve a net positive impact (NPI) on biodiversity at our sites where there are high biodiversity values.

Approach

Rio Tinto's approach aims to ensure that actions undertaken at sites are designed to outweigh the inevitable disturbances and impacts associated with mining and mineral processing. We aim to achieve our goal by:

- Avoiding unacceptable impacts to biodiversity
- Reducing the impacts that may occur
- Restoring impacted ecosystems
- Compensating for residual impacts through offsets
- Seeking additional opportunities to contribute to local conservation

We refer to this approach as the "mitigation hierarchy".



Since 2004, Rio Tinto has been working with others on ways to measure our impacts – both losses and gains. We have developed a number of procedures, tools and methodologies to help us manage our impact on biodiversity. These have been developed following rigorous debate both inside and outside Rio Tinto, and with the help of our biodiversity partners, external specialists and NGOs. They include a set of NPI and offset principles that our operations work towards.

We acknowledge the ongoing contributions made by our partners, BirdLife International, Fauna & Flora International, the International Union for Conservation of Nature and the Royal Botanic Gardens, Kew, to assist us in defining, implementing and measuring our performance. In 2014 we will continue to work with them to build capacity at our sites, to implement the mitigation hierarchy and to develop appropriate plans for the highest-risk sites.

We are a major user and owner of land, biodiversity and water resources. This can present significant risks to our operations when coupled with the changing ecosystem service legislative frameworks. Three of the most significant risks include biodiversity compensation (through offsetting), rights to access and use water, and mitigation and offsetting of our carbon emissions. These present both financial and reputational threats, but also opportunities for our operations.

Results

In 2007, we introduced an assessment protocol to identify which of our operations are located in the most sensitive areas. The protocol helps us assess the biodiversity values of our landholdings and surrounding areas. It looks at land in proximity to biodiversity-rich habitats, species of conservation significance, additional site-specific biodiversity values and threats, and the external conservation context.

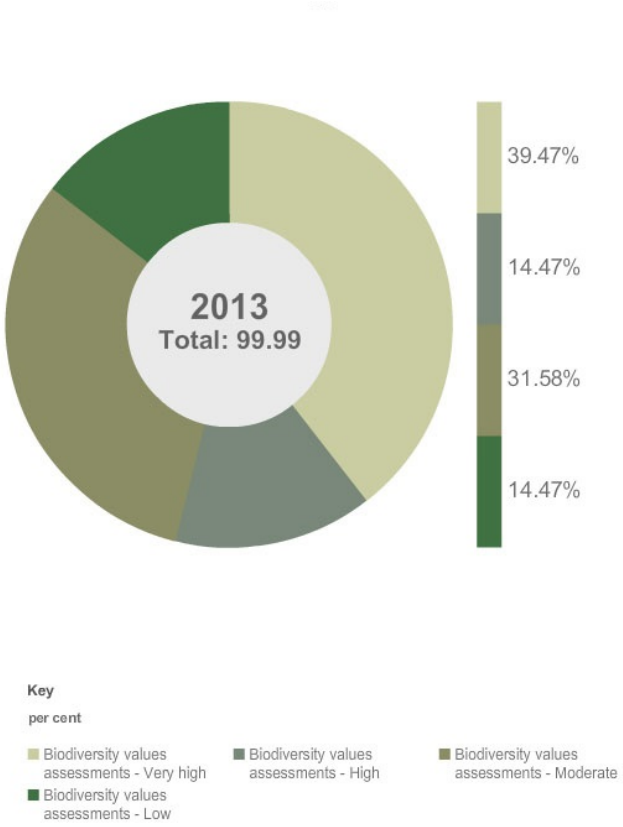
Operations are ranked as being in areas that have "low", "medium", "high" or "very high" biodiversity values. This helps prioritise our actions and channel resources to the very high and high value sites.

For sites with high or very high biodiversity values, we have a goal to achieve a net positive impact on biodiversity by closure of the operations. This is determined by proximity to biodiversity rich habitats, species of conservation significance and the site conservation context. We've set ourselves targets to ensure that our high-risk priority sites are implementing NPI programmes within defined timeframes.

In 2013, 33 of our operations were prioritised with either high (nine) or very high (24) biodiversity values.

These sites which are included in the target group must have developed and implemented a Biodiversity Action Plan (BAP) by the end of 2015. The BAP requires an operation to work with biodiversity stakeholders to identify the important biological features – both on and off site – in the area in which it operates. A site must understand the impacts and risks that its activities might have on those features, and develop and implement a plan to avoid, mitigate, restore and offset those impacts.

Biodiversity values assessments



Due to rounding, the sum may not total 100 per cent.

Partnering with IUCN on our biodiversity goal

It is important to be able to independently assess any NPI progress and achievements. We are working with the International Union for the Conservation of Nature (IUCN) to develop an appropriate protocol to support this.

An NPI protocol and review panel team was established in 2010, with equal numbers of specialists from the IUCN secretariat, its expert commissions, and its member institutions, and from Rio Tinto. Their range of expertise includes biodiversity, review process experience, geographical diversity and mining sector experience.

The objective is to develop, pilot and refine a review process that serves as an independent evaluation of the planning, assessment and progress towards achieving NPI at any Rio Tinto site. It also helps identify potential limitations to achieving NPI.

The objective is to develop an independent evaluation of our NPI progress

To date, pilots have been completed at Richards Bay Minerals in South Africa and at Oyu Tolgoi in Mongolia. A final pilot will take place in 2014 at Rio Tinto's mineral sands mine in Madagascar.

Growing opportunity in the Pilbara

Global ecosystems are under severe stress. Ecosystem degradation is highly relevant to business because companies not only impact ecosystems and the services they provide – such as water supply and purification, carbon sequestration and air purification – they also depend on them. Ecosystem service assessment and valuation have great potential to contribute to solutions for global environmental issues.

Rio Tinto is a major owner and user of land, biodiversity and water resources. We are designing and implementing a number of projects to investigate how to apply economic ecosystem service offsets and investments in non-operational, land-based assets.

Rio Tinto's iron ore operations in the Pilbara region of Western Australia are starting to access ore that lies below the water table, requiring operations to dewater their mines, reusing some of the water and discharging the surplus water to the environment.

Part of the surplus water is used to grow grass that will be harvested for hay. Feeding cattle hay means the station managers are able to contain them in a relatively small area, where the cattle can be better managed. It provides an opportunity for potential restoration of the ecosystems that have been disturbed by pastoral activities.

An opportunity for restoration of the ecosystems that have been disturbed by pastoral activities

Potential expansion at the Marandoo mine could require abstracting and managing up to 110 megalitres of groundwater per day. Rio Tinto is working with IUCN and the Commonwealth Scientific and Industrial Research Organisation to develop an analytical framework, including ecosystem valuation, to help decide the most appropriate, and valuable, management approach for the water. If successful this could be replicated around Rio Tinto's operations.

Climate change

Managing climate risks and opportunities

We recognise the need to understand and adapt to the physical impacts of climate change, which will affect our operations, particularly through the availability of water and the occurrence of extreme weather events. We believe that global energy and climate challenges are best met by companies, governments and society working together. Our strategy is to maximise shareholder returns by making our assets more resilient against uncertain carbon and energy market risks.

Approach

The scale of the necessary emissions reductions and the need for adaptation – coupled with the world's increasing requirements for secure, affordable energy – create large challenges which require worldwide attention. Our climate change programme focuses on reducing the energy intensity of our operations, as well as the carbon intensity of our energy. This includes the use of renewable energy and reduction in emissions intensity from chemical processes.

Setting targets, and regularly reporting against them, is a priority and helps us to manage our performance. We recognise the long term nature of the need to decarbonise our business and that our efforts to reduce emissions will need to increase over time.

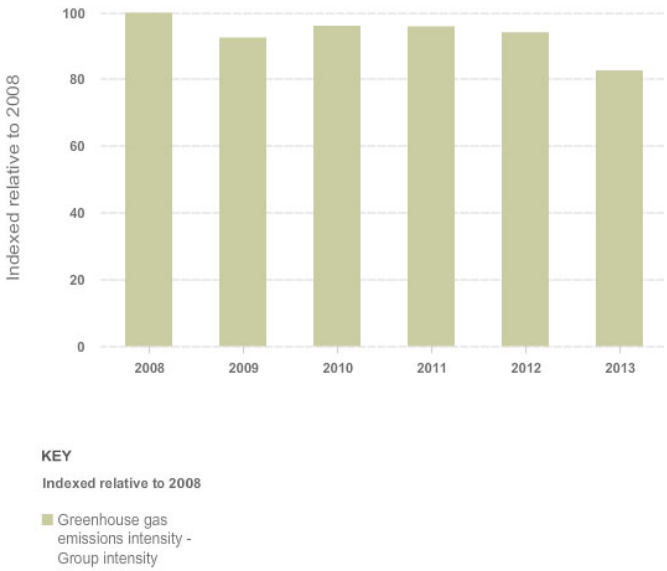
Results

Reduction of our greenhouse gas (GHG) intensity index is one of seven Group key performance indicators. In 2008 we set a target of ten per cent reduction in total greenhouse gas emissions intensity, to be achieved by 2015. Current performance exceeds this target. We will continue to seek opportunities to maintain and improve our performance, and will establish a new target beyond 2015 that takes account of our performance to date.

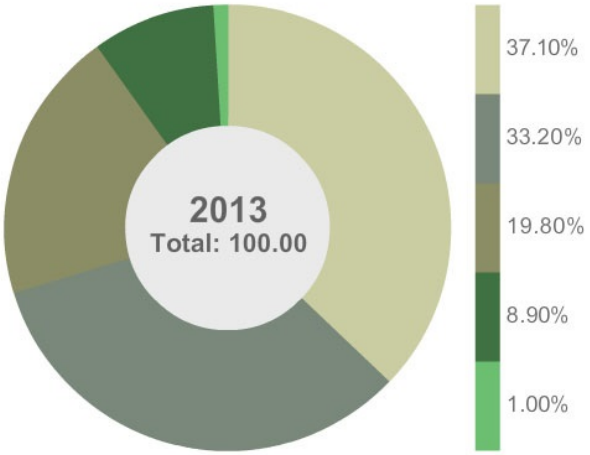
Between 2008 and 2013, Rio Tinto's GHG emissions intensity had reduced 17.3 per cent, largely due to the 2009 divestment of the Ningxia aluminium smelter in China, closure of the Lynemouth aluminium smelter in 2012, divestment of the Sebree smelter in 2013 and improved measurement methodology for coal seam gas at our Australian coal mines.

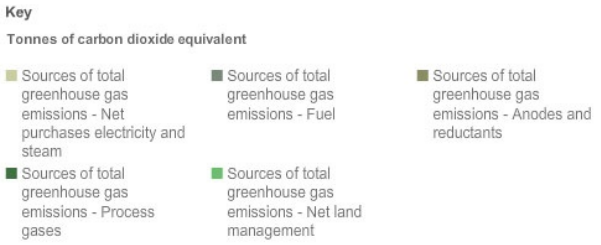
In 2013, our total GHG emissions were 37.2 million tonnes of carbon dioxide equivalent (CO_2-e), a decrease of 3.4 million tonnes from 2012.

Greenhouse gas emissions intensity



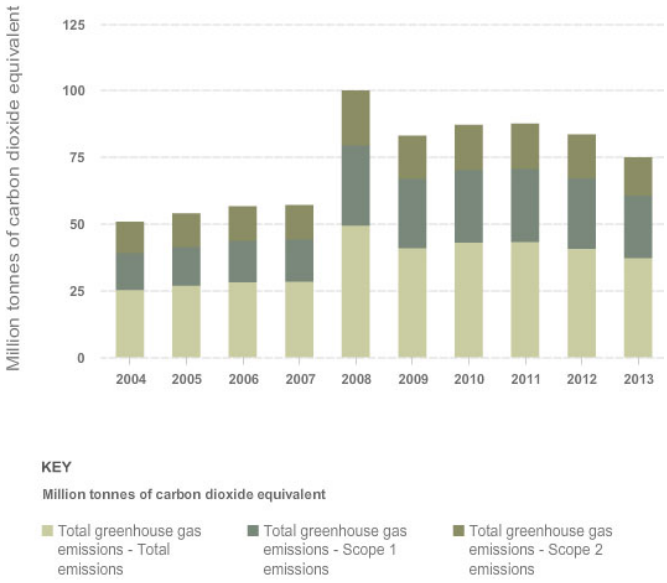
Sources of total greenhouse gas emissions





Please see the Performance data section for a breakdown of greenhouse gas emissions by product group and country.

Total greenhouse gas emissions



Total GHG emissions equal the sum of scope 1 emissions and scope 2 emissions minus the scope 1 emissions resulting from the supply of electricity and steam to third parties minus net carbon credits voluntarily purchased from, or sold to, recognised sources.

The majority of Rio Tinto's GHG emissions are generated as a result of energy use (electricity, fuel and anodes and reductants) during mining, milling and smelting activities at our sites.

We recognise that there are also significant GHG emissions associated with the transportation, processing and use of our products. In 2013, the three most significant sources of indirect emissions associated with our products were:

- Approximately 5.3 million tonnes of CO_2-e associated with third-party transport of our products and raw materials.
- An estimated 139.4 million tonnes of CO_2-e associated with customers using our coal in electricity generation and steel production.
- Approximately 395 million tonnes of CO_2-e associated with customers using our iron ore to produce steel (these emissions are not in addition to the coal-use emissions above, as some customers use both our iron ore and our coal to produce steel).

Despite the lack of progress towards a global agreement on climate change, legislation that puts a price on greenhouse gas emissions is in place in Europe, Australia, New Zealand, and various US states and Canadian provinces. As a result, over two-thirds of emissions from our operations are covered by market-based carbon regulation.

Rio Tinto businesses report emissions to regulators in seven countries or regions, including under the Australian National Greenhouse and Energy Reporting (NGER) Act.

A focus on increasing our pace has enabled new fuel-saving engine software to be applied to eight hydraulic excavators in the Energy business six months earlier than planned. The move generated an annualised value of A$650,000 last year, and reduced greenhouse gas emissions from the excavators by 1,900 tonnes per year.

The principles of the software, Fuel Economy Optimised Engine Calibration, were successfully trialled in more than 130 Komatsu 830E trucks across Rio Tinto Coal Australia sites early last year. The software alters the way diesel is introduced to the engine so fuel is burnt at a higher combustion temperature and is used more efficiently.

The software reduced
greenhouse gas emissions
by 1,900 tonnes per year

Iron Ore's Rail division in the Pilbara has saved A$2 million in diesel usage through two fuel efficiency projects as part of a fuel consumption reduction plan. The team identified several energy efficiency projects, each targeting a specific aspect of the rail system, with a focus on reducing locomotive diesel consumption.

Energy Efficiency Opportunities specialist Michael Davis said the plan aims to eliminate waste, reduce emissions, and meet efficiency and cost reduction targets. "The A$2 million savings were achieved by off-lining one of the loaded locomotives and using the locomotive auto engine stop-start feature," Michael said.

The plan aims to eliminate waste, reduce emissions and meet efficiency and cost reduction targets

Hail Creek leads Australia with dozer engine trial

In an Australian first, Hail Creek coal mine in Queensland has installed the latest C32 engine model from the current CAT D11T dozer line into an older CAT D11R dozer, a move expected to deliver significant cost savings and increase the dozer's efficiency.

Dozer 71 is the site's second oldest dozer and has been working since the mine opened in 2003. The engine, fitted in October, is expected to reduce the dozer's fuel consumption by at least ten per cent and up to 30 per cent. The initiative is a collaborative effort between Hail Creek Mine and Hastings Deering CAT.

Hail Creek Mine mobile maintenance superintendent Darrell Joyce said: "By being open to new ideas and learning from what others have done, we have not only reduced fuel consumption but we can now potentially double the time between maintenance services from 250 hours to 500 hours. The engine is also approximately A$70,000 cheaper to replace or rebuild than the original 3508 engine and is better for the environment with the potential for ten per cent less greenhouse emissions."

> The engine has the potential for ten per cent less greenhouse emissions

Energy

Harnessing technology for improved energy solutions

We believe global energy and climate challenges are best met by companies, governments and society working together. Energy demand growth will require increased energy efficiency, and the use of a varied mix of energy sources: fossil fuels, nuclear and renewable energy sources.

A secure, energy-efficient and cost-efficient electricity supply is important to help our operations respond to energy and climate challenges. As well as improving the energy efficiency of our operations, we try to reduce the energy intensity of new projects by using energy-efficient asset design and alternative sources of energy, and developing step-change technologies for our products.

Approach

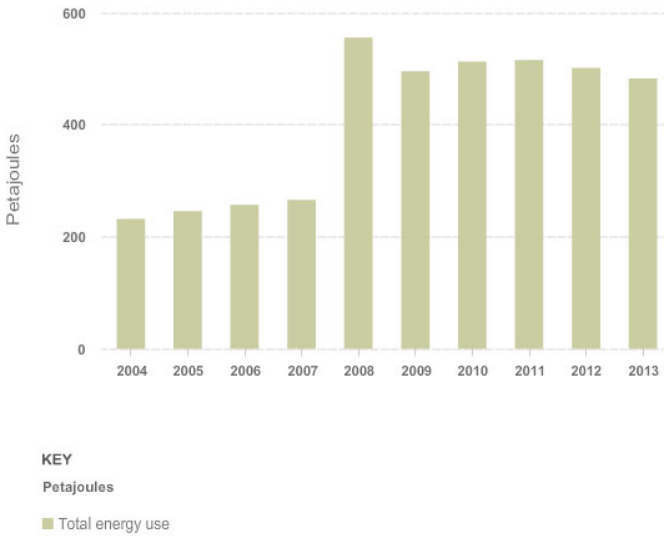
Technology development is at the heart of improved energy solutions. The starting point is to understand our current and future energy use and emissions. To support this, we have developed a solid technical and economic understanding of current and future power generation technologies, including trials of identified, prospective-generation technologies. We have also built a portfolio of renewable energy demonstration projects. We are currently looking to identify opportunities for a commercial scale renewable investment in solar photovoltaic technology.

We also provide guidance and expertise to our businesses as they undertake energy supply option analysis.

Results

In 2013, our operations used 483 petajoules of energy. The 20 petajoule decrease from 2012 was a result of operational efficiency gains at the aluminium and copper commodities. However, through our coal and uranium sales, we supplied 4,133 petajoules of world energy demand. Our energy supply was over eight times our own energy use in 2013.

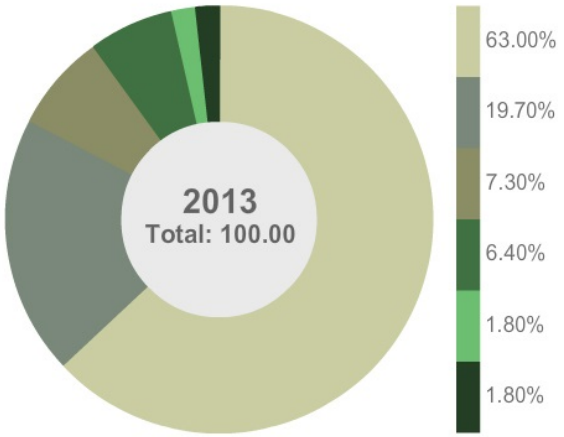
Total energy use



In 2013, 48 per cent (233 petajoules) of the energy we used was electricity. Of that total, 135 petajoules was electricity purchased from commercial networks and 116 petajoules was electricity we generated at our hydroelectric, natural gas, coal, diesel and fuel oil power stations. We exported 17 petajoules of the electricity we generated to remote communities near our operations or to commercial networks where our generation exceeded our needs.

Seventy one per cent of our total electricity use was sourced from hydro, nuclear and other renewable power sources. We have significant hydropower generation facilities in Canada and Scotland.

Sources of electricity used

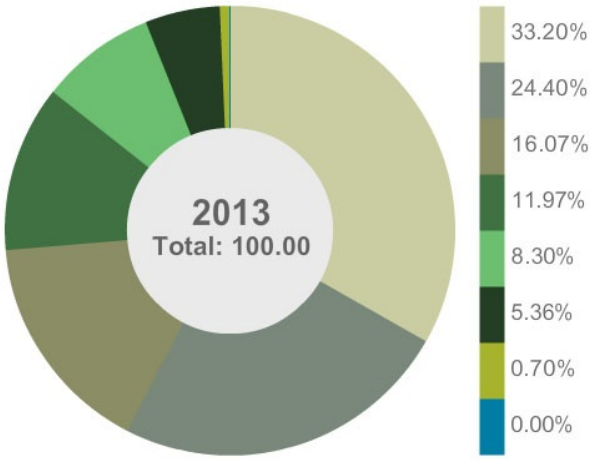


Key

Petajoules

- Sources of electricity used - Hydro
- Sources of electricity used - Coal
- Sources of electricity used - Nuclear
- Sources of electricity used - Natural Gas
- Sources of electricity used - Other renewable
- Sources of electricity used - Other

Primary sources of energy used



Key

Petajoules

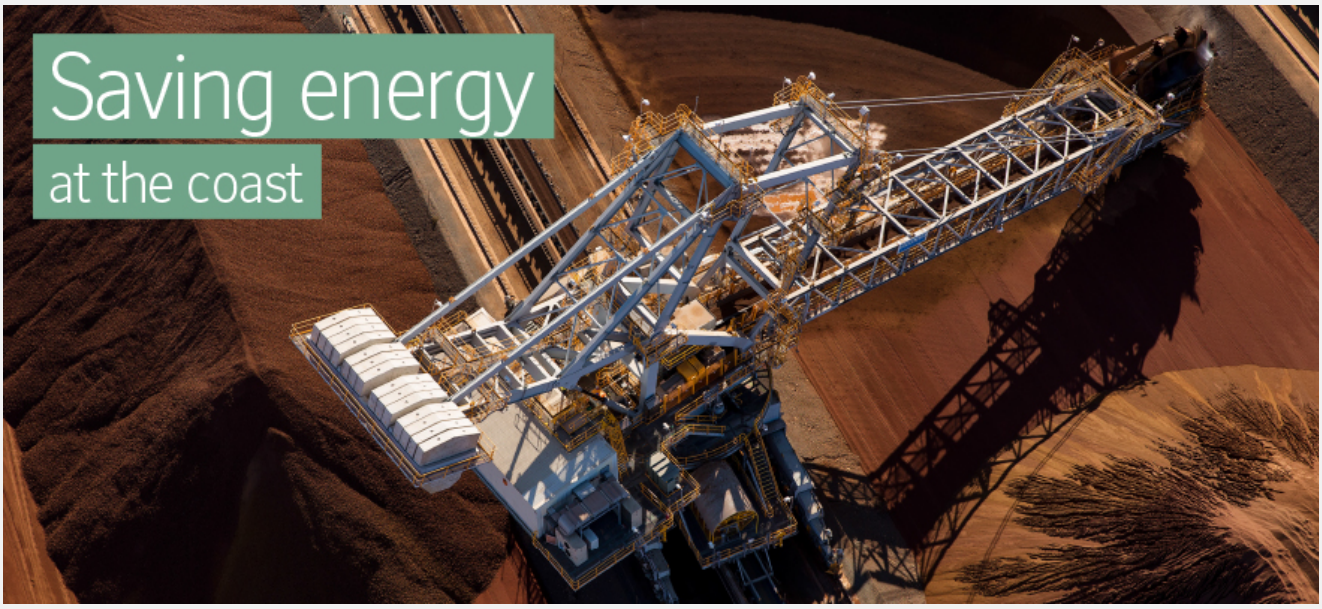
- Primary sources of energy used - Coal
- Primary sources of energy used - Hydro
- Primary sources of energy used - Natural Gas
- Primary sources of energy used - Diesel
- Primary sources of energy used - Nuclear
- Primary sources of energy used - Fuel Oil
- Primary sources of energy used - Other renewable
- Primary sources of energy used - Other

Innovation brings savings for Coal & Allied truck fleet

Coal & Allied is reducing its maintenance costs and damage to its truck fleet by using leading edge technology to identify roads in need of repair. The technology, which has been rolled out across all Coal & Allied sites, uses GPS and stress monitoring equipment installed on the truck fleet to map poor road conditions across its sites so that repairs can be carried out more efficiently. The result has increased the life of equipment across the fleet due to reduced wear and tear; and improved cycle times from pit to dump, which is helping to maximise production and efficiency.

"Through adapting this technology, we've not only improved asset reliability and decreased cycle time, but we're also aiming to provide a host of secondary benefits for the site," Hunter Valley Operations general manager Tom Lukeman said. "As well as reducing fuel consumption, these benefits include improved operator comfort, longer lasting tyres and reduced wear and tear on struts and truck chassis."

> The technology is helping to maximise production and efficiency



Saving energy at the coast

In the Pilbara region in Western Australia, a simple change at the Rio Tinto port facilities on the coast has delivered substantial benefits in improving the energy efficiency of our dust collector system.

Electrical engineer Leigh van der Merwe identified the opportunity to turn fans off during train breaks and shunts, when no dust is being produced.

Since implementing the control logics at Cape Lambert, Western Australia, in April 2013, considerable savings have been made. This change is expected to make a saving of approximately 400MWh per year, at no cost to the business.

Additional benefits include reduced wear on the fans and dust collectors, and reduced differential pressure across dust collector bags; increasing the overall efficiency of the entire dust collection system.

The change is expected to make a saving of approximately 400MWh per year, at no cost to the business

The project was identified in accordance with our obligations under the Energy Efficiency Opportunities Act 2006 to identify energy efficiency opportunities. The project has been replicated at several dust collectors in the Cape Lambert plant.

Land

Ensuring sustainable stewardship of our land

Competition for land-based resources will continue to grow as the global population moves towards nine billion by 2050. An increasing population also increases competing demands between mining and other land uses, particularly food and fibre production. To address this issue, Rio Tinto has developed an internal land use and rehabilitation standard for use across our operations. The intent of this standard is to ensure sustainable stewardship of the land that we own, lease or manage. The standard provides a method to fulfil corporate, community and other stakeholders' expectations for beneficial land uses that can be supported and sustained into the future.

Approach

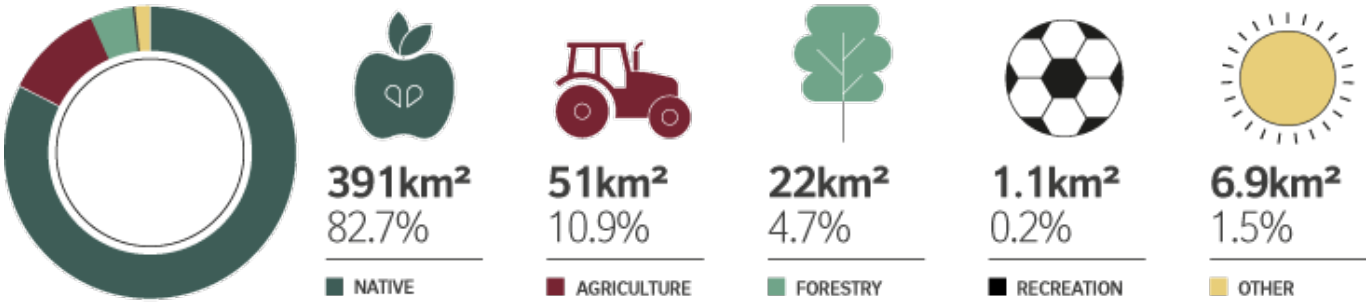
Changing expectations around land use management and conservation have the potential to affect the delivery of our longer-term business objectives. Restrictions on land access represent a material risk for our organisation. This increasingly makes mining and processing activities the subject of greater scrutiny by regulators, local communities, investors, non-government organisations (NGOs) and employees. Communities, NGOs and regulators look to performance-based evidence to measure our commitment to land use stewardship.

This evolving operating environment is not confined to the OECD countries. Increasingly strict regulations, for instance relating to project assessment requirements and offsets, are being imposed in non-OECD countries.

Rio Tinto's land management approach emphasises improved rehabilitation performance. It encourages improvements in the quantity and the quality of rehabilitation and engages new projects and existing operations to improve their performance in land management.

An important component of improving our land management and rehabilitation performance is by taking a sustainable approach throughout the life cycle of the operation and integrating closure planning into operational activities, through strong technical support and knowledge sharing. This includes an aim to progressively rehabilitate as much land as possible prior to the closure of an operation by optimising areas that can be rehabilitated without compromising production. Integration involves ensuring that Rio Tinto is on track to deliver post-mining land uses and landforms that are aligned with community and regulatory expectations.

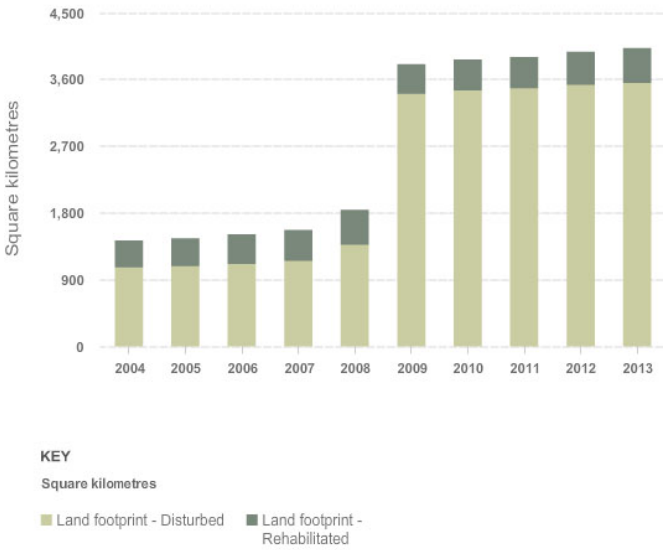
We will continue to rehabilitate greenfield and brownfield areas where operations no longer require further works or disturbance.



Total land rehabilitated 2013: 472km²

Results

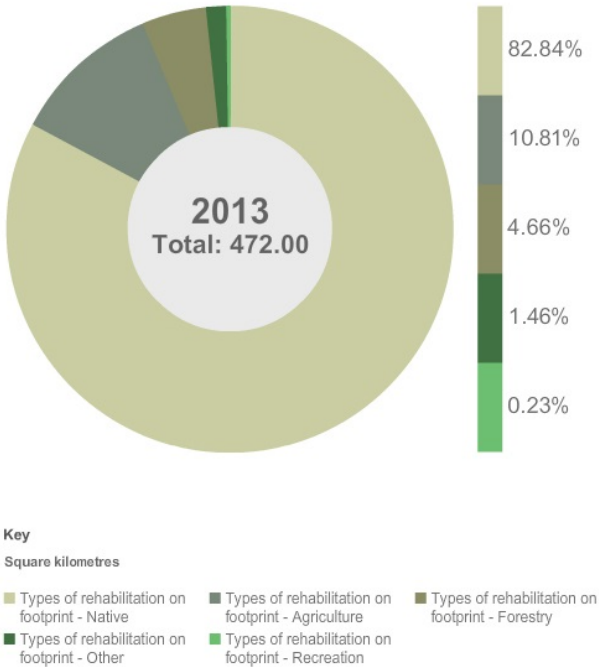
Land footprint



The increase between 2008 and 2009 is due to first time reporting by former Alcan operations

By the end of 2013, 25 per cent of our disturbed land (excluding land disturbed for hydroelectricity dams) had been rehabilitated. External stakeholders play an important role in determining the end-use of the land prior to rehabilitation. In most cases (83 per cent), land we disturbed is returned to native vegetation.

Types of rehabilitation



The sum of the categories may be slightly different to the Rio Tinto total due to rounding or incomplete classification of rehabilitation by type. Totals are provided on the Performance data page.

"Other" includes recreation and a variety of categories including waste management facilities, grasslands and unknown land types.

Rio Tinto works with a number of external organisations and research institutions. These relationships enable us to access the necessary expertise to improve our rehabilitation performance. As a member of the International Council on Mining and Metals, we also help to develop industry policies and practices on protected areas and long-term access to land.

Collaboration brings a boost for Burntisland

When the Burntisland alumina refinery closed in 2002 there had been no planning for, and little expectation of, total closure and yet, ten years on, a popular housing development, within easy commuting distance of Edinburgh, Scotland, breathes life into the town once more. The associated bauxite residue landfill site at Whinnyhall has also been transformed into a meadow that supports wildlife.

A core reason for the project's success has been the extraordinary levels of honesty and trust between the key stakeholders throughout. The remediation and redevelopment of both sites were complicated and this story is a great example of how industry, developers, contractors, regulators and local community can work together effectively to develop a new use for an industrial site. Plant and equipment was dismantled and sold on to Russia, and critical to the success of the project was having a sympathetic developer on board, who made sure that building work did not disrupt remedial works.

> The new housing estate has invigorated the town's economy as well as transforming the landscape

In tandem, former employees were offered re-employment and re-training support, and a high percentage were successful in finding new work. Meanwhile, the new housing estate has invigorated the town's economy as well as transforming the landscape.

Waste

Controlling chemical and physical hazards

During our mining and processing operations, we generate both mineral and non-mineral waste. In order to limit the negative environmental impact of our waste, and reduce our operating costs and risks, we focus on characterising, planning and managing waste effectively.

Our approach allows us to improve our understanding of the true cost of managing our wastes. This in turn helps when planning for acquisitions, new projects, and for closure – as costs associated with wastes have historically been underestimated. One of our main focuses is on the high-risk area of chemically reactive waste. This is a lesser percentage of our total mineral waste but potentially the most harmful. It requires careful planning and management to avoid creating long-term legacies and to minimise existing liabilities.

Effective waste management programmes lead to more than just the management of costs. They also help us protect water quality and successfully rehabilitate land. Rio Tinto's environment standards place due emphasis on managing our various waste streams. These enable us to set Group-wide minimum expectations for mineral and non-mineral waste management.

Approach

Waste management

Mineral waste

Mineral wastes include waste rock, tailings and slag:

- Waste rock is composed of bedrock that has uneconomic mineral content and must be removed to access ore during mining.
- Tailings consist of finely ground rock mixed with process water. They are what remains after the minerals of economic interest have been removed from the ore.
- Slag is generated by smelting operations and is the glassy material that remains after metals, such as copper, have been separated during the smelting process.

Mineral wastes are typically produced in very large volumes. Handling and storing them directly impacts the land and can lead to long-term legacy issues if not managed effectively. Mineral wastes are generally stored permanently on site where they can be used as in-pit backfill or placed in engineered repositories. Most wastes are chemically inert, but some are chemically reactive and must be thoughtfully managed to avoid impacts on water quality or rehabilitation success.

We manage the potential environmental impacts of mineral waste by:

- comprehensively characterising the wastes
- segregating reactive from non-reactive mineral wastes
- designing the repositories to minimise environmental impacts
- undertaking progressive rehabilitation
- implementing risk assessment programmes
- networking externally and internally to share best practices and develop best practice control technologies

Mineral waste management plans

All operations that generate mineral waste are required to develop a mineral waste management plan. These are designed to ensure appropriate management that minimises environmental impacts and controls all chemical and physical hazards posed by the waste.

Non-mineral waste

Non-mineral waste is primarily composed of the used materials that support our mining and mineral processing operations. This includes familiar materials such as used oil, tyres, batteries and office waste, as well as more specialised waste streams such as spent pot liners from aluminium smelters.

It is produced in much smaller volumes than mineral waste, and is most commonly managed through recycling, off-site treatment and disposal, or being placed in on-site engineered and licensed landfills. We promote reuse and recycling where possible and ensure responsible storage, treatment and disposal for the remaining waste.

Acid rock drainage

Acid rock drainage (ARD) from reactive mineral waste is one of the most significant environmental risks for the mining industry. ARD is created when rocks that contain naturally-occurring sulphide minerals are disturbed and exposed to air and water. This accelerates the natural weathering process and may lead to the release of low pH (acidic) or neutral drainage water with elevated salinity and metals concentrations. If not responsibly managed, ARD can impact the revegetation of mining wastes, and degrade surface and groundwater quality. Treatment of ARD can last into perpetuity and represents an enormous cost and legacy.

We are an active and founding member of The International Network for Acid Prevention (INAP). Through INAP, we continue to promote important research on ARD prediction and control. We promote knowledge-sharing within the mining industry on ARD management strategies, and support our commitment to responsible mineral waste management.

Internally, we have developed a number of programmes to improve mineral waste management and limit potential environmental impacts. Through these programmes, outlined below, we build awareness across the Group of the importance and value of strategic waste management, particularly where there are significant ARD risks.

Acid rock drainage management

To prevent or minimise potential environmental impacts of ARD, we have adopted leading practice in mine planning, operation and waste management. New projects are designed to ensure that the risk is minimised and that any low-quality drainage will be captured and treated or retained on site. We actively seek solutions for minimising long-term ARD management requirements and potential impacts at sites where reactive waste piles were created decades ago – when not as much forethought was placed on long-term mineral waste management challenges.

We use a number of techniques to prevent or control ARD. These include selective handling and encapsulation, sub-aqueous (under water cover) blending waste materials, and using either synthetic or engineered earth covers.

We have developed an ARD Hazard Screening Tool to identify high-risk projects, operations, mine expansions and acquisitions. All operations where ARD could occur must maintain a management plan that has to be reviewed every four years by an external expert. Our internal ARD risk reviews have been undertaken for all of our higher-risk operations. They are regarded as the industry benchmark in this key risk area, and include reviews by leading external and independent experts, notably in the field of geochemistry.

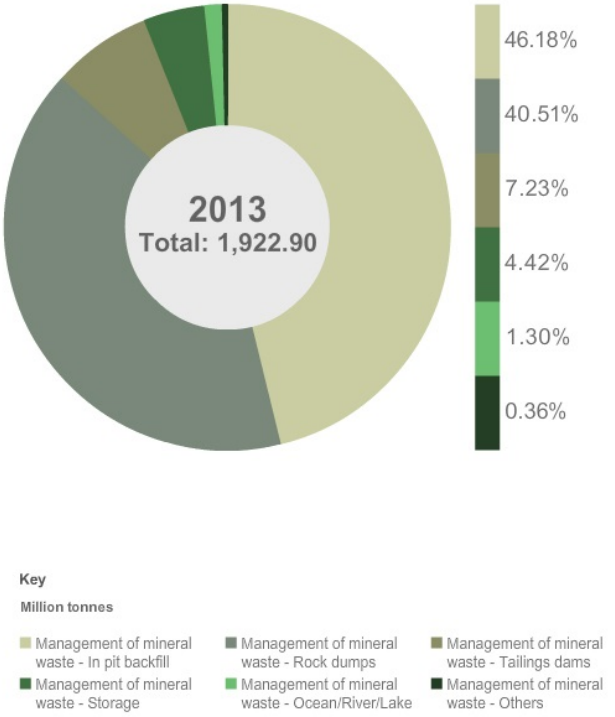
Results

Mineral waste and ARD management

All existing mines and advanced projects where ARD could pose a significant risk have been visited by the ARD risk review programme. Significant progress is being made to address the issues raised by the site visits. Given the long-term strategic nature of many of the ARD issues identified, and the long lead times to design and implement some of the studies and corrective actions, we anticipate that this work will continue for many years. All managed operations where an ARD risk review or mineral waste optimisation programme has been completed were in compliance with the relevant government regulations and permit conditions.

An estimated 1,921 million tonnes of mineral waste (predominantly waste rock and tailings) were disposed of or stored in 2013. About 46 per cent of this mineral waste was used as in-pit or underground backfill. This is an important use for our mineral waste as it ultimately allows open pits to be reclaimed and revegetated and enables safer disposal of certain reactive wastes.

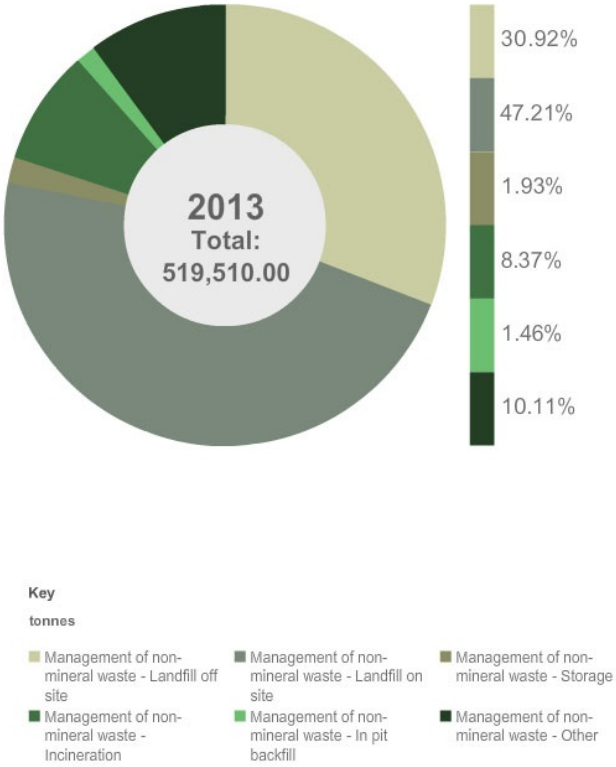
Management of mineral waste



Eighteen per cent of the mineral waste that we disposed of or stored in 2013 is considered to be geochemically reactive. Approximately 44 per cent of the land surface used for reactive mineral waste disposal has been covered or capped to preserve water quality and allow vegetation to be re-established.

We disposed of or stored 519,510 tonnes of non-mineral waste in 2013. Aluminium smelters contributed 27 per cent of this total. The amount of non-mineral waste disposed of or stored has decreased compared to 2012 due to several large demolition and remediation projects during the year.

Management of non-mineral waste



Aluminium smelters generate specialist wastes produced through the smelting process. These waste products include spent cell lining, bath, carbon fines and refractory bricks. Our largest managed copper operation disposes of significant quantities of non-mineral wastes to landfill and other disposal locations.

We found off-site opportunities for reuse or recycling of 997,477 tonnes of our non-mineral waste in 2013, including 91,101 tonnes of bulk processing materials from aluminium smelting and 71,219 tonnes of hazardous waste.

Our operations disposed of or stored 162,048 tonnes of hazardous non-mineral waste in 2013. Twenty eight per cent of this total was from aluminium smelters (spent cell lining and kiln grade spar). At the end of 2013, four per cent of the hazardous waste generated during the year was placed in storage pending final disposal, recycling or reuse.

Remediating bauxite residue in Jamaica

When Rio Tinto Alcan's alumina refineries and mining operations in Jamaica were sold in 2001, a number of bauxite residue landfill sites associated with the plants were retained. The understanding was that Rio Tinto Alcan would safely remediate them and ultimately transfer ownership to the Government of Jamaica.

Of the 13 ponds (totalling around 45 hectares) to be transferred to government ownership, six were exposed ponds where no restoration had been attempted. One had been partially restored, and six had previously been substantially restored or naturally revegetated.

While vegetation grows well in the Jamaican climate, it does not like the elevated pH and physical conditions of old red mud ponds. The standard closure approach was to cap the land using scarce topsoil and revegetate. Rio Tinto closure specialists challenged this response to dealing with bauxite waste and implemented a "topsoil free" trial. The aim was to establish best practice not only for Rio Tinto Alcan but also as a legacy for the alumina industry in Jamaica as a whole.

Collaboration with regulators and communities was central to the project's success

Using a combination of chemical and physical treatments, nature itself, and time, the trials showed that the residue surface can develop into a soil capable of sustaining vegetation, thus avoiding unnecessary remedial works. The knowledge acquired from the "topsoil free" trials was subsequently applied to all of the other exposed ponds.

The research and the subsequent remedial works proved very successful and over the space of just a few years red mud wastelands became green thickets. The successful trials resulted in the development of a remediation programme for the red mud disposal sites that met high ecological and sustainability standards as well as minimising risk. The productive collaboration between regulators, communities, and Rio Tinto Alcan was central to the project's success.

Water

Targeting improvements locally

Water is a vital resource for communities and ecosystems and is essential to our operations. Our operations rely on the ability to obtain water of suitable quality and quantity, and are committed to using water responsibly. Our approach to water management is based on the identification, assessment and control of water-related risks.

Each operation has its own water challenges. Some are located in water-scarce environments. Others need to manage surplus water from storms or groundwater, or the quality of water we use and discharge to the environment. We work with neighbouring communities to manage our impacts, and look for opportunities to provide clean drinking water in countries where water is unsuitable or insufficient to meet community needs.

Approach

At Rio Tinto, we use water from different sources and of different qualities, such as groundwater, surface water (sourced from rivers, lakes, rain and snow), seawater or water from dams that we build on site. We focus on ways to minimise the amount of water we remove from the environment, reuse it whenever we can, and return it to the environment, meeting regulatory limits.

Where possible, we use recycled water. Some sites have been able to recycle up to 70 per cent of their water; others source it from external treatment plants. At many sites, we replace use of high-quality (potable) water with poorer-quality water to conserve local water supplies.

Water impacts are normally experienced locally. Our activities can impact the quantity or quality of nearby water resources. These impacts may then pose risks to production, access to water supplies, costs and our reputation, all of which can affect our licence to operate. They can also result in regulatory changes.

Over the past five years, Rio Tinto has experienced production losses as a result of water-related impacts, for example, storm water flooding our mines. The potential impacts of climate change will bring greater uncertainty to our water supplies and water management into the future.

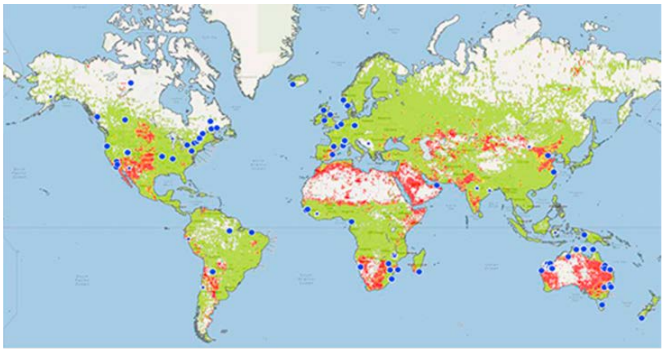
We have developed a number of programmes to improve our performance, including:

- A **Group water target** that aims to reduce freshwater use per tonne of product by six per cent by 2013 from a 2008 baseline.
- A **water standard** that is audited and sets the minimum expectations for each operation when managing water. As part of the standard, operations are required to measure water use, reduce potential impacts on water resources, and understand current and future water requirements of upstream and downstream stakeholders.
- A **water risk review** that helps operations assess their water risks and opportunities.

For our approach to water to succeed, we need good working relationships with those directly or indirectly affected by our businesses, for example Indigenous and other land owners, communities, governments, investors, the scientific and financial communities, and employees. We have worked with international organisations committed to sustainable water management, the International Council for Mining and Metals (ICMM), governments and national industry water organisations to support the development of water policy.

We have used the World Business Council for Sustainable Development global water tool to identify which of our operations and projects are located in water-scarce environments. Approximately 29 per cent of our freshwater withdrawal is from 36 operations in water-scarce environments. The map below shows that our greatest exposure relates to many of our Australian operations.

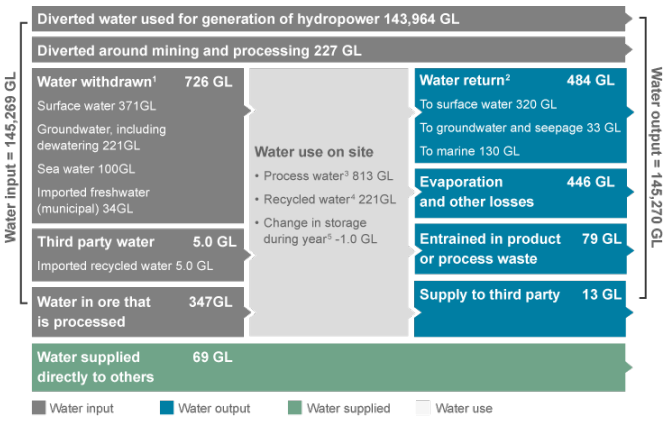
Operations and projects located in areas of water scarcity



Results

Water balance 2013

Rio Tinto measures and reports on all water inputs and outputs, as shown by our water balance



[1] Including onsite impounded/imported surface, onsite/imported groundwater (including dewatering) and marine water.

[2] Including process effluent and dewatering water discharged without use.

[3] Including mining (dewatering), milling, washing, power generation, dust suppression, etc.

[4] Tailings, sewage or water contaminated in process that has been treated for reuse.

[5] The difference between total water input and total water output is 'change in storage'.

1 GL = 1 gigalitre of water (1 billion litres)

Our water target

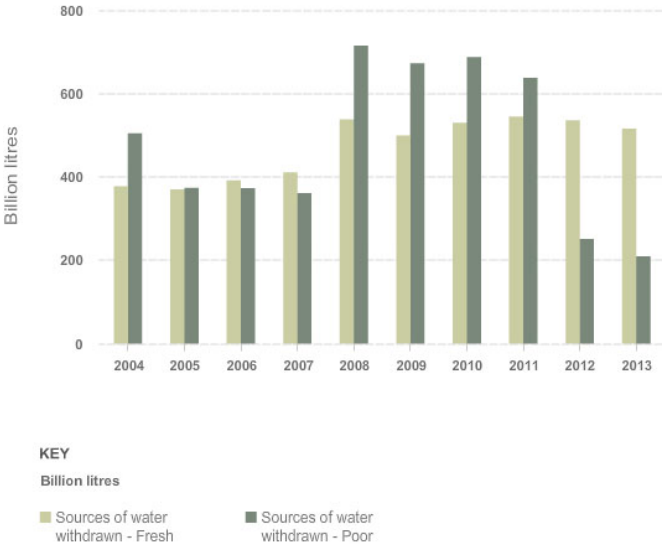
At the end of the 2008-2013 target period, we met the targeted six per cent reduction in our freshwater use per tonne of product. We achieved a 6.1 per cent reduction during this period. In 2013, our freshwater withdrawal decreased by 3.9 per cent to 516 billion litres. Through specific programmes, such as recycling, businesses improved their freshwater use. However, this metric does not accurately reflect the improvement in water efficiency at many sites, with the target impacted by production levels and extreme rainfall events unrelated to water efficiency.

As our approach to water-use has matured, and with better understanding of site-specific factors, we have reviewed and reset our water targets to better reflect local or regional conditions. Our new Group target requires all managed operations with material water risk to have reviewed and improved their management of their material water risks, and have achieved their approved local water performance targets by 2018. The target reflects the geographic diversity of our operations, and the nature of their water challenges. This approach allows our sites to have targets that focus on issues of water supply, the management of surplus water, or water quality. All of our sites have plans in place to manage their specific material risk and in 2014 we will begin reporting our performance against this target.

Material water risks have been identified at over 40 per cent of Rio Tinto's operations and almost 75 per cent of our projects, with the greatest exposure in Australia, followed by Africa and Canada. Each operation has its own set of water challenges, and risks vary by region and site. These risks cover technical challenges, regulatory requirements, financial impacts and stakeholder expectations. Beyond risks to individual businesses, more complex, and often long-term, regional water risks pose a threat that can require collaboration with stakeholders.

Water sources

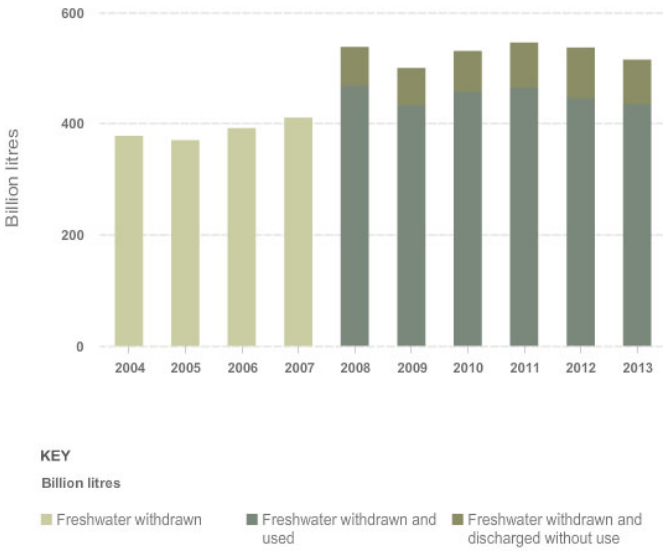
Sources of water withdrawn



The decrease in poor quality withdrawal in 2012, compared to previous years, is due to divestment of operations.

About 14 per cent of our water withdrawn is marine water, primarily used as cooling water at our power stations. We also use significant quantities of water to generate hydroelectric power, mainly for our Canadian aluminium smelters. The source and quality of the water vary from operation to operation.

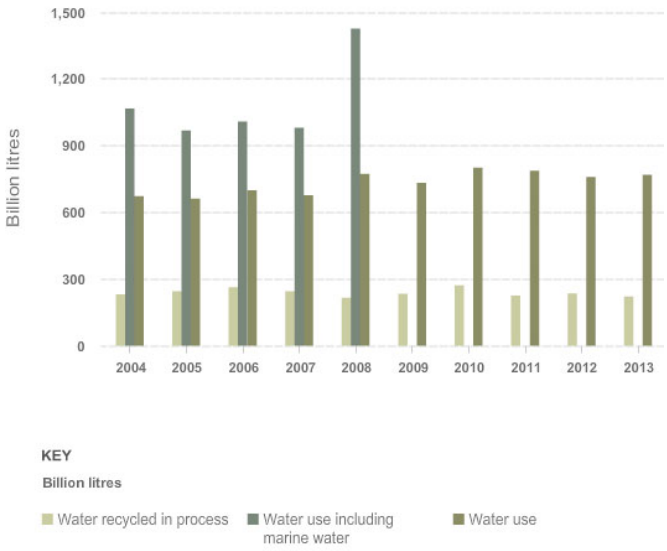
Freshwater withdrawn



The sum of the categories may be slightly different to the Rio Tinto total due to rounding. Totals are provided on the Performance data page.

As there is generally a higher community and environmental demand for freshwater than for poor-quality water, we consider how much freshwater we withdraw to be one of the key indicators for our water performance.

Water used and recycled



The definition of "water use" was changed in 2009 to exclude marine water.

Water use decreased in 2013 due to decreased mining and groundwater extraction at some operations and reduced rainfall and associated water being stored on site.

New wave in water treatment at ERA

In September 2013, Energy Resources of Australia Ltd (ERA) introduced world leading water management and treatment technology to its Ranger uranium mine in Jabiru, Northern Territory, when it unveiled a new A$220 million brine concentrator facility.

The brine concentrator, which was commissioned on schedule and within budget, is critical to ERA's water management plan. The company will use the facility to manage and reduce its process water inventories – that is, water that has come into contact with its uranium extraction circuit.

The brine concentrator has the capacity to produce 1.83 billion litres of clean distilled water per year. That's enough to fill more than 730 Olympic-sized swimming pools.

Developing and commissioning the concentrator was a collaborative process between ERA, Rio Tinto's Technology & Innovation group, the external manufacturer and project contractors.

The facility works by heating and evaporating the process water. Through a process of cooling and condensation, distilled water is produced, which can be discharged through wetland filters.

A concentrated brine is left over. This is safely contained in the tailings storage facility, until a permanent storage method – which is currently being developed by ERA – is approved by regulators.

ERA recognises the concerns that the Mirarr Traditional Owners have about the potential impact of its operations on the quality of water around the Ranger mine, and surrounding lands. Said Rob Atkinson, ERA's chief executive when the facility was commissioned: "We have listened to the concerns of the Mirarr and other key stakeholders and the opening of the brine concentrator marks a very significant step forward in demonstrating our ability to treat large quantities of water effectively."

> "The brine concentrator is evidence of ERA's focus on meeting its commitments to protect the environment."
>
> Adam Giles, Northern Territory chief minister

Speaking at the opening ceremony for the brine concentrator, Northern Territory chief minister Adam Giles said: "ERA has continued to demonstrate the highest commitment to environmental protection.

"The brine concentrator is further evidence of ERA's focus on meeting its commitments to protect the environment, and progressively rehabilitate the Ranger mine site."

The facility will play an integral part in progressive rehabilitation activities at Ranger. ERA will make sure that when its operations come to an end, the Ranger Project Area will be safely closed and rehabilitated so that it could be incorporated into the Kakadu National Park, which surrounds, but is separate from the operations.

Economic

Sustainable development is underpinned by sustainable economies. Our activities give us the opportunity to facilitate economic growth, as a major employer, taxpayer, and buyer of goods and services in the communities and regions where we operate. We work with our stakeholders to make sure this growth is responsible and sustainable – so that we leave a positive economic legacy after our operations close.

You can view our detailed performance tables in the Performance data **section**

Economic contributions

Facilitating economic growth

We aspire to bring sustainable and net economic benefit to the regions and countries in which we have a presence, and we are committed to contributing to the social, economic, and institutional development of the communities in which we operate. It is important to our shareholders, employees and many other stakeholders that we contribute to societal stability through local employability and employment opportunities, local procurement, civic governance and the transparent payment of tax and dividends. This approach helps us build a reputation as an organisation that facilitates economic growth. In turn, this helps us earn our social licence to operate.

Approach

The scale and capital intensity of our mining and processing activities mean we are often a major employer and tax contributor to the local, state, and national jurisdictions in which we operate. Along with the primary economic contributions that we make, it is important that the benefits of natural resource endowment flow into increasingly diversified and sustainable economies. Major stakeholders, particularly governments, seek to work with us in facilitating responsible economic growth that can leave a positive legacy after our operations close.

To achieve this, we model and monitor the economic impact of our presence in the places where we operate. Wherever possible we hire locally, and source goods and services local to our operations. Our tax contributions and the equity ownerships of some governments in Rio Tinto operated mines enable governments to develop and maintain public works, services and institutions. We work closely with governments, academics, NGOs and other multilateral organisations to monitor the impact of these contributions on GDP and other relevant indicators.

It is important to us and our host communities that an equitable proportion of resource endowments actually flow to the regions that host the operations. Historically, the direct and indirect financial returns derived from natural resources have often leaked from resource-endowed regions entirely, leaving regional civic infrastructure bereft of sustaining capital and locally affected people without a net benefit. To counter this tendency, a focus is needed on economic impacts at the regional level, robust analysis, transparency and broad inter-sector collaboration.

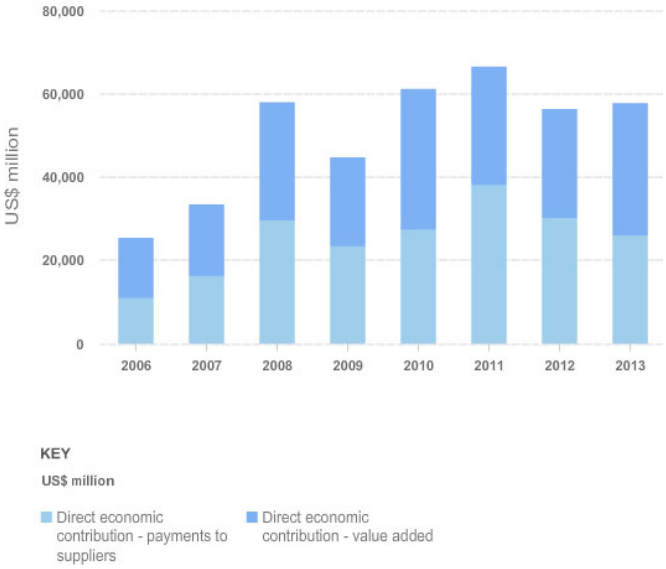
Results

In 2013, Rio Tinto's global direct economic contribution was US$57,872 million. This includes employee salaries and wages, payments to governments, payments to suppliers, dividends and interest, and capital reinvested[1]. This represents an increase/ decline of approximately 2.5 per cent from our economic contribution in 2012. As our employees spend their wages locally on diverse goods and services, this leads to a further indirect economic contribution. We do not measure this indirect and induced economic effect globally, but it is important to keep this in mind when considering Rio Tinto's contribution to host economies.

1 For further information on the types of payments included see our Taxes paid in 2013 report.

Economic contributions continued

Direct economic contribution



Discretionary contributions

Direct community programmes	– US$104m	Total US$331m
Benefit receiving trusts	– US$197m	
Management costs	– US$30m	

Direct contributions

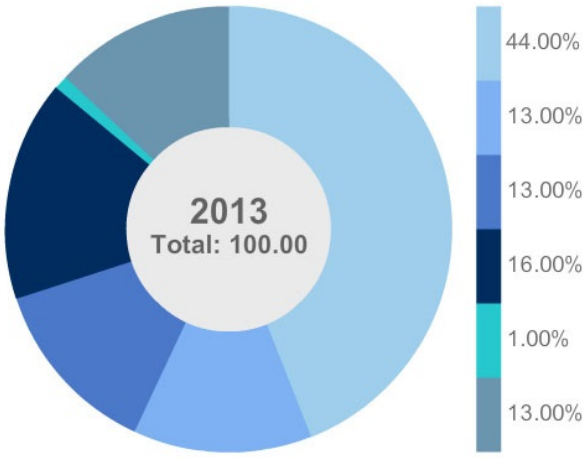
Local — Total US$13,676m
- Salaries – US$4,126m
- Payable to governments – US$253m
- Payments to suppliers – US$9,297m

Regional — Total US$8,994m
- Salaries – US$2,160m
- Payable to governments – US$2,352m
- Payments to suppliers – US$4,482m

National — Total US$16,313m
- Salaries – US$737m
- Payable to governments – US$6,472m
- Payments to suppliers – US$9,104m

International — Total US$3,437m
- Salaries – US$266m
- Payable to governments – US$0m
- Payments to suppliers – US$3,171m

Distribution of direct economic contribution



Over many decades, Rio Tinto has played an integral role in the development of the Australian economy, often described as a resource-based economy. As the second-largest mining firm on the ASX by market cap, Rio Tinto's mines and corporate growth has catalysed the growth of direct and indirect goods and services industries across Australia. In 2013, we again made a significant contribution to the Australian macro, regional and local economies in which we operate.

Our operations employ approximately 25,000 employees, and the total of salaries and wages paid (not including employee income tax) to our people in the country was US$3,214 million in 2013.

Our US$3,214 million contribution to the Australian economy in 2013

Non-managed operations and JVs

Engaging with our partners on the way we work

Rio Tinto holds interests in companies and joint ventures that it does not manage, including the Escondida copper mine in Chile and the Grasberg copper-gold mine in Indonesia. We actively engage with our partners around sustainable development through formal governance structures and technical exchanges. In this way we endeavour to ensure that the principles in *The way we work* are respected at all times.

Escondida

Rio Tinto has a 30 per cent interest in Escondida, which is managed by BHP Billiton. Our seats on the Owners' Council allow us regular input on strategic and policy matters. In 2013, Escondida successfully negotiated a four-year contract with their union employees, which allows Escondida to continue to be focused on safety and the environment. Also during the year, the Escondida Water Supply project to construct a new 2,500 litre per second seawater desalination facility was approved. This project will ensure a continued water supply to sustain operations while minimising Escondida's need to use groundwater.

Grasberg

PT Freeport Indonesia (PTFI), a subsidiary of Freeport-McMoRan Copper & Gold, Inc., owns and operates the Grasberg mine in Papua, Indonesia. We have a joint venture interest attributable to the 1995 mine expansion, which entitles us to a 40 per cent share of production above specified levels until the end of 2021 and 40 per cent of all production after 2021. We have the ability to engage and influence through our representation on the Operating, Technical & Sustainable Development Committees.

Tragically, there were 33 industrial fatalities at PTFI in 2013; 31 underground and two at the surface involving light vehicles. Twenty-eight people lost their lives in the catastrophic underground tunnel collapse incident in May. We have worked closely with, and continue to support, the PTFI leadership team both in the investigation and in the post-investigation lesson implementation to develop practices to avoid catastrophic failures in the future.

PTFI manages complex social, community and environmental issues. There have also been instances of violence in areas near the operation, including a series of shooting incidents that resulted in one injury in 2013. PTFI continues to implement prudent measures of security for personnel and material transport. Both Rio Tinto and Freeport-McMoRan support the Voluntary Principles on Security and Human Rights (VPSHR) and work together to ensure practice is consistent with these principles. Rio Tinto continues to monitor the situation.

The operation employs controlled riverine tailings transport, a process that the World Bank does not consider as good industry practice, on the basis that it is contrary to International Finance Corporation's 2007 Environmental, Health, and Safety Guidelines for mining. However, several independent expert reviews concluded that this method represents the best practicable management solution for this operation because of the extremely rugged topography, high rainfall and significant seismic activity. We continue to believe that this method is appropriate given these conditions.

Significant improvements continue to be made to limit the surface area disturbed by tailings placement, to enhance retention within the engineered deposition area, to minimise geochemical risks, to protect adjacent river systems and to rehabilitate inactive tailings surfaces. In addition, PTFI uses tailings to make cement that supports local infrastructure projects.

In July 2013, Rio Tinto approved US$1.03 billion (Rio Tinto share) for the construction of a new 2,500 litre per second seawater desalination facility to ensure continued water supply and sustain operations at the Escondida mine in Chile. Rio Tinto holds a 30 per cent interest in Escondida.

The project will provide a sustainable supply of water for the new OGP1 copper concentrator approved in February 2012, while minimising Escondida's reliance on the region's aquifers.

Commissioning is scheduled in 2017. The project will include two pipelines, four high pressure pump stations, a reservoir at the mine site and high voltage infrastructure to support the system.

The project will minimise Escondida's reliance on the region's aquifers

Rio Tinto's investment will be funded through the company's share of Escondida's cash flows.

Suppliers

Creating a secure and sustainable supply chain

Suppliers are critical to Rio Tinto's business. Without vendors supplying products and services to Rio Tinto our business would stop. In 2013, Rio Tinto's 1,100 procurement staff (in/outsourced) based across 41 sites, conducted 2,000 sourcing projects and 3,000 procurement bids which resulted in 5,000 active contracts, 14 million transactions and US$15.335 billion contestable spend[1].

Approach

It is strategically important that wherever we operate we have a secure, sustainable and internationally competitive supply chain. By seeking a balance of global, national and local supply capability we drive value for our shareholders and deliver economic benefits for the communities in which we operate. When appropriate, it is our preference to procure locally, because of the shared value this creates for both Rio Tinto and our host communities.

In the past year, the global resources sector has contracted due to shrinkage of demand for most metals and mineral-related commodities. As a result, resource companies' spend has reduced.

Strategy

To reduce costs, Rio Tinto has had a dual strategy: in higher-cost, more developed countries there is a shift towards more global procurement, ie leveraging economies of scale and procuring more lower-cost products from the emerging markets. In lower-cost, lesser developed economies, Rio Tinto is striving to procure more products and services and is working with local vendors, others in industry and governments, to support the development of local suppliers.

Mitigating risk and leveraging opportunity

To minimise commercial and non-technical risk, for instance relating to safety, the environment or human rights, Rio Tinto has a team of procurement and non-technical risk professionals working in emerging markets such as China and India.

Rio Tinto invests time and resources in developing suppliers. We deliberately do not have a globally consistent programme, because each operating environment is different – socially, politically and economically – and there are different drivers, challenges and potential partners. Our programmes vary considerably, as illustrated in the case studies at the end of this section.

Results

Through our operations, we make a significant direct and indirect contribution to the local, regional and national economy, through:

- export revenue
- purchasing goods and services from suppliers
- paying salaries and benefits
- paying rates, royalties and other taxes to governments, which are used for the provision of services and infrastructure
- community investments

Payments to suppliers are a major benefit to the economy, generating employment and creating wealth. Across the world, we spent US$26,054 million on goods and services with 28,000 suppliers in 2013.

In 2013, Rio Tinto's spend with suppliers contracted 8 per cent, relative to 2012.

Country	2013 spend (US$ million)	2012 spend (US$ million)
Australia	17,746	20,784
Canada	1,257	619
France	36	24
Great Britain	358	781
Guinea	11	45
Iceland	0.77	0.68
India	49	48
Madagascar	81	72
Mongolia	812	704
Mozambique	0.33	0.17
Namibia	153	207
New Zealand	245	264
Norway	12	11
South Africa	457	88
US	3,177	2,775

The table below shows our major material purchases for 2013

Material	Amount ('000 tonnes)
Petroleum coke	1,641
Caustic soda	887
Diesel	1,460
Fuel oil	714
Sulphuric acid	647
Explosives*	553.8
Coal tar pitch	331
Aluminium fluoride	22.1
Lubricants and greases	27.1

Only bulk products included. Other initiating explosive items purchased in boxes or pieces excluded.

Most of the materials outlined above are globally procured. Most mine-related services are procured within the local areas, states, territories and provinces where we operate.

1 Contestable spend is the annual operational spend that is available to be sourced by Rio Tinto Procurement. Excludes development capital.

Collaborating with local suppliers in the Hunter Valley

In the Hunter Valley of New South Wales, RTCA's approach to supplier development involves an active partnership with HunterNet. HunterNet is a network of small and medium manufacturing, engineering and consulting companies, formed as a non-trading, not-for-profit co-operative. HunterNet was formed as a response to the shifting economic climate of the 1990s, which saw many of the smaller manufacturing and engineering companies competing in a more limited market. Small to medium-sized enterprises needed to create new opportunities for themselves and the region in order to survive. By combining their skills, expertise and the power of many, these companies were able to focus on competing globally.

HunterNet markets the combined capability of the members, and provides business development and training opportunities.

RTCA provides advice on what companies are looking for from suppliers

The Procurement function actively engages with HunterNet and provides its members with advice such as what companies are looking for from vendors and how procurement decisions are made within a multinational company during collaboration forums.

Developing raw materials supply in Namibia

Rössing Uranium in Namibia currently procures and consumes 250,000 tonnes of acid annually in the uranium processing operation. Currently there is no sulphuric acid plant in southern Africa that can produce acid that meets Rössing's specifications. The Rössing Uranium Procurement team has been working with Dundee Precious Metals, which operates a copper smelter, and rail operator TransNamib to develop production and transport acid in Namibia. Once completed, the plant will capture and convert sulphur dioxide from the smelter into a value-added sulphuric acid product.

Rössing Uranium anticipates being the largest customer of the new operation. Project completion is scheduled for the end of 2014 at a scheduled cost of N$2.3 billion. Based on an expected throughput of 240,000-310,000 tonnes of concentrate yearly, the acid plant will produce approximately 270,000-340,000 tonnes of sulphuric acid per annum.

The benefit to Rössing will be enhanced security of supply and a price differential as the cost of transport will reduce.

The new plant is expected to result in 600 construction jobs and 50 skilled positions once it is up and running

The benefit to Namibia will be employment and enhanced productivity. Other spin-off benefits include the increase in business for TransNamib to transport the acid by rail, and the increase in power demand from national power utility NamPower for the new acid plant. The new plant, the company says, is expected to result in the creation of 600 construction jobs and approximately 50 skilled positions once it is up and running.

Training suppliers in global procurement principles

The *Rio Tinto Procurement principles* are our global statement of business conduct in relation to procurement. They reflect how our corporate philosophy meets the operating demands of our business units. The *Procurement principles* outline our expectations of our suppliers with regard to governance, health, safety, environment, human rights and commercial issues.

Like many of Rio Tinto's operations, the Procurement team at ISAL, Rio Tinto's Icelandic aluminium business, presented training to suppliers in 2013 on the *Procurement principles*. Any vendor that did not perform well on the competency assessment received remedial training in the areas needed.

This training was developed on the back of feedback from some suppliers that they did not know what was expected of them and what is important to Rio Tinto.

How our corporate philosophy meets the operating demands of our business units

Introducing new community vendors at RBM

The operation at Richards Bay is looking to develop a new mining lease area, known as Zulti South. The Zulti South area, like the current mining operation at Zulti North, is surrounded by communities (Dube and Mkhwanazi) that historically have lacked opportunity.

The Richards Bay Procurement, and Communications and Community Relations functions, have been working together to build capacity within the local communities to enhance the participation and sharing of economic benefits from Richards Bay Minerals.

A programme has been launched to develop capacity and expertise within Richards Bay Minerals' (RBM) host communities. A consultancy, the Centre for Supplier Development, was appointed to manage the programme, with the main focus being the introduction of new community vendors to the business.

Building capacity within the local communities to enhance economic benefits

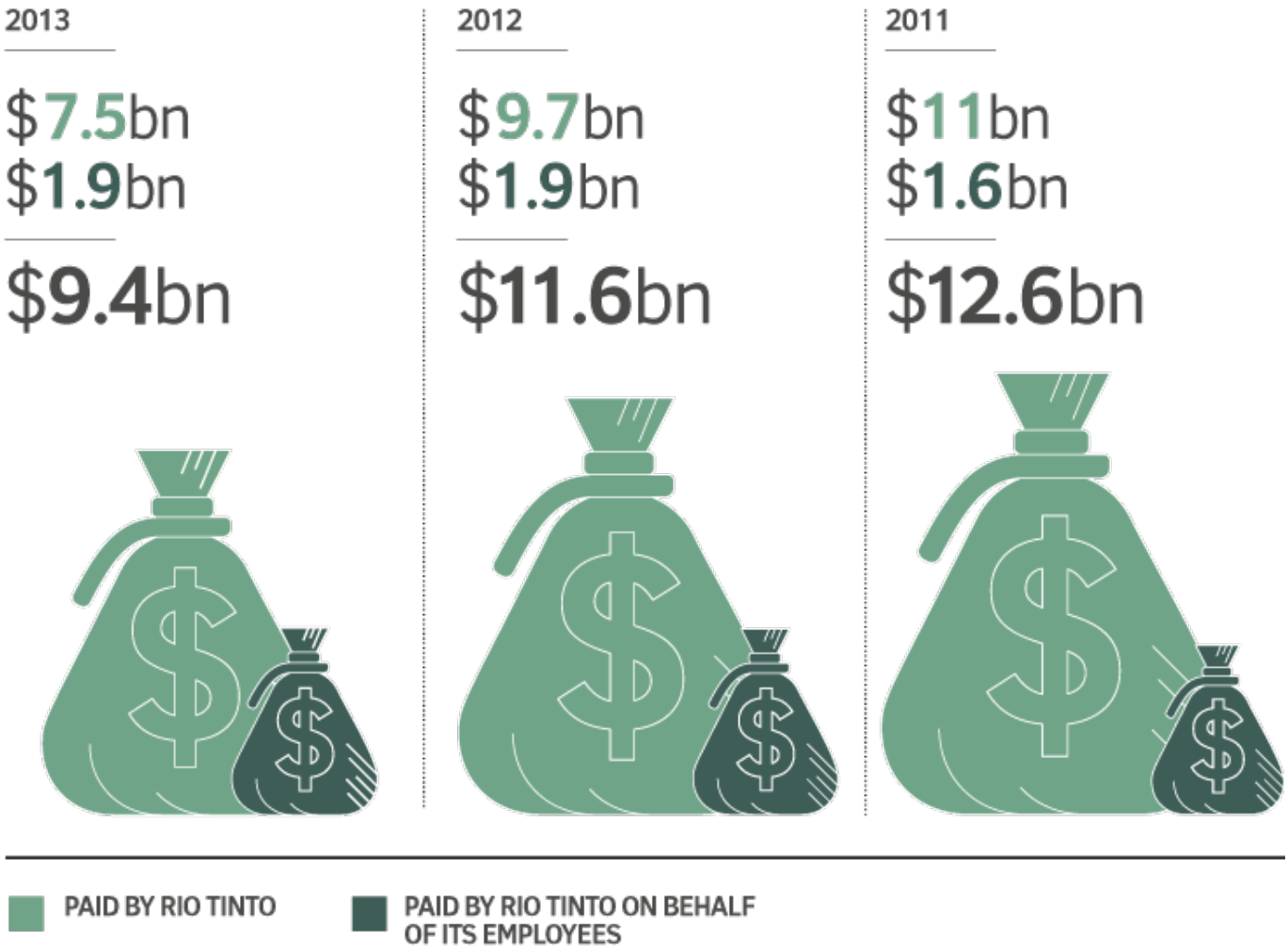
Phase 1 of the programme was completed in 2013 and included detailed analysis of the current capacity that exists within the communities. Interested parties were consulted and a plan was prepared to roll out the development of these prospective community businesses in 2014.

RBM management engaged internal stakeholders to explore sustainable procurement opportunities.

Tax

Our continuing commitment to transparency

Rio Tinto's Taxes paid in 2013 report provides an analysis of the US$7,470 million payments to governments by Rio Tinto in 2013 and the US$1,944 million of payments to governments by Rio Tinto on behalf of its employees in 2013 by tax type, country and named level of government.



For historical detail of taxes paid

- 2013 Taxes paid report
- 2012 Taxes paid report
- 2011 Taxes paid report
- 2010 Taxes paid report

Governance

Our commitment to acting responsibly is critical to our success

As an important driver of our reputation, our commitment to acting responsibly is critical to our success as a business, and our ability to generate shareholder value. *The way we work*, our global code of business conduct, forms the basis of our governance systems. It sets out our four core values: accountability, respect, teamwork and integrity. These guide the way we engage with all our stakeholders: with transparency and openness, and so that we understand their interests and concerns.

You can view our detailed performance tables in the Performance data **section**

Business resilience

Preparing for the risks we face

Our operations could face a range of incidents that may threaten our business. While it is impossible to predict every kind of incident we could face, we have adopted a Group-wide approach to business resilience and recovery to address the risks.

This approach brings together our Group's collective experience to protect our people, the environment, our assets and our reputation. It is an essential part of our Health, Safety, Environment and Quality (HSEQ) management system, which aims to prevent or control risk and the consequences of such events.

Approach

Since 2010, Rio Tinto has taken an integrated approach to business resilience. This has brought together the previously separate emergency response, business continuity and information technology recovery plans into one streamlined Business Resilience and Recovery Programme (BRRP).

The elements of Rio Tinto's BRRP are aligned to the "plan, do, check, review" model of continuous improvement, and requires the business to do the following:

1. Plan: Appoint a BRRP steering committee and identify hazards, conduct risk assessments and business impact analysis
2. Do: Design business resilience management plans, emergency response plans, business continuity plans and information technology recovery plans
3. Check: Establish a business resilience centre, a centre of expertise database, and establish/align incident notification, reporting, recording and communication processes
4. Review: Test/validate the BRRP

The programme is externally audited as part of the HSEQ management system framework.

This programme requires all our operations to allocate appropriate resources, including trained personnel, facilities and equipment, to effectively mitigate the impact of, control and recover from, major incidents. We manage incidents in a consistent manner by using a common language, sharing best practices, eliminating overlaps and clarifying accountabilities.

Results

Every Rio Tinto site – whether an office, mine, plant or project – has a business resilience and recovery programme with appropriate plans and teams to prepare for, and respond to, the risks they face. Our HSEQ management system requires every team to exercise their plans on an annual basis. Time and time again it has been proved that the best responses to incidents are led by teams that have rehearsed with realistic and credible exercises. These exercises have become increasingly sophisticated, giving the teams confidence that they will be able to meet the business's needs in a time of crisis.

At 9.30pm on 10 April 2013, Rio Tinto Kennecott's Bingham Canyon Mine experienced the largest slide in mining history. Preparation for the slide had begun months in advance, after advanced geotechnical equipment identified increased movement in the north-eastern wall of the pit, and the company started to relocate and close buildings, access roads and equipment. Employees were moved out from the bottom of the pit before the 135 million tonne slide began, and not a single person was injured.

Kennecott's Business Resilience Team was activated to support the response and to manage the wider business impacts of the event. The team ensured the continuation of downstream operations, and proactively managed communications with the community and government, customers and suppliers.

The potentially devastating consequences for the future of the mine and the local community were averted through a well-planned and prepared business recovery response. The mine has remediated more than 23 million tonnes of material and continues to recover equipment. The entire operation is breaking safety and production records across the value stream and continues to recover at an unprecedented rate, with a continued commitment to Zero Harm.

The potentially devastating consequences for the mine and the local community were averted

Closure

Planning for post-mining land use

Closure planning is essential for every Rio Tinto operation. Good performance in legacy management and closure can enhance our reputation and enable us to maintain access to land, resources, people and capital – so we can continue establishing new projects with the support of local communities.

Approach

When production ceases at a mining operation, the land is rehabilitated so it can be used for a beneficial post-mining land use. When rehabilitation is complete, leases are relinquished or land that is owned by the company can be sold to a new private owner. Careful planning throughout the lives of our operations, and in consultation with local stakeholders, will make a significant difference to closure outcomes, minimising the social and economic impact on local communities and the surrounding region.

The Rio Tinto Closure standard requires that our businesses start planning for closure from the earliest stages of project development, to seek sustainable and beneficial future land uses when an operation eventually closes, if possible, and minimise financial, social and environmental risks.

Stakeholder consultation is a key element in our closure planning. Both our Closure and Communities standards require that our operations engage regularly with stakeholders, including employees, traditional landowners, local communities and governments. Together, we identify potential post-closure land uses. We seek stakeholders' endorsement for a preferred closure option as early as we can in the operation's life cycle.

Closure planning is integrated into operational activities. For example, progressive rehabilitation and remediation of any contamination minimises the restoration work required at closure, and ensures final rehabilitation is efficient and effective. Our closure strategy is also closely connected to our biodiversity goal, which is to achieve a net positive impact on biodiversity by closure of the operations, or earlier, at sites with high or very high biodiversity values.

Closure management plans are updated on a regular schedule – at least every seven years for very long-life operations, and more frequently as operations approach closure. This makes sure that key risks are addressed in a timely way and that financial provisions for eventual closure are adequate. Closure provisions are assessed and updated annually. When an operation is five years from closure, we develop detailed decommissioning plans based on sustainable development criteria agreed with stakeholders.

We use multi-disciplinary teams to develop, review and implement closure plans. These teams typically include experts in community relations, environmental management, human resources, finance and engineering. We also have a dedicated and experienced team managing our legacy sites.

Post-closure stewardship

In addition to those sites that we have owned and operated, we also manage a portfolio of non-operational sites that we have inherited through acquisitions and mergers, that are either no longer economically viable or that have been closed by their previous owners and require further remediation before they can be sold. Some of these are mine sites, but the majority are industrial or brownfield sites such as former smelters, refineries, mills and manufacturing sites.

Regardless of these legacy sites' ownership history, it is in our interest to safely decommission and remediate them, making the land available for beneficial reuse as quickly as possible. Our reputation depends on our doing this responsibly and effectively. We seek opportunities for socioeconomic and environmental regeneration, and have found that through careful management, applying innovative solutions where appropriate, and working in close collaboration with others, these sites can often be transformed into community assets.

Examples of good closure planning and implementation, identified through our internal reviews, external research collaborations and networking, are shared throughout Rio Tinto to improve our overall performance. We also continue to participate in initiatives to enhance closure planning guidance for our industry through recognised bodies such as the International Council on Mining and Metals and the Minerals Council of Australia.

Results

Since the closure management plan review programme began in 2005 we have conducted 71 reviews. These ensure that our mine closure plans are current and aligned with stakeholders' expectations, and that adequate financial provisions for closure are made.

77 per cent of the Group's operations have closure management plans in place. New operations and businesses integrated into the Group through acquisition are progressively developing closure management plans to meet the requirements of our Closure standard.

Closure costs include the dismantling or demolition of infrastructure and the rehabilitation of land disturbed during the life of mining and other operations. Estimated costs are provided for over the life of each operation, based on the net present value of the closure costs. These estimates are made assuming current legislation, standards, restoration techniques and commodity prices, which may impact on the economic life of an operation. The total provisions as at 31 December 2013 amounted to US$8,582 million.

Ryan Camp: protecting its heritage for future generations

Ryan mining camp served a number of small borates mines in Death Valley, California, US at the beginning of the 20th century, and was inherited by Rio Tinto in the 1960s.

The camp, including a narrow-gauge railway, has been restored and donated to the Death Valley Conservancy as a museum to help educate and inform visitors about the heritage of the region's mining industry, including the iconic 20-mule teams of the 1880s.

This echoes the old mine site's former life as a tourist attraction in the 1920s, when Ryan was converted into the Death Valley View Hotel. More than 10,000 people visited Death Valley in the winter of 1928-1929 alone, but with the advent of the car, the Death Valley railroad became unprofitable and closed in 1930. After the railroad ceased operations, the hotel suffered the same fate.

Educating visitors about Death Valley's mining history

Company executives played a pivotal role in the designation of Death Valley as a National Monument and today the strong links with the National Parks Service continue to develop. The aim is to make safe and preserve the fragile, nationally significant, historic mining camp. The project is being managed and led by passionate, skilled enthusiasts knowledgeable in historical building conservation, with strong support from Rio Tinto senior management.

Engagement

Understanding our stakeholders' interests and concerns

Engaging with external stakeholders is core to our business success and part of our everyday approach, articulated in our global code of business conduct, *The way we work*. We consider anyone who has an interest in our activities, whether they are an individual or a representative of a group or organisation, to be a stakeholder. This includes people who are affected by our decisions as well as people who influence our decisions. We identify our stakeholders, and strive to understand their concerns and interests, so that we can successfully engage with them. We also spend time sharing and explaining information about our activities. All these actions help us improve our decision-making.

Approach

We listen to and work with others to explore how, together, we might help solve some of the global challenges we face. These challenges may range from partnering with governments, working with communities on employment and heritage matters, or engaging with investors and the media, to working with non-government organisations on biodiversity loss and climate change and its impact on water and energy.

Engagement activities may be local, national, regional or international. These activities are complementary and together form part of our response to addressing global business issues.

Strengthening our capability in stakeholder engagement is core to our future. The geographies and markets in which we conduct our business are becoming ever more complex. This makes it even more important for us to be credible and listen to our stakeholders' views.

The Stakeholder Engagement Academy is a central element of our strategic global focus on developing the capabilities of our people to successfully engage with our stakeholders. It provides learning and development courses and resources for front-line project managers and stakeholder engagement professionals around the business. In 2013, 11 residential courses were delivered by the Academy in seven countries, and 319 employees attended the courses.

Stakeholder engagement is not just a specialist's role. The Academy offers learning opportunities from external academic providers as well as Rio Tinto practitioners. Enhancing our skills in stakeholder engagement is key to meeting the challenges we face in delivering growth and sustaining our licence to operate.

Engaging with civil society

Civil society refers to the broad range of non-governmental and non-profit organisations who represent their members across a range of interests including environmental, social, ethical, cultural, political, scientific and religious issues. Civil society includes charities, universities and academic institutions, think-tanks and professional and business associations.

We engage actively with civil society organisations where common interests and concerns exist, whether these are broad issues of policy with a global or national reach, or local issues that affect smaller communities around our operations.

Our approach

We recognise that we do not undertake our business in isolation. Stakeholders may share common interests in our activities and can be affected directly or indirectly by our actions. Consistent with our approach to all stakeholders, we respect the views of civil society and are willing to build dialogues in a constructive manner.

At corporate and operational level, we regularly, and as part of our annual planning process, identify key business risks – including both threats and opportunities. Our approach to engaging with civil society reflects the risks identified. In key risk areas, we develop deeper and targeted relationships and programmes with selected civil society organisations that have common interests and are willing to engage with us. We are actively involved in partnership activities with environmental organisations such as the International Union for Conversation of Nature, BirdLife International and with academic institutions such as the Centre for Energy, Petroleum and Mining Law and Policy at the University of Dundee. These partnerships allow us to deliver mutual and long-lasting benefits. We also provide sponsorship to organisations such as the Charlie Perkins Trust and the Aurora Project which support Indigenous scholars and interests.

We engage with civil society through a variety of other activities including memberships, advisory panels, working groups, workshops, communication and informal dialogue. We also organise and participate in multi-stakeholder activities and cross-sectoral collaboration including the Extractive Industries Transparency Initiative and the International Council on Mining and Metals' Mining Partnerships for Development.

Engaging with communities

We set out to build enduring relationships with our neighbours to make sure we manage our operations consistent with community expectations.

Engaging with customers

We contribute to knowledge around sustainable products and markets. We add value for our customers and deliver outcomes for the responsible use of our products.

Our approach

We work closely with customers to understand the issues they face. We develop awareness about the source of our products and provide technical assistance to help our customers maximise the use of our products. We also promote the safe use and handling of our products.

Rio Tinto is a founding member of the Responsible Jewellery Council (RJC). Members commit to promoting responsible ethical, social and environmental practices, which respect human rights, throughout the diamond and gold jewellery supply chain. The RJC also seeks to maintain consumer confidence in diamond and gold jewellery products and the trust of all the industry's stakeholders.

We are the first mining company to achieve RJC certification against the RJC Code of Practices. This covers our diamond mines (Diavik in Canada, Argyle in Western Australia and Murowa in Zimbabwe), and the Kennecott Utah Copper mine, which produces gold and silver used in the jewellery industry. Rio Tinto's RJC Member Certification resulted from a successful third-party audit which was then verified by the RJC.

In 2013, Rio Tinto Kennecott's gold refinery achieved the RJC Chain-of-Custody (CoC) Standard. This certifies that gold produced by Kennecott is conflict-free and responsibly produced at each step of the supply chain. This is the first time the RJC's CoC certification has been awarded to a mining company.

We are also a member of the Kimberley Process Certification Scheme, a joint government, industry and civil society initiative to stop trade in diamonds that fuel conflict.

Engaging with employees

Recruiting, developing and retaining talented and motivated employees makes us more productive and enables us to deliver better business results. We are committed to developing effective working relationships with employees across the Group. Achieving a safe workplace – free of workplace injuries, incidents and illnesses – is of paramount importance. At Rio Tinto we believe a safe business is a profitable business.

Our approach

We expect all our managers to be models of the highest standards of behaviour. We expect employees to treat each other and external contacts with dignity, fairness and respect. We guard against harassment in the workplace and we do not tolerate abuse or misuse of position or facilities for personal purposes. Our *Speak-OUT* programme provides employees with an independent and confidential means of reporting concerns and communicating ideas to senior managers.

We encourage collaboration within and across businesses, cultures and countries to deliver better, more consistent performance globally. For more information about our approach in the workplace, read our global code of business conduct, *The way we work*.

We focus on creating a safe, healthy and environmentally responsible work environment and recognise this is critical to our success. We deploy a range of techniques, tools, and training and development courses designed to empower our employees to work safely. We use regular performance reviews, recognising our employees' potential. We provide education, training and coaching as appropriate, and offer professional development opportunities within the Group to develop employees' skills and competencies.

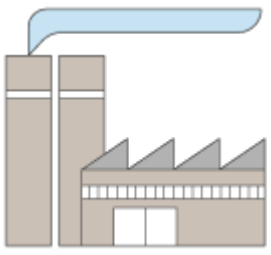
Engaging with governments

Governments around the world are key stakeholders. Mining is a heavily regulated industry and our operations are directly affected by government legislation and policy, which is frequently evolving. We have a legitimate role to play in presenting our views to government on key legislation, policy and issues and understanding the government's views and aims.

Our approach

We develop constructive relationships with national, regional and local governments in all countries where we operate and maintain regular dialogue on issues affecting the mining industry. We may do this individually or collectively with other companies or organisations or as part of an industry association. As a responsible mining company, we foster public dialogue and contribute to the development of sound legislation in areas which affect our business. We also participate in and encourage discussion and debate on broader legislative and policy areas which may affect our shareholders, employees or communities. In all dealings with governments, we conduct ourselves according to the highest ethical standards. We do not, directly or indirectly, participate in party politics nor make payments to political parties or individual politicians.

Engaging with industry



We frequently engage with other companies in the mining industry, other related industries and with business organisations to discuss issues of mutual concern or interest. We belong to a number of industry associations, both national and international, as these offer an efficient and effective forum to share experiences and challenges and improve the performance of the sector as a whole.

Our approach

We are members of several prominent international forums, as well as participants in national and regional forums in countries where we operate. We are a founding member of the International Council on Mining and Metals, a group of 21 mining and metals companies and 33 national and regional mining associations and global commodity associations which strives to maximise the contribution of mining, minerals and metals to

sustainable development. We also participate actively in other industrial organisations including the World Economic Forum Mining & Metals Industry Partners and the International Chamber of Commerce.

Engaging with international agencies, commitments and standards

We are a signatory to a host of international commitments and standards in areas such as human rights, labour, environment, transparency, anti-bribery and corruption.

Our approach

We actively promote transparency and good corporate governance as a key means by which countries gain the greatest benefit from their mineral resources.

We are an endorsing member company of the Extractive Industries Transparency Initiative (EITI). We are actively involved in the work of EITI and participated in the drafting of the revised EITI Standard which was adopted in May 2013. Rio Tinto's Group executive Legal, External & Regulatory Affairs is on the board of EITI. We promote EITI in countries where we operate. We also endorse the World Economic Forum's Partnering Against Corruption Initiative.

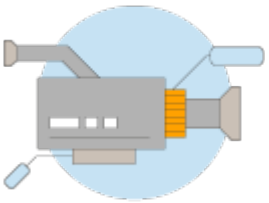
We support and respect human rights, consistent with the United Nations Universal Declaration of Human Rights. We are committed to the OECD Guidelines on Multinational Enterprises. We also participate in the Voluntary Principles on Security and Human Rights, and have committed to avoiding human rights violations through our security arrangements. We support the UN Guiding Principles on Business and Human Rights, and we adapt our human rights approach to the due diligence process outlined in it.

We have been a signatory of the United Nations Global Compact since its creation in 2000. Each year we submit a Communication on Progress describing our implementation of the ten principles in the areas of human rights, labour, environment and anti-corruption. We are also active members of the UK and Australian Networks, and the Global Compact's expert advisory groups such as the Human Rights Working Group.

Engaging with investors

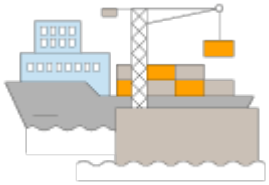
We actively engage with investors as part of our commitment to openness and good corporate governance.

Engaging with media



We engage with the media on topics of public interest to communicate with interested stakeholders worldwide.

Engaging with suppliers



We promote responsible and ethical sourcing practices from mine to retail.

In 2005, Australia's Monash University released a report looking into the professional development needs of Native Title Representative Bodies (NTRB) lawyers. The report identified problems with the recruitment and retention of lawyers to the native title system and in particular to NTRBs. In 2006, as a result of this report, The Aurora Project was established. Its aim is to strengthen Indigenous organisations by supporting their staff, facilitating opportunities for all Australians to work in Indigenous affairs, and empowering Indigenous Australians through education initiatives.

Rio Tinto has been a supporter of the Aurora Project since its establishment, and is a sponsor of the Australian Government – Rio Tinto NTRB Scholarships. Under this programme, two postgraduate scholarships are offered each year for the Master of Laws in Mineral Law and Policy at the University of Dundee in the UK. The scholarships are open to lawyers who either work at NTRBs or wish to work in native title, and aim to attract and retain experienced and talented lawyers to work in the native title system. Rio Tinto has contributed over A$700,000 since the launch of the scholarships.

Empowering Indigenous Australians through education initiatives

Since 2005, the programme has awarded 19 scholarships. Fourteen of the 15 scholarship recipients who have completed their study have resumed work at an NTRB to take up their two-year post-study NTRB commitment. Seven of the scholarship recipients continue to work at NTRBs, and two of these seven are Indigenous. The two recipients of the 2012/13 scholarships are planning to return to their NTRBs on completion of their studies.

Human rights

Building enduring relationships through respect and support

Rio Tinto has diverse operations across more than 40 countries with very different social, economic, political and cultural landscapes. The actions we take to respect, and to support, human rights help us build enduring and active relationships with local communities, employees and business partners. We believe that acting responsibly, including respecting human rights, facilitates business success in emerging and developed economies. The alternative poses very real risks, which could include community distrust, operational delays, legal challenges, reputational harm, investor concern and employee dissatisfaction.

Approach

Rio Tinto supports and respects human rights, consistent with the United Nations Universal Declaration of Human Rights. It is our aim to make sure we are not complicit in abuses.

The way we work, our global code of business conduct, supported by our human rights policy and related guidance, provides the framework for our approach. In implementing our policies, we are subject to the local laws of the many countries in which we operate. We build on compliance with local laws and where our policy and procedures are more stringent, we operate to these standards.

We have made voluntary commitments to the OECD Guidelines on Multinational Enterprises, and the UN Global Compact, and participate in its Human Rights Working Group. We also participate in the Voluntary Principles on Security and Human Rights (VPSHR). We are committed to avoiding violations of fundamental human rights through our security arrangements and to taking steps to avoid complicity in such violations by private and public security personnel. Since 2011, we have conducted security and human rights assessments at all our high and critical-risk sites and provided contextualised instructions to each of these sites on how to implement the VPSHR – which we follow up on as appropriate. To help sites ensure their security personnel and providers understand why the VPSHR matter, and have the practical support to implement them, we have developed practical guidelines on implementing the VPSHR, a Security and Human Rights Toolkit and training courses.

We also supported the development of the Human Rights and Business Country Guide created by the Danish Institute for Human Rights. The Guide provides country-specific guidance to help companies respect human rights and contribute to development.

We are adapting our human rights approach to the human rights due diligence process outlined in the UN Guiding Principles on Business and Human Rights. This includes drawing together internal controls that incorporate related issues such as those dealing with communities and social performance, security, human resources, procurement, and health, safety and the environment. We integrate human rights into our risk analysis, impact assessment, complaints, disputes and grievance processes. At locations which are high risk for human rights violations, we may conduct additional risk analyses and impact assessment including standalone human rights studies.

Our responsibility to respect human rights includes avoiding involvement in human rights-related abuses through our business relationships. The Rio Tinto Procurement principles set out the expectations we have of our suppliers, including that they should maintain policies that respect human rights, and have processes to ensure compliance. We make every effort to ensure that the standards of conduct in *The way we work*, including those relating to human rights, are respected at all times when we work with joint venture partners and non-controlled companies.

Given our global footprint and diverse operating environments, we understand the human rights challenges and opportunities that might need particular attention. These include those relating to security providers; land access and use; occupational health and safety and other labour rights; cultural heritage including the rights of Indigenous Peoples; access to essential services; and the environment. While we are committed to respecting all internationally recognised human rights, our human rights approach tends to focus greater attention on these rights and issues as appropriate.

We respect the land connection of Indigenous communities and seek specific agreements with affected communities in the development and performance of our operations. We strive to achieve the free, prior and informed consent of Indigenous communities as defined in the 2012 International Finance Corporation Performance Standard 7 and supporting guidance and also support the ICMM's Position Statement on Indigenous Peoples and Mining. We are obliged to respect the law of the countries in which we operate, hence we will also seek consent as defined in relevant jurisdictions and ensure agreement-making processes are consistent with such definitions.

Speak-OUT is our confidential, free telephone line for our people to bring their concerns to senior management's attention, and may be used for human rights issues. Incidents relating to human rights can also be logged through our incident reporting system. Under our Communities standard, all businesses must have a community complaints, disputes and grievance procedure.

Results

In 2013, we developed a human rights guidance note, replacing the 2003 guidance. The guidance note will support the human rights policy and explains what human rights mean in practice at Rio Tinto. It will highlight existing internal controls and other tools for managing human rights risks and explains key escalation and governance processes. We also updated the human rights online training programme and rolled it out across the company, and developed more tailored, practical training for high-risk sites and functions. In 2013, a human rights section was included in the mandatory training for *The way we work*. Approximately 21,000 people completed this.

We continued to focus on fully integrating security and human rights principles in 2013, including appropriate use of force and respect for gender equality, into day-to-day management of security operations. Specialist advice on security and human rights was provided to sites in all high and critical security risk situations. We also produced online training on the VPSHR which became mandatory for all security personnel at high security risk sites from January 2014, and strongly recommended for all others. We strive to provide training to relevant public and private security forces when a gap is identified between their current training and the VPSHR.

Working with our partner, the Danish Institute for Human Rights, we rolled out *Why human rights matter*, a guide for integrating human rights into communities and social performance work.

A multi-function and cross-product group human rights working group supports the implementation of our human rights approach. In 2013 we worked to refresh the mandate of the working group to continue to build internal networks and identify systemic challenges.

Human rights continued

We actively participate in national and international business and human rights dialogues. In 2013 this included:

- Rio Tinto employees presenting at the UN Annual Forum on Business and Human Rights as well as several other thematic and regional events convened by the UN Working Group on Business and Human Rights
- Rio Tinto participation in regional multi-stakeholder human rights and Indigenous Peoples' workshops organised by the International Council on Mining and Metals
- membership of the Business for Social Responsibility Human Rights Working Group and other peer learning forums
- contributions to various case-study publications and participation in multi-stakeholder dialogues convened by civil society

We also engage with investors and other stakeholders on our human rights approach including through briefings, responses to general and site-specific requests and participation in socially responsible investor indices.

Increasing our employees' awareness of human rights is crucial to strengthening our capacity to manage human rights risks effectively. We have seen the benefit of focusing on particular human rights issues that employees are facing on the ground, and in 2013 we developed tools for tailored human rights awareness-raising programmes for high-risk functions and sites.

Located in the south-east of Guinea, Simandou is an iron ore project operated by Rio Tinto. In 2013, we delivered a human rights awareness programme to Simandou employees in France and Guinea. The objectives included highlighting how Simandou could impact on human rights and the associated business risks. Through preliminary human rights risk analysis, three focus areas were chosen for the programme: security, labour, and risks related to increased interactions between Simandou workers and the local population, including around the spread of HIV and prostitution. Sessions included a review of foundational human rights concepts as well as interactive scenario-based learning. Around 100 people participated, from the managing director to line managers and officer-level positions.

Our employees' awareness of human rights is crucial to managing our risks effectively

Participants were also encouraged to suggest ongoing actions and their recommendations included continuing the dialogue on human rights issues. Other recommendations included, repeating the programme annually; creating a similar programme for neighbouring communities; and including human rights issues in Simandou employee inductions. These actions will be explored as part of the project's ongoing management of human rights risks.

Acting with integrity and compliance with the law

Good governance helps to ensure we operate ethically, wherever we are in the world. Dealing openly and transparently with our stakeholders is fundamental to our commitment to conducting business with integrity.

The way we work, our global code of business conduct, sets out our overall commitment to integrity and compliance. Our Integrity and Compliance programme helps us give effect to this commitment in all parts of the business, and given the many different locations in which we operate.

Approach

A key component of our Integrity and Compliance programme focuses on our employees' responsibility, wherever we operate, to act with integrity and in compliance with the law. *The way we work* is core to our programme. It is supported by standards that cover other key topics such as antitrust, anti-corruption, fraud, conflicts of interest, data privacy and third-party due diligence. Staying aware of issues, and preventing misconduct before it occurs, is key. Through our training and guidelines, employees are made aware of their responsibility to work with integrity at all times. If there is any inconsistency between our standards and the local laws where we operate, we will comply with the higher standard.

Anti-corruption

We have a strict and longstanding anti-bribery and anti-corruption stance. This is represented in our standards, which were comprehensively reviewed and updated in 2011. We continue to review these standards to keep them current and in keeping with the external environment. While we are aware there is increased regulatory and legislative activity in this area, our approach is driven by our corporate values, particularly our commitment to undertaking business with integrity. Any Rio Tinto employee not complying with anti-bribery and anti-corruption laws may face disciplinary action, up to and including termination.

Transparency

Rio Tinto is committed, in principle and practice, to maximum transparency consistent with good governance and commercial confidentiality. We issue information in a timely manner on the Group's operational, financial and sustainable development performance through a number of channels including our Annual report.

We work with external organisations in furthering our commitment to transparency. Since its launch in 2002, we have actively supported the Extractive Industries Transparency Initiative (EITI), the aim of which is to strengthen governance by improving transparency and accountability in the extractive sector. Our Group executive for Legal, External & Regulatory Affairs sits on the board of the EITI. (Find out more about the taxes and royalties we paid in 2013.)

We communicate views to governments and others on matters affecting our business interests. By furthering public dialogue, we contribute to the development of sound legislation and regulation that is relevant and appropriate to our business interests.

Results

We are continually working at ways to improve our Integrity and Compliance programme to ensure that it remains relevant and that it adds value; and to keep abreast of the rapid developments occurring in the external environment.

Speak-OUT, Rio Tinto's whistle-blowing programme, is a confidential and independently operated service. It offers an avenue for all employees to report on any significant concerns about the business, or behaviour of individuals, including suspicion of violations in financial reporting, safety or environmental procedures or business integrity issues in general. We encourage employees to report their concerns initially to management and human resources, however if they are uncomfortable doing so, *Speak-OUT* is always available.

To improve how we manage our *Speak-OUT* cases, a new case management tool was introduced in 2012. This resulted in a single, secure repository for all case management and related investigations, and improved data analysis and reporting. Additionally, this provides for greater oversight and consistency in case handling.

During the year, 618 *Speak-OUT* reports were lodged. This represents a slight decrease (approximately eight per cent) versus last year and features an average incident rate of 9.8 per 1,000 employees. Approximately 54 per cent of contacts elected to remain anonymous. Fifty eight per cent of matters raised and closed through *Speak-OUT* resulted in action being taken in relation to the reported issue after it was examined or investigated.

Rio Tinto closely monitors the effectiveness of *Speak-OUT* in comparison to other similar programmes within other industry sectors. We believe that *Speak-OUT*, as well as the other avenues available provide useable and effective avenues for reporting concerns, which leads to a good culture of transparency within the company.

A new era in face-to-face training

Due to their location, and their core activities, parts of our business have specific exposure to risks related to bribery and corruption. As a result, these groups may benefit from additional training, over and above the core training already provided by the company as a whole.

During 2013, we piloted new face-to-face anti-corruption training targeted towards the specific issues and risks that these parts of the business face. Awareness of these new informative and interactive training sessions has gained momentum and we have rolled them out beyond the pilot to other areas such as Procurement and Marine.

The training included specific case studies, scenarios and issues that would be relevant to the particular part of the business. Training was carried out by the Global Compliance Group working with local compliance managers and senior managers of the respective areas.

Targeting anti-corruption training towards the specific risks our businesses face

Feedback mechanisms put in place after training sessions help measure the effectiveness of the training and the participants' recall of the messages, to ensure we can continually improve future sessions.

Internal controls

Our values define the essence of who we are

The way we work, **our global code of business conduct, applies to everything we do, wherever we are in the world. It sets out our four core values, which define the essence of who we are and who we will be:**

- Accountability – taking ownership of our actions
- Teamwork – trusting others and working collaboratively
- Integrity – being transparent and honest
- Respect – caring for each other's wellbeing and recognising the contribution of others

These values, including our commitment to integrity and compliance, provide the basis for our Group internal controls and assurance over the reliability of our reporting. This includes financial, operational and compliance controls and risk management procedures. A robust system of internal controls is necessary as it allows us to meet the increasing number of challenges posed by the external environment in which we operate.

Our code of conduct is consistent with our values, which are expressed through the principles and standards set out within it.

Approach

Maintaining adequate internal controls and keeping accurate and complete records are fundamental to operating a successful company and help support the sustainability reporting process. Our reports, financial statements and non-financial records are prepared to give a true and fair view of our affairs. We use appropriate accounting and reporting practices, which are applied and supported by reasonable and prudent judgments.

Our Compliance standard sets out the process for our businesses to implement the Group's Integrity and Compliance programme, which includes:

- Establishing audit forums for product groups and key functions
- Monitoring compliance with internal and external material obligations
- Maintaining relevant records
- Providing regular reporting on integrity and compliance matters

Each of our Group businesses has established quarterly audit forums to monitor and oversee the implementation and health of their Integrity and Compliance programmes. This is a key component for management in highlighting any significant trends, developments, issues or gaps within their businesses so that they can be managed effectively.

Rio Tinto businesses must consider and address bribery and corruption risks as part of their ongoing risk management exercises. In particular, Group businesses are required to address corruption risks whenever they undertake a new project or a new activity in a high corruption risk country. Employees with high exposure to corruption risk have access to additional training.

At the corporate level, Rio Tinto's global head of Compliance provides periodic reports to the board on the effectiveness of the Group's Integrity and Compliance programme. These reports include consolidated information obtained from the monitoring activities undertaken by the Group businesses.

These control processes are subject to internal and external audits. Our Group Audit & Assurance function provides reasonable assurance to our directors that the systems for risk management, internal control and governance are adequate and effective. Group Audit & Assurance operates independently of management under a mandate approved by the board Audit Committee and the board Sustainability Committee.

Results

Our Integrity and Compliance programme covers seven core elements including:

- commitment and accountability for compliance
- compliance obligations and risks
- implement compliance risk management
- detect and respond to compliance incidents
- monitor
- review and improve
- report

The quarterly audit forums run by all Group businesses are also attended by Group-level audit, risk and compliance teams. They allow relevant risk areas and concerns to be raised and discussed so that trends are recognised and issues are made transparent and addressed effectively by management.

In 2012 we revised our compliance training for all employees. This is now covered in two annual online modules: "*The way we work*" and "Integrity and compliance". During 2013 the topics in the training modules were refreshed; this review will be done annually to keep the material up to date. The modules are largely scenario-based and provide practical advice on our principles and policies to help us achieve the high standard we set for ourselves. The revised modules are more engaging, making the content easier to learn, and the training is available in 18 languages. Employees also undertake additional training on key controls and requirements that relate to specific roles.

Speak-OUT is our confidential, free telephone line for our people to bring their concerns to senior management's attention. Our *Speak-OUT* reporting to management has been revised during the year. It now provides better analysis and presentation of data and trends, including benchmarking against data for the mining and other sectors.

Bribery and corruption risks exist in varying degrees in all the countries in which Rio Tinto operates. If not identified, and adequate controls are not implemented, these risks can come with a heavy cost to the company, its executives and employees in the form of significant reputational harm, increased financial costs through investigations and penalties, and criminal prosecutions.

In 2013, we piloted an Anti-bribery and Corruption (ABC) review process which provided an independent, high-level compliance health check on selected parts of the business. A risk-based approach was used to select the targeted sites, to consider how the Integrity and Compliance programme has been implemented, and if the associated procedures and controls were operating effectively in managing the risks key to that location.

The process provided an independent, high-level compliance health check

The findings of the review allowed management to focus on key areas for improvement to ensure effective controls were in place and employees were aware of key issues.

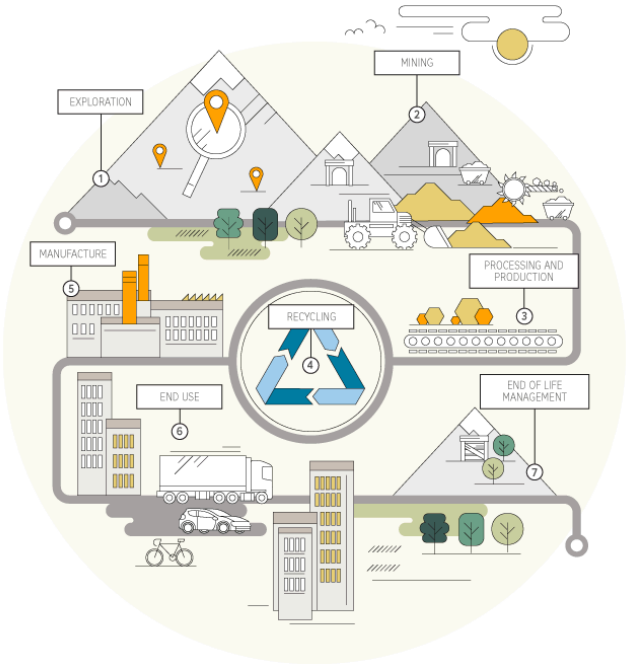
The ABC reviews will now continue as a regular component of the monitoring and auditing of the Integrity and Compliance programme.

Product stewardship

Ensuring our products support society's goals

Successful markets for minerals and metals have always been based on product price, reliability and quality of supply. Now, various aspects of the products' health, environmental, physical and chemical characteristics are also scrutinised and regulated. As such, these have become factors that determine market access.

As a result, product stewardship has evolved. It is the dominant HSEC (health, safety, environment and communities) issue for sales and marketing teams. Product stewardship recognises the need that products are produced, used and managed to the end of their life to support societal goals. Product regulation is an important aspect of product stewardship and is expanding to cover more elements of a product's life.



Approach

At Rio Tinto, product stewardship is about understanding the health, environmental, and social impacts of our metals and minerals across their life cycles. This includes both during mining and processing, when we are directly involved, and also after they have left our mine gates. It covers transportation to our customers, consumer product manufacturing and use, and post-consumer disposal and recycling. Our goal is to obtain a preferred supplier status and recognition for our commitment to safe and socially and environmentally responsible production, transport and use of our products.

Product stewardship requires us to understand the properties of our products, and how these lead to opportunities or threats in the marketplace. It's about anticipating how the regulatory and customer environment is changing, and staying ahead of the game.

We therefore see product stewardship as about maintaining and growing our access to markets. Our product stewardship programme builds upon the principles and standards outlined in *The way we work*, *Rio Tinto Procurement principles* and our product stewardship strategy. It supports Rio Tinto businesses in market access and support.

Market access

Product characterisation, labelling, transportation and information supply requirements are all subject to increasing regulation. Failure to address this could restrict our access to market segments through reduced marketing opportunities, shipping delays, onerous administration and fines or penalties.

We have a systematic approach to ensure compliance with existing regulation and, in 2013, strengthened our support for product compliance in Asian markets. We also participate in various scientific, regulatory and policy arenas to contribute to the development of regulation. We base our support for new product regulation upon sound science that will lead to sound outcomes for all.

Market support

Customers and consumers want to know the sustainability credentials of the products they manufacture and use. Our procurement and operating practices all contribute. To meet expectations, we have developed life cycle assessments for our key products aligned with international standards.

We are also tracking the development of environmental footprinting and product traceability requirements. The European Union is trialling a methodology to assess the environmental footprint of companies and products with the intention of fully introducing it by 2020.

Results

Market access

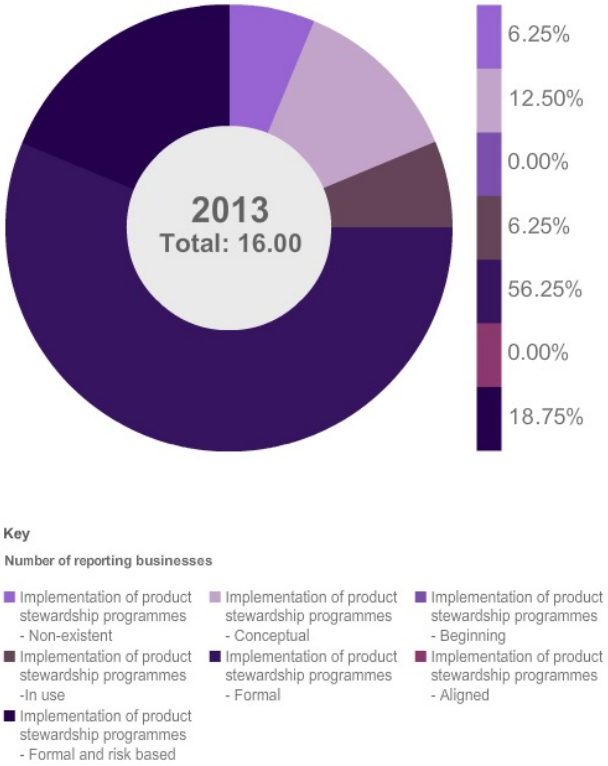
Examples of where we participated in scientific and regulatory arenas include:

- The shipping of many of Rio Tinto products is subject to the requirements of the International Maritime Solid Bulk Cargoes Code. In 2013, the International Maritime Organisation (IMO) agreed a new schedule to the code for the transport of iron ore fines. Rio Tinto will now be able to ship all of its Pilbara products with significant short and longer-term operational and cost savings. Rio Tinto worked actively with national regulators and industry associations to ensure that the IMO was presented with the necessary product, technical and safety test information before making this key decision.
- Late in 2012, the IMO announced new requirements from January 2013 designed to further prevent pollution at sea. A key requirement is that residues of cargoes identified as "harmful to the marine environment" can no longer be discharged to sea. In spite of the short lead time, Rio Tinto assessed all of its products to ensure there would be no delay to ships. It has also provided input to a proposal to create a "harmful to the marine environment" list which the IMO is currently considering.
- Early in 2013, the United States Securities and Exchange Commission adopted final rules implementing disclosure and due diligence requirements concerning the source and chain of custody of "conflict minerals" in products. We are working with our supply chain to remain on track to meet our first-time reporting obligations in the first half of 2014.
- The Minamata (mercury) Convention was approved on 10 October 2013. It enters into force once ratified by 50 parties. The International Council on Mining and Metals (ICMM) has already adopted a mercury risk management position statement. This requires members to control emissions to the environment and to responsibly manage by-product mercury. In 2013, Rio Tinto worked in accordance with ICMM requirements and has a mercury risk management plan that details our approach and operation-specific risk assessments.

Market support

We encourage our businesses to implement product stewardship programmes aligned with our Health, Safety, Environment and Quality management system. In 2013, 94 per cent of businesses had a formal product stewardship programme or had started the process.

Implementation of product stewardship programmes (2013)



Below are examples of product stewardship market support initiatives undertaken in 2013:

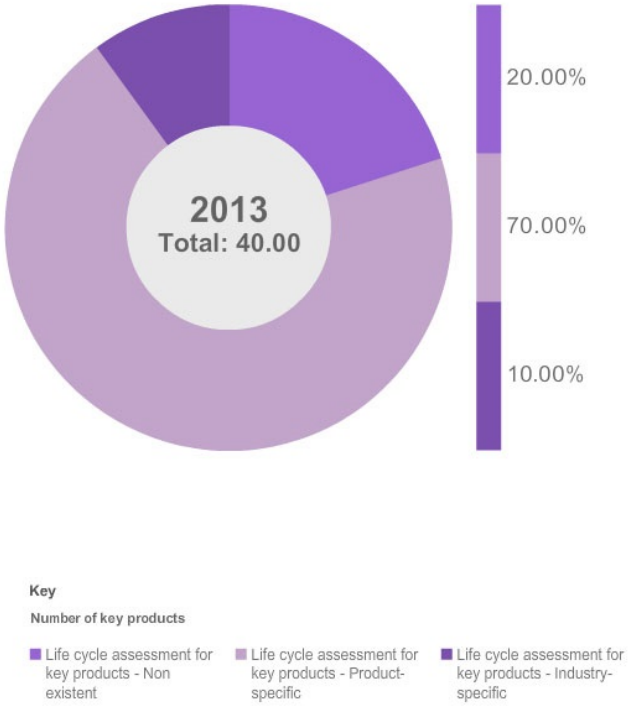
- Rio Tinto Kennecott's gold refinery has achieved Responsible Jewellery Council (RJC) Chain-of-Custody (CoC) Standard. This certifies that gold produced by Kennecott is conflict-free and responsibly produced at each step of the supply chain. This is the first time the RJC CoC has been awarded to a mining company
- We delivered a series of life cycle assessment (LCA) capacity training sessions to enhance internal capacity in developing LCAs efficiently, to enhance decision-making and business objectives
- In 2013, our businesses reported life cycle assessments for 80 per cent of key products across the Group.

Rio Tinto life cycle assessments

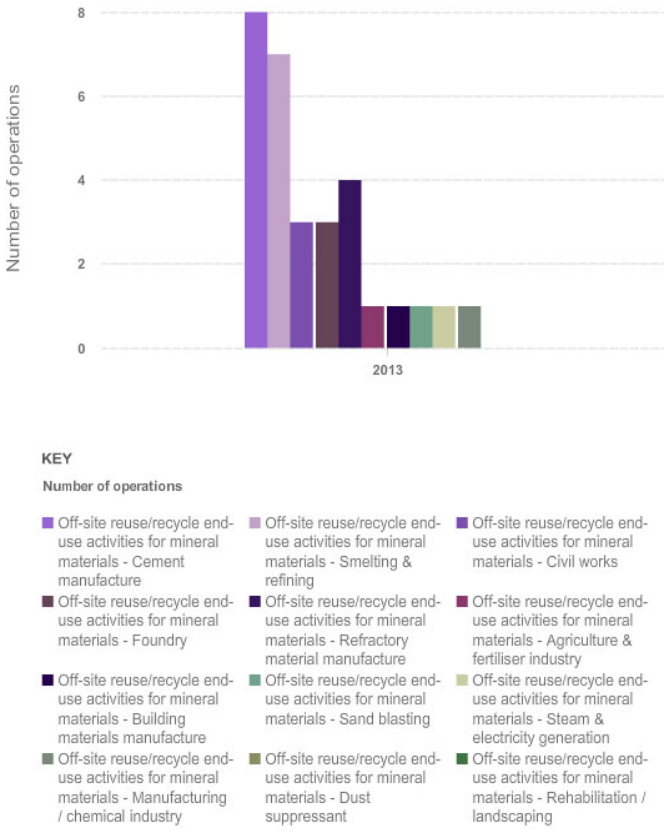
Product group	Cradle-to-customer gate	Cradle-to-gate	Partial
Aluminium		Aluminium *Bauxite, alumina*	
Copper		Copper cathode, silver, gold, sulphuric acid, molybdenum oxide *Copper*	Vermiculite
Diamonds & Minerals		Diamonds, zirsill, ilmenite, RTCS (Rio Tinto chloride slag), steel powder, iron powder, Sorelflux, Sorelmetal, Sorelsteel, Sorelslag, UGS (upgraded slag), borates, salt rutile, titania slag, zircon product	
Energy	Uranium oxide *coking coal, thermal coal*		
Iron Ore	Retread tyres, iron ore fines, iron ore lump		Iron ore pellet – acid, Iron ore pellet – flux

Of those life cycle assessments, 78 per cent have been either internally or externally reviewed since 2010.

Life cycle assessments for Rio Tinto key products (2013)



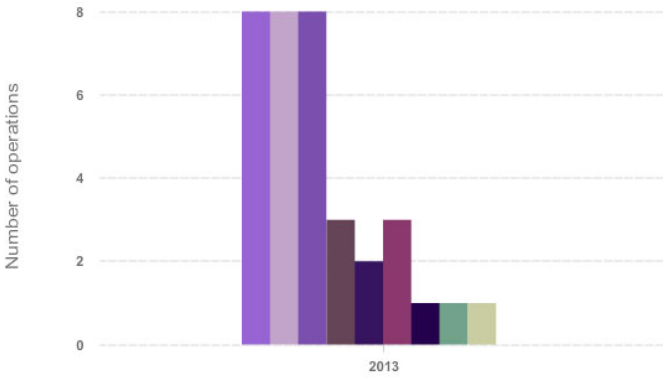
Operations contribution to off-site reuse/recycle: Mineral materials



Material reuse and recycling

In 2013, operations used diverse options for the off-site reuse of mineral and non-mineral bulk processing wastes. Uses included civil works, agriculture and fertiliser. These uses diverted the material from non-productive disposal, and provided a substitute for new materials.

Operations contribution to off-site reuse/recycle: Non-mineral materials



KEY

Number of operations

- Off-site reuse/recycle of non mineral bulk processing materials - Smelting & refining
- Off-site reuse/recycle of non mineral bulk processing materials - Cement manufacture
- Off-site reuse/recycle of non mineral bulk processing materials - Foundry
- Off-site reuse/recycle of non mineral bulk processing materials - Building materials manufacture
- Off-site reuse/recycle of non mineral bulk processing materials - Civil works
- Off-site reuse/recycle of non mineral bulk processing materials - Manufacturing / chemical industry
- Off-site reuse/recycle of non mineral bulk processing materials - Refractory material manufacture
- Off-site reuse/recycle of non mineral bulk processing materials - Rehabilitation / landscaping
- Off-site reuse/recycle of non mineral bulk processing materials - Agriculture & fertiliser industry
- Off-site reuse/recycle of non mineral bulk processing materials - Steam & electricity generation

Navigating new shipping laws

Rio Tinto's response to recently-introduced maritime legislation – designed to prevent marine pollution – has highlighted how important it is to work closely with regulators and industry associations, and to maintain good lines of communication internally too. The company's approach proved that staying well informed and prepared, and actively engaging with stakeholders, can create measurable value – in both financial and reputational terms.

Many of Rio Tinto's products have to take a long journey by sea before reaching our customers. Shipments of solid bulk materials – which include copper concentrate, iron ore, coal and bauxite – have to comply with international maritime legislation to protect the environment and ensure safety. The International Maritime Organization (IMO) is the authority that develops and updates these laws.

On 1 January 2013, the IMO brought in changes to the piece of legislation called MARPOL Annex V, which aims to prevent pollution of the marine environment from solid bulk cargoes.

The speed with which the new legislation came in (criteria were only finalised in October 2012, three months before the changes came into force) meant that many ports did not have time to put reception facilities in place for cargoes identified as harmful.

In the absence of such facilities, suppliers have to look for private contractors specialising in waste collection, and alternative ships for transporting product to more suitable ports. These may be very expensive or may not be available. The rapidity with which the changes took effect also left little time for suppliers to complete the analysis needed to prove that their bulk products were not harmful.

Actively engaging with stakeholders creates measurable value

However, through close co-operation internally and externally, Rio Tinto's Copper group was able to pre-empt the change in legislation. By the time the revisions took effect, it had all the proof needed that its copper concentrate was not harmful to marine life, and would also not be toxic to humans who consumed seafood. Having the evidence well documented prevents increased insurance costs and complex liability issues.

Rio Tinto's memberships of Intercargo (the ship owners' association) and the International Council on Mining and Metals (ICMM) were key in keeping a finger on the pulse. Meanwhile, the International Copper Association (ICA) provided critical technical support to Rio Tinto and its other members.

In this case, product stewardship, marketing and operations teams from Rio Tinto Copper, plus Rio Tinto Marine (which charters ships for Rio Tinto's exports), worked together to anticipate the change and provide assurance to customers that their deliveries would be unaffected. Similar test and compliance work was done at the same time for other Rio Tinto cargoes. Learnings and approaches from Copper's experiences were shared across Rio Tinto, via the Group-wide Product Stewardship Leadership Team.

Reporting in line with maximum transparency and good governance

Every year, we report on our sustainable development performance through a number of channels. In addition to the performance highlights in our Annual report, we publish information on our programmes and performance data on these web pages.

We also report under other voluntary commitments, including:

- Global Reporting Initiative
- International Council on Mining and Metals (ICMM) Sustainable Development Framework
- Millennium Development Goals
- United Nations Global Compact
- Carbon Disclosure Project
- Carbon Disclosure Project Water Disclosure
- Dow Jones Sustainability Index
- FTSE4Good

Reporting at a Group level

The way we work, our global code of business conduct, outlines our commitment for maximum transparency consistent with good governance and commercial confidentiality. It also outlines our approach to internal controls and Group records management to ensure the sustainable development section of our Annual report gives a true and fair view of our affairs.

Our sustainable development data are reported for calendar years and, unless otherwise stated, represent 100 per cent of the parameter at each managed operation, even though Rio Tinto may have only partial ownership. We report in line with the Global Reporting Initiative (GRI) G3 guidelines. Accordingly, we use a materiality assessment to help us focus this report on those issues that are most important to our internal and external stakeholders. Omission from the material issues covered in our report does not mean that the issue is not managed by the company.

We have implemented ICMM's sustainable development framework and disclosed the alignment of our policies, strategies, standards and practices with ICMM's principles and position statements.

We collect health, safety, environment and community data using industry standard techniques consistent with Rio Tinto standards. Our standards are applicable to all Rio Tinto business units and managed operations, including new acquisitions, administration/corporate offices and research facilities located off-site at all stages of their lifecycle.

We apply global definitions and guidance to ensure consistency and comparability between operations. We store data, which is queried and aggregated to the Group level, in a central database to avoid manual intervention. In line with Rio Tinto standards our calculations use formulae from relevant industry protocols (for example, the GRI, the International Organization for Standardisation and the International Panel on Climate Change (IPCC)) where available.

The most accurate practical measurements of input data are used in our calculations, for example, invoiced quantities with stockpile adjustments or measurements from equipment located at the point of use or abstraction. Where measurement equipment is not in place, input data is determined using reasonable estimates.

The most accurate and practically available emission factors and calorific values are used in our calculations. For example, where we do not examine the composition of fuels ourselves, we use (in order of priority) factors provided by our suppliers, regional sources or reporting schemes, the IPCC or the International Energy Agency.

Data reported in previous years may be modified if business or Group verification processes detect material errors, or if changes are required to historic data to ensure comparability with current year data (eg updating emission factor assumptions).

Wherever possible, data for operations acquired prior to 1 October during the reporting period are collected for inclusion in Rio Tinto datasets. Divested operations are included in our data collection processes up until the transfer of management control.

Descriptions of the systems and approaches we use to manage sustainable development issues have been reviewed for factual accuracy by internal subject matter experts.

We used the independent professional services firm PricewaterhouseCoopers to provide the board of directors of Rio Tinto plc and Rio Tinto Limited assurance on selected sustainable development subject matter. A statement from PricewaterhouseCoopers is available on the Assurance page.

Each of our business units is required to produce their own local sustainable development reports.

Assurance

Effective policies, standards and controls

Our Group Audit & Assurance function has accountability and responsibility for providing reasonable assurance to the board that:

- Rio Tinto's policies, standards and controls are adequately designed and effective for their intended purpose
- these policies, standards and controls are consistently implemented by all Rio Tinto sites on a timely basis and as designed

In addition, we engaged an independent external assurance organisation, PricewaterhouseCoopers (PwC), to provide the board of directors of Rio Tinto plc and Rio Tinto Limited assurance on selected sustainable development subject matter, as explained in the independent assurance report.

The rules we use to define how we report data at the Group level can be found in the Performance overview and the definitions of the subject matter selected for assurance can be found in our Glossary.

PwC's assurance statement satisfies the requirements of subject matters 1 to 4 of the ICMM assurance procedure. Rio Tinto has satisfied subject matter 5 of the ICMM assurance procedure through the Global Reporting Initiative's check of our GRI report.

Download our independent assurance report (PDF)

Ethical indexes & awards

External recognition for our approach

Investors are increasingly considering the environmental, social and ethical impacts of their investments. As a result, there is now greater emphasis on companies providing more information on their non-financial performance.

Some examples of corporate responsibility indexes that we participate in are outlined here:

– The Dow Jones Sustainability Indexes (DJSI) track the financial performance of the leading sustainability-driven companies. Of the largest 2,500 firms worldwide, only the top ten per cent, in terms of economic, environmental and social criteria, qualify for the DJSI World Index. The DJSI Europe and the DJSI Asia Pacific Indexes track performance of the best 20 per cent of the largest 600 companies in the European or Asia Pacific markets as listed on the Dow Jones Global Total Stock Market Index. Rio Tinto has been included in the DJSI series since 2002 and is included in the 2013 DJSI World, DJSI European and DJSI Asia Pacific and Australia indexes.

Dow Jones Sustainability Indexes
Member 2012/13

– The FTSE4Good Index has been designed to measure the performance of companies that meet globally-recognised corporate responsibility standards, and to facilitate investment in those companies. We have been a constituent member of the FTSE4Good Index since becoming eligible for assessment in 2007.

FTSE4Good

Awards

Rio Tinto has won a major award for the global reporting of its industry-leading Taxes Paid report.

In the 2013 PwC Building Public Trust Awards, Rio Tinto won the "Building Public Trust Award for Tax Reporting in the FTSE 350 Extractive Sector" for publishing the Taxes Paid report.

The Taxes Paid report, which is compiled on a voluntary basis, shows the details of all individual payments over US$1 million made to governments in the countries where Rio Tinto operates.

Rio Tinto paid US$11.6 billion in taxes and royalties globally in 2012, which includes US$1.9 billion in employee payroll taxes. In Australia, Rio Tinto paid about US$8 billion in taxes and royalties. Rio Tinto is Australia's largest payer of corporate income tax.

Goals and targets

Helping us drive performance improvement

We believe it is important to set targets across a range of key sustainable development metrics so that we can continually drive performance improvement and manage risk.

Our targets are designed using the following principles:

- They focus on internal performance, while considering external drivers
- They must be relevant to the nature of our business
- They need to be measurable and transparent, consistent with other Rio Tinto objectives
- They must include a degree of stretch, while being realistically achievable with appropriate management

Our board endorses our sustainable development targets and receives regular updates on our progress and the key issues affecting performance

Targets	Progress to date
Our goal is zero harm, including, above all, the elimination of workplace fatalities. Progress is measured through our all injury frequency rate (AIFR) per 200,000 hours worked.	Three per cent reduction in our all injury frequency rate compared with 2012 and a 31 per cent reduction compared with 2008.
30 per cent reduction in the rate of new cases of occupational illness per 10,000 employees between 2008 and 2013.[(a)]	68 per cent reduction in the rate of new cases of occupational illness compared with 2008.
Ten per cent reduction in the rate of employees per 10,000 employees exposed to an eight-hour noise dose of more than 85 decibels (absent of hearing protection) between 2008 and 2013. [(a) (b)]	3.1 per cent decrease in the rate of employees potentially exposed to an average eight-hour noise dose of more than 85 decibels compared with 2008.
Ten per cent reduction in total greenhouse gas emissions intensity between 2008 and 2015.[(a)]	17.3 per cent reduction in our total greenhouse gas emissions intensity compared with 2008, currently exceeding our 2015 target. We continue to seek opportunities to maintain and improve our performance.
Six per cent reduction in our freshwater use per tonne of product between 2008 and 2013.[(a)]	6.1 per cent decrease in our freshwater use per tonne of product compared with 2008.
Our diversity goal is to employ people based on job requirements who represent the diversity of our surrounding communities. We are targeting: – Women to represent 20 per cent of our senior management by 2015. – Women to represent 40 per cent of our 2015 graduate intake. – 15 per cent of our 2015 graduate intake to be nationals from regions where we are developing new businesses.	– Women represented 14 per cent of our senior management in 2013. – Women represented 28 per cent of our 2013 graduate intake. – 30 per cent of our 2013 graduate intake were nationals from regions where we are developing new businesses.
All operations have in place locally-appropriate, publicly-reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the Millennium Development Goals, by 2013.[(c)]	90 per cent of our operations have locally-appropriate, publicly-reported social performance indicators in place.

(a) The target period 2008-2013 is complete.

(b) The noise target measures the reduction in noise levels above 85 decibels (averaged over eight hours) within the workplace. Where noise levels remain above the target level, hearing protection is mandatory.

(c) The initial target period is complete and is now being extended to 2015 to better align with the timeline of the UN Millennium Development Goals.

Goals and targets

A number of our targets were complete at the end of 2013. We have set new Group targets for a range of sustainable development metrics, including:

- Measuring progress against our goal of zero fatalities with an annual target of zero fatalities.
- Measuring progress towards our goal of zero injuries with a year-on-year improvement in our all injury frequency rate.
- A year-on-year improvement in the rate of new cases of occupational illness per 10,000 employees annually.
- All managed operations will have reviewed – and increased their focus on managing – their health risks, through implementation of critical control management plans to address their specific material health risks by 2015.
- All operations having in place locally-appropriate, publicly-reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the Millennium Development Goals, by 2015.
- In 2008 we set a target of ten per cent reduction in total greenhouse gas emissions intensity, to be achieved by 2015. Current performance exceeds this target. We will continue to seek opportunities to maintain and improve our performance, and will establish a new target beyond 2015 that takes account of our performance to date.
- All managed operations with material water risk will have reviewed and improved their management of their material water risks, and have achieved their approved local water performance targets, by 2018.

We intend to report our performance against these targets in the Sustainable development section of the 2014 Annual report.

GRI checklist

Reporting in line with the GRI

We report our sustainable development performance in line with the Global Reporting Initiative (GRI) G3 guidelines and the GRI Mining & Metals sector supplement at Application level A+. Accordingly, we use a materiality assessment to select what information should be included in our reports.

This checklist includes responses to all GRI G3 strategy and profile disclosures, our disclosure on our management approach, and responses to the core G3 and Mining & Metals sector supplement performance indicators.

We have engaged an independent external assurance organisation to provide assurance over selected sustainable development topics within our Annual report.

GRI have checked Rio Tinto's 2013 Annual report and have concluded that the report fulfils the requirement of Application Level A+.

Download the statement

Strategy and profile

- Strategy and analysis
- Profile
- Parameters
- Governance, commitments and engagement

Disclosure on management approach

- Management approach

Performance indicators

- Economic
- Environmental
- Labour practices and decent work
- Human rights
- Society
- Product responsibility

Download our GRI checklist (PDF)

ICMM framework

Embedding the ICMM framework in our business

As a founding member of the International Council on Mining and Metals (ICMM), Rio Tinto has committed to implementing the ICMM Sustainable Development Framework.

There are three elements to this framework which are mandatory for corporate members to meet:

1. Principles – implement the ten ICMM Sustainable Development Principles and any mandatory requirements set out in ICMM position statements throughout the business
2. Reporting – report in line with the Global Reporting Initiative (GRI) G3 framework
3. Assurance – provide independent assurance that the ICMM commitments are met

The framework emerged out of the Mining, Minerals, and Sustainable Development project – a two-year consultation process with stakeholders to identify key issues relating to mining and sustainable development – and has been developed continuously since.

ICMM conducts an annual assessment of the progress that each member company is making against these performance commitments. The resulting annual member performance assessment is published in ICMM's Annual Review.

The ICMM was established in 2001 to improve sustainable development performance in the mining and metals industry. Today, it brings together 21 mining and metals companies as well as 33 national and regional mining associations and global commodity associations. Visit ICMM's website to find more information on how leading companies are working together and with others to strengthen the contribution of mining, minerals and metals to sustainable development.

Find out more about how these requirements are embedded in our business.

Download our ICMM sustainable development framework (PDF)

MDGs

Demonstrating a positive contribution to economic development

Rio Tinto is committed to playing its part in the achievement of the United Nations Millennium Development Goals (MDGs). Since 2009 our global communities target has been pegged explicitly off the MDGs. The target states: all operations to have locally-appropriate, publicly-reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the MDGs, by 2013. In 2013, 90 per cent or our operations have locally-appropriate, publicly-reported social performance indicators in place. This target is now being extended to 2015 to better align with the timeline for the MDGs.

This target is specifically aimed at economic development and increasing people's access to livelihoods, supply chains and economic resiliency. Rio Tinto businesses supported just under 2,200 socio-economic programmes covering a wide range of activities such as health, education, business development, housing, environmental protection and agricultural development during 2013. We spent an estimated US$331 million on community assistance programmes and payments into trusts set up in directly-negotiated community impact benefit agreements, but it is the direct and multiplier economic effects that demonstrate our real contribution and commitment to meeting the MDGs.

The resource sector can provide a strong base for the economic growth of a local area, a region, or a nation. Rio Tinto focuses on the ways in which it can bring sustainable socioeconomic benefits to the areas in which it operates. The US$212 million increase in spending compared to 2009 reflects a rebounding of Group activity and the establishment of new community agreements which involve direct payments to community-controlled regional development trusts.

Here we use case studies, stories and examples set within the MDG framework to communicate our approach to sustainable development and to explain our community target-setting in line with the MDGs. Sustainable development is commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". As with the MDGs, sustainable development cannot be achieved by one organisation, government or community on its own. We believe that our business can make an important contribution to the ongoing, global transition to sustainable development and to that end meaningfully contribute to the MDGs.

Read more about our contribution to meeting the MDGs (PDF)

Performance data

Rio Tinto's sustainable development data are reported for calendar years and, unless otherwise stated, represent 100 per cent of the parameters at each managed operation, even though Rio Tinto may have only partial ownership. You can also see detailed performance data of selected parameters (highlighted below) broken down by product and location. Please see the glossary for further information on the terms used.

Environment

	2013	2012	2011	2010	2009
Significant environmental incidents	15	7	11	18	12
Fines and prosecutions – environment (US$ '000)	190.3	47.1	236.4	540.3	80.1
Energy use (Petajoules)	483	502	516	513	496
Greenhouse gas emissions – Scope 1 (million tonnes CO_2 equivalent)	23.4	26.5*	27.4	27.2	26.0
Greenhouse gas emissions – Scope 2 (million tonnes CO_2 equivalent)	14.4	16.4	17.1	17.0	16.3
Greenhouse gas emissions – total (million tonnes CO_2 equivalent)	37.2	40.7*	43.2	43.0	40.9
Freshwater withdrawal (billion litres)	516	536	545	530	500
Freshwater use (billion litres)	435	446*	465	457	433
Land footprint – disturbed (square kilometres)	3,556	3,530*	3,485	3,453	3,410
Land footprint – rehabilitated (square kilometres)	472	446	422	420	402
Mineral waste disposed or stored (million tonnes)**	1,921	1,853*	1,535	1,483	1,373
Non-mineral waste disposed or stored (million tonnes)**	0.52	1.04	0.58	0.37	0.31
SOx emissions (thousand tonnes)	129	153	184	193	205
NOx emissions (thousand tonnes)	78	73*	72	69	65
Total fluoride emissions (thousand tonnes)	3.1	3.28	4.03	3.98	4.38
Particulate (PM_{10}) emissions (thousand tonnes)	115	136*	109	110	111

* Numbers corrected from those published in previous year following data verification

** Mineral and non-mineral waste data excludes material that has been reused

Social

	2013	2012	2011	2010	2009
Employees (average)	66,000	71,000	68,000	77,000	102,000
Fatalities at managed operations from safety incidents	3	2	6	3	4
Fatalities at managed operations from health incidents	–	1	–	–	–
All injury frequency rate (AIFR) (per 200,000 hours worked)	0.65	0.67	0.67	0.69	0.81
Lost time injury frequency rate (LTIFR) (per 200,000 hours worked)	0.42	0.37	0.37	0.38	0.42
Fines and prosecutions – safety (US$ '000)	145.5	536.1	18.3	92.3	190.6
New cases of occupational illness (per 10,000 employees)	16	15*	13*	20	39
Employees exposed to an 8-hour noise dose of more than 85db(A) (per 10,000 employees)	3,276	3,398*	3,587*	3,629*	3,360*
Fines and prosecutions – health (US$ '000)	0.0	23.2	0.0	0.46	0.0

* Numbers corrected from those published in previous year following data verification

** Six fatalities at Rio Tinto managed operations or operations held for divestment in 2011. Includes one fatality at Zululand Anthracite Colliery (identified for divestment)

Performance data continued

Economic

	2013	2012	2011	2010	2009
Gross sales revenue (US$ million)	54,575	55,597	65,298	59,008	42,734
Operating cash flows (US$ million)^	20,131	16,521*	27,609*	23,530	13,834
Underlying earnings (US$ million)	10,217	9,269*	15,572*	13,987	6,298
Underlying earnings per share (US cents)	553.1	501.3*	809.7*	713.3	357.1
Underlying earnings before interest, taxes, depreciation & amortisation (US$ million)	21,509	19,245*	28,640*	25,978	14,312
Profit for the year (US$ million)	1,079	(3,027)*	6,790*	15,098	5,335
Net debt (US$ million)	18,055	19,192*	8,342*	4,071	18,861
Capital expenditure (US$ million)	12,944	17,575*	12,536*	4,553	5,356
Community contributions (US$ million)	331	291*	294	166	119
Wages and salaries paid (US$ million)	7,559	8,671*	7,140*	6,951	6,696
Payments to governments (US$ million)#	9,414	11,625	12,587**	9,014**	6,358**
Payments to suppliers (US$ million)	26,054	31,412*	31,474*	27,486	23,481
Total value added (US$ million)	31,818	26,195	38,193	33,812	21,363

* Numbers corrected from those published in previous year following data verification

** 2011 and 2010 payments to governments have been restated to exclude refunds of sales taxes/excise duties/fuel taxes

^ Data includes dividends from jointly controlled entities and associates

\# Total payments to governments include:

Amounts paid by Rio Tinto (US$ million)	7,470	9,708	10,958	7,515	5,403
Amounts paid by Rio Tinto on behalf of its employees (US$ million)	1,944	1,917	1,629	1,499	955

Governance

No current data on the site.

Detailed Performance data

2013 Greenhouse gas emissions by location

(million tonnes of CO_2 equivalent)

Location	Scope 1 greenhouse gas emissions	Total greenhouse gas emissions
Australia	10.7	18.7
Canada	6.7	6.7
France	0.8	1.2
South Africa	0.8	3.5
United Kingdom	0.1	0.1
United States	1.9	3.5
Other: Rest of Africa	1.0	1.1
Other: Rest of Europe	0.5	0.5
Other: Asia, New Zealand, Central America, South America	0.9	1.8
Rio Tinto total	23.4	37.2

Note: Due to rounding, sum may not equal the total shown

2013 Greenhouse gas emissions by product group

(million tonnes of CO_2 equivalent)

Product group	Scope 1 greenhouse gas emissions	Total greenhouse gas emissions
Aluminium*	8.5	8.8
Copper	1.6	3.3
Diamonds & Minerals	2.6	4.7
Energy	2.8	3.5
Iron Ore	4.0	3.9
Other**	4.0	13.0
Rio Tinto total	23.4	37.2

* Aluminium includes Rio Tinto Alcan and excludes Pacific Aluminium (PacAl) and Gove.

** Other includes Exploration, Technology & Innovation, Gove, PacAl, Corporate offices, etc.

Note: Due to rounding, sum may not equal the total shown

2013 Water withdrawal by product group

(billion litres)

Product group	Marine	Surface water	Groundwater	Municipal water	Total
Aluminium*	22	41	25	14	103
Copper	0	14	38	0.1	52
Diamonds & Minerals	4.3	92	15	5.4	117
Energy	0	26	6.1	9.7	42
Iron Ore	5	191	129	5	330
Other**	68	7	7.2	0.3	82.5
Rio Tinto total	100	371	221	34	726

* Aluminium includes Rio Tinto Alcan and excludes Pacific Aluminium (PacAl) and Gove.

** Other includes Exploration, Technology & Innovation, Gove, PacAl , Corporate offices, etc.

Note: Values greater than 10 billion litres are nearest billion

Note: Due to rounding, sum may not equal the total shown

2013 Water withdrawal by location

(billion litres)

Location	Marine	Surface water	Groundwater	Municipal water	Total
Australia	94.39	64.4	143.78	18.97	321.53
Canada	0.6	265	18	7.8	291
France	0	0.7	0.8	0.3	2
South Africa	0	13	0	2.4	15
United Kingdom	5	0.4	0	0	5.4
United States	0	13.6	29	2	44.61
Other: Rest of Africa	0	14	5.1	3.2	22
Other: Rest of Europe	0	0	11	0.1	11
Other: Asia, New Zealand, Central America, South America	0	0.2	11.9	0	12.1
Rio Tinto total	100	371	221	34	726

Note: Values greater than 10 billion litres are nearest billion

Note: Due to rounding, sum may not equal the total shown

2013 Workforce by product group

Product group	Employees
Aluminium*	17,750
Copper	11,000
Diamonds & Minerals	9,000
Energy	5,750
Iron Ore	14,750
Other**	7,750
Rio Tinto total	66,000

* Aluminium includes Rio Tinto Alcan and Pacific Aluminium

** Other includes Exploration, Technology & Innovation, Gove, Corporate offices, etc.

2013 Workforce by location

Location	Employees
Australasia	28,000
North America	17,000
Europe	7,000
Africa	8,000
Other	6,000
Rio Tinto total	66,000

UNGC

Committed to the UNGC's ten principles

United Nations Global Compact (UNGC) is an accord between the United Nations and business for co-operation and promotion in upholding a set of core values in the areas of human rights, labour standards, environmental practice and anti-corruption. These values are reflected in ten principles.

Rio Tinto and the UN Global Compact

Rio Tinto is a founding member of the Global Compact, having become a signatory in 2000. More than ten years on we remain committed to the ten principles of the Global Compact, which are reflected in our policies, standards and guidance.

We submit our Communication on Progress (COP) annually to report our implementation of the ten principles. These cover four key areas: human rights, labour standards, environment and anti-corruption. We report our COP at the GC Advanced level and make it widely available to stakeholders.

We are active members of the UNGC Local Networks such as in the UK and Australia. We also participate in the Global Compact's expert advisory groups such as the Human Rights Working Group.

Download our Communication on Progress (PDF)

Communication on Progress

For full information download our UNGC Communication on Progress

- UNGC-2012
- UNGC-2011
- UNGC-2010
- UNGC-2009
- UNGC-2008

Glossary

General

Term	Definition
GRI	The Global Reporting Initiative (GRI) provides the generally accepted framework for reporting on an organisation's economic, environmental and social performance. The framework contains general and sector specific content that has been agreed by a wide range of stakeholders.
GRI application level A+	GRI reports intended to qualify for application level A+ must contain the following: – All GRI G3 profile disclosures – Management approach disclosures for each indicator category: – Respond to each core G3 and Sector supplement indicator with due regard to the materiality principle by either a) reporting on the indicator, or b) explaining the reason for its omission – External assurance on the report For a report to be recognised as GRI based, self declaration of a level is required.
HSEQ management system	The Rio Tinto Health, Safety, Environment and Quality management system supports standardisation of corporate and business HSEQ management processes. The system is designed on the principles of continuous improvement and generally follows the layout of common international standards such as ISO14001:2004, ISO9001:2001 and the Plan, Do, Check and Review cycle.
Materiality assessment	The information in a sustainable development report should cover topics and indicators that reflect the organisation's significant economic, environmental, and social impacts or that would substantially influence the assessment and decisions of stakeholders. Materiality is the threshold at which an issue or indicator becomes sufficiently important that it should be reported. Beyond this threshold, not all material topics will be of equal importance and the emphasis should reflect the relative priority of these material topics and indicators. In defining material topics, we take into account external factors, including: – The main sustainability interests/topics and indicators raised by stakeholders; – The main topics and future challenges for the sector reported by peers and competitors; – Relevant laws, regulations, international agreements, or voluntary agreements with strategic significance to the organisation and its stakeholders; and – Reasonably estimable sustainability impacts, risks, or opportunities (eg global warming, HIV-AIDS, poverty) identified through sound investigation by people with recognised expertise, or by expert bodies with recognised credentials in the field. In defining material topics, we take into account internal factors, including: – Key organisational values, policies, strategies, operational management systems, goals, and targets; – The interests and expectations of stakeholders specifically invested in the success of the organisation (eg employees, shareholders, and suppliers); – Significant risks to the organisation; – Critical factors for enabling organisational success; and – The core competencies of the organisation and the manner in which they can or could contribute to sustainable development.
Sustainable development	Sustainable development is commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[1] Rio Tinto has made a commitment that its businesses, projects, operations and products should contribute constructively to the global transition to sustainable development. 1 Our Common Future, Report of the World Commission on Environment and Development, World Commission on Environment and Development, 1987. Published as Annex to General Assembly document A/42/427, Development and International Co-operation: Environment August 2, 1987. Available at: http://www.undocuments.net/wced-ocf.htm

Operations and products

Term	Definition
Brownfield exploration	Exploration directed at sustaining or growing existing Group business units. With processing infrastructure already in place, capital expenditure requirements for developing brownfield orebodies are usually lower than in a greenfield setting.
Cradle to gate life cycle assessment	An LCA covering all life cycle phases from production to that business's gate and not beyond.
Cradle to customer gate life cycle assessment	An LCA covering all life cycle phases from production to customer gate, and therefore including transport to customer. Cradle to (customer) gate assessments are sometimes the basis for environmental product declarations (EPD).
Greenfield exploration	Exploration which aims to establish completely new operating business units, involving geographic or commodity diversification away from existing Group operations.
Industry level life cycle assessment	A LCA compiled by an industry or commodity association or related body for a generic product based on aggregated data collected from industry sources (ie not company specific).
Key products	Products from which major business revenue is obtained (>10% of revenue per product). This would include major products sold by businesses from which >10% net revenue is gained and/ or waste or by-products from which major revenue is gained. Examples of key products include iron lump, iron fines, copper cathode, gold, borates, uranium oxide, steel powder, and molybdenum oxide.
Life cycle assessment (LCA)	A technical analytical procedure or method that includes the collation of the environmental inputs and outputs related to a production process (life cycle inventory), followed by a scientific assessment of the potential environmental impacts of a product (life cycle impact assessment LCIA). Described by ISO 14040 series.
Managed operation	A managed operation is defined as an operation where: – Rio Tinto wholly owns the operation; or – A management agreement is in place which names Rio Tinto as the manager; or – Rio Tinto HSEC systems and processes are fully implemented.
Partial life cycle assessment	An analytical procedure to compile and evaluate the environmental inputs and outputs and the potential environmental impacts of a product where the scope has been limited to address a specific impact category (for example global warming potential or ecotoxicity) or a life cycle phase.
Product specific life cycle assessment	A life cycle assessment completed in-house for a specific product produced by the business.
Tier 1 resources	Low-cost, expandable resources that are profitable at all parts of the natural price cycle and deliver a sustainable competitive advantage.

Environmental

Term	Definition
Biodiversity	Biodiversity refers to the variety of life on earth the different animals, plants and micro-organisms, their genes and the ecosystems of which they are a part.
Ecosystems system services	Ecosystems services are the benefits we obtain from ecosystems. The UN Millennium Ecosystem Assessment grouped these into four categories: provisioning (production of food and water), regulating (control of climate and disease), supporting (nutrient cycles and crop pollination), and cultural (spiritual and recreational benefits).
Emission (air)	Applies to an environmental incident in which material and/or energy is ejected in an uncontrolled manner to the atmosphere, or emissions that are not compliant with agreed licences, including: dust, noise, vibration and blasting incidents.
Energy use	Energy use includes energy associated with the combustion of fuels and use of electricity and other energy sources such as steam and hydro power. Energy use for anodes and reductants is evaluated from a carbon balance used to evaluate the resultant carbon dioxide emissions. Under Rio Tinto's reporting guidelines, any individual operation that is not expected to consume 40,000 gigajoules (GJ) of energy in any year over the next three years can be excluded from our data collection processes. It is recognised that reporting trivial quantities of fuels and emissions may result in a significant workload. Thus operations may omit or estimate individual emission or energy sources from their inventories subject to the following rules: – For non-Australian operations: Individual sources that can be excluded should be less than 10,000GJ. The total of these excluded sources should be less than five per cent of the operation's complete inventory – For Australian operations: The National Greenhouse and Energy Reporting (NGER) Act 2007 requires all sources to be included. However, some incidental sources can be estimated. An incidental source is any source that is less than 0.5 per cent of the facility's energy use or energy produced and is less than 15,000GJ. The total of these incidental sources must be less than two per cent of the facility's inventory and less than 60,000GJ
Environment	The surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.
Freshwater	Potable water or good quality raw water with total dissolved solids less than 1,500 milligrams per litre, pH 5-9, and individual dissolved constituents (metals, anions, etc) at concentrations suitable for agricultural, livestock or irrigation use (based on local, regional or national guidelines).
Freshwater use efficiency	The amount of freshwater used per tonne of product. Rio Tinto's freshwater use efficiency target is evaluated as the per cent difference between freshwater use efficiency in the target year for all operations managed at the end of the target year and the equivalent freshwater use efficiency in the baseline year. We use 2008 as the baseline year for our target. Any business or operation, such as Rio Tinto Exploration, that does not produce a saleable product is excluded from the target assessment. Developing operations are included in the assessment once production exceeds 60 per cent of nameplate production within a reporting year.

Glossary continued

Freshwater withdrawn	Freshwater withdrawn includes: – Imported surface water (water provided by a third party for Rio Tinto use) – On-site impounded water used in process applications – Imported groundwater – On-site groundwater – Freshwater withdrawn for use as cooling water, that is chemically, physically or biologically modified at the final point of discharge and / or is returned to the environment with a temperature change of greater than five degrees. Freshwater withdrawn does not include: – Poor quality water – Overflow of water in heavy rain conditions from impoundments that has not had the quality significantly altered by inputs and seepage – Water diverted to avoid contamination but not subsequently withdrawn or intercepted for use – Water withdrawn and directly supplied to others, eg (i) for use in agricultural or pastoral properties; (ii) for export to third parties or (iii) for town use – Freshwater withdrawn and used for hydropower generation.
Freshwater withdrawn and not used	Freshwater withdrawn and not used includes: – On-site groundwater which is extracted for ground control (dewatering) and discharged without use in the process.
Freshwater withdrawn and used	Freshwater withdrawn and used includes – Imported surface water (water provided by a third party for Rio Tinto use): – On-site impounded water used in process applications – Imported groundwater – On-site groundwater, except that which is extracted for ground control (dewatering) and discharged without use – Freshwater withdrawn for use as cooling water, that is chemically, physically or biologically modified at the final point of discharge and / or is returned to the environment with a temperature change of greater than five degrees and / or is returned to the environment with a temperature change of greater than five degrees.
Greenhouse gas emissions	Rio Tinto reports emissions of all six groups of greenhouse gases included in the Kyoto Protocol: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorinated carbon compounds and sulphur hexafluoride. Under Rio Tinto's reporting guidelines, individual operations that are not expected to exceed 3,000 tonnes of carbon dioxide equivalent (t CO_2-e) emissions in any year over the next three years can be excluded from our data collection processes. It is recognised that reporting trivial quantities of fuels and emissions may result in a significant workload. Thus operations may omit or estimate individual emission sources from their inventories subject to the following rules: For non-Australian operations: Individual sources that can be excluded should be less than 1,000t CO_2-e. The total of these excluded sources should be less than five per cent of the operation's complete inventory. For Australian operations: the National Greenhouse Energy Reporting (NGER) Act 2007 requires all sources to be included. However, some incidental sources can be estimated. An incidental source is any source that is less than 0.5 per cent of the facility's emissions (scope 1 plus scope 2 emissions) and is less than 3,000t CO_2-e. The total of these incidental sources must be less than two per cent of the facility's inventory and less than 12,000t CO_2-e.

Glossary continued

Mineral waste	Mineral wastes include waste rock, tailings and slag: – Waste rock is composed of soils or bedrock that must be removed to uncover or access ore during mining. – Tailings consist of ground up rock mixed with process water that remains after the minerals of economic interest have been removed from the ore. – Slag is generated by smelting operations and is the glassy material that remains after metals, such as copper, have been removed from the ore concentrate. Mineral wastes are typically produced in very large volumes. Their handling and storage can directly impact the land. Mineral waste is usually permanently stored on site where it is used as in pit backfill or held in engineered repositories. Most mineral wastes are inert, but some are chemically reactive and must be appropriately handled to protect people, wildlife and water quality.
Mobile sources	Emission release points that move, such as haul trucks. Compare with "stationary sources".
Non-mineral waste	Non-mineral waste is primarily composed of the auxiliary materials that support our mining and mineral processing operations. This includes familiar materials such as used oil, tyres, old batteries and office waste, as well as more specialised waste streams such as spent pot liners from aluminium smelters. Non-mineral waste is produced in much smaller volumes than mineral waste, and is most commonly managed through recycling, off-site treatment and disposal, or placement in on-site engineered landfills.
On-site greenhouse gas emissions	Scope 1 greenhouse gas emissions, ie direct greenhouse gas emissions that are owned or controlled by the company and include fuel use, on-site electricity generation, anode and reductant use, process emissions, land management and livestock.
Operational land holdings	Our operational land holdings fall into two categories: – All land disturbed for mining, processing and related activities, including rehabilitated land. This is known as our operational footprint. – Land outside our operational footprint area, which may be used in the future for mining, processing and related activities as well as other land uses. This is known as our land holding balance.
Process	The activities associated with the process of mining or refining. This includes mining, milling, slurrying, washing ore, dust suppression, wastewater / sewerage treatment, power generation, bathhouse, camp, canteen, offices, irrigating rehabilitated land and wash down.
Scope 1 greenhouse gas emissions	The World Resource Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A Carbon Reporting and Accounting Standard, March 2004 defines three scopes of greenhouse gas emissions for reporting purposes. Scope 1 emissions are direct greenhouse gas emissions that are owned or controlled by the company and include fuel use, on-site electricity generation, anode and reductant use, process emissions, land management and livestock (on-site emissions).
Scope 2 greenhouse gas emissions	Scope 2 emissions are greenhouse gas emissions from the imports of electricity, heat or steam from third parties (indirect emissions).
Scope 3 greenhouse gas emissions	Scope 3 emissions are other indirect greenhouse gas emissions.
Stationary sources	Emission release points that do not move, such as power stations, smelters, refineries and concentrators. Compare with "mobile sources".
Total greenhouse gas emissions	Scope 1 emissions plus Scope 2 emissions minus emissions associated with electricity and steam exported to others minus net carbon credits voluntarily purchased from, or sold to, recognised sources.

Total greenhouse gas emissions intensity index	An indexed measure of the change in emissions per unit of product compared to a baseline intensity, evaluated for each of our commodities. Commodities are products sold to the market from operations of comparable scope. Examples include bauxite mined, smelter grade alumina refined from bauxite, primary aluminium smelted from alumina, copper concentrate from mine to concentrator, and copper cathode from mine to refinery. Rio Tinto's total greenhouse gas emissions intensity target is evaluated as the per cent difference between actual total greenhouse gas emissions in the target year and the equivalent emissions expected from the target year production at the baseline year emissions intensity for each commodity. Any business or operation, such as Rio Tinto Exploration, that does not produce a saleable product is excluded from the target assessment. Developing operations are included in the assessment once production exceeds 60 per cent of nameplate production within a reporting year. We index our performance relative to 2008 as a baseline year.

Social

Term	Definition
All injuries	The sum of lost time injuries and medical treatment cases.
Antiretroviral drugs	Medications for the treatment of infection by retroviruses, primarily HIV.
Biometric assessment	A part of health risk assessment, involving the measurement of such parameters as height, weight, body mass index, blood pressure, heart rate, waist girth, etc.
Contractor	A person or organisation providing services to an employer at the employer's workplace in accordance with agreed specifications, terms and conditions. For the purposes of Rio Tinto's health, safety and environmental standards, contractors have been classified into three categories: – Category 1: Individuals engaged on temporary contracts to work within existing operations – Category 2: Companies or individuals engaged for a discrete project which will be carried out in a designated area separate from existing operations – Category 3: Companies or individuals engaged under contract to carry out specific tasks or provide specified services within existing operations areas.
Employee	A person in full or part time employment at a Rio Tinto business and listed on the payroll of a business.
Fatal injury or occupational illness	When one or more person(s) die as a result of a work-related injury or occupational illness occurring during their employment. Lost and restricted days are not calculated for fatalities.
Frequency rates	The measures of performance for each of the metrics of injury or illness, eg: – All injury frequency rate (AIFR) = number of all injuries x 200,000 / hours of exposure – Rate of new cases of occupational illness = number of new cases of occupational illnesses x 10,000 / number of employees (based on average monthly statistics) – Rate of employee exposure to noise = number of employees exposed to more than 85dB(A) noise x 10,000 / number of employees (based on average monthly statistics) Rio Tinto uses AIFR to assess performance against the goal of zero injuries and zero fatalities. This assessment includes employees and all categories of contractors. Rio Tinto's health targets (rate of new cases of occupational illness and rate of employee exposure to noise) are evaluated using employee data only. Whilst diagnosed occupational illnesses are recorded for contractors, this data is not included in the evaluation of performance against our health targets. Developing operations that were not part of the target baseline and operations acquired during the target period are excluded when assessing performance against these targets. Divested or closed operations are removed from the baseline when assessing performance against these targets.
Generalised HIV epidemic	Where HIV prevalence has passed the one per cent mark in the general population, based on national estimates of HIV prevalence using data generated by surveillance systems that focus on pregnant women who attend a selected number of sentinel antenatal clinics, and in an increasing number of countries on nationally representative sero-surveys.

Glossary continued

HIV/AIDS	Acquired immune deficiency syndrome or acquired immunodeficiency syndrome (AIDS) is a disease of the human immune system caused by the human immunodeficiency virus (HIV).
Hours of exposure	The total number of hours worked by employees and contractors at a facility where one or more employees/contractors are working or are present as a condition of their employment and are carrying out activities related to their employment duties. – For employees: This can be determined by either "Planned time + overtime all absences" or actual time (collected via gate pass or timesheet systems) or represent reasonable estimates made by a Rio Tinto company supervisor. – For contractors: Hours worked are provided by either the vendor or represent reasonable estimates made by a Rio Tinto company supervisor. These hours are recorded by month, vendor, work area and organisation unit, they reflect the total time spent by contractors on Rio Tinto sites.
Injury	Any injury such as a cut, fracture, sprain, amputation, etc, which results from a work related event during a single shift. All occupational injuries are to be reported as safety incidents with safety impact. All occupational injuries must be recorded for employees and contractors regardless of contractor category.
Incident	A single event or continuous/repetitive series of events that results in, or could have resulted in, one or more of the following impacts: – An occupational injury or illness – Damage to physical assets (eg plant and equipment), the environment, process, product, or reputation – Disruption to a community – Exposure to legal liability – Security threat
Lost day injury or occupational illness	An injury or occupational illness that results in one or more days/shifts away from work, excluding the day of the incident.
Lost time injury or occupational illness	The sum of fatal, lost day and restricted work day injuries or illnesses.
Medical treatment case injury or occupational illness	An injury or occupational illness which is not classified as lost time, but which results in loss of consciousness or medical treatment other than first aid. Medical treatment includes, but is not limited to: – Administration of prescription medication – Use of wound closing devices such as sutures, staples, or wound adhesives (glue) – Use of devices with rigid stays or other systems designed to immobilise parts of the body – Use of eye patches (except for use as a precautionary measure, and not extending into the next shift) Medical treatment does not include: – Visits to a physician or other licensed health care professional solely for observation or counselling, or conduct of diagnostic procedures, such as x-rays, blood tests, and the administration of prescription medications used solely for diagnostic purposes (eg eye drops to dilate pupils) or as a single dose administered on first visit for a minor injury or discomfort – Injuries where the original or first treating doctor used sutures but is prepared to document that sutures were not necessary to treat the injury. This might occur, for instance, if steri-strips or butterfly bandages were not available.
Musculo-skeletal illnesses	A case is reportable where a medical practitioner diagnoses musculo-skeletal disease that meets defined diagnostic criteria, and it is due to repeated workplace exposure (other than due to vibration) and it results in medical treatment, restricted work days, lost days or permanent damage. Includes recurring musculo-skeletal conditions. Recurring musculo-skeletal conditions are counted as a new case and reported only if the medical practitioner considers that the worker had fully recovered from the previous condition. Can include repetitive strain injuries, also known as occupational overuse syndrome. Purely subjective symptoms without limitation of movement or physical or laboratory signs are not reportable. Contractors of category 2 or 3 are not included. Occupational injury cases are excluded – defined as arising from a work related event of less than one shift in duration.

Glossary continued

New case / recurrence	An injury or illness is considered as a new case if the employee has not previously experienced an injury or illness of the same type, or the employee has completely recovered from the previous case and a new incident has caused the condition to reappear. If not then additional time lost is linked back to the original injury or illness and is considered a recurrence of the original injury or illness.
Noise induced hearing loss (NIHL)	To be diagnosed as being related to noise exposure requires evidence of a hearing loss on a technically satisfactory audiogram at 4 or 6kHz, preferably with recovery of hearing at 6 or 8kHz. A loss without recovery plus a history of noise exposure is also regarded as NIHL. For cases meeting these criteria the following steps are required to determine whether or not a case of NIHL meets Rio Tinto's reporting criteria: 1. Occupationally exposed to noise >85dBA time weighted average; and 2. Has sustained a standard threshold shift; and 3. Average hearing loss over 1, 2 and 3KHz after age adjustment of the audiogram of >25dBA as compared to audiometric zero. Hearing loss due to age, disease or a one time exposure is excluded. The latter is considered an injury. Contractors of category 2 or 3 are not included.
Occupational asthma	A case is reportable if a medical practitioner following the International Council on Mining & Metals (ICMM) / International Aluminium Institute (IAI) occupational asthma definition diagnoses the patient as an asthmatic due to the occupational exposures such as those in aluminium smelting, resulting in medical treatment, restricted work days, lost days or permanent damage. Contractors of category 2 or 3 are not included.
Occupational exposure	Exposure to chemical, physical, biological or ergonomic hazards under controlled conditions, in the course of and intrinsic to the nature of their work, of a population consisting of adults who are trained or informed to be aware of potential risks and to take appropriate precautions. The duration of occupational exposure is limited to the duration of the working day or duty shift per 24 hours and the duration of the working lifetime.
Occupational exposure limit (OEL)	The level of an agent in workplace air, which it is believed is low enough to protect nearly all workers from adverse health effects over a series of eight-hour shifts for a working lifetime. Rio Tinto has defined a number of OELs that apply across all of its operations.
Occupational illness	An illness or disease is distinct from an injury. One event cannot be both. An occupational illness or disease results from a workplace related exposure of more than one shift; ie noise induced hearing loss (NIHL), carpal tunnel syndrome, etc. A person is only diagnosed once with the same occupational illness or disease unless there has been a complete recovery from the original case. All occupational illnesses are reported as health incidents with health impact. All diagnosed occupational illnesses must be recorded for employees and Category 1 contractors, regardless of whether they are labour, executive, hourly, salary, part-time, seasonal or migrant workers. Diagnosed occupational illnesses affecting Category 2 and Category 3 contractors do not need to be recorded (unless required by local legislative or regulatory requirements), and are not reportable to Rio Tinto.

Permanent damage injury or illness	Is a measure of the severity of an injury or occupational illness from which: 1. there has not been, or is not expected to be, full recovery after two years; and/or 2. there has been substantial negative consequences for the individual, that is prolonged hospitalisation, prolonged inability to work, loss of ability to continue normal social and home life, major damage to body or body function (eg paraplegia, lung disease, blindness or amputations of limbs above tip of toes/fingers); and/or 3. the person is unable to work and has been retired. Lost or restricted shifts and calendar days are counted until either of the following occur: 1. the person returns in a full time unrestricted capacity to their pre-injury role; or 2. the person is permanently redeployed into another role; or 3. two years have passed from the date of the injury; or 4. the person leaves the service of the company.
Restricted work day injury or occupational illness	Occupational injury or illness where, as a result the employee: – Was assigned to another job on a temporary basis, or – Worked at a permanent job less than full time, or – Worked at his or her permanently assigned job but could not perform all the duties normally connected with it. A restricted work activity occurs when the employee, because of the job-related injury/illness, is physically or mentally unable to perform all or any part of his or her normal assignment during all or any part of the normal workday or shift, after which the injury/illness occurs.
Similar exposure group (SEG)	Employee/contractor groups who have similar responsibilities, common hazards and similar exposure profiles that are identified by similar substance and exposure factors. Rio Tinto uses SEGs as the basis for assessing workplace exposure to hazardous agents with chronic effect.
UNAIDS	Joint United Nations programme on HIV/AIDS
Voluntary counselling and testing	With regard to HIV/AIDS programmes, voluntary counselling and testing (VCT) is the process by which an individual undergoes confidential counselling to enable the individual to make an informed choice about learning his or her HIV status and to take appropriate action. If the individual decides to take the HIV test, VCT enables confidential HIV testing. Counselling for VCT consists of pre-test, post-test and follow up counselling.
Wellbeing / Wellness programme	A proactive, preventive approach of helping people change their lifestyle to move toward a state of optimal health, a balance of physical, emotional, social, spiritual, and intellectual health. It is an active process of enhancing awareness and skills, changing behaviour and values, and creating an environment that supports good health practices and increase a person's ability to enjoy a balanced and fulfilling life.

Economic

Term	Definition
Direct economic contribution	The total value of all sales made to third parties during the year.
Value added	The value that a business adds to the materials and services it has bought. It is equivalent to the sum of all labour payments, payments to governments, plus all returns to capital – including interest payments, profits paid out to shareholders, and money retained in the business for future investment and to replace depreciated assets.