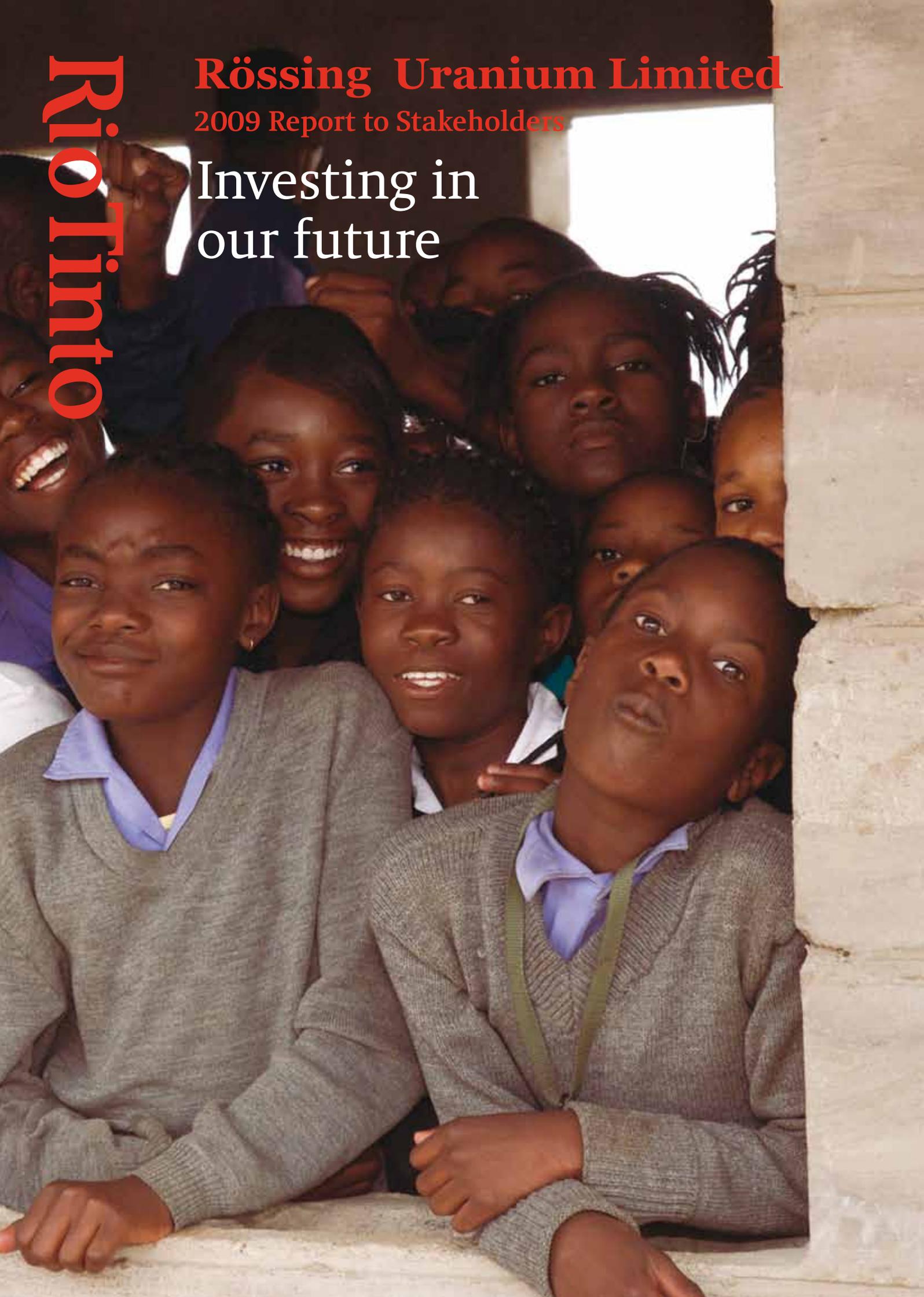


RioTinto

Rössing Uranium Limited

2009 Report to Stakeholders

Investing in  
our future



## The purpose of this report

This report aims to give Rössing Uranium's stakeholders a review of our activities from January to December 2009, as well as of the company's interaction with society, the economy and the environment. The stakeholders of the Rio Tinto Group and Rössing Uranium Limited are not only the shareholders who invested in the business, but are all those individuals and institutions that influence the company and whom the mine affects. Stakeholders, therefore, include the mine's employees and contractors; the communities of Arandis, Swakopmund and Walvis Bay; Government institutions; service providers and the mine's customers.

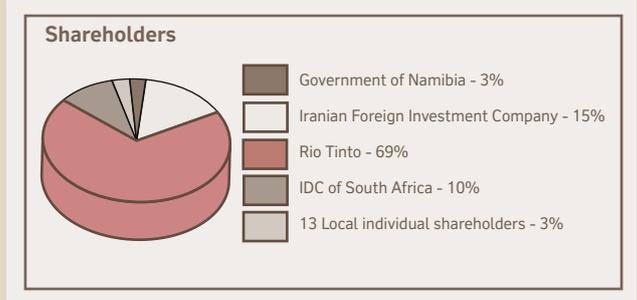
## History of Rio Tinto's Rössing Uranium Limited

Uranium was discovered in the Namib Desert in 1928, but it was not until intensive exploration got under way in the late 1950s that much interest was shown in the exploration area around the current mine site. Shortly after, Rio Tinto discovered numerous uranium occurrences and in 1966 took over the rights to the low-grade Rössing deposit. In 1976, Rössing Uranium Limited, Namibia's first commercial uranium mine, began operating.

Today, Namibia has two significant uranium mines in operation and provides 11.8 per cent of world uranium oxide mining output, of which 8 per cent is produced by Rössing Uranium Limited. The mine has a nameplate capacity of 4,500 t of uranium per year and, by the end of 2009, had supplied a total of 97,831 t of uranium oxide to the world.

## Rössing's shareholders

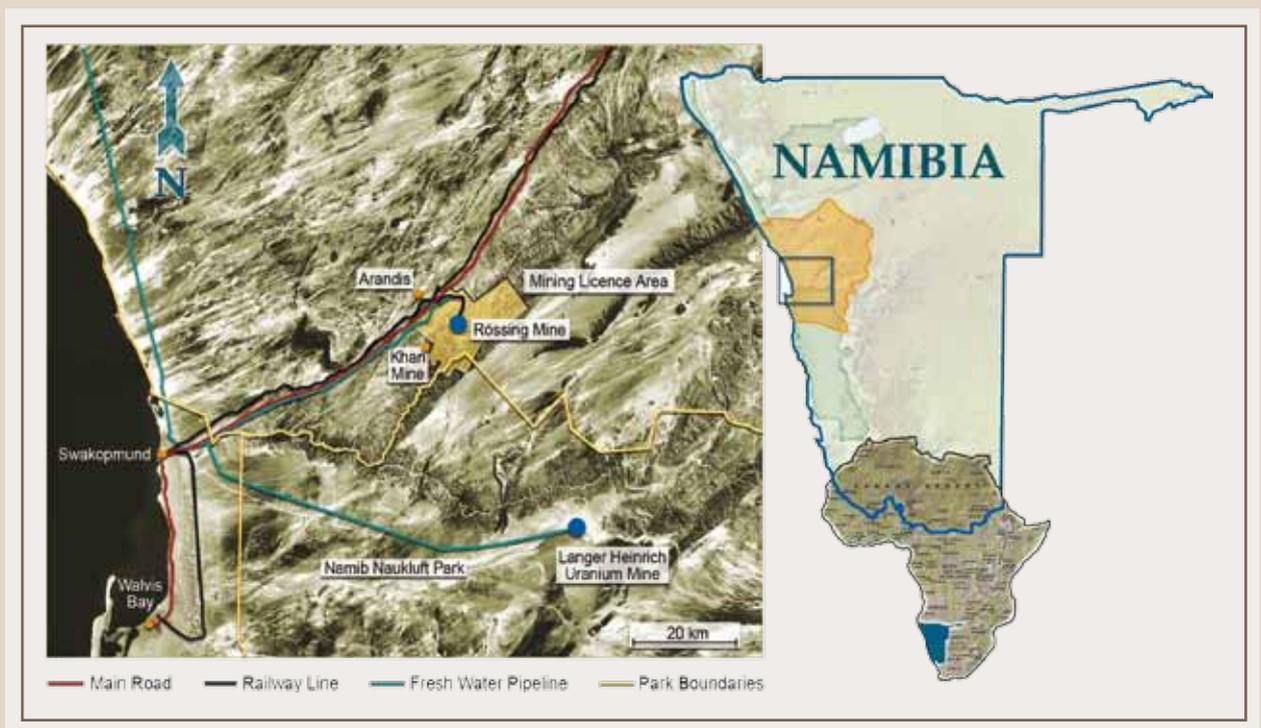
Rio Tinto is the majority shareholder with 69 per cent shares in Rössing Uranium Limited. The Namibian Government has a 3 per cent shareholding, and it has the majority (51 per cent) when it comes to voting rights on issues of national interest. The Iranian Foreign Investment Company owns 15 per cent, a stake that was acquired during the set-up of the company in the early 1970s. The Industrial Development Corporation (IDC) of South Africa owns 10 per cent, while local individual shareholders own a combined 3 per cent shareholding. The shareholders have no uranium product offtake rights.



## Location

Rössing Uranium Limited, a large open-pit uranium mine, is situated in Namibia, south-western Africa, and started operations in 1976. It is located about 15 km from the town of Arandis, 70 km inland from the coastal town of Swakopmund in the Erongo Region, Namibia. Walvis Bay, Namibia's only deepwater harbour, is 30 km south of Swakopmund.

The mine site encompasses a licence area of about 180 km<sup>2</sup>, of which 20 km<sup>2</sup> are used for mining, waste disposal and processing. Mining is done by drilling and blasting, loading and hauling from an open pit, referred to as the *SJ pit*, before the uranium-bearing rock is processed to produce uranium oxide. The open pit currently measures 3 km by 1.2 km, and is 390 m deep.



(Front page) A total of N\$1 million was donated to the building of classrooms in three previously disadvantaged schools in Swakopmund. Students of the Vrede Rede Primary School were some of the recipients of these funds, demonstrating our commitment to invest in the education of our future leaders.

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# Message from the MD

Message from Mike Leech  
Managing Director  
28 February 2010

**I always have to pause and collect my thoughts before answering people on how events ran last year.**

**The short answer is probably that it was not as bad as it could have been, but not as good as we wanted it to be.**

Safety saw an improved All Injury Frequency Rate and fewer lost-time injuries, but we had a high number of significant near misses that could have changed our performance radically if they had had a different outcome.

A really pleasing side of safety and health last year was the enhancements we made in our management support structures, and the vast improvement in the application and effectiveness of the safety standards almost everywhere across the mine. This represents a great building base for 2010.

Another plus side was that uranium production was ahead of plan – even exceeding the 2008 total. This impressive result was derived entirely from uranium ore that was of a higher grade than planned, as well as a great deal of hard work that delivered recovery that was also higher than planned, supported with consistent mine feed.

The tonnes milled, mined and moved were all below plan, however, and we would have had a very poor overall result were it not for grade and recovery. Indeed, we have been devoting – and continue to devote – significant resources and effort into increasing our throughputs to offset the ore grade which is expected to decline over the next few years.

In addition, whilst the market remains at around US\$42/lb, which is well above the levels of the 1990s, it lags behind

the highs of 2008 that allowed us to lock in significant earnings. The earnings in 2009 were such that our shareholders would actually have earned more from interest if their money had been in a bank deposit.

Looking forward, 2009 saw the approval of a new life-of-mine plan which extends the mine life to 2023. However, in order to achieve this longer life, we have four years of significantly increased mining rates ahead of us in order to open up Phase III in the southern pit area planned for 2014. Grade declines and stripping rates move up to 3:1, focusing large amounts of our hard-earned cash back into the business to ensure access to ore in the years ahead.

As always, but particularly now, volume and cost efficiency are the main levers we use to maintain our profitability. For this reason we have initiated a significant improvement programme that seeks to lift volumes and save costs wherever practical.

We have also reduced capital spend to the essential health, safety and environment projects and those with high returns, and we are focusing on completing projects a bit more slowly but primarily with our own resources.

Our good sales volumes and cash flows support the current development push, as we continue to drill prospective areas within our mining lease in order to increase our growth potential and mine life. At the same time, we have no money to spare and little margin for error.

We also continue to focus on developing people with a large programme of support to bursaries and apprenticeship training. In this regard as well, our strong support of the Rössing Foundation endures, and remains focused on the improvement of educational outcomes and the sustainability of Arandis.

In addition, the Sustainable Development team and others have given strong support to the Uranium Institute in respect of the work being done, especially in terms of the Strategic Environmental Assessment for the Erongo Region in general, but also as regards the development of radiation training programmes, information booklets, and a Uranium Information Centre.

We are focused on delivering world-class performance to achieve adequate profitability and secure our long-term viability. In order to achieve this, we have much work to do.

I thank you for your support in 2009, and look forward to our efforts to consolidate a positive future together.



## 2009 Rössing Uranium's strategic objectives

### Core purpose

Maximising the value delivered to our shareholders by being a safe, significant and growing long-term supplier of uranium to the world nuclear power industry.

### Strategy

Focusing on excellence in our operations • Concentrating efforts on large-scale, long-life, cost-competitive assets • Keeping the emphasis on the quality of the opportunity, and operating in a responsible and sustainable manner

### One Rio Tinto

Collaboration • Supporting a global brand • Integrated planning • Standardised and common processes • Continuous improvement

### Values

Care • Teamwork • Accountability • Innovation and creativity • Ambition • Integrity • Adaptability • Customer focus

| Strategic pillars      | Health and safety  | Operational and financial delivery  | Growth and innovation  | People  | Communities and the environment  | Customers and markets   |
|------------------------|--|---|--|---|--|---|
| <b>Our inspiration</b> | Zero harm  | Value adding operations   | Value adding growth  | Employer of choice  | <ul style="list-style-type: none"> <li>• Developer of choice</li> <li>• Number one corporate citizen in Namibia</li> </ul>   | Supplier of choice  |
| <b>Key drivers</b>     | <p><b>Behavioural safety</b><br/>Focus on –</p> <ul style="list-style-type: none"> <li>• leadership development</li> <li>• interdependent culture</li> </ul> <p><b>Systems and risks</b><br/>Focus on –</p> <ul style="list-style-type: none"> <li>• process safety</li> <li>• leading indicators</li> </ul> | <ul style="list-style-type: none"> <li>• Top quartile margins</li> <li>• Continuous net present value growth</li> <li>• Sweat assets</li> <li>• A major contributor to Namibian gross domestic product (GDP)</li> <li>• Rigorous cost and financial management</li> <li>• Ore body stewardship</li> </ul> | <ul style="list-style-type: none"> <li>• Extensive proven reserves</li> <li>• Proactive collaboration</li> <li>• Unlock additional value from reserves and resources</li> <li>• Leverage technology</li> <li>• Intellectual property and knowledge management</li> </ul> | <ul style="list-style-type: none"> <li>• A great working environment</li> <li>• Deployment of trained and returnee bursary holders</li> <li>• Creative and innovative employees</li> <li>• Effective communication</li> <li>• Performance management and rewards</li> </ul> | <ul style="list-style-type: none"> <li>• Stakeholder engagement</li> <li>• Leading practice in health and environment</li> <li>• Recognised for quality and commitment to sustainable development</li> <li>• Climate change and energy strategy</li> </ul> | <ul style="list-style-type: none"> <li>• Long-term contracts underpinning life of mine</li> <li>• High standards of operation and reliability</li> <li>• Contribute to the policy debate</li> <li>• World-class, fact-based marketing strategy and tactics</li> </ul> |

## 2010 Rössing Uranium's strategic objectives

### Expanded key drivers:

#### Growth and innovation:

- Improvement projects
- Rössing South

#### People:

- Commitment to the government's Transformational Economic and Social Empowerment Framework (TESEF)
- Rössing Foundation: valued Corporate Social Responsibility delivery pathway
- Support and contribute to Strategic Management Plan

Rössing's business consists mainly of two streams of activities: one focuses on immediate and short-term activities that keep the mine running on a daily basis, while the other focuses on expanding and extending our business as far into the future as possible.

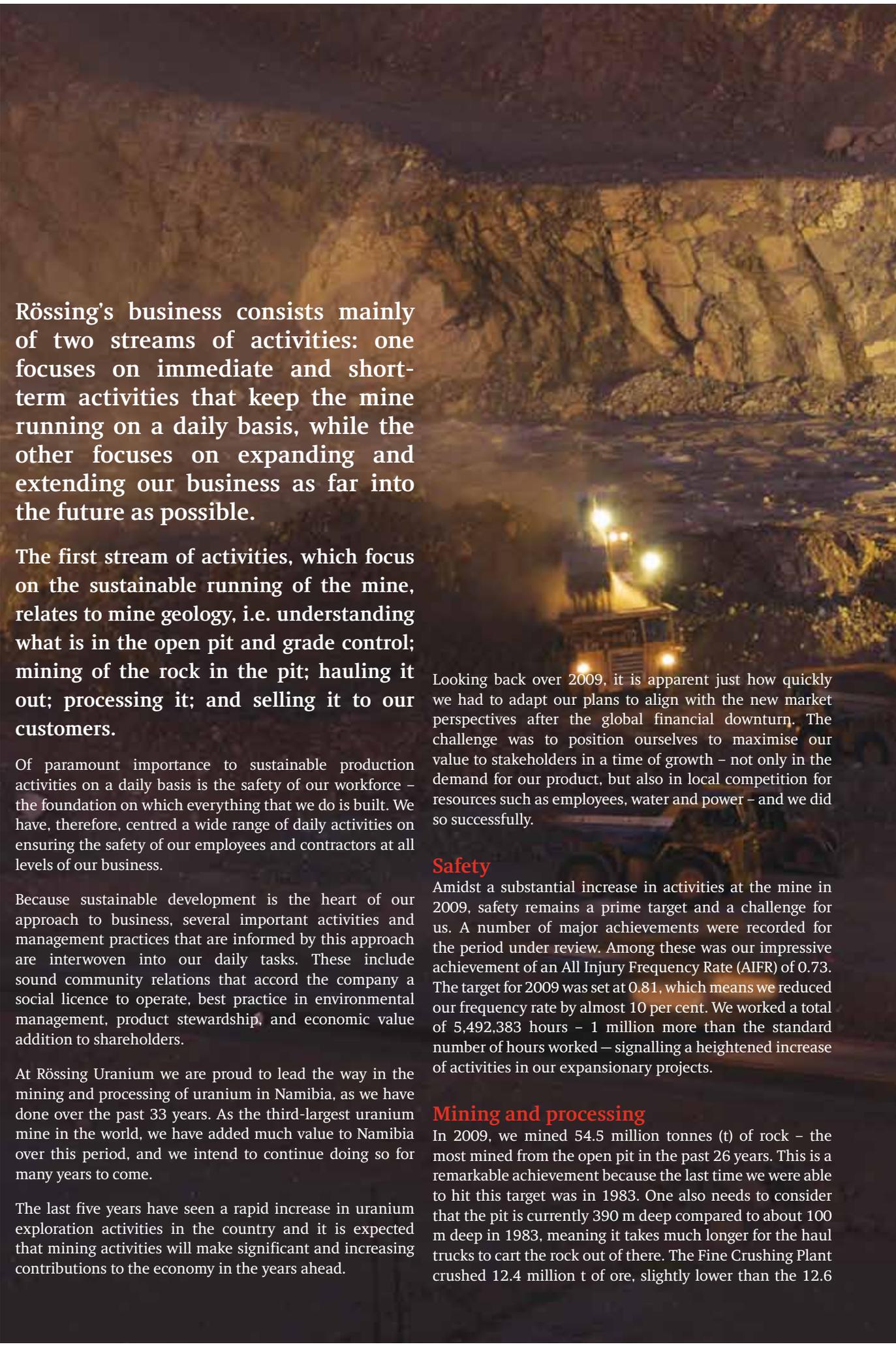
The first stream of activities, which focus on the sustainable running of the mine, relates to mine geology, i.e. understanding what is in the open pit and grade control; mining of the rock in the pit; hauling it out; processing it; and selling it to our customers.

Of paramount importance to sustainable production activities on a daily basis is the safety of our workforce – the foundation on which everything that we do is built. We have, therefore, centred a wide range of daily activities on ensuring the safety of our employees and contractors at all levels of our business.

Because sustainable development is the heart of our approach to business, several important activities and management practices that are informed by this approach are interwoven into our daily tasks. These include sound community relations that accord the company a social licence to operate, best practice in environmental management, product stewardship, and economic value addition to shareholders.

At Rössing Uranium we are proud to lead the way in the mining and processing of uranium in Namibia, as we have done over the past 33 years. As the third-largest uranium mine in the world, we have added much value to Namibia over this period, and we intend to continue doing so for many years to come.

The last five years have seen a rapid increase in uranium exploration activities in the country and it is expected that mining activities will make significant and increasing contributions to the economy in the years ahead.



Looking back over 2009, it is apparent just how quickly we had to adapt our plans to align with the new market perspectives after the global financial downturn. The challenge was to position ourselves to maximise our value to stakeholders in a time of growth – not only in the demand for our product, but also in local competition for resources such as employees, water and power – and we did so successfully.

## Safety

Amidst a substantial increase in activities at the mine in 2009, safety remains a prime target and a challenge for us. A number of major achievements were recorded for the period under review. Among these was our impressive achievement of an All Injury Frequency Rate (AIFR) of 0.73. The target for 2009 was set at 0.81, which means we reduced our frequency rate by almost 10 per cent. We worked a total of 5,492,383 hours – 1 million more than the standard number of hours worked – signalling a heightened increase of activities in our expansionary projects.

## Mining and processing

In 2009, we mined 54.5 million tonnes (t) of rock – the most mined from the open pit in the past 26 years. This is a remarkable achievement because the last time we were able to hit this target was in 1983. One also needs to consider that the pit is currently 390 m deep compared to about 100 m deep in 1983, meaning it takes much longer for the haul trucks to cart the rock out of there. The Fine Crushing Plant crushed 12.4 million t of ore, slightly lower than the 12.6

A night visual of the mining operations in the open pit



million t processed in 2008. However, the grade of the ore was higher overall than was the case in 2008, resulting in more uranium oxide being produced.

What earned our uranium mine the title of being the third largest in the world was that we produced a total of 4,150 t of uranium oxide in 2009. This is 42 t higher than the previous year, which – for the second year running – is the highest production seen by the plant in 20 years. We achieved this whilst abiding to our motto of *Safety comes first, then production*.

In the year under review, we continued to focus our mining activities on providing the targeted amount of ore to the plant to keep it running sustainably. Most of this ore came from the bottom of the pit. Parallel to this activity is the removal of huge quantities of waste rock to expose further ore that can be mined once the bottom of the pit becomes depleted; this should happen towards the end of 2010.

Waste stripping is to increase from a current 33 million t per annum, to as high as 50 million t per annum. Additional mining equipment, including a hydraulic face shovel, four haul trucks and support equipment, has already been acquired for this expensive but necessary phase of our mining activities.

A key achievement in 2009 was the introduction of a mining monitoring and control system. This system not only assists operational staff in mining more efficiently,

it also allows maintenance staff to monitor the state of equipment online. The information gleaned in this way enables us to take proactive decisions. In the year under review, this online maintenance monitoring system helped to prevent an estimated N\$1.8 million in equipment failure.

### Expansion

Parallel to the operational activities to produce the targeted amount of uranium oxide are activities that focus on the extension and potential expansion of our operations in order to enable the mine to continue to operate for as long as possible, adding value to our workforce, to our communities, and to Namibia.

One such expansion activity involved the study on heap leaching that continued during 2009. The Heap Leach Project, once commissioned, will supplement the existing tank-leaching process to heighten the production levels. The heap-leaching process can be conducted at a lower cost than tank leaching, due mainly to a less intensive crushing stage, although slightly lower recoveries are expected as a result.

The focus of exploration and drilling activities was on the existing open pit, the SJ ore body. Deep drilling commenced in 2009 to investigate the extent of the ore below the current pit and to consolidate geological and geotechnical knowledge that will impact the mine plan. Work continued on the resource pre-feasibility study at the SK ore body, which is 1.5 km east of SJ.

## Human resources

Skills shortage continues to be one of the principal challenges faced by the mining industry in Namibia, especially in light of increased competition from other uranium operations in the Erongo Region. The competition for limited human resources meant that we were unable to recruit our targeted number of 200 new employees in 2009, and only recruited 159. The real growth in our workforce number for 2009 was 108.

By the end of the year, however, we successfully completed an initiative geared towards expediting the processing of visa/work permits when Rössing Uranium and the Rössing Branch of the Mineworkers' Union of Namibia (MUN) submitted a memorandum of understanding to the Ministry of Home Affairs regarding the appointment and secondment of non-Namibians at the mine.

We continue to focus sharply on equipping our existing staff with various skills and offering them leadership training. We have also invested extensively in our potential future workforce, supporting 130 bursary apprentices and 60 university students in 2009. A total of N\$18.4 million was spent on training and development programmes during the review period, benefiting 440 participants. This brings the total investment in training and development programmes to more than N\$60 million since 2005.

Security management has become another important focus area. During the course of the year, two incidents of uranium oxide theft occurred. We immediately took steps to reduce the risk of future incidents of this nature. This has triggered a new mood in the company, because we have moved beyond the usual focus areas of health, safety and environment (HSE) to include stringent security measures as part of our daily activities.

Remote-controlled cameras were deployed in production areas with a high concentration of uranium oxide. With strict access control – fingerprint readings and swiping of access cards – human traffic can be controlled from a central control room, locking people out of areas where they do not have access.

## Communities

One of the highlights this year was when President Hifikepune Pohamba accompanied by the First Lady and his entourage paid the mine a visit in July 2009 for the very first time. This was marked as a significant day in our relations with Government. We are one of the major contributors to government revenue and the President was grateful for our continued contribution to national development and our deliberate efforts aimed at human capital development and socio-economic upliftment of the local community.

We believe ploughing back into the communities in which we operate is as important as creating shareholder value. However, in light of the national and international economic slowdown, Rössing Uranium decided early in the year to limit donations and sponsorships during the review period, focusing on continuing support for sponsorships to which we were already committed. Truly needy requests were

included in this focus. Part of this commitment entailed our investment of N\$11.6 million in Rössing Foundation activities, whose main focus is on education. Other cash and in-kind donations made during 2009 amounted to N\$1.8 million.

However, our impact on the communities in which we operate stretches further than our financial contributions. Many people and businesses within the Erongo Region depend on Rössing. With our expanded mining operations, we contributed directly and indirectly to employment creation in the Erongo Region.

## Environment

Uranium mining in Namibia has evolved from a single uranium mine operation to a new frontier for uranium exploration and mining development. Some early mining operations left a legacy of negative environmental impacts, which still affect perceptions today. Today, all mining companies must plan for and deal with environmental impacts before, during, and after mining.

Since we operate in a desert environment, our water usage is continually under scrutiny. The mine's freshwater use in 2009 amounted to 3.1 million m<sup>3</sup>, totalling around 8,578 m<sup>3</sup> a day, while the operating plan made provision for 3.2 million m<sup>3</sup>, or 8,780 m<sup>3</sup> a day. Water performance for 2009 was lower than expected at a rate of 0.24 m<sup>3</sup>/t of ore milled, against a target of 0.26 m<sup>3</sup>/t of ore milled.

This was due to the freshwater-saving projects implemented during the year and the water savings awareness drive urging employees to use this resource sparingly. The various projects that were implemented in 2009 reduced freshwater demand by 0.07 million m<sup>3</sup>.

## Our value addition

We act as a major source of demand for goods and services within the Namibian economy, and thus give rise to a significant 'multiplier effect', where spending by one company creates incomes and further spending by others, leading to a long chain of value adding throughout the economy. Our widespread impact on the economy can be understood more clearly by breaking our turnover down into its various components and understanding what economic impact each of them has. A detailed breakdown of our value addition on the Namibian economy can be found on page 48.

## Marketing

Although the spot uranium prices remained volatile in 2009, cycling between a high of US\$53 per pound in January and a low of US\$42/lb in September as the effects of the global financial crisis continued its impact, the long-term outlook for this industry remains bright.

As an established, experienced and reliable producer, Rössing Uranium remains in an excellent position to grow its business for many years to come, for the benefit of our stakeholders and Namibia.

**Sustainable development is the distinctive, significant, and characteristic centre of our overall approach to business. Everything that we do, we do in line with the generally accepted definition of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.**

This suggests that meeting the needs of future generations depends on how well we balance social, economic, and environmental needs when making decisions today. The aim of sustainable development is, therefore, to seek out win-win situations that can achieve environmental quality and increase economic wealth and social well-being – today and tomorrow.

This approach necessitates a focus on serving the long-term interests and needs of all our stakeholders. We work with all of them in order to improve our understanding of the effects we have on the world around us, and to run our business in a way that delivers year-on-year improvements in our performance – in a sustainable manner.

Sustainable development is a global goal: it cannot be achieved by one organisation on its own. However, we believe we can make a contribution to the ongoing global transition to this new way of thinking by ensuring that we continue to live by the principles of our business approach. Driving the integration of sustainable development at Rössing Uranium are the following six themes:

1. **People:** Our workforce is central to our business. This means ensuring a safe and healthy workplace geared for human resource development, in order to attract and retain employees while maximising our contribution to their well-being.
2. **Communities:** By understanding the diversity of the communities within which we operate and through continuous interaction with them, we are able to respond to their concerns and needs. Moreover, the communities who host us should realise a net benefit and long-lasting positive effect from our activities.
3. **Product stewardship:** This theme focuses on expanding our understanding of the impact of our product on society by working with all interested and affected parties.
4. **Economic viability:** With the aim of providing the best returns on investment for our shareholders, we have to understand the long-term demand for our product, as well as the cost, resource availability, and value creation associated with such demand. Economic viability also ensures that we continue to make significant contributions to the economy of the country and its people in various ways.
5. **Environmental and asset resource stewardship:** We aim to be the leader in environmental stewardship and maintain our reputation as a responsible corporate citizen. This can be realised when we correctly understand and appreciate our natural resources, both biotic and abiotic, utilise them in a sustainable manner, and create a net positive impact.
6. **Corporate governance and compliance:** We strive to be transparent and proactive in all our business operations. Thus, we have business systems in place which are auditable, and these systems form the backbone of good corporate governance.

These six themes are interwoven in the fabric of our approach to business and will be highlighted in the relevant chapters to follow.

## Rössing Uranium produces and exports uranium oxide from Namibia to nuclear power utilities around the world.

**Our core purpose is, thus, to maximise the value delivered to shareholders by being a safe, significant and growing long-term supplier of uranium oxide.**

Uranium is a relatively common element that is found in the earth all over the world in various levels of grading. The metal is mined in many countries, and processed into uranium oxide ( $U_3O_8$ ). Uranium oxide needs further processing before it can be used as a fuel for a nuclear reactor that generates electricity.

In contrast to countries such as Canada and Australia where the grade of uranium in the rock is relatively high, Rössing's existing ore body consists mainly of low-grade ore. Thus, it is much more challenging to mine and extract the uranium from the rock cost-effectively.

In 2009, we continued on our growth path, producing 4,150 t of uranium oxide. This was above our targeted production volume for the year – a notable achievement. It was also slightly higher than the 2008 production of 4,108 t, which was in itself the highest in the past 20 years.

## Marketing of our product

The Rio Tinto Uranium team is responsible for marketing the uranium produced by Rio Tinto's mines to our global customer base of nuclear power utilities.

Rössing Uranium is the third-largest mine of its kind in the world, and its customers are represented in all the major markets for nuclear power.

Spot uranium prices remained volatile in 2009, cycling between a high of US\$53 per pound (lb) in January and a low of US\$42/lb in September as the effects of the global financial crisis continued to impact near-term supplies and utility procurement practices.

Despite a rather high level of spot transactions concluded during the year, ample supply became available, including sales of inventories from the United States Government, which contributed to a bearish market sentiment for much of the year. Utility inventories now stand at the highest levels they have been for the past five years.

Fortunately, as a premier long-term supplier to the market, our production is not overly dependent on the spot price, and almost all of 2009 production was, as is usually the case, delivered into long-term contracts. The bulk of those contracts were signed in the recent period of rising prices, and, therefore, our average delivered price for the year is now higher than the current spot price. Most low-price legacy contracts have been completed, enabling Rössing Uranium's average price to rise to among the highest in the industry, reflecting our and Rio Tinto's excellent reputations for stability and reliability.

Nevertheless, increasing competition from new and existing suppliers as well as a softer spot price had a negative effect on published long-term prices in 2009, which fell from US\$69.50/lb at the beginning of the year to US\$61/lb at year end.

This impacted revenues and is indicative of a more competitive environment in the near term as buying activity slows following the heavy contracting period of 2005–2007. Long-term contracting volumes for the market as a whole in 2009 were at their lowest level in five years; thus, the softening of prices is not surprising, but it is a concern, given Rössing's cost position relative to the competition.

At the same time, a number of planned new mines around the world are experiencing difficulties due to the weaker uranium prices and the global economic crisis.

Spot price levels in the US\$40s, particularly with the weakness of the US dollar – the payment currency for uranium – are unlikely to offer the necessary return for many of the higher-cost projects under development.

If these mines do not succeed in getting into production in the next three to five years, then the market may see a more sudden and significant price recovery as it becomes apparent that production increases are not taking place at the rate needed to support the large number of new reactors being built in China, India and elsewhere.

The one region that did succeed in increasing production in 2009 was Kazakhstan, which has just surpassed Canada as the largest uranium-producing country. The in-situ leach mines in the central Asian country produced some 35 million pounds of uranium in 2009, an increase of more than 10 million pounds in one year.

The country plans still further supply growth, and benefits from a very attractive cost structure; but it is likely to be more sensitive to the market impact of further expansions in the future. So while Kazakhstan clearly represents the most significant competitive threat for the rest of the world's uranium producers, there remains considerable uncertainty as to its long-term plans.

More importantly, nuclear fuel buyers want to maintain a significant degree of supplier diversity in their portfolios and do not want to become overly dependent on one source, no matter how large.

*“While prices have softened somewhat in 2009, the market outlook for uranium remains positive in the longer term. Concerns over climate change and energy security are enhancing the prospects for new reactor build worldwide, and the uranium mining industry will be challenged to expand production sufficiently to meet the needs of the roughly 100 new reactors likely to be built over the coming decade. All of this points to a bright future for Rössing Uranium.”*

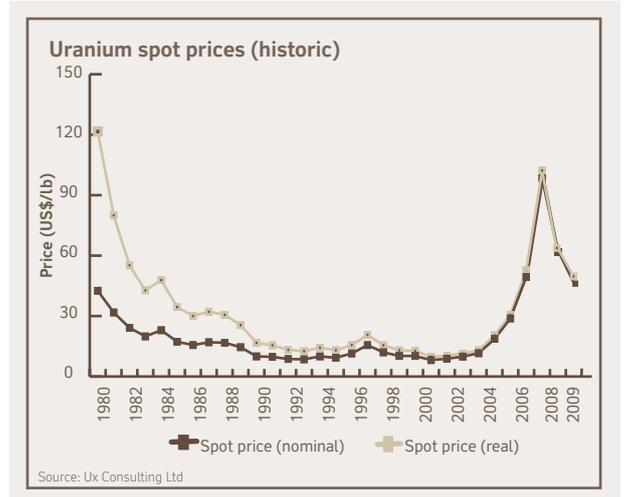
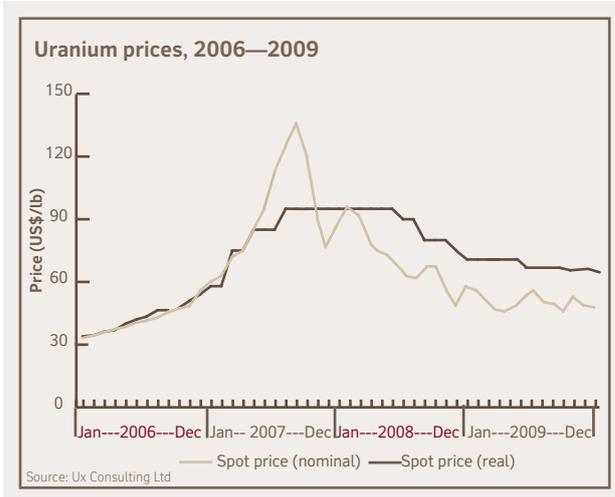
*Clark Beyer, Managing Director:  
Rio Tinto Uranium*



On the positive side, the demand for nuclear fuel will increase significantly over this new decade, as concerns about climate change and energy security encourage the further development of nuclear power. Nuclear energy, a clean, competitive energy source that produces no greenhouse gas (GHG) emissions, is now seen as a key component of the long-term energy solution in much of the world.

**A view of Rössing's mining activities**





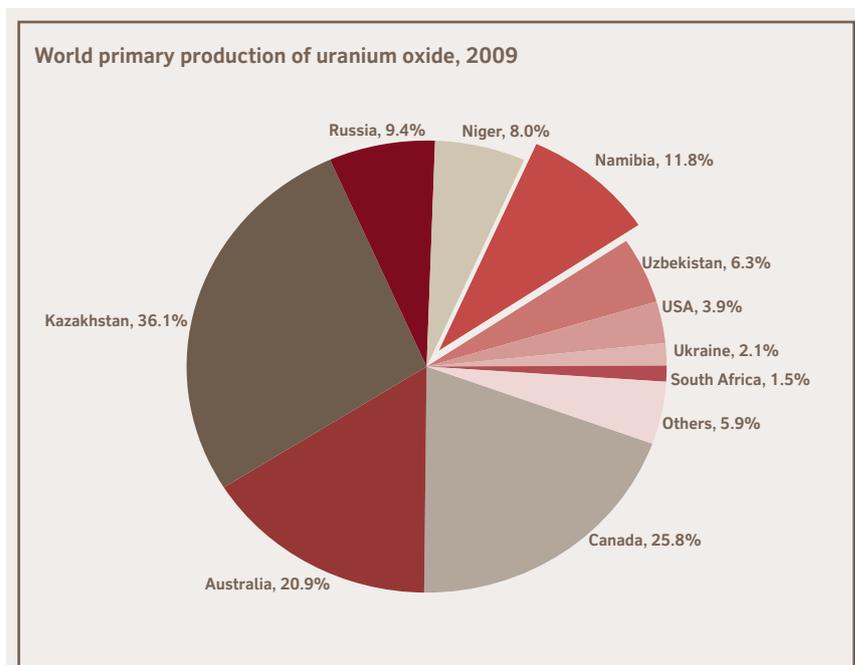
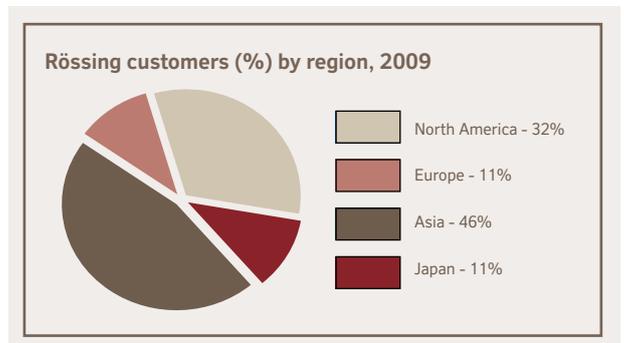
But what looked like a global renaissance a few years ago will, for the time being, be mostly concentrated in Asia. China, in particular, leads the world with more than 20 units under construction, and dozens more in the planning stage. India, too, is planning a major increase in its nuclear power programme, and the recent conclusion of a bilateral nuclear cooperation agreement between Namibia and India has opened the door for sales to India from Rössing for the first time.

Meanwhile, the economic crisis has temporarily slowed plans for additional nuclear plants in the United States and Europe, but once this passes, a number of new units are expected to begin construction and come into operation during the next two decades. By 2030, according to the World Nuclear Association, the number of operating units worldwide will have risen from 436 to more than 600. Annual world uranium production will have to double from the current level in order to fuel existing and new reactors for the next 50 years or longer.

Therefore, despite the near-term weakening in prices, the long-term outlook for this industry remains very bright. As an established, experienced and reliable producer, we remain in an excellent position to grow our business for many years to come, for the benefit of all our stakeholders and Namibia.

Sales of uranium oxide are conducted under the terms of the International Atomic Energy Agency's Nuclear Non-proliferation Treaty. In 2009, our customers comprised power utilities located in Asia (46 per cent), North America (32 per cent), Europe (11 per cent) and Japan (11 per cent). As one of the world's largest open-pit uranium mines, we now produce approximately 8 per cent of the world's mined uranium.

In terms of the world primary production countries, Namibia has become the fourth-largest uranium producer in the world, as indicated in the diagram below (bottom).



**Our operations consist of two distinct phases: mining of the uranium-bearing rock or ore, and processing of this ore to produce uranium oxide.**

**The sustainability of our business depends on our ability to move volumes – a phrase that has become a mantra over the past few years.**

The reason for the strong emphasis on moving volumes in our mining operations and through our Processing Plant is that it is one of the most critical factors that our efforts can influence, and it can affect our future immensely.

Other factors, such as the global financial crisis, low prices, low demand, or the exchange rate are outside our control although they impact directly on our ability to continue our mining operations long into the future. Higher volumes of uranium oxide delivered to our customers, however, can compensate for lower product prices.

Thus, the need to work together innovatively to ensure consistently high volumes through the mine has become a necessity.

While 2009 ended on a positive note with production targets exceeded and the company being financially sound, the fast-changing conditions around us and our need to respond to the global financial crisis forced us to tighten our belts and slow our pace of expansion – but without jeopardising our long-term production capacity. Our focus for the next few years, therefore, will continue to be on investing in our future growth.

We are set to have a rough ride over the next few years, requiring us to work much more efficiently in our mining and other operations. Our goal is to reach a 10 per cent reduction of costs in all our operations.

In August 2009, the Rössing Uranium Board of Directors approved the latest life-of-mine operating plan, gearing us for a longer operating period. This plan enables us to focus on long-term growth, since our mining activities will continue until 2023. This will also enable us to continue to remain a significant uranium oxide producer and a leading contributor to the Namibian economy, as we have been for the past 33 years.

This long-term commitment provides opportunities for us to plan, implement and deliver sustainable contributions to the social well-being of our employees and the communities in which we operate, ensuring responsible environmental stewardship and economic stability, supported by our strong governance systems.

The year under review also saw several key interventions that contributed towards our efforts to invest in our future. These interventions are highlighted in the following sections.



Paulina Olibite, Dispatcher, in the control room of the newly introduced mine monitoring and control (MMC) system, communicating with operational staff in order to ensure that the pit runs optimally. In the background are Rejoice Ihuhua, Acting Superintendent: MMC (seated) and Gully Muteka, Aquila Engineer (standing).

## Mining operations

Mining consists of three main activities: drilling and blasting to break the rock; loading the ore by shovels onto trucks; and hauling it from the pit, either to the Processing Plant if the uranium grade is high enough for efficient processing, or stockpiling the waste in dumps adjacent to the pit.

The uranium in Rössing's lease area is found in very hard and abrasive granitic rock called *alaskite*. To move the required amount of ore and waste, we have to conduct blasting operations in the open pit at least once a week. One blast loosens between 150,000 and 500,000 t of rock, much of which does not contain sufficient uranium-bearing rock to justify processing it. About 3.5 t of uranium-bearing rock is needed to produce 1 kg of uranium oxide.

Electric and diesel-powered shovels load the uranium-bearing ore onto haul trucks, which is then transported to the primary crusher for the first crushing stage. From there, the crushed ore goes by conveyor to the Coarse Ore Stockpile, from where it is reclaimed and put through several more crushing stages before the wet processing stage of our operations starts.

Mining activities in 2009 continued to focus on providing the targeted amount of ore to the plant to keep it running sustainably. Most of this ore comes from the bottom of the pit. Parallel to this activity is the removal of huge quantities of waste rock to expose further ore that can be mined when the bottom of the pit becomes depleted – which will happen towards the end of 2010.

To ensure a mine life until 2023 will require an enormous increase in waste stripping in the open pit's north-western and southern areas over the next four years. *Waste stripping* entails the removal of blasted rock that does not bear sufficient uranium and, therefore, is not economical to process.

Waste stripping is to increase from the current 33 million t per annum to as high as 50 million t per annum for the next two years. Additional mining equipment, including a hydraulic face shovel, four haul trucks and support equipment, has already been acquired for this expensive but necessary phase of our mining activities.

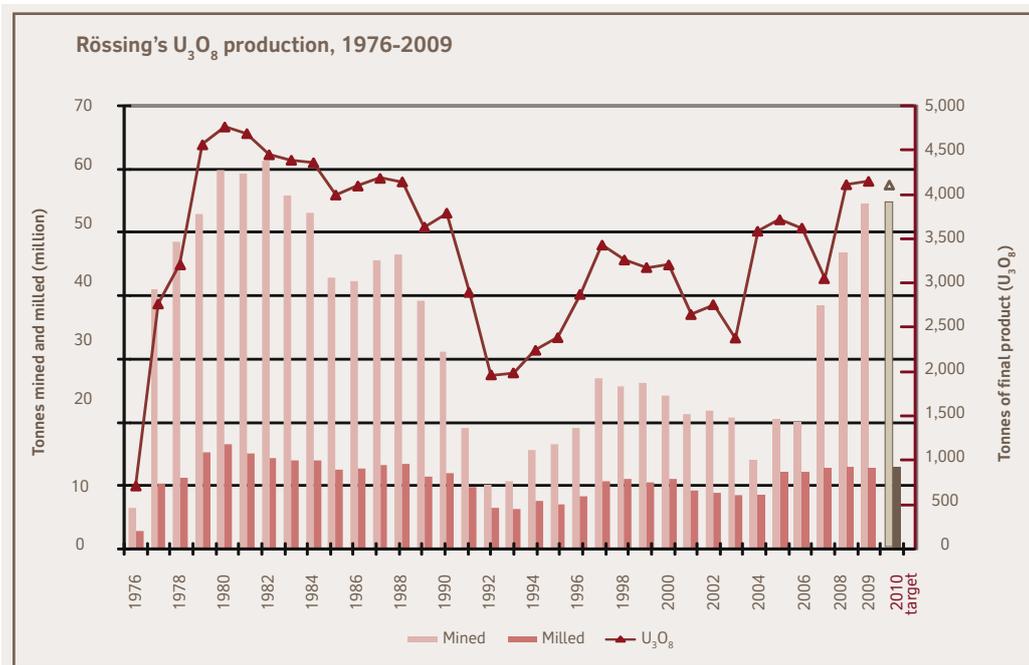
Because high levels of stripping will only be required for a relatively short period over the next four years, it is more cost-effective to involve a contractor. The contractor, Basil Read Mining Namibia, had about 400 contract workers in the pit every day during 2009, focusing solely on stripping waste rock. About 17 million t, i.e. a third of the total amount of tonnes mined in 2009, were mined by the contractor.

Waste stripping is an essential investment in our long-term future, although it places an immense strain on our finances in the short to medium term because it does not presently contribute towards delivering ore to the Processing Plant.

In 2009, we mined 54.5 million t of rock – the most mined from the open pit in the past 26 years. The extent of this achievement becomes apparent when one realises that the last time we mined a similar amount was in 1983. One also needs to consider that the pit is currently 390 m deep compared to about 100 m deep in 1983, meaning it takes much longer for the haul trucks to cart the rock from the pit. For every tonne of uranium-bearing rock that is hauled to the crushers, about 3 t are hauled to the waste dump.

With the focus on expanding mining activities in the future, we also faced the challenge of absorbing about 60 new workers in 2009.

Most of the new recruits have never worked in a mining environment before, and had never seen the heavy equipment and machinery that they would be required – and trained – to operate. Many also had to make major changes to their personal lifestyle to fit in with a mine that operates 24 hours a day, every day. Extensive management time was invested in training the new employees and getting them oriented towards the mine's strong culture of safety performance and high productivity.





Hendrik Awaseb acts as the 'spotter' to the operator in the hydraulic shovel, guiding the 550 t machine to the next designated area where it can scoop up about 50 t of rock at a time.

As always, safety received top priority and remains at the core of mining operations.

A key achievement in 2009 was the introduction of a mine monitoring and control system. This system not only assists operational staff in mining more efficiently, it also allows maintenance staff to monitor the state of equipment online.

The information gleaned in this way enables us to take proactive decisions. In the year under review, this online system helped to prevent an estimated N\$1.8 million in equipment failure.

We were ranked first among all the Rio Tinto mines with regard to haul truck availability. In addition, we improved the tyre life of our haul trucks over the past three years by 54 per cent. Each tyre now achieves in excess of 10,000 operating hours' life, which equates to around 1.5 years of operation. With one tyre costing about N\$150,000, this achievement resulted in substantial cost savings.

In addition to supplying the targeted amount of ore to the Processing Plant and stripping the required waste rock, in 2010 we will start mining a satellite pit called SK4, about 1.5 km from the current open pit. SK4 will measure about 300 m in diameter, which is relatively small in comparison with the open pit.

*Rössing is now the third-largest open pit uranium mine in the world.*



Aretha Mutumbulwa, a member of the blasting team, preparing for another blast to loosen the rock. She is busy priming a hole where the dynamite will be placed, holding a booster and a Nonel detonator in her hands.

Currently, the terrain where the pit will be consists of mountainous areas that will first have to be flattened. Before any activity commences, the biodiversity aspects of the area will be taken into account.

We plan to mine 1 million t of rock from this satellite pit during 2010, increasing it to 9 million t in 2011. This increase will be necessary because the bottom of the existing open pit is expected to be depleted of ore-bearing rock by the end of 2010. Ore supply will then come from this satellite pit to ensure that the Processing Plant is supplied with sufficient product to bridge the shortfall until the waste removal exposes the next targeted source of ore in the open pit. The year 2010 will also see more mining of stockpiles than in the past.

In light of the number of new employees and the relatively high number of contractors, the focus area for 2010 will remain staff safety and health.

### Processing

The Processing Plant is responsible for the extraction of uranium from the ore via a number of stages to produce uranium oxide, after which it is securely packed and shipped to our customers for further enrichment. The objective is to produce planned quantities of uranium oxide in the most efficient and safe manner possible.

The year 2009 saw this objective being met in a number of areas. Earning the mine the title of third-largest open pit uranium mine in the world, a total of 4,150 t of uranium oxide were produced. This is 42 t more than the previous year, which, for the second year in a row, is the highest production seen by the plant in 20 years. This was achieved whilst abiding by our motto of *Safety comes first, then production*.

The Fine Crushing Plant processed 12.4 million t of ore, which is slightly less than the 12.8 million t of ore crushed in 2008. However, the grade of the ore was higher in 2009, resulting in more uranium oxide being produced. The focus for 2010 is to consistently crush above 40,000 t per day, enabling us to achieve the target of 14 million t per year.

Leaching is the optimal extraction of a soluble metallic compound from an ore by dissolving it in a solvent, such as sulphuric acid and then recovering the uranium oxide by precipitation. Our leach performance was exceptional during 2009, with an average daily extraction of 88.7 per cent. Plant water consumption was significantly reduced by implementing systems where freshwater usage was substituted by recycled tailings dam solution. By utilising less fresh water, a scarce resource in our desert environment, we demonstrate our business approach of sustainable development.

Since the initial decision was made to extend the life of the mine rather than close it down, a programme was embarked upon to automate the entire Processing Plant. Under the auspices of the Technical Innovation team, the final phase of computer-controlled automation was completed in 2009. This allowed for central control of all the processing steps with much higher degrees of timely interventions, impacting positively on cost efficiencies. Although the automation required extensive capital input, it is an investment in our future that will allow us to reap benefits for many years to come.



**Bernhard Hoebeb, a field operator at the Continuous Ion Exchange (CIX) plant, takes a fluidised resin dip to measure the amount of resin in contactors. These measurements are required to ensure that the plant operates at its optimum in terms of uranium adsorption.**

The formation of the Reliability Maintenance Section and the successful integration of the Maintenance Section into the Processing Department was another key achievement during 2009. A significant improvement in the planning of module days as well as the mid-year plant shutdown during the year can be directly attributed to having taken this step. It allowed for efficient coordination and proper communication between the various processing sections and workshops.

All of these improvements resulted in Rössing Uranium competing for the top spot in the Rio Tinto Energy Group's global metrics. The global metrics system allows our performance to be compared with that at all other Rio Tinto mines.

The year under review also saw us implementing many process improvements. These include the successful commissioning of auto-titrators in the Leach Plant, enabling more efficient acid control. This is evident from the significant reduction in acid consumption for 2009. Resin losses in the continuous ion exchange (CIX) process have virtually been eliminated as a result of the installation of Delkor screens, while the upgraded plant historical data (PHD) system made plant data readily accessible to process technicians and metallurgists.



Another challenge we tackled successfully during the year was to equip nearly 60 new recruits – most of whom were first-timers to the workplace – with the necessary skills. An intensive training programme was followed, contributing towards the high production figures achieved. The training and development of this young team – with an average age of 25 years – is a vital investment in our future, since they will be tomorrow's managers. Another 50 employees will be recruited during 2010, building a strong, young team to take our mine forward.

We also initiated a major cost reduction awareness campaign in 2009, resulting in lower-than-budgeted production costs – a first for the Processing Plant. Since Rössing has a high cost of production due to the low-grade ore that we mine, reducing costs has a significant impact on the efficiency of our operations.

For this reason, cost reduction and efficiency will remain the key focus area in processing for 2010. This will be carried out by consistently motivating the workforce and ensuring that our mission of continuing to be a world leader in producing uranium oxide in the safest and most efficient manner is maintained.

In 2010, key focus areas for our processing activities will be on staff safety and improved efficiencies. For example, we have planned a number of safety improvements for implementation during 2010. Rössing aims to instil a culture of safety awareness and responsibility in every employee and contractor.

The integration of the heap-leaching process into the normal processing stream is planned for the beginning of 2010. The aim is for it to contribute substantially towards future cost efficiencies – another key investment in our future.

We also continue to pursue initiatives aimed at enhancing production efficiencies, while exploring strategic opportunities. We had to drastically reduce capital expenditure costs on a number of major consumables, and saw efficiency improve considerably. However, the results continued to be affected by increasing operating costs for consumables, with the exception of sulphuric acid, which has seen significant price reductions from 2008 levels.

## Engineering

Recognising that innovative methods of doing things better than in the past will be our mainstay for the future, the engineering activities at the mine were restructured. In the beginning of 2009 the maintenance teams and the Reliability Maintenance Section, which was formed in 2008 to deal with the planning and scheduling of jobs or tasks, became part of the operational activities of the Processing Plant. These teams are responsible for day-to-day maintenance activities on the mine to ensure that operations are not disrupted.

To support these teams, we also created a Reliability Engineering function. The focus of these engineers is on areas of potential improvements: to do things better and differently in a more cost-effective manner. It is a pre-emptive engineering change to avoid and eliminate the recurrence of problems and defects. This new function enables us to conduct investigations into improving effectiveness, while the daily maintenance teams focus on the efficient planning, scheduling and execution of maintenance activities.

As part of good practice, monitoring, and benchmarking with other business units, performance measures on equipment and machinery were introduced globally within the Rio Tinto Group. We achieved the global targeted values in September 2009. Throughout 2009, we consistently achieved and even exceeded these targets. Global targets benefit business units by providing a benchmark against 70 other business units with the Group that publish these performance measures. This facilitates the Improving Performance Together (IPT) Programme's aim of collaboration and knowing which business units could be offering best practices to emulate.

Thus, 2009 was a year of consolidating the IPT asset management programme. The aforementioned targets were achieved due to a change in the way assets are managed. The change entails increasing the number of planned jobs, which in turn reduces the number of breakdowns, resulting in improved equipment, machinery or process availability and performance.

This forms part of the asset management journey that starts from a reactive domain (“don’t fix it if it ain’t broken”), and is followed by planned, then reliability, and then world-class domains. The discipline to practise the principles of the planned domain was embedded in the year under review.

The next steps on the asset management journey to the reliability domain will be the main area of focus during 2010 and beyond. To accomplish this, we will apply reliability engineering principles and target the following significant areas:

- **Defect elimination:** Eliminating the causes of poor performance by finding and removing root causes through the involvement of maintainers, operators and other stakeholders.
- **Data analysis physical assets reporting:** To effectively control performance, one needs to measure it. To this effect, reporting of key performance indicators will be reviewed and aligned to changing and influencing behaviours of both maintainers and operators.
- **Management of hydrocarbons:** This will be done effectively and in an environmentally friendly manner.
- **Operating for reliability:** This aspect monitors and reviews the way equipment is operated. The objective is to ensure that it is operated safely within its design parameters. This aspect will be continued and re-emphasised.

We will also give top priority to establishing fully trained and competent teams in the Heavy Mining Equipment (HME) and Fixed Plant (FP) Reliability Engineering Sections. It is on this foundation that the success of the next phase of the asset management process rests.

### Expansion of mining operations

Parallel to the operational activities to produce the targeted amount of uranium oxide are activities that focus on the extension and potential expansion of our operations to enable the mine to operate for as long as possible, adding value to our workforce, to our communities and to Namibia.

In this regard, the Long-term Planning and Development Projects Departments assist with evaluating strategic production options, using the latest geological/geotechnical information, productivity assumptions, and forecast economic assumptions. In August 2009, a new life-of-mine plan was adopted, which demonstrates the optimal production schedule to 2025 from the latest information available at the time of its drafting. This represents the baseline against which all future options will be evaluated until a new expansion plan is approved sometime in 2010.

The focus for 2010 will be to update the mining design computer model that will include information from the deep drilling exploration programme currently under way. This will enable a new mine design to be generated, while the expansion production schedule can be revised with updated productivity and economic assumptions.

### Heap leaching

During 2009, studies continued on heap leaching as the preferred process route for expansion to supplement rather than replace the existing tank-leaching process. Heap leaching differs from the current tank-leaching process in that the ore requires less crushing before it is stacked onto heaps. The uranium is leached from these heaps by percolating acid through them.

The process costs less than tank leaching, due mainly to a less intensive crushing stage, although slightly lower recoveries are expected as a result. While being new for us and for the uranium industry in general, heap leaching is a well-established technology in other commodities, notably gold and copper, and the proposed design aspects are largely based on this experience.

Key achievements during 2009 were a detailed engineering design and cost estimate for the proposed Heap Leaching Plant, based on industry experience customised for Rössing’s conditions in terms of the optimal location, scale and ore characteristics.

The latter is critical to ensuring the new process is designed to achieve maximum recovery at minimum cost. Hence, a comprehensive testing programme is under way, and this continued throughout 2009. The data is generated on-site with our own test facility that was constructed at the end of 2008, and through which 150 column tests were completed during 2009. Results from these tests have demonstrated that the Rössing ore is amenable to heap-leach processing at a cost that is significantly lower than the current tank-leaching process being employed. To supplement the column tests, a demonstration plant was constructed during 2009. This will be used to confirm productivity and cost assumptions at the commercial scale.

At the end of 2009, the heap-leaching business case was reviewed. We decided to continue with the project in 2010, including the commissioning and operation of the pilot (demonstration) plant. The focus for 2010 will remain largely on testing, including the commissioning of the pilot plant in the first quarter. This will provide invaluable scale-up information to supplement the column test results.

Other benefits will include gaining operational experience with the heap-leaching process while achieving some uranium recovery. In tandem with the testing activities is the engineering design and cost work to complete the Pre-feasibility Study Report. We plan to present the Report to the Rio Tinto Investment Committee in September 2010 for approval in order to move forward with the final feasibility stage of the evaluation.

Another area that is critical for this project is the identification of sufficient ore at reasonable grade to justify the large capital expenditure up front. The computer model utilising the updated geological information is seen as a key input.

Also worth focusing on is determining whether the uranium locked up in the waste dumps can be utilised to feed ore to the new plant. Previously, when the uranium price was low, rock containing uranium that was not of a high enough grade to process landed on the waste dumps. At the current higher prices, it could potentially be worth processing.

Other supporting studies include an update of the Acid Plant project and an evaluation of the optimal tailings dam solution that will provide sufficient space for both the tank- and heap-leaching processes.



The team responsible for extensive column scale (1-m and 6-m columns) metallurgical test work that was conducted in respect of the heap leach project. Although the column test work will continue, the main focus for 2010 will be on commissioning and operating the Heap Leach Pilot Plant as part of the Pre-feasibility Design test work.

### Exploration and drilling

A first step in any mining activity at Rössing Uranium – and an important one to take in investing in our future – is to understand the geology of our ore body. “What exactly is in the ground?”, “How much is there?”, and “Where is it?” are the critical questions that need to be answered. To ensure high levels of production consistently over the next decade, we continued with our drilling and development programmes, allowing us to be well positioned to expand and further extend the life of the mine.

The focus of activities was on the SJ ore body. Deep drilling commenced in 2009 to investigate the extent of the ore below the current pit and to consolidate geological and geotechnical knowledge that would impact the mine plan.

Work continued on the resource pre-feasibility study at the SK ore body, which is 1.5 km east of the main ore body, SJ. All core logging was completed during the year. This will enable the creation of a three-dimensional geological model and assaying of remaining drill core to determine its uranium content.

We also completed ore characterisation studies to assess the processing behaviour of SK ore using our current leach extraction processes.

In December 2009, we completed the geological mapping and structural interpretation of the mine lease. This improved our understanding of the regional geological controls influencing the location of uranium mineralisation.

The completion of the mine lease mapping project will form the framework for all future geological and exploration work on the Rössing mine lease. It has already enabled the targeting of prospective areas not previously identified. To date, six priority target areas have been identified for further work. Drilling of the first of these areas commenced in December 2009, and will be continued in 2010.

By continuing to identify value adding growth opportunities for the business through the assessment of exploration targets and new resources, the Exploration Department aims to extend the life of the mine and provide additional ore for the heap-leaching project.

### Technical infrastructure

Gearing up for the expanded activities of the mine and the continued role that we will play in our surrounding communities, the mine’s technical infrastructure received much attention in 2009.

The mine’s information and communications technology (ICT) wide area network was completely upgraded, linking the different remote sites seamlessly. The ICT infrastructure of the Rössing Foundation, with its offices and three Maths and Science Centres located in Arandis, Swakopmund and Ondangwa, was also upgraded and incorporated into the mine’s network.

In addition, we are already investigating the envisaged improvement of efficiency once the planned broadband communications cable between Cape Town along the west coast of Africa to Portugal is completed in 2012. The Technical Innovation team is currently gearing up for full utilisation of broadband services as soon as they become available, since it will make a significant change in the way we operate – a clear case in point when it comes to investing in our future.

The current telecommunications system on the mine site has also become outdated with the passage of three decades. As mining activities are expanding more and more quickly, and as the increasing number of employees impacts on the ever-growing demand for fixed and mobile telecommunications, the current system will be revamped during 2010.

**Part of the ongoing maintenance programme is the relining of the rod mills.**



**Our workforce will always be the backbone of our business and a key focus in our sustainable development approach. This approach ensures a safe and healthy workplace geared for human resource development, allowing us to attract and retain employees.**

**By communicating and raising awareness of our approach to our employees, we embed a sustainable development culture that touches every part of our daily activities.**

We are well aware that executing our strategy of investing in our future will only be possible if we have the human capital to make the expansion of our mining activities a reality.

However, the skills shortage continues to be one of the principal challenges faced by the mining industry in Namibia, especially in light of increased competition from other uranium operations in the Erongo Region. The competition for limited human resources meant that we were unable to recruit our targeted number of 200 new employees in 2009, and only recruited 159. The real growth in our workforce number is 108.

By the end of the year, however, we successfully completed an initiative geared towards expediting the processing of visa/work permits when Rössing Uranium and the MUN's Rössing Branch submitted a memorandum of understanding to the Ministry of Home Affairs regarding the appointment and secondment of non-Namibians at the mine.

We continue to focus sharply on equipping our existing staff with various skills and offering them leadership training. We have also invested extensively in our potential future workforce, supporting 130 bursary apprentices and 60 university students in 2009.

A total of N\$18.4 million was spent on training and development programmes during the review period, benefiting 440 participants. This brings the total investment in training and development programmes to more than N\$60 million since 2005.

We are committed to create a great working environment and an innovative workforce. During 2009, our people demonstrated their innovation and eagerness to invest in our future, as illustrated by the successful Continuous Improvement Programme (CIP) that rewards employees for suggesting workable ideas for improvement.

The CIP was launched as a tool to facilitate cost reduction and efficiency at the mine. The programme aims to actively encourage employees and contractors to continuously examine their working environments and suggest ideas and projects that will assist the company in maintaining its position as a world leader in the mining of uranium oxide. It focuses on reducing cost and improving production efficiency in three primary areas, namely health, safety and environment (HSE).

In 2009, a total of 127 suggestions were received, of which 37.8 per cent were implemented. The implemented suggestions were awarded in the following categories: 17 suggestions were implemented on HSE projects; 9 on Cost Saving projects; and 10 on Efficiency in Production projects. A total of N\$340,329 was awarded to employees, with a potential savings of N\$12 million achieved.

### **Workforce at a glance**

At the end of 2009, the staff complement totalled 1,415 permanent employees, 97.9 per cent of whom were Namibians. Only 30 of the permanent employees were not Namibian, while 16 were permanent residents.

In pursuit of our stated expansionary plans, we set a target of 1,500 permanent employees by year end, from 1,307 as of December 2008. However, various factors, including the availability of skills and some resignations, resulted in the target not being met. Permanent employees numbered 1,415 by year end.

*"I was one of the first employees to receive a CIP reward and I am proud to have taken part in the CIP scheme. The scheme is excellent as it motivates employees to be innovative and solve problems within their working environment. The message I would like to give to fellow employees is to submit improvements and suggestions, which would assist the company in attaining its goals. The reward should act as a motivator."*

Abraham Engelbrecht,  
Machinist Turner





One of Rössing's employees, Titus Kafita, in the Load and Haul section

Despite these challenges, we retained our position as the second-largest employer in the mining sector, accounting for about 17 per cent of its total permanent workforce. Current levels also signify a marked improvement from levels reached in 2000, where permanent employment numbers were nearly half of the present level.

Supplementing the permanent employee numbers were 1,965 contractors, bringing total workers on site every day to 3,377. This figure excludes apprentices and students on bursaries, who occasionally work for the mine during the year.

A further breakdown of the employment figures indicates that the employment of women remains a challenge. By year end of 2009, women represented only about 11 per cent of the total permanent workforce, down from nearly 14 per cent in 2008.

However, an analysis of the socio-economic classifications indicates that about 90 per cent of those employed are from previously disadvantaged backgrounds.

Similarly, despite the often-stated challenges of sourcing local skills, 99 per cent of Rössing's employees are Namibians and Namibian permanent residents. These figures together demonstrate that we are well positioned within Namibia's social development framework.

The male: female ratio was 9:1 in 2009 – an increase in the male representation compared with the 7:1 ratio in 2008.

Although the age profile continues to indicate an ageing workforce, there is an improvement due to the younger age of new employees: the average age in 2009 was 40 years, compared with 40.2 in 2008. The youngest employee to join the mine in 2009 was 20 years old, while in the same year four employees reached the age of 65.

The ages of the 158 new recruits in 2009 were as follows:

- 1 was younger than 21; 90 were between 21 and 30; 52 were between 31 and 40; and 15 were older than 40.



| Workforce profile                         | 2005 (%) | 2006 (%) | 2007 (%) | 2008 (%) | 2009 (%) |
|---|----------|----------|----------|----------|----------|
| Historically disadvantaged Namibian men   | 77.9     | 78.0     | 79.8     | 79.0     | 79.6     |
| Historically disadvantaged Namibian women | 8.5      | 8.6      | 9.8      | 11.3     | 12.4     |
| Previously advantaged women               | 1.2      | 1.1      | 1.1      | 1.1      | 1.1      |
| Previously advantaged men                 | 8.3      | 8.1      | 6.2      | 5.9      | 6.8      |
| Non-Namibian men                          | 3.5      | 3.5      | 2.5      | 2.1      | 2.0      |
| Non-Namibian women                        | 0.2      | 0.2      | 0.3      | 0.2      | 0.1      |
| Persons with disabilities – men           | 0.5      | 0.5      | 0.3      | 0.3      | 0.3      |
| Persons with disabilities – women         | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |

- The average length of service across the workforce in 2009 was 10.6 years, compared with 11 in 2008 and 14.8 in 2007.
- The percentage of female newcomers was 16.4 per cent, while 83.6 per cent were male, compared with 20.8 per cent female and 79.2 per cent male in 2008.

A total of 51 employees, representing 3.6 per cent of the workforce, left the company's employ for various reasons during 2009, with a large number joining uranium mines close to Rössing as well as other uranium exploration operations.

In addition to the mine's permanent employees, an average of 1,965 contractors were on site every day during 2009. Over the next four years, when high levels of waste stripping will need to be done to ensure the long-term expansion of the mine, the number of contract workers on the mine will be higher than in the past.

This will be necessary because waste stripping is a short-term activity and we cannot employ people on a permanent basis if their skills are only required for four years. This increase in contractors has also necessitated better control over the multitude of aspects relating to contractor management. A new Contractor Management Centre became operational at the beginning of the year under review.

### Employee support activities

We appointed a full-time Employee Support Coordinator, whose duty it is to counsel employees in respect of emotional distress emanating from work, financial or social pressures. In addition to the counselling sessions, two other major initiatives were well received by our staff, namely the Alcohol and Drug Campaign and the article in the weekly staff newsletter, the *e-Rössing Bulletin*, advising employees on how to handle their personal finances.

### Employee relations

The relations between Rössing and the MUN continue to be strengthened and, as such, are viewed to be stable. An addendum to the existing Procedural Agreement in order to include Grade 12 (Patterson Grade C4) into the Bargaining Unit was signed by both parties. Hence, the Bargaining Unit now comprises Grade 1–12.

Rössing Uranium and the MUN's Rössing Branch reached the following agreements for employees in the Bargaining Unit for 2009/10:

- Basic salaries were increased by 10 per cent from 1 January 2009.
- The minimum and maximum for salary scales were adjusted by 10 per cent.
- The monthly housing allowance was increased by an average of 10 per cent.

### Affirmative Action

In 2009, the mine was certified for the tenth consecutive year as having complied with the stipulations of the Affirmative Action (Employment) Act, 1998 (No. 29 of 1998).

We recognise the importance of engaging in meaningful processes and consultation in order to institute best practices, eliminate unfair discrimination in the workplace, and address imbalances and inefficiencies that might exist in the company. In order to meet these objectives, the Departmental Affirmative Action Committee (DAAC) consults the various Departments at the mine on several aspects relating to Affirmative Action, namely:

- the compilation and analysis of the workforce profile in respect of designated groups per occupational category/level within respective Departments
- the auditing and amendment of employment practices
- the monitoring of compliance with and achievement of objectives and targets with regard to Affirmative Action, and
- compliance with all legislative requirements and submissions.

The table below provides details of progress made during the past three years.

A new target for the Affirmative Action Three Year Plan (2010-2012) is to be set specifically to increase female representation in Management to 30%.

### Work visas and permits

Because a shortage of skilled human resources remains a major challenge in the mining industry, especially in light of increased competition from other uranium operations in the Erongo Region, various programmes have been instituted to mitigate this problem.

These include an intensive understudy programme, secondments to sister companies in order to expose Namibians to specialised skills, and talent management.

In December 2009, Rössing and the MUN's Rössing Branch signed and submitted a memorandum of understanding to the Ministry of Home Affairs regarding the appointment and secondment of non-Namibians. The initiative is geared towards expediting the processing of visa/work permits in future.

| Affirmative Action Three Year Plan   | Target 2007-2009 (%) | Status in 2007 (%) | Status in 2008 (%) | Status in 2009 (%) |
|--|----------------------|--------------------|--------------------|--------------------|
| Increase designated/historically disadvantaged group representation in Senior Management to target         | 33.0                 | 52.9               | 38.9               | 60.0               |
| Increase female representation in Middle Management to target  | 17.0                 | 16.7               | 18.2               | 16.0               |
| Increase Namibian understudies and citizens in Specialised/Skilled/Senior Supervisory categories to target | 60.0                 | 95.6               | 97.0               | 98.0               |
| Increase female representation in Skilled, Semi-skilled and Unskilled categories to target                 | 7.0                  | 8.5                | 10.7               | 12.0               |

## Training and organisational development

We are committed to being a major contributor to the training and education of Namibians through various training and development programmes. A total of N\$18.4 million was spent on such programmes in 2009, benefiting 440 participants.

We recognise that the most important resource for improving our business is our people. Outlined below are some of the successful initiatives that will continue to support and benefit Rössing and Namibia.

### Frontline Leadership Programme

As part of Rio Tinto initiatives on the way forward, we have been working on the revised Front Line Leadership Programme (FLP) which will build a baseline level of leadership skills at the front line. The programme is also aligned with the leadership competencies and best practices within and outside Rio Tinto. This programme will be rolled out in March 2010.

### University Bursary Scheme

During 2009, the total number of bursary students stood at 60, inclusive of existing and new students. Eight of these recipients graduated at the end of the year and have now been incorporated into the Graduate Development Programme.

In addition, we granted 11 new bursaries for 2010 and 1 current bursary recipient has had her contract extended



**A total of 60 students were sponsored with bursaries during 2009. Some of them visited the mine to meet the Management team.**

to complete her Honours Degree in Geology. The fields of study include Accounting, Archival Studies, Chemical Engineering/Metallurgy, Chemistry, Civil Engineering, Geology, ICT, Medicine, Mine Survey, Mining Engineering, and Mining Engineering Law.

One of the students, a final-year Electrical and Electronic Engineering student, attained ten distinctions during the year and will proceed with his Master's Degree next year. Another student in Electrical and Electronic studies received 13 distinctions at the end of his third year of study, reflecting our commitment to support and develop high calibre students.



**Iyaloo Fillemon, an intern at Rössing's Geology Department, recording uranium grades of the Run of Mine (ROM) stockpile at the core yard.**

*“Engineering and mining go hand in hand, because the development of a country is dependent on engineering and entrepreneurship. We have a critical shortage of adequately trained and competent engineers in Namibia, especially due to the fast development of the mining sector. There is an enhanced effort to train engineers, but still, the backlog is huge. We need to fast-track the training of engineers and engineering technicians.”*

Markus von Jeney, President  
of the Engineering Council of  
Namibia



### Artisan Bursary Scheme

We supported a total of 130 artisan apprentices by means of bursaries during 2009. In May 2009, 13 of these apprentices completed their trade tests at the Namibian Institute of Mining and Technology, while another 20 did so in November 2009. In addition, 14 of these bursary recipients were selected to further their education at a Technical College. The vision is to prepare apprentices that have gained sufficient experience to fulfil leadership roles at Rössing Uranium in the future.

### Graduate Development Programme

We are committed to the development of graduates who have emanated from our own bursary scheme in order to employ professionals who are appropriately qualified and competent to fill leadership roles. The programme started in February 2010 with a total of eight new graduates. Over a period of two years, graduates will be expected to demonstrate their ability to undertake work of differing levels of complexity, and to have developed appropriate leadership skills and attributes.

## Organisational Development

### Integrated Talent Management System

Rio Tinto has developed a Group-wide Integrated Talent Management System (ITMS) to provide a more integrated view and approach to the following key people management processes:

- Performance management
- Individual development planning, and
- Talent reviews.

The objective of the ITMS is to improve the efficiency of our people management processes, increase our focus on strategic people issues, and build capability for Rio Tinto. Roll-out of the ITMS commenced in November 2009.

### Global Banding

Global banding was implemented from 01 October 2009 for all Grade 12 positions and above that were evaluated and regarded using the Watson Wyatt Global Grading System.

### Technical training

We strengthened our focus on technical training in order to improve the skills of our operators, and increase mining efficiency as a result. This also contributed toward operators' ability to identify and rectify problems proactively.

### Mining, Open Pit Training

One of the major achievements during 2009 in the Open Pit training section was that all the training officers were certified by the original equipment manufacturer. These officers in turn trained equipment operators on the haul trucks, shovels, drills, and auxiliary equipment.

### Processing Plant Training

The Processing Plant's Technical Training Section undertook a major training effort during the year under review. The objective of this training was to give employees a basic understanding of how the Processing Plant operated. A number of plant operators, process technicians, laboratory technicians, shift controllers, central processing control technicians and metallurgists were trained during the course of the year.

The table below summarises the number of participants that have benefited from training and development programmes over the past five years.

| Costs and number of participants in training and development programmes, 2005–2009 | December 2005    | December 2006    | December 2007     | December 2008     | December 2009     |
|--|------------------|------------------|-------------------|-------------------|-------------------|
| Trade bursaries  | 58               | 90               | 104               | 167               | 130               |
| Trade job attachments  | 10               | 10               | 4                 | 10                | 11                |
| Apprentice employees   | 4                | 4                | 3                 | 3                 | 3                 |
| College/university bursaries   | 19               | 21               | 37                | 66                | 60                |
| Employees at a technical college (full-time studies)                               | 4                | 7                | 9                 | 6                 | 8                 |
| Employees at college/university (full-time studies)                                | 1                | 6                | 7                 | 5                 | 3                 |
| Employees involved in correspondence programmes                                    | 36               | 42               | 22                | 49                | 48                |
| Employees undergoing the Leadership Development Programme                          | 28               | 42               | 62                | 73                | 25                |
| Development positions  | 0                | 12               | 14                | 0                 | 12                |
| Rössing Dependant Scholarships awarded   | 30               | 54               | 69                | 99                | 122               |
| Employees in limited-contact studies in various fields                             | 0                | 0                | 6                 | 17                | 16                |
| European scholarships awarded  | 0                | 0                | 0                 | 2                 | 2                 |
| <b>Total number of participants</b>  | <b>190</b>       | <b>288</b>       | <b>337</b>        | <b>497</b>        | <b>440</b>        |
| <b>Training programme costs (N\$)</b>  | <b>4,373,253</b> | <b>8,653,180</b> | <b>13,029,178</b> | <b>17,771,710</b> | <b>18,373,015</b> |

## Health and safety management

The health and safety of our people are intrinsically interwoven with everything we do. Our HSE Policy (see page 56) continues to guide us in all our activities, always striving to excel in HSE management.

The security and safe handling of our product surfaced as an important issue during the year under review, when two cases of theft of uranium oxide were reported. Several measures were immediately put into place to reduce the risk of future incidents, and the security aspect of our product will continue to receive very close attention in future.

## Occupational health management

The Health Management Section focused on two main areas: occupational hygiene, and wellness. Occupational hygiene, in turn, focused on three areas: radiation, noise, and dust.

### Occupational hygiene: Radiation

In the year under review, several important milestones were reached for the nuclear energy industry and radiation safety in Namibia. These include the following:

- The Atomic Energy Act (No. 5 of 2005) was promulgated, and Namibia's first Atomic Energy Board (AEB) was founded. The AEB is the national advisory board on all matters relating to radiation sources and nuclear energy in Namibia.
- The National Radiation Protection Authority (NRPA) was formed in the Directorate of Atomic Energy and Radiation Protection of the Ministry of Health and Social Services.
- Radiation Management Plans are now a mandatory requirement for all operations using or processing radioactive materials, including uranium mines and exploration companies.
- Two sets of regulations are being developed by the NRPA, namely the Regulations for Protection against Ionising Radiation and for the Safety of Radiation Sources, and the Regulations for the Safety and Secure Management of Radioactive Waste.
- The Chamber of Mines' Uranium Institute reopened in new buildings adjacent to the Cottage Medi-Clinic Hospital in Swakopmund.

Rössing Uranium submitted its first draft of the Radiation Management Plan (RMP) for review by the NRPA in 2009. The RMP comprehensively documents all responsibilities, programmes and actions at the mine in order to minimise, monitor and manage our employees' and the public's exposure to radiation. It describes, amongst other things, the operational details of the mine and processing plant, the occupational radiation monitoring programme, the workplace and public radiation exposure control programme, the radiation training and awareness programmes, the environmental impact assessments and dose assessments carried out in the past, and the waste management, transport and disaster management plans.

*"Humans and animals have evolved over eons in the presence of low levels of naturally occurring radiation. This natural background radiation arises from radioactive materials present in soil, air and water, and from cosmic sources beyond our planet. Organisms have developed the ability to repair the limited damage caused by low levels of radiation. Ionising radiation cannot be sensed in any way, but it can be measured accurately. The fact that radiation is 'invisible' may instil fear in some people. For this reason it is important to take extra care to accurately and proactively inform workers and members of the public about the potential hazards of being exposed to radiation and to systematically, regularly and accurately monitor people's actual exposure to it. If sources or events are identified which could potentially cause exposures exceeding the international standards, such incidents have to be decisively and comprehensively managed."*

*Dr Gunhild von Oertzen,  
VO Consulting and Radiation  
Advisory Specialist for  
Rössing Uranium*



When implemented, the RMP replaces and updates the code of practice and workplace procedures currently in place to control radiation exposure at the mine.

The Directorate of Atomic Energy and Radiation Protection is the Namibian representative of the International Atomic Energy Agency (IAEA). Under IAEA's technical cooperation programme with Namibia, our radiation safety staff attended several international training courses on radiation safety.

During 2009, a mine-wide radiation survey was carried out, with the aim of gauging staff concerns about radiation safety on the mine and to assess how well our employees understand what radiation is about. This survey yielded valuable information, such as what questions employees had about levels of radiation exposure in their work area.

The results of the survey assisted in devising a comprehensive radiation training programme. After extensive trialling, this training programme is now being offered to all employees, in English and Afrikaans. For improved learning outcomes, the training is offered to small groups of between 10 and 40 people, and completed with a short multiple choice test.

Participants who successfully pass the test are awarded certificates.

The training programme will eventually cover three modules, comprising a basic introduction to radiation, the biological effects of radiation, and radiation monitoring and control. The aim of the programme is to increase awareness among the workforce about radiation, and to empower employees to make their own judgments about the relative risks of radiation hazards. Improved awareness forms part of an effective and comprehensive programme for controlling radiation exposure.

The IAEA has laid down an international standard for protection against radiation. Amongst other things, it stipulates that levels of occupational exposure to radiation, i.e. exposure to those who work with radioactive materials, is not permitted to exceed 100 millisieverts (mSv) over a defined five-year period, or 20 mSv a year. The Namibian Regulations for Protection against Ionising Radiation and for the Safety of Radiation Sources have adopted the same standard.

The concentration of uranium in the Rössing ore is about 0.03 per cent by weight. Uranium is a low specific activity material, which implies that it is weakly radioactive. Uranium-238, which forms 99.3 per cent of naturally occurring uranium, has a half-life of 4.5 billion years. Other uranium isotopes make up the remaining 0.7 per cent: mostly uranium-235 (with a half-life of 703 million years), and a very small percentage of uranium-234 (with a half-life of 244 thousand years).

With the low ore grades and the low specific activity of uranium, radiation levels in most areas of the mine are not much higher than the background levels in Swakopmund or Arandis, with terrestrial background radiation levels of between 0.2 and 0.8 mSv per year.

The radiation monitoring programme of our workers comprises the monitoring of three exposure pathways:

- Internal exposure (exposure within the body, mostly to lungs and airways) to alpha radiation, mainly from the inhalation of the short-lived decay products of radon (radon is a gas and is a radioactive decay product arising from the natural radioactive decay of uranium)
- Internal exposure to alpha radiation from the inhalation of the long-lived radionuclides occurring in uranium ore dust, and

- External exposure to gamma radiation, mostly from ore outcrops, ore stockpiles and from extracted uranium oxide stored on-site.

The monitoring data enable radiation safety staff to ensure that radiation exposure levels in all areas of the mine are kept as low as is reasonably achievable; to ensure that such exposure levels comply with national and international radiation protection standards; and to detect and prevent unsafe work practices in relation to radiation safety.

Average annual exposure levels at the mine are well below the limit of 20 mSv per year stipulated in the new Namibian regulations.

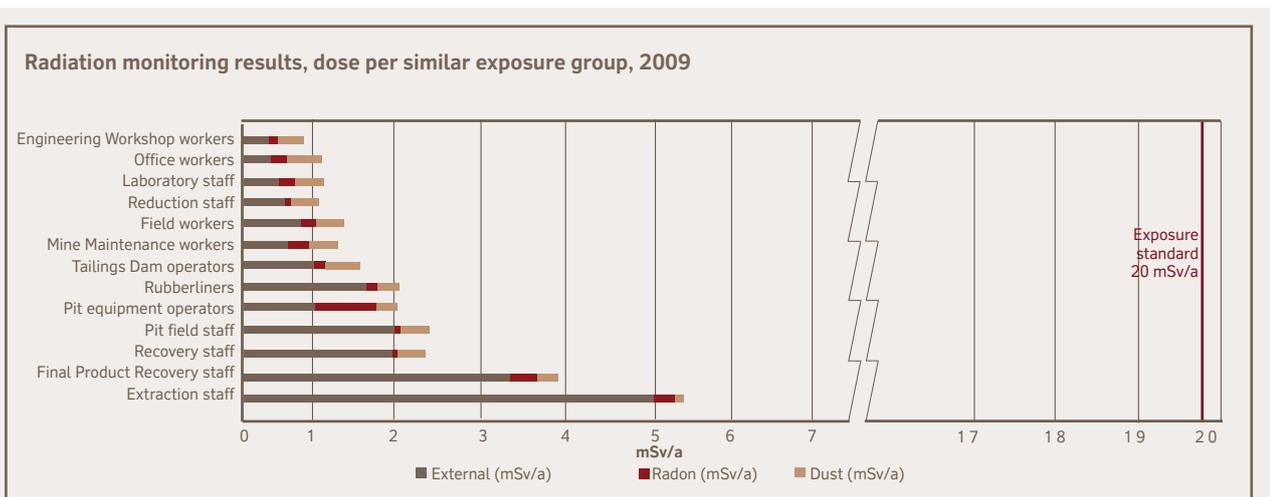
Specific radiation exposure levels of similar exposure groups (SEG) at Rössing are measured and reported. An SEG represents a group of workers who will, on average, experience similar exposures because they work in the same area on similar tasks. Those areas of the mine, such as the Final Product Recovery area, that experience slightly higher levels of radiation are designated controlled areas, with restricted access and continuous monitoring of radiation exposure for all staff. The areas with lower levels of radiation are designated supervised areas, with random but representative sampling programmes to monitor the radiation exposure for each separate exposure group.

As depicted in the graph below, the occupational exposure limit of 20 mSv per annum was not exceeded by any SEG at the mine during 2009. The limit of 20 mSv was also not exceeded by any individual worker in 2009.

In addition to the direct monitoring of staff exposure to radiation, the possibility of contamination with uranium by ingestion is monitored by regularly taking urine samples, which are analysed for traces of uranium.

As from September 2009, our samples were no longer sent to South Africa for analysis, but to the newly established Trace Element Analysis (TEA) laboratory at the Uranium Institute in Swakopmund. This has dramatically improved turnaround times for sample analyses, and enables the radiation safety team to obtain results within one day of sampling.

This improvement allows for the immediate investigation of any exceedance of the warning level (20 micrograms per litre), which improves the opportunities to take timely remedial action and trace the origin of any possible source of contamination.



**Occupational hygiene: Noise**

Noise is an integral part of an industry such as mining, where large pieces of equipment and machines are constantly in operation. In order to protect workers, noise has to be managed. Noise reduction and control has been achieved at the mine by following the hierarchy of control principles, using substitution, engineering and administrative means, among others. The human ear is most sensitive to sounds at or near the centre of its frequency range. To assess the impact of noise on people, a scale of frequency weighting is used where "A" indicates the basis point.

A total of 253 personal noise dose measurements were taken during the year from employees and contractors working in SEGs across the mine. The highest average annual noise dose of 89 dB(A) was recorded amongst workers in the Reduction area, followed by the rubberliners and workers in the Extraction area, which both showed an average noise dose of 88 dB(A). The lowest average dose of 80 dB(A) was recorded for the workers in Final Product Recovery. As in the past, personal hearing protection is provided to workers where noise levels at the mine remain above the occupational exposure limit (OEL) of 85 dB(A).

The year under review also saw the introduction of an innovative noise control system at a number of workshops where, although they are not classified as noise zones, activities take place from time to time that exceed the exposure limit. A noise-activated warning sign was installed that warns workers in the vicinity if the pre-set level of 85 dB(A) is being exceeded. The warning sign is activated automatically, indicating to workers that hearing protection should be worn. Once the noise in the area falls below the pre-set level, the sign is deactivated.

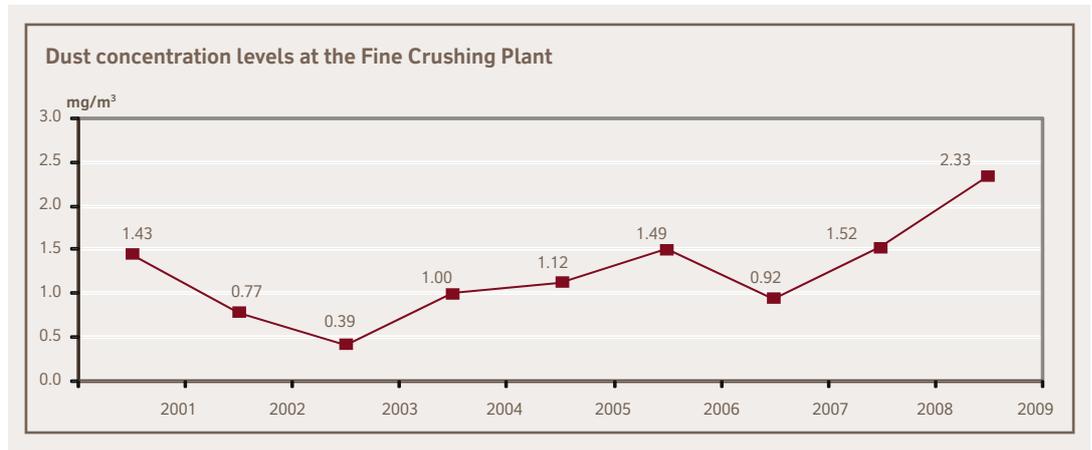
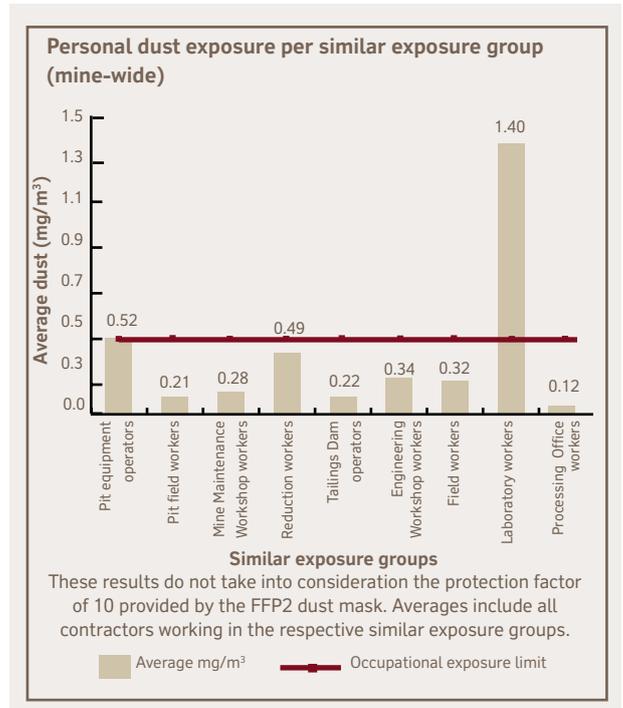
**Occupational hygiene: Dust**

The processes of mining, transporting, crushing and milling uranium ore prior to extraction result in dust generation, mainly at the crushers. For control purposes, dust levels are measured at certain dust-generation points.

In 2009, a total of 312 personal respirable dust samples were taken from employees and contractors that represent nine SEGs.

The highest average annual exposure of 1.40 mg/m<sup>3</sup> was recorded amongst Laboratory workers involved in the heap-leaching project, followed by Pit equipment operators, the latter having an average exposure of 0.52 mg/m<sup>3</sup>. These high exposures were due to the work practices in that specific section of the Laboratory, and to conditions in the open pit. The lowest average exposure of 0.12 mg/m<sup>3</sup> was recorded amongst the Processing Office workers. Both high and low exposures are measured against the OEL of 0.5 mg/m<sup>3</sup>.

The measured exposures as indicated in the graph below do not take into consideration the protection factor of 10 provided by dust masks, which reduces effective exposure to an average of 0.49 mg/m<sup>3</sup>.





Employees having fun with a mass warm-up exercise presented by a physiotherapist during the official opening of the Wellness Assessment Event.

## Wellness

Various activities were undertaken during 2009 to support our lifestyle awareness programmes.

We contracted a Windhoek-based company, Occupational Care Namibia (OCNAM), to undertake a wellness assessment of our workforce. The purpose was to provide baseline information on their general state of health, to highlight areas of concern that need to be addressed through our Company Wellness Programme, and to serve as baseline data for measuring the success of our Wellness Programme efforts. The Programme comprised three key components:

- Physical fitness assessment
- Emotional health wellness, and
- Basic medical health assessment.

Although participation was voluntary, we can report that 70 per cent of the workforce participated, which is in line with the Rio Tinto Wellness target.

An Alcohol and Drugs Awareness Campaign was held on site on 28 August 2009, with the aim of raising awareness of the effects of alcohol and drugs in the workplace and to emphasise Rössing's Zero Tolerance policy on these substances.

The Rössing Peer Educator Programme, which was launched in 1996, once again received a noteworthy award in 2009 from the Chamber of Mines' Occupational Health

Education and Assistance Programme (OHEAP). One of our Managers, Bernard Morwe, was granted the OHEAP Best Manager Award.

On 25 September 2009, National Bandana Day, which benefits people suffering from leukaemia, was commemorated on site and at the Swakopmund offices. *Bandana* refers to the head scarf often worn by patients to cover their heads when hair loss occurs due to cancer treatment. Funds were raised by Peer Educators through selling bandanas and spraying colour on donors' hair. A total of N\$7,483.25 was raised, which was donated to the Cancer Association of Namibia (CAN).

As part of our initiative to support Breast Cancer Awareness, Rössing's Peer Educators collected funds for CAN. All Departments were urged to wear pink and to buy pink ribbons. A total of N\$3,485.00 was raised, which was also donated to CAN.

The Blood Donation Clinics initiated by the Peer Educators and offered by the Blood Transfusion Service of Namibia were continued during 2009. At the three clinics held on-site, 163 employees donated blood, compared with 140 in 2008. A certificate of recognition was awarded to Rössing by the Blood Transfusion Service for actively promoting blood donation, for saving lives, and for our continuous involvement in their Life-supporting Community Service Programme.

World Aids Day was commemorated on 1 December 2009 under the theme “Universal Access and Human Rights”. Our Peer Educators handed out parcels to employees on the buses as they arrived at work. These parcels contained “Know your Status” brochures, key rings commemorating World Aids Day, male and female condoms, and water bottles with “Because We Care” stickers. As part of the “Because We Care” Project we run, Peer Educators donated non-perishable foods that were collected from employees to needy families in one of the informal settlements of Swakopmund.

We again offered voluntary HIV testing and counselling services to enhance our workforce’s personal awareness of their HIV status. Some 57 per cent of employees and contractors took advantage of these services during the year under review.

### Safety management

We believe that all injuries are preventable, so our goal is to achieve zero injuries on the mine. We continue to progress towards an illness- and injury-free workplace, without becoming complacent. The year was a successful one with regard to safety, and a number of major achievements were recorded.

We achieved an impressive All Injury Frequency Rate (AIFR) of 0.73. The target for 2009 was set at 0.81, which means we reduced our frequency rate by almost 10 per cent against the target. The AIFR is the rate of occurrence of all injuries across the mine for every 200,000 hours worked.

All injuries include medical treatment cases and lost-time injuries, but exclude first aid treatments. The AIFR is the amount of all injuries multiplied by 200,000 and divided by the hours of exposure (work) by all employees and contractors.

This past year saw a steady increase in contractors on-site. This was mainly due to a higher number of capital projects that were approved for 2009, which required labour for a limited period. These included the start-up of the heap-leaching project and the continuation of waste stripping and exploration drilling.

With these high areas of risk and the potential of injuries, it was important that the contracting companies instilled our safety culture in their workforce as well – which is often a challenge. However, their commitment and willingness to adopt our safety standards and code of practice in their daily routine ensure that we have the same safety goals in the workplace. This contributed to the mine being able to reach and surpass our AIFR target for 2009.

In 2009, we worked a total of 5,492,383 hours. This total includes all our contractors. The standard number of hours worked is around 4,500,000, emphasising the impact of more contractors on-site to cope with our expansion plans. Having more workers means the exposure to accidents is higher; it is against this background that the achievement of a lower AIFR should be seen.

During 2009, the Safety Section ran two successful initiatives to assist in reducing injuries on the mine.

The first of these was to reintroduce “*Onyoka*” (which means “striking snake” in *Oshiwambo*). The initiative is targeted at addressing the condition of all light vehicles and mobile equipment that we and contractors use. Vehicles and mobile equipment were inspected by safety officers to assess their condition.

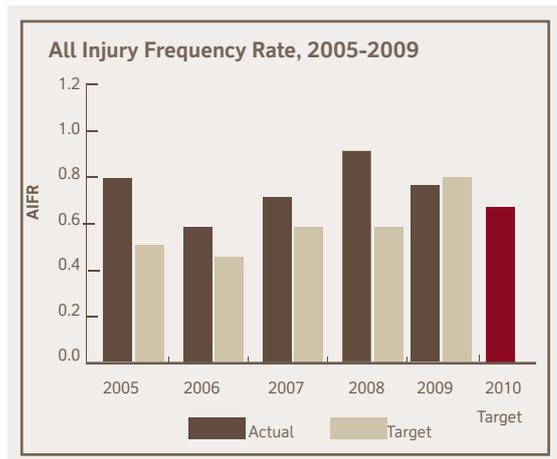
The second initiative was an awareness campaign that aimed at reducing the number of hand- and finger-related injuries sustained at the mine. All shifts start with a five-minute safety talk, which is referred to as a *Safe Shift Start*, where the importance of one’s hands and fingers are continuously highlighted. Various forms of communications were used to embed the messages, including a communication to all employees’ families to encourage awareness at home as well.

The Managing Director and his General Managers conducted two rounds of safety audits during 2009. The objectives of these audits were to address general safety conditions at the mine and to encourage safer practices. Each work area inspected was awarded a star rating in which five stars represents the highest achievement. In the first round of audits, the Machine Shop won the MD 5-star award, and in the second round, Mine Electrical Services won it. The overall assessment was that conditions had vastly improved during 2009. In fact, by the end of the year under review, the mine overall was awarded an MD 4-star rating.

A Process Safety Review was conducted by Rio Tinto at the mine during 2009. The purpose of this review was to evaluate any process-type risks that could have serious or catastrophic consequences. The review gauges how Rio Tinto’s businesses are managing process risks and how businesses can improve. The outcome of the review highlighted some minor changes to our safety procedures. A management action plan has since been developed and implemented.

Since the implementation of the Rio Tinto Aligning Business Solution (ABS), we have seen an increase in safety-related incidents reporting for 2008 and 2009. This has given us the opportunity to capture and address previously unreported incidents.

Rio Tinto introduced a new measure to be reported on, namely Significant Potential Incidents (SPIs). A *SPI* is an incident that has an actual consequence of a near miss/hit of low or medium impact, but its maximum reasonable consequence could have been major or catastrophic. This measure is to encourage the reporting and investigation of possible incidents that could have resulted in one or multiple fatalities.





Botha Ellis, Corporate Communication Practitioner, walks past a safety sign indicating the minimum personal protective equipment (PPE) for the area. Safety signage is a required component of the mine's safety culture.

The following safety incidents occurred in 2009:

- Lost-time injuries: 6, versus 8 for 2008
- Incidents requiring medical treatment: 14 versus 15 for 2008
- Incidents requiring first aid treatment: 43 versus 30 for 2008, and
- SPIs: 12 (not previously measured).

No fatalities were reported during 2009.

The focus for safety in 2010 will be on the following aspects:

- 5 per cent reduction in AIFR: target of 0.69
- 20 per cent increase in the reporting of SPIs
- Reducing the number of incidents captured within our database that are logged but still unresolved due to the investigation still under way, or to corrective actions that have not yet been fully implemented
- Implementing initiatives that could assist us in reducing the AIFR
- Assisting line managers such as foremen, superintendents and managers to reduce HSE risks by 20 per cent
- Strengthening HSE leadership
- Pre-qualification gap analysis and action plan for all existing contractors at the mine, to ensure that contractors comply with our safety standards; several initiatives will

be spearheaded to manage and track contractors' safety performance

- Improved personal protective equipment (PPE) management, and improved accessibility of PPE to all contractors so that they can meet minimum requirements, and
- Standardisation of equipment, in order to ensure that both Rössing and contractors are working with equipment of equal standard.

## Security management

Security management became an important focus area during 2009, with the occurrence of two incidents of uranium oxide theft. This triggered a new mood in the company: we have now moved beyond the usual focus areas of HSE and now include stringent security measures as part of our daily activities.

In the first of the two incidents, three small jars of uranium oxide were discovered buried in a private yard at Arandis. After confirming the material to be uranium oxide, the material was removed to the mine site for safekeeping. The area was thoroughly checked, and potentially contaminated soil was removed.

In the second incident, police discovered several sealed bags containing about 170 kg of uranium oxide in a private vehicle. After completion of the police investigation, the uranium oxide was transferred to the mine site for safekeeping, and all areas that could potentially have come into contact with the uranium oxide were checked for possible contamination. Police officers who handled the material underwent biological testing for possible internal contamination. No external contamination of areas or internal contamination of persons occurred during these incidents, and at no point were any members of the public or the police exposed to hazardous levels of radiation.

Because uranium oxide emits low levels of radioactivity, it does not pose any danger to humans unless it is ingested or stored close to living areas in large quantities.

Although uranium oxide in small quantities – such as those involved in these incidents – has no commercial value, we immediately took steps to reduce the risk of further theft.

Remote-controlled cameras were deployed in production areas with a high concentration of uranium oxide. With access being strictly limited by fingerprint and access card identification, people traffic can be monitored and controlled.

Besides reducing theft risks, this step also assisted in the safety of the staff, since radiation testing can now be focused on the workers that have access to production areas containing hazardous materials.

We are acutely aware that the increased uranium mining and exploration activities in the Erongo Region will unfortunately also attract the attention of undesirable elements, which will increase the risk of theft. On our part, we will continue to be vigilant and reduce the risk as much as we can. Closer working relations with the Ministry of Safety and Security will also contribute towards mitigating internal and external risks.

**Corporate social responsibility, as a business imperative, is an integral component of our business. Equal in importance to creating shareholder value is our belief that we should plough benefits back into the communities in which we operate.**

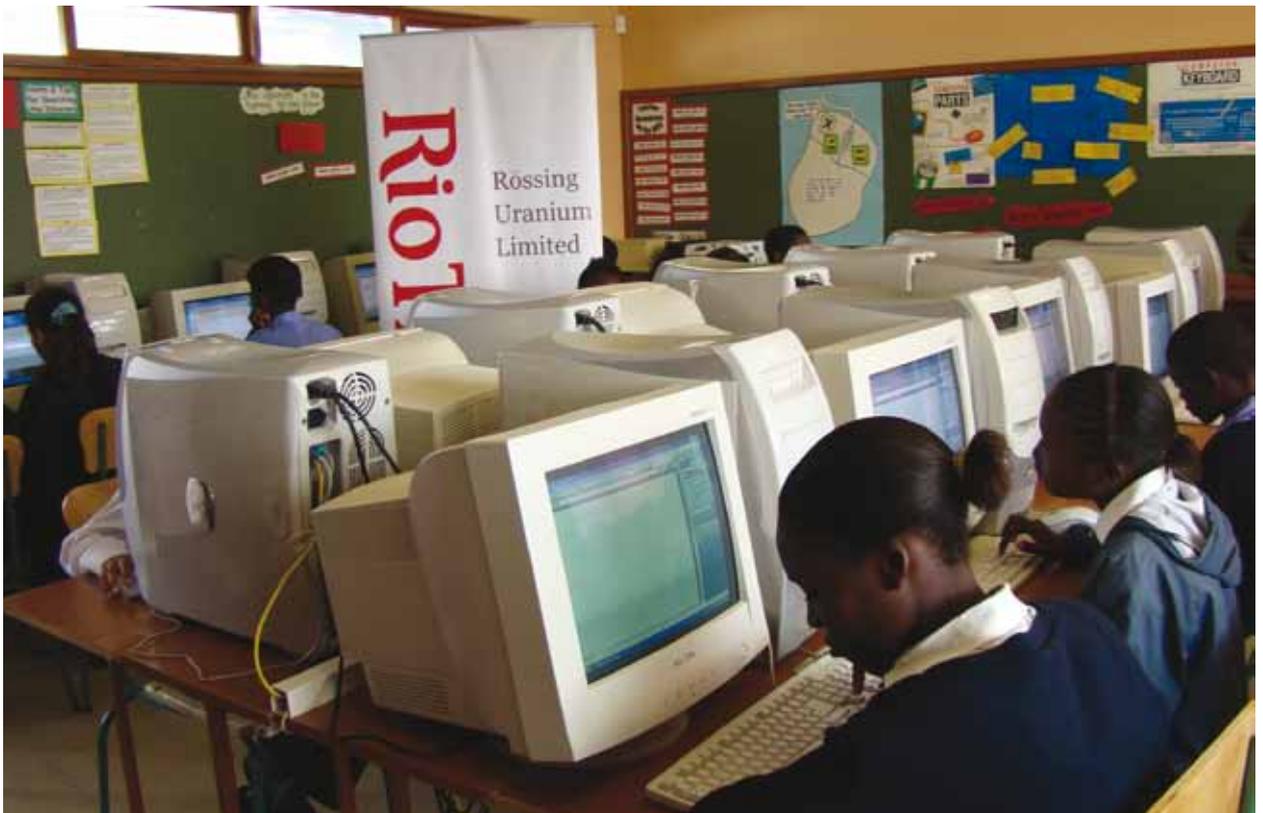
Therefore, knowing our surrounding communities and engaging with them in areas of common concern have been key drivers for all our community involvement activities.

Our business approach of sustainable development towards the communities around us enables us to respond to their concerns and needs, and is fostered by continuous interaction with them. For this reason we have invested substantial resources into community involvement activities over the years. Most of these resources are channelled through the Rössing Foundation, in addition to various community development and initiatives we support directly – even amidst the global financial crisis that impacted businesses worldwide.

In 2009, we invested a total of N\$11.6 million in Rössing Foundation activities. The latter's main focus continues to be on supporting the Arandis Town Council in its endeavours to diversify the town's economy by 2016. The support was offered through an interrelated series of shared interventions to help Arandis become a town of choice for current and future inhabitants and investors. The aim is that, through smart partnerships, the town's economic dependency on Rössing and the surrounding mines will be reduced.

Our impact on the communities in which we operate stretches further than our financial contributions. Many people and businesses within the Erongo Region depend on Rössing. With our expanded mining operations, we have contributed directly and indirectly to employment creation in the Region. The number of new businesses created in Swakopmund has steadily increased over the past few years, stimulated by our and other companies' exploration and mining activities.

External communication initiatives were refocused during 2009. One of its projects was a programme to bring more visitors to the mine, another entailed the launching of a high school outreach programme. Other activities included establishing the Rio Tinto brand in Namibia, and significantly strengthening media relations. Government relations were also strengthened, with the highlight of the year being a visit by His Excellency Hifikepunye Pohamba, President of the Republic of Namibia.



A project was launched to donate a total of 180 refurbished computers with a combined value of N\$405,000 to nine primary schools in the Erongo Region. One of the first recipient schools was the Tamariskia Primary School.

## Donations and sponsorships

As a corporate citizen in Namibia, the company remains committed to uplifting the socio-economic conditions of the communities within which we operate. This is manifested through a well-coordinated Corporate Social Investment (CSI) scheme in the form of sponsorships, donations, and community support initiatives. The criteria for the CSI scheme are laid down in a Standard Instruction.

With the global financial crunch, at the start of 2009 Rössing decided to limit its donations and sponsorships, but to continue supporting all pre-committed sponsorships. We also undertook to focus on truly needy requests, with a preference for services and in-kind donations rather than cash.

The cash and in-kind donations made during 2009, according to the various areas of service, amounted to N\$1,848,177 in total. Among the recipients were the following:

- **Project “Shine”**, a litter clean-up campaign in partnership with schools and community-based organisations, involves the Municipality of Swakopmund and private businesses in the town. The project affords us the opportunity to support community initiatives, while building awareness about environmental issues. The main activity consists of participants being allocated a 10-km stretch of the road between the mine and Swakopmund to clean up litter along it. These areas are judged for their cleanliness afterwards and a cash amount is allocated to the cleanest areas. Schools that have participated in the past have utilised their winnings to add to their own reserves to purchase equipment. One winning school even supported another community-based project with outreach work. In 2009, the Municipality included a clean-up drive in an easterly direction from their own waste management site, since rubbish is blown from this site towards the main road. In 2009 we supported the project by way of an in-kind donation to the value of N\$30,750.
- The **Erongo House of Safety** is a haven for children in need of care. In 2009, we donated N\$100,000 in cash to the House.
- The **Wapaleka Campaign** (from an *Oshiwambo* word meaning “clean up”) was supported in 2009 by a larger number of contractors and local community participants than in the previous year. *Wapaleka* is our annual employee engagement project that focuses not only on getting our employees involved in their communities, but on motivating everyone to keep the Namib Desert clean. The campaign focuses inwards, namely on our suppliers, our employees, and one of our host communities – Arandis. The Swakopmund Municipality, the Arandis Town Council and the Roads Authority joined in wholeheartedly. One of our on-site contractors offered branded items and also made a cash contribution to the tune of N\$10,000, which was utilised to sponsor the prize for the event, namely a desert excursion with one of Swakopmund’s local tour operators.
- Support for the **Arandis Ada !anu Campaign** (a Damara/Nama word meaning “come let us clean-up”) was provided by way of reflective vests, gloves and refreshments. This initiative is part of planned actions to get the community involved in civil society initiatives in and around the town.

- The **Swakopmund Neighbourhood Watch** was established late in 2009, and has the marked involvement of Rössing employees. We also offered support to the initiative by way of 15 reflective vests.

- The **2009 Namibian Women’s Summit** received a donation of N\$40,000, which was one of the largest sponsorships of this empowerment initiative. The summit, now in its third year, creates a platform for women leaders in business to network, learn from each other, and share their personal and business experiences. Five female employees attended the summit.

- The Namibia Nature Foundation’s **Damara Tern Fencing Project** received N\$150,000 for continued research from Rössing Uranium, which provided us with high-level exposure in Government and non-governmental circles alike. We also donated 74 drums of used grease to service the fencing cables that keep the Damara tern breeding areas near Swakopmund free from vehicle access.

- A total of **180 refurbished computers** with a combined value of N\$405,000 were donated to nine primary schools in the Erongo Region. The computers will be used to teach students computer literacy in line with the Ministry of Education’s policy on the use of Information and Communications Technology (ICT).

- A sum of N\$150,000 was invested in the annual **Namibia Rössing Marathon Championship** and 10 km Race, which are supported by athletes from Namibia and elsewhere. The donation is a token of our support to a healthy lifestyle. Worldwide media exposure and high levels of community goodwill were ensured.

- We co-sponsored the greater part of the building costs to house the Chamber of Mine of Namibia’s newly created **Uranium Institute** near the Cottage Medi-Clinic Hospital in Swakopmund. The Uranium Institute is a new organisation, having been launched in 2009 with a focus on improving the quality of health care, environmental management and radiation safety. However, it has been around in various guises since 2007, when it was first launched as the Chamber of Mines’ Uranium Chapter. The Uranium Institute is Namibia’s leading source of advocacy, training and research on uranium-related issues.

## Visitors programme

The main aim of our visitors’ programme is to show that the mine is transparent with regard to its operations, in particular with regard to our HSE standards and practices, and that we are a global leader in the production of uranium oxide for the world’s nuclear power utilities.

In 2009, the mine received 2,835 visitors overall, compared with 2,600 in 2008. This 2009 total was made up of 95 individual groups that toured the mine. Usually, about 60 per cent of the visitors are from southern Africa, with the balance being from overseas countries.

The slightly higher number of visitors for 2009 is mainly due to a comprehensive visitors’ programme having been implemented, targeting specific groups such as business executives, Government officials, and university and school groups.

Overall there seems to be an increased interest in uranium mining, and Rössing's tours provide a prime opportunity for the general public from all over the world to visit the mine.

One of the highlights this year was when President Hifikepunye Pohamba, accompanied by First Lady Penexupifo Pohamba and his entourage, paid the mine a visit in July 2009 for the first time.

Some of the other memorable visits in 2009 include the following:

- Members of Namibia's National Assembly and their counterparts from the Commonwealth Parliamentary Association in the United Kingdom visited the mine to exchange views on Anglo-Namibian issues. The delegation from the United Kingdom, led by Hon. Tim Yeo, included Baroness Frances D'Souza, Lord Richard Faulkner, and Sir Nicholas Winter-ton.
- Russia's Channel One Television correspondent Anton Vernitshy and his team, Andrey Melekhov and Igor Solovyev, interviewed some of our staff.
- A large delegation made up of officials from the Namibian Ministry of Mines and Energy and the International Atomic Energy Agency visited the mine. Peter Waggitt, an IAEA consultant on the nuclear fuel cycle and waste technology, was part of the group.
- The Deputy Minister of Mines and Energy, Hon. Bernard Esau, visited and met with our Management.
- The High Commissioner of India, Tsewang Topden, and the French Ambassador to Namibia, Jean-Louis Zoel, were some of the diplomats who visited in 2009.
- The Deputy Minister of Mines in the Democratic Republic of Congo, Victor Kasonga, visited the mine whilst in Swakopmund attending a conference.

Our focus on schools is bearing fruit too. The year under review saw many Namibian schools booking tours. Indeed, some schools have already booked for visits in 2010. The visitors' programme has now been linked with our outreach programme to schools, with Grade 11 and 12 learners being invited to schedule a visit to the mine.



His Excellency President Hifikepunye Pohamba, addressing Rössing employees on the mine site during his first-ever visit to the mine.



Hon. Deputy Minister of Mines and Energy, Bernhardt Esau, (second from left), accompanied by Linus Mulele, Director of the Directorate Mining (second from right), visited the mine as part of our visitors programme. They were informed on the mine's operations by Peter Carlson, Chief Financial Officer (left), and Werner Ewald, Manager Mining Operations (right).



Council members of the Chamber of Mines of Namibia toured the mine as part of a Council meeting. Rössing's Managing Director and President of the Chamber, Mike Leech (right), accompanied the group.

## Media relations

During the course of 2009, Rössing enjoyed a significant amount of media coverage – locally, regionally and internationally. Although the coverage received is not quantifiable in terms of value created against the dollar invested, the long-term effects of a positive brand image far outweigh the investment.

By proactively attempting to control public perceptions on Rössing and engaging the media as our strategic partner, we are able to gain the advantages of a positive brand image, specifically in the following areas:

- Good Government relations
- Attracting and retaining of high-calibre employees
- Support from local organisations (MUN and the Namibia Chamber of Commerce and Industry)
- Recognition by local and international organisations as a leader in various fields, such as HSE practices
- Acceptance of the Rio Tinto brand within the community by way of positive portrayals of Rössing's social and economic impact on the country
- Instilling a reputation of the uranium industry's trustworthiness by highlighting its positive economic and social benefits, thus contributing towards creating and enabling a friendly mining environment that is conducive to mining companies wishing to operate mines in Namibia, and consequently boosting Namibia's gross domestic product (GDP).

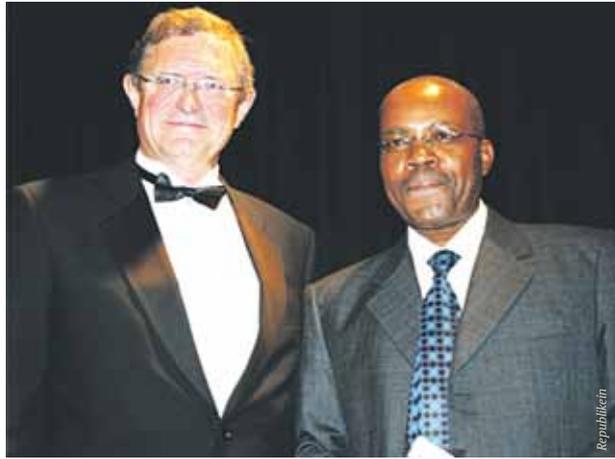
## Community consultation and engagement

Within the framework of our continued efforts to improve on our levels and types of engagement with local communities, a baseline study of Swakopmund and Walvis Bay was conducted in the beginning of 2009.

For the past few years, the main focus was on the town of Arandis becoming self-sustaining. In 2010, planning and further engagement with communities will be explored in partnership with local service providers and partner organisations operating in the area.

Community members also attended meetings in Arandis and Swakopmund at the beginning of the year to obtain feedback on the results of a blast monitoring study. The feedback meetings were conducted as a follow-up to consultations that were held with our stakeholders in the communities, including those in the Swakop River Valley and on surrounding farms. At these meetings, community members expressed concern about the shock waves being caused by blasting at the mine.

The study focused on monitoring ground vibration and air blast at identified points. The findings indicated no concern that the blasting operations at the mine could cause structural damage in its vicinity. The study formed part of an ongoing noise and vibration monitoring programme implemented in 2009.



Rössing's Managing Director, Mike Leech, was inaugurated as the new President of the Chamber of Mines of Namibia in May 2009. The outgoing President, Otto Shikongo (right), welcomed him in the new position.

The High School Outreach Programme was launched earlier in the year, and aimed at informing Grade 11 and 12 learners about our operations, with a particular focus on our HSE best practices and sharing information on radiation. Bursary opportunities and possible career opportunities at the mine were also highlighted. Various schools in the Erongo Region were visited and more than 1,000 learners were told all about Rössing. The content of the programme will be made available in a booklet to all employees, contractors and interested stakeholders. The outreach programme will continue into January 2010, with visits scheduled for schools in the Karibib and Omaruru areas.

In 2009 there were confirmed cases of asbestos roofs in Arandis that date back to the early 1980s when the town was built by the mine to accommodate some workers. The Arandis Town Council, in consultation with the Ministry of Health and Social Services, the mine and an accredited asbestos inspector, conducted an assessment during the third quarter of 2009.

Awareness was raised among residents of the pending investigation into the possibility that structures in the town contained asbestos. These included all 890 households as well as the business centre and other public open spaces. The types of asbestos present in Arandis and the air quality with its related ambient exposure levels were tested over a period of three months. There was also an assessment of the actual magnitude of the problem, i.e. infrastructure that contains asbestos fibres. The report on both of the assessments will be submitted in April 2010. The action to be taken will be determined by what the report recommends.

In partnership with the independent consultant appointed by the Arandis Town Council to assess the current asbestos situation in Arandis, the Council also held community meetings in the different zones during December 2009, and Council staff underwent training with the aim of enabling them to speak from an informed position about the asbestos situation and what was being done about it.

It should be noted that the community were very accommodating during the entire process.

## The Rössing Foundation

The Rössing Foundation was established in 1978 by Rössing Uranium Limited through a Deed of Trust to implement and facilitate its corporate social responsibility activities within the communities of Namibia.

The current Board of Trustees consists of Rehabeam Hoveka (Chairman), Job Tjiho (Director), Anne Thandeka Gebhardt, Eliakim Prince Shiimi, Mike Leech, Tom Alweendo, Samuel Nuuyoma, Twapewomaano Kadhikwa, Willem van Rooyen, and Ruth Cloete (Secretary).

The Rössing Foundation undertakes a number of activities across a broad spectrum of community development areas within the Erongo Region and, to a lesser extent, in the Khomas, Omaheke and Oshana Regions. This includes local authority support to the town of Arandis, as well as support in the fields of education, health, poverty alleviation, innovation, environment, and enterprise development.

All programmes driven and supported by the Rössing Foundation are implemented in collaboration with critical partners such as the Ministry of Agriculture, Water and Forestry; the Ministry of Education; the Ministry of Environment and Tourism; the Ministry of Mines and Energy; the Arandis Town Council; the Erongo Regional Council; the University of Namibia; the United States Peace Corps; Voluntary Services Overseas; and the philanthropic ELMA Foundation.

### 30th anniversary

The year 2009 marked the 30th anniversary of the Rössing Foundation's existence in Namibia as a platform through which Rössing channels its corporate social responsibility involvement in communities.

The event was celebrated in Ondangwa, coinciding with the inauguration of the Eliakim Prince Shiimi Maths and Science Centre there. A book published on the history of the Foundation was well received at the event.



Job Tjiho: Director,  
The Rössing Foundation

### Education

Education remains the main focus of the Foundation's activities. The major investment that Rössing Foundation made during 2008 with the building of three Maths and Science Centres in Arandis, Swakopmund and Ondangwa, respectively, has started to show strong positive returns and has made a substantial difference to the lives of many learners and teachers. The year-end results for the Grade 10 and 12 learners who participated in activities at the Centres showed a marked improvement in 2009, compared with the previous years.

Arandis also won first place in the Erongo Regional Science and Technology Fair, indicating a marked improvement in the learners' understanding of science- and technology-based subjects. These Centres are expected to continue to have a long-lasting impact over the next decade, when learners who have been exposed to the Centres' activities for several years will reach school-leaving age.



Hon. Minister of Education, Nangolo Mbumba, and the Director of the Rössing Foundation, Job Tjiho, watching a demonstration of the Master Maths programme by the school-going children during the 30th Celebration of the Foundation in Ondangwa.



**Meceline Ndakoluke, a student at the Mathematics and Science Centre at Arandis using the lab facilities.**

In line with the National Policy of Learner-centred Education, the Rössing Foundation strategy and support to education is based on a learner-centred approach. The envisaged outcome for all Rössing Foundation support is to secure quality education that allows all Grade 12 learners to enter higher education institutions, in preparation for a knowledge-based society.

The Rössing Foundation primarily aims to achieve this through two interrelated but independently driven interventions of learner and teacher support. The Rössing Foundation support focuses on English as the official language, through which skills in reading, mathematics, science, and ICT are obtained.

In 2009, support focused on –

- school-based teacher support programmes
- school community capacity-building interventions
- after-school development programmes for learners
- Centre-based support programmes, and
- project partnerships.

By assisting local and national partners in the implementation of the Education and Training Sector Improvement Programme (ETSIP), the Rössing Foundation also indirectly addresses the staff needs of local industry in that high-school graduates need to qualify for employment or enter tertiary education and training institutions.

In 2009, the three Education Centres contributed to the enhancement of education in the following ways:

- The three libraries served a total of 515 adults and 790 learners in the issuing of 6,014 books.
- 30,164 people visited the three main Rössing Foundation libraries.
- 240 learners improved their reading levels by three age categories and improved their English proficiency.
- 95 learners competed in local, regional and national Maths and Science competitions; 4 learners won medals – 2 at regional and 2 at national level.
- 236 learners used the holiday period to focus on improving their grades in certain subjects.
- 177 learners attended regular reading classes to improve their English skills overall as well as their knowledge levels in Lower Primary disciplines.
- 261 Grade 12 learners improved their subject content knowledge by 10 per cent.
- 17 school communities in the Erongo, Oshana and Omaheke Regions were supported in capacity-building in the field of school governance.

- 23 school principals were given the opportunity to improve their school management skills through a two-year Diploma in Education offered by the University of Johannesburg.
- 95 teachers were directly supported by tutor interventions at the 17 partner schools.
- In the Erongo and Oshana Regions, after-school development opportunities offered in mathematics, science, reading, English and ICT reached 5,201 girls and 4,597 boys.
- Scholarships were given to 38 people through the Kolin Fund managed by the Foundation.

Before 2009, the Rössing Foundation had no CSI programmes in the Omaheke Region, which borders Botswana. However, the Region experienced major education-related challenges, with its Grade 12 learners obtaining the lowest grades in all Regions countrywide in 2008. Omaheke's officials approached the Foundation for assistance, based on the positive impact that its educational activities have had in the Erongo Region.

At the beginning of 2009 and at the request of the Director of Education, a partnership agreement was signed with the Omaheke Region to strategically support the Omaheke Improvement Plan.

The Rössing Foundation provided for the direct cost of a specialist to assist four secondary and three primary schools in their educational programmes. Although the Foundation's involvement was limited to these schools, the impact was already visible by the end of 2009: the Omaheke Region had moved up to 8th position in the country's rankings of Grade 12 results.

Over the past few years, the Foundation's main focus has been on improving the level of education in Arandis.

Although the performance of some individuals was exceptional – the best learner for 2009 in the whole of the Erongo Region came from Arandis – the learners' school performance is not as high as it should be in relation to the substantial amount of resources that have been invested so far. The reasons for this and actions to address the situation will receive high priority during 2010. This will require input from different stakeholders, including the Ministry of Education and the Constituency Councillor, since the Foundation cannot justify high investment on an ongoing basis without achieving the desired results.

## **Knowledge and innovation: Arandis**

The Rössing Foundation and the mine assist the Arandis Town Council in their bid for socio-economic independence by addressing six key areas, namely –

- health
- education
- technical services
- corporate services, including local economic development
- community and sustainable development, and
- finance.

In 2008, a five-year strategic plan was developed for the Arandis Sustainability Development Project (ASDP) and implemented for 2009 onwards. The plan aims to transform Arandis into a town of choice for current and future inhabitants and investors through smart partnerships, thus implying that Arandis will move away from singular economic reliance on the mining sector to a diversified socio-economic base. The current Project Management Team is made up of the Arandis Town Council, Rössing Uranium Limited, and Rössing Foundation representatives.

In 2009 the ASDP achieved the milestones set out below.

### ***Support to local craft producers to improve their products (empowerment of women)***

The Rössing Foundation initiated a women's empowerment programme which supports women who produce crafts. Thirty-one women completed the beadwork course to become skilled craft producers. Three trainees qualified for training as trainers of others in beadwork, and they will roll out the training to interested community members. Both the Rössing Foundation and Community Skills and Development Centres are currently working on a marketing strategy for the project. The products are only sold locally at the moment, but the potential to produce for the wider tourist market does exist.

### ***Support to Arandis Town Council capacity-building***

Any municipality needs strong staff and management in order to manage the affairs of a town successfully. During the year under review, 34 Arandis Town Council (ATC) staff benefited from specific leadership development training programmes, exceeding the target of training 20 staff members.

Seven Town Councillors completed a three-part leadership development training course, which allowed their governance capacity to be enhanced. The course concentrated on self-realisation in terms of roles and responsibilities. There has since been a noticeable improvement in terms of thinking and decision-making, self-control and respect for others.



Thirty-one women, all residents of Arandis, completed a course in beadwork to become skilled craft producers as part of the Rössing Foundation's initiative on women's empowerment. Above are Mrs Veronika Garises (left), Mrs Alexanderine Shaalukeni (middle) and Mrs Maria Sululu Isaack (far right), showcasing their products at an exhibition in the community centre.

Seven ATC staff members signed performance agreements and the high performance culture among staff has become a daily call. This is characterised by regular planning, execution, review and continuous reporting, which did not happen in the past.

The leadership and succession planning interventions for ATC staff have brought about tangible results owing to changes in mindset and attitude among employees. The capacity-building interventions at the Town Council led the Heads of Departments to conduct a root-cause analysis which resulted in action plans to mitigate the critical problems within the Council.

#### ***Small- and medium-scale enterprise development***

The implementation of the joint venture agreement between the Rössing Foundation, the Erongo Development Foundation and Bank Windhoek commenced in 2009, with 54 small- and medium-scale enterprises (SMEs) from the Erongo Region being trained in business management. They all completed their business plans and qualified for a loan to expand their businesses. Eight of the beneficiaries were from Arandis. To date, the repayment rate has been 100 per cent.

Since the management capacity of these SMEs was enhanced, their growth has been significant. This major achievement demonstrates that SMEs, despite having no collateral, can be very bankable.

#### ***Community cohesion***

The more than 1,000 residents of Arandis continue to stand together as a community through sports and cultural activities. At the invitation of the Arandis Sports Club, the World Boxing Lightweight Champion, Paulus 'The Hitman' Moses, exhibited his gold title and delivered a motivational speech to the Arandis community.

#### ***Agriculture***

The Arandis mushroom and hydroponics projects have proved successful, showing that vegetables can be cultivated even in our harsh desert conditions. Thus, the project achieved its overall objective of introducing mushroom cultivation to the community. The project has started to generate an income, and promises employment opportunities for the communities of Arandis.

The project also supplied locally produced vegetables to the Arandis community as well as a local restaurant. Its current expansion phase also aims to supply products beyond Arandis.

**Support to the Topnaar community**

The ongoing support to the Topnaar community has focused on capacity-building in the fields of goat breeding and the planting of vegetables for local consumption. The goat breeding programme has shown the desired results, with farmers in the community saying that the cross-bred offspring of the certified "Boerbok" breed were growing faster than the rest of the herd.

The community has already sold some of their goats, providing a source of income. This is an indication that the project has brought improvements to the livelihood of the Topnaar people. Although the project also successfully produced vegetables for the local community, it has been challenged by desert environmental factors such as high temperatures and strong winds.

**Community education: "Free to Grow" outreach training**

The "Free to Grow" Life Skills and Family Financial Management Programme was provided to the Arandis community. Ten Peer Educators aimed to provide training for 300 community members, but surpassed their target, managing to train a total of 518.

Community members who participated in the training course indicated that their personal and family attitudes had changed for the better in terms of their spending habits.

**Improvement of Arandis Town Council service provision**

Revenue collection increased from 38 per cent in 2005 to 64.3 per cent in 2009.

With regard to the upgrading of the freshwater supply system, water losses have been reduced from over 60 per cent to 18 per cent, and no pipe breakages were reported on the new main line in 2009.

With the growth of the town, the sewerage plant needed to be upgraded and this was completed in 2009. The work included replacing pump sets; refurbishing gearboxes, motor units and lubrication units; and upgrading electrical works.

The next focus will be on increasing the capacity of the plant to cater for 10,000 residents.

**Small-scale miners**

Small-scale miners' initiatives in the Erongo Region were also supported. The Uis Gemstone Market was completed and handed over to the Uis Town Council, allowing beneficiaries to operate from their own market.

A market committee was selected by the community, the Traditional Authority, the Uis Police and the Uis business community. Strict rules were laid down by all stakeholders to ensure order amongst the vendors.

The Usakos T-junction gemstone market is still under construction, but is progressing well.

Continued support was also provided to the Erongo Region Small Miners' Association, an oversight body that directs all the activities of small-scale miners in the Region.



**Richie Herero, a member of the Topnaar community, with a healthy kid, an offspring of the certified "Boerbok" billy goat supplied by the Rössing Foundation as part of their capacity-building initiatives.**

A total income of N\$4,847,000 was generated from small-scale mining during the year under review. Marketing of gemstones to Europe was undertaken for the first time, and an income of N\$9,100 was generated with the first initiative, holding promise for improved marketing opportunities directly to Europe.

**Arandis fuel station**

A project agreement was signed off in August 2009 between the Rössing Foundation, the Arandis Town Council and BP Namibia. Construction on the fuel station has begun with the provision of electrical, water and sewerage services to the site.

**Enterprise development**

In joint efforts with other stakeholders, the Foundation engages in mobilising rural communities through strengthening their skills and knowledge, building institutional capacity, developing products, adding value, and marketing.

A total of 151 Arandis entrepreneurs – 47 males and 104 females – attended capacity-building training courses in the areas of bookkeeping, business administration, customer care, marketing, negotiation skills training, business appreciation, participating in trade fairs and exhibitions, business association leadership, and how to start a business.

**Community-based natural resource management**

The Rössing Foundation approach is to promote the advancement of the living standards of all the people in Namibia. Thus, it also supports the Government's Community-based Natural Resource Management (CBNRM) Programme in order to significantly contribute towards an increase in household income among residents of the Erongo and north-central Regions.

The training of the committee of the Ohungu and Otjimboyo Conservancies has allowed them to achieve a deeper understanding of their roles and responsibilities in terms of managing their conservancies. The construction of the Ohungu Office with financial support from the Rössing Foundation is in progress, with more than half of the structure having been completed.



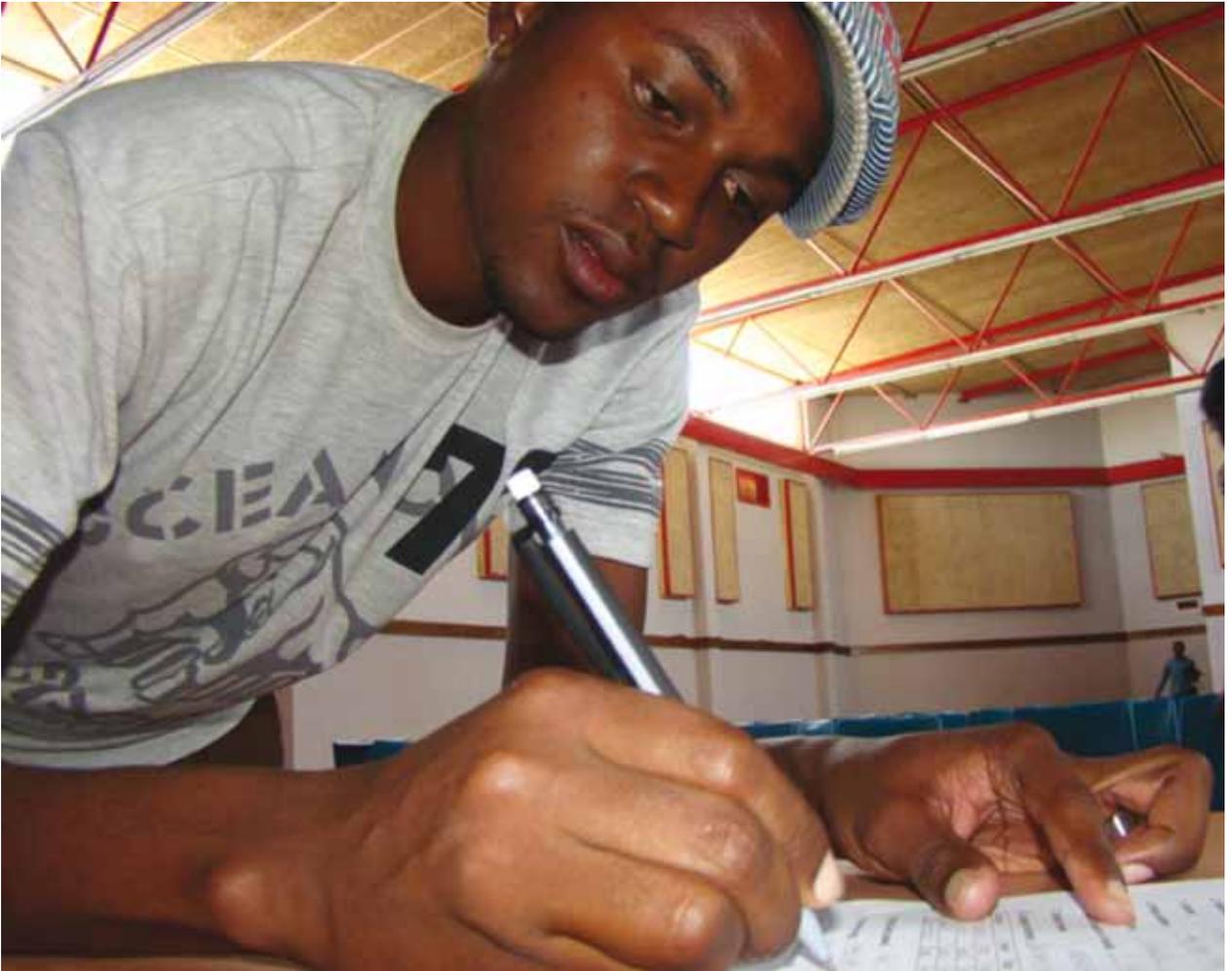
The Rössing Foundation supported small-scale miners' initiatives in the Erongo Region, one being the Uis Gemstone Market that was completed and handed over to the Uis Town Council. At the inauguration, Rössing's Managing Director, Mike Leech, witnessed the cutting of the ribbon by Abiud Auxab, the Daures Constituency Councillor.



The Usakos T-junction gemstone market is still under construction, but progressing well. It is part of the Rössing Foundation's support to small-scale miners in the Erongo Region.



Residents of Arandis working at the community garden, while a customer buys fresh vegetables. The community intends to expand the garden to supply products beyond their town.



As part of the Rössing Foundation's initiatives of developing Arandis' youth, a register was completed with the objective of assessing their skills and training needs. More than a hundred young people participated.

#### *Arandis community health and social welfare*

The Rössing Foundation and the Arandis Town Council continue to collaborate with stakeholders such as the Ministry of Health and Social Services, the Namibian Parenthood Association, the District AIDS Committee, and Catholic AIDS Action to address the health issues in Arandis. Services available include Peer Educator training, voluntary counselling and rapid testing, condom distribution and promotion, prevention of mother-to-child transmission services, and care and support services. The Ministry made social workers available to Arandis on a weekly basis. The ASDP also commissioned an in-depth assessment of health and social welfare needs that would further guide programme activities. The existing data relating to health, social welfare and social problems from various institutions are now in place.

#### *Youth skills development*

Unemployment is widespread among the Arandis out-of-school youth. For this reason the Rössing Foundation continues to pursue youth empowerment schemes. In 2009,

the Youth Skills Development Programme empowered 30 young people out of school with the necessary skills, helping them become competent and semi-skilled artisans who were absorbed into the labour market. Other young people who benefited from the programme ventured into entrepreneurship. Several of them were motivated to go back to school to complete their education, while others became self-employed.

#### *Classroom construction*

To help address the current shortage of classroom space in Swakopmund due to the influx of people employed mainly in the mining sector, the Rössing Foundation trustees agreed to support three selected schools with funds to construct five new classrooms. A total of N\$1 million was allocated to the building of classrooms in three previously disadvantaged schools in Swakopmund. Community-driven construction has commenced, with progress ranging from 30 to 80 per cent towards completion by the end of the year under review.

**Uranium mining in Namibia has evolved from a single operation to a new frontier for uranium exploration and mining developments. Some early mining operations have left a legacy of negative environmental impacts that still affect our perception of mining.**

**Today, all mining companies need to plan for and deal with environmental impacts before, during, and after mining.**

Continuous improvement in environmental performance is one of Rössing's HSE Policy goals. Our improved understanding of the impact that environmental degradation can cause to wildlife and human health is leading to higher and stricter internal standards of environmental management.

We have been certified as being compliant with International Organisation for Standardisation (ISO) 14001 since 2001. Employee commitment is a critical part of maintaining that certification, particularly with regard to our environmental management system (EMS). Our commitment was vital in maintaining certification for our operations in 2009.

## Biodiversity

The mine has implemented a biodiversity action plan with the aim of achieving a net positive impact on biodiversity. The post-2004 biodiversity impacts and gains have been assessed to establish the baseline for the setting of net positive impact (NPI) targets that need to be reached by 2015. NPI can be reached when areas of high biodiversity value impacted are smaller than the areas restored or offset. For example, when a 5 km<sup>2</sup> area has been cleared for development, an area of similar size and biodiversity characteristics should be protected somewhere else or in the same environment.

Actions will focus on minimising mining impacts on biodiversity, particularly on threatened and endemic species, and maximising opportunities for conservation, as well as determining offsets, which is a process of compensating for unavoidable damage that is caused to the environment.

On 25 September 2009, we hosted our ninth BirdWatch event at the mouth of the Swakop River. The aim of the day was to encourage an interest in watching and monitoring birds along the Namibian coast, as well as to maintain sustainability towards creating public awareness about the importance of birds in the environment.

Nine high schools from the towns of Arandis, Swakopmund and Walvis Bay participated. Approximately 90 pupils joined in, and 7 guides assisted. A total of 27 bird species were identified, compared with 24 in 2008.

In light of 2010 being declared the International Year of Biodiversity, the Environmental Team plans to disseminate information to promote the protection of biodiversity and encourage staff and stakeholders to take direct action to reduce the constant loss of diversity in plant and animal life.



For the ninth consecutive year, Rössing hosted the annual BirdWatch event. This year, approximately 90 pupils participated, and 7 guides assisted in the identification of 27 bird species.

## Noise and vibration monitoring

Before 2009, Rössing did not have a programme in place to monitor the environmental noise and vibration caused by our operations. This was rectified during the year under review by way of conducting research and baseline studies. For example, a baseline study on noise and vibration from blasting was done through the Social Environmental Impact Assessment (SEIA). In 2010, the results of these studies will be used to develop and implement a permanent programme to monitor noise and vibration in surrounding communities.

## Climate change

The climate change risks identified by Rössing during 2008 were put through a comprehensive risk evaluation in April 2009 to ensure that all climate change impacts had been considered. The risks were categorised according to the HSE classifications of Low, Moderate, High and Critical and recorded in our Business Risk Register.

Action plans have been assigned to risk owners to manage the risks concerned. High and Critical impacts are managed through the Rössing Climate Change Action Plan.

The following goals were reached in line with the 2006–2008 Climate Change Action Plan:

- Increased integration of climate change considerations into business processes
- Progress in achieving minimum performance standards
- Consideration of greenhouse gas (GHG) emissions in proposed new projects
- Development of a structured climate change communication programme, both internal and external
- Engagement with Government and stakeholders, and representation on forums that are important for communication on changing legislative frameworks and consequent business risks and opportunities
- Selection of a Climate Change Champion for Rössing, responsible for identifying threats and opportunities, and implementing plans to address these, and
- Development of a Rössing Climate Change Strategy.

## Energy usage and GHG emissions

In 2009, our energy usage was 174.3 MJ/t of ore processed. This was above the annual target of 124.6 MJ/t, set to conform to the predetermined Rio Tinto targets. We did not meet the set energy efficiency target due to the changed business context and mining parameters.

We succeeded in meeting the target set for total GHG emission intensity. Our CO<sub>2</sub> emission per unit of production was lower than the target, due to the record 4,148 t of uranium oxide produced, as well as higher grade ore throughput and improved processing efficiencies. The GHG emission intensity was 58.6 t of CO<sub>2</sub> equivalent per tonne of uranium oxide produced (t CO<sub>2</sub>-e/t U<sub>3</sub>O<sub>8</sub>), with the target being 63.2 t CO<sub>2</sub>-e/t U<sub>3</sub>O<sub>8</sub>.

We set new targets for GHG emissions, which aim for a reduction in GHG emissions of 6 per cent by 2013 from the 2008 baseline of 54.1 t CO<sub>2</sub>-e/t U<sub>3</sub>O<sub>8</sub>, and a 10 per cent reduction by 2015 from that baseline. We are also continuing our efforts to raise awareness and to provide training on climate change, energy efficiency, and GHG emission reduction in all our activities and processes.

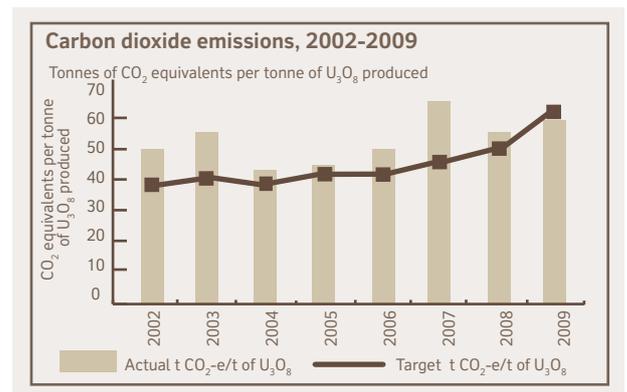
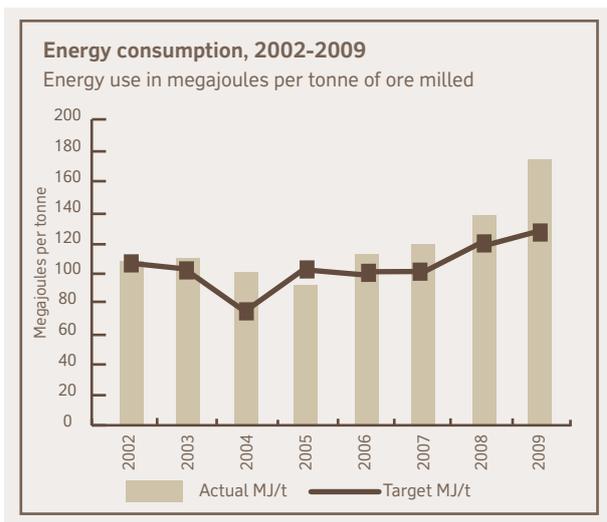
## Power efficiency

The Energy Efficiency Department facilitated the expansion and upgrade of an online power monitoring system in order to monitor power to all areas of the plant. The system monitors power quality and consumption figures which serve as inputs into energy pattern analyses and tracking of energy usage in the various areas of the plant.

Six new standby generators were also installed, which added 15 MVA of standby capacity to the existing generation capacity in order to ensure security of supply. Research has been conducted on the suitability of some alternative energy sources. Detail work has been completed on a concentrated solar power (CSP) system and its suitability for our processes. Further work will be done in 2010 to determine the viability of the various energy sources at the mine.

A stable power supply has been achieved by NamPower with no unplanned interruptions. The risk of security of electricity supply posed by the 2010 Soccer World Cup in South Africa cannot be clearly established; however, we are prepared in the event that power reductions are required. Close communication will be established with NamPower during that period in order to minimise the risk of outages.

Work for 2010 will focus on the further improvement, investigation and implementation of energy reduction initiatives. This will reduce the uranium oxide intensity and GHG emissions. The trolley assist system also needs to be expanded in the mining area to further improve on hauling energy efficiency.



### Water use

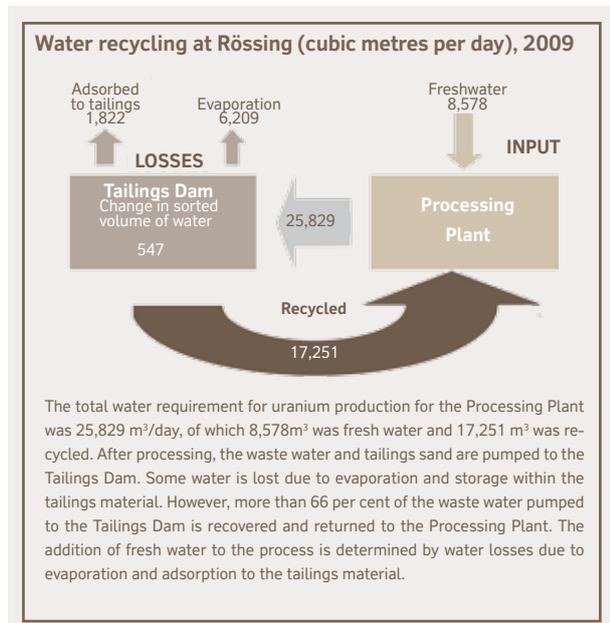
The mine's freshwater use in 2009 was 3.1 million m<sup>3</sup>, or 8,578 m<sup>3</sup>/day, while the operating plan made provision for 3.2 million m<sup>3</sup>, or 8,780 m<sup>3</sup>/day. Water performance for 2009 was lower than expected, at a rate of 0.24 m<sup>3</sup>/t of ore milled, against a target of 0.26 m<sup>3</sup>/t of ore milled. This was due to the freshwater savings projects implemented in 2008 and the water savings awareness drive urging employees to use this precious resource sparingly. The various projects implemented in 2009 reduced freshwater demand by 0.07 million m<sup>3</sup>.

The Processing Plant and the associated tailings disposal operations are the biggest consumers of water at the mine. Tailings, which are the remaining crushed and milled ore rock from which uranium is extracted, are pumped to the tailings facility as a mixture of sand, fines and water. The free water forms a pond on the tailings facility from where it is recovered for reuse in the mills.

The predicted freshwater demand for 2010 has been set at 3.04 million m<sup>3</sup>, based on the implementation of water-saving projects, such as the upgrading of recycled water collection systems and improvements in process efficiencies.

### Efficient freshwater use and supply

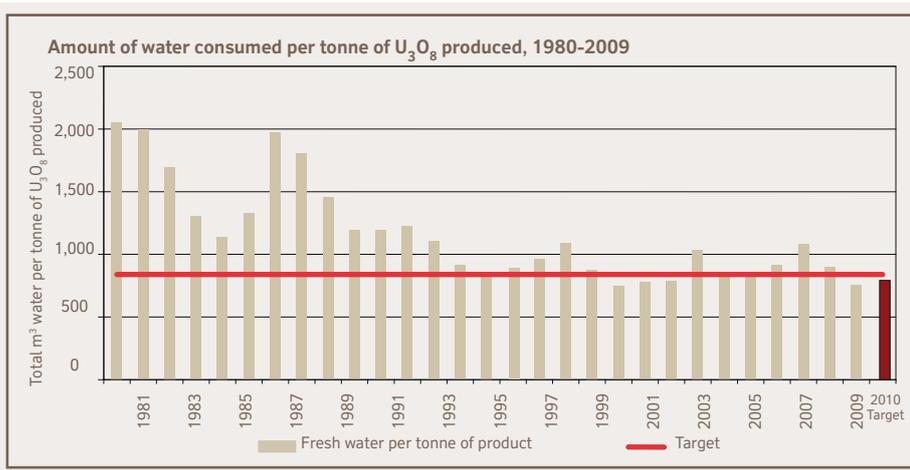
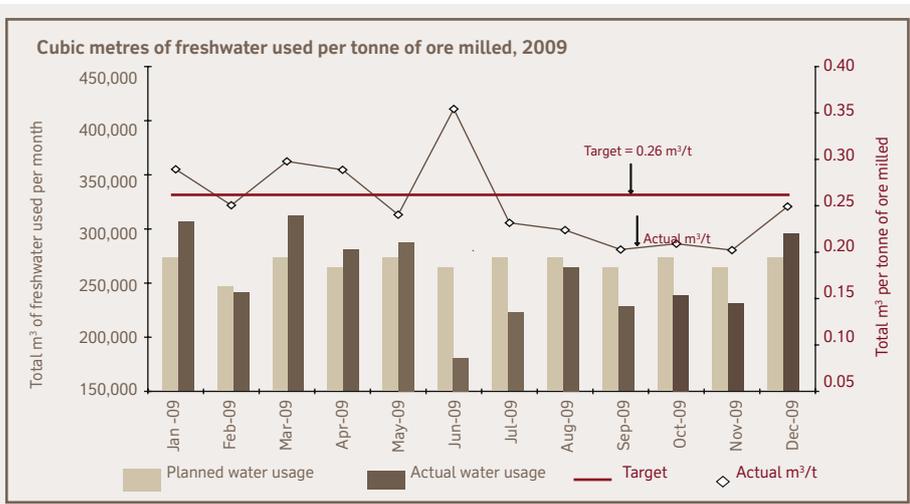
The consumption of fresh water by bulk users and the status of the aquifers are monitored by the Namibia Water Corporation Ltd (NamWater) and the Ministry of Agriculture, Water and Forestry's Department of Water Affairs. Relevant results are currently provided to bulk users, and will in future be supplied to Basin Management Committees. The aim is to conserve groundwater resources by sharing information and promoting water demand management and/or sea water desalination.



### Saline water use and quality

The abstraction of saline groundwater from the Khan River was identified as an area of improvement in our drive to promote water savings for 2010, and for this reason abstraction ceased on 30 December 2009.

The saline water abstracted from the Khan River was used for dust suppression in the open pit. This water will now be replaced by recycled water, which adheres to our water management principle of matching quality to usage. The vegetation and water levels in the Khan and Swakop Rivers will continue to be monitored and measured as per internal water quality and vegetation monitoring programmes as well as legal requirements.



## Closure planning

The new life-of-mine plan that was approved by the Board of Directors in August 2009 foresees the closure of Rössing mine at the end of 2023. Mine closure plans have been in place as far back as 1992 already, and are updated on a periodic basis to ensure that they contain up-to-date strategies and cost estimates as the mine, communities, technologies and legislation develop.

The last major update of our Closure Management Plan was completed in 2005. Closure cost estimates have been updated each year since then.

In 2009, current closure cost estimates amount to N\$1,085 million, compared with N\$896 million in 2008.

This amount covers money needed for retrenchment and training, processing plant demolition and tailings rehabilitation, and long-term seepage control and environmental monitoring. Backfilling of the pit would take more than 30 years to complete and is not included in the plan.

During 2009, the independent Rössing Environmental Rehabilitation Trust Fund received another payment

## Case study – Our environment

# Providing a benchmark for environmental responsibility

As the leading and oldest producer of nuclear fuel – which is increasingly being seen as a clean alternative to fossil fuels – in Namibia, Rössing Uranium shares the growing concern over the effects of global warming and mining activities on our fragile planet in general and specifically on the highly sensitive ecosystem of the Namib Desert.



Invaluable data was collected on the slow-growing Elephant's Feet (*Adenia pechuelii*), one of the threatened plant species in the Namib Desert.

Our commitment to environmental stewardship prompting the roll-out of one of our initiatives in 2007, the Biodiversity Action Plan, that endeavours to improve the management of the sparse plant and animal life in areas where we mine.

In spite of its arid appearance, the Namib Desert is home to an often startling variety of plants which, by virtue of their supreme adaptation to their environment, are often invisible to the untrained eye. Of these, about 1,000 plants found in Namibia were evaluated against the World Conservation Union (IUCN) Red List criteria. Some 60 per cent (600) of these plant species were found to be rare, endemic or threatened with extinction.

A baseline study we commissioned in 2005 showed that, of these Red List species, some 140 were to be found within the 180 km<sup>2</sup> under our responsibility, and 24 were considered as priority species for conservation.

This number included two plants – the slow-growing Elephant's Foot (*Adenia pechuelii*) and Flowering Stone (*Lithops rushiorum*). Within the Namibian Red List, the two were considered to be more under threat than most because of the risk posed by environmental change to the *A. pechuelii* and succulent collectors' fondness for the *L. rushiorum*.

We are, therefore, very pleased to announce the completion of a pioneering, three-year field study undertaken by the Rio Tinto Group in conjunction with Namibia's National Botanical Research Institute (NBRI) and the Royal Botanic Gardens, Kew (hereafter referred to as Kew) in London, England, and Kew's Millennium Seed Bank Project in Sussex, England. The project aimed to establish the overall distribution and abundance of these two species, not only within the mining area, but also throughout the surrounding Namib Desert.

The project was funded to the tune of nearly N\$1 million by the Kew/Rio Tinto Partnership, NBRI and Rössing. The study amounted to the first-ever attempt to establish a population size for any individual species – a most challenging task in a vast but sparsely populated area such as Namibia.

from the company. Some N\$134 million has already been invested in the Fund.

A further N\$19 million deposit by Rössing was received at the end of January 2010. These funds can only be released for closure purposes at the end of mine life.

Following the approval of the new life-of-mine plan in 2009, the next comprehensive revision of the Closure Management Plan is due to be carried out in 2010.

The new plan will take into consideration that the size of the waste rock and tailings storage facilities will be larger at the end of the mine's life, and that the number of employees will be higher than considered in previous plans.

The outcome of the study has, according to the NBRI's project researcher Sonja Loots, contributed enormously to the conservation and management of these two important plant species, providing the first-ever insight into their actual population size, as well as the relative importance of their population distribution within the mining area *vis-à-vis* the total national distribution range.

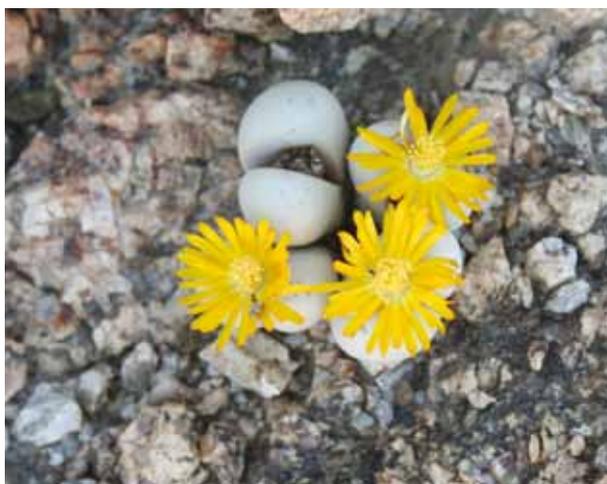
Of the 8,367 *L. rushiorum* plants counted throughout their distribution range, 2,011 were found to grow within Rössing Uranium's area, making the Rössing Uranium population the second largest in Namibia and the third most important. We have now designated this area a "No Go" zone, and have marked all other monitoring areas clearly to avoid any further disturbance by mining activities.

Some 226 individual *A. pechuelii* plants, a species of which little is understood of its reproductive cycle and its population demography, were also found within Rössing Uranium's licence area.

According to Gemma Marchant, the Kew/Rio Tinto Partnership Manager, this project contributed to the objectives of their decade-old cooperation agreement. It also provided an opportunity for Kew and the NBRI to collaborate in assisting Rössing with our biodiversity programme on the mine site, and to contribute to the Rio Tinto Biodiversity Strategy objective to have a net positive impact on biodiversity.

The project also contributed to Kew's mission to "inspire and deliver science-based plant conservation worldwide, enhancing the quality of life", which it delivers through its Breathing Planet Programme.

This project enabled Kew to deliver parts of this programme by adding seed collections of these two plants to Kew's Millennium Seed Bank in Sussex, which aims to store genetic material of at least 25 per cent of the world's wild plants. It also contributed knowledge to mapping and prioritising of plant species at risk of losing their wild diversity and allowed thorough conservation assessments of the species involved.



**The project contributed enormously to the conservation and management of the Flowering Stone (*Lithops rushiorum*).**

In addition, this project made use of some new tools for conservation such as predictive mapping to help Kew identify areas where a plant might occur, based on its ecological requirements. This work is one of the key targets of the Global Strategy for Plant Conservation under the Convention on Biological Diversity - with the aim of halting the rate of plant diversity loss by 2010.

In this case, the project achieved a notable success: the *A. pechuelii*, a curious plant that resembles an elephant's foot with dishevelled hair, is to be down-listed from its current "Near Threatened" status to "Least Concern" status. The status of the *L. rushiorum* is to remain unchanged, however.

Equally important, the project has provided the often understaffed NBRI with various tools that could greatly assist it in assessing the health of populations of other, small species of succulents in Namibia's vast desert areas.

Overall, it again underscores our essential partnership with conservationists, and provides other mining companies active in the same field with a benchmark in environmental responsibility.

## Land use and rehabilitation

The increase in the mining of waste rock to uncover ore for future mining at deeper levels in the open pit continued during 2009. Accordingly, the total volume of waste rock disposed of on the dumps increased. In some areas this was achieved by making the dumps higher, and in other areas by extending the dumps' 'footprint' further, onto until now undisturbed ground.

The increase in footprint was 37 ha during 2009. As the search for new ore on the mine continued, 4.5 ha of land were disturbed by exploration activities. During 2009, the total land disturbance at the mine increased by 1.8 per cent, from 2,349 ha to 2,391 ha. The total disturbed zone is equivalent to an area of about 5 km by 5 km.

Since mining activities continuously deepen the open pit and increase the height of the waste storage facilities, there is currently very little scope for early rehabilitation work.

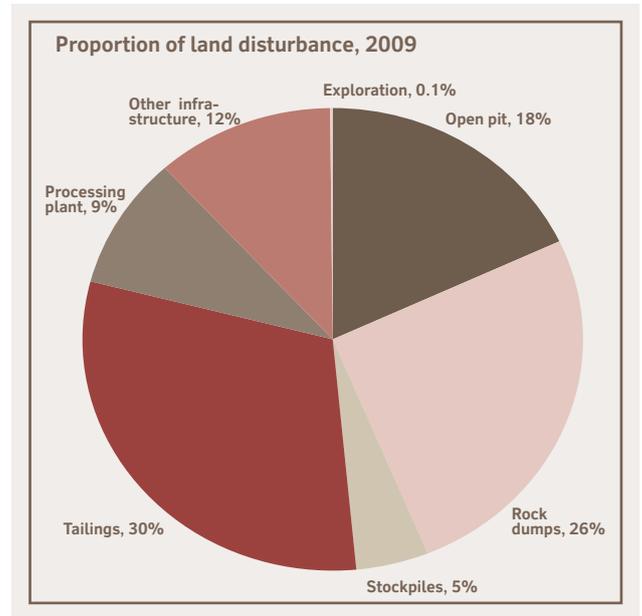
However, a small area of 1.8 ha to the west of the open pit was rehabilitated. The small area in question was explored during 2007 and 2008, but found to be not viable for mining at this stage. An archaeological chert quarry is situated close to this uranium occurrence, and rehabilitation work was done by removing vehicle tracks to prevent rainwater erosion.

There are plans to make this significant archaeological site available for further scientific research and visits by specialist groups in the future.

### Focus for 2010

Our focus for 2010 regarding our environment will be on the following:

- Maintain Rössing's ISO14001 Environmental Management System registration by successfully completing the ISO14001 re-certification audit
- Regarding energy and GHG targets, make progress towards achieving our goal of reducing energy use per tonne of material hauled and energy use per tonne of material milled, as well as reduce the GHG equivalent per tonne of U<sub>3</sub>O<sub>8</sub> produced
- Implement a Land Use Management Plan for the entire mine site
- Measure the biodiversity target against Net Positive Impact performance, and
- Measure performance against the set water targets.



Before rehabilitation



After rehabilitation



# Performance data table

| Performance data table  | Target for 2010 | Target for 2009 | 2009          | 2008   | 2007   | 2006   | 2005   |
|---|-----------------|-----------------|---------------|--------|--------|--------|--------|
| Employees   |                 |                 |               |        |        |        |        |
| Number of employees   | 1,550           | 1,500           | <b>1,415</b>  | 1,307  | 1,175  | 939    | 860    |
| Production  |                 |                 |               |        |        |        |        |
| Uranium oxide produced (tonnes)   | 3,838           | 4,004           | <b>4,150</b>  | 4,108  | 3,046  | 3,617  | 3,711  |
| Ore processed ('000 tonnes)   | 13,323          | 13,133          | <b>12,633</b> | 12,858 | 12,613 | 12,008 | 12,027 |
| Waste rock removed ('000 tonnes)  | 42,760          | 33,654          | <b>38,755</b> | 33,899 | 21,396 | 16,835 | 7,483  |
| Ratio of ore processed to waste rock removed                                    | 3.21            | 0.39            | <b>0.33</b>   | 0.38   | 0.59   | 0.71   | 1.61   |
| Health, safety and environment  |                 |                 |               |        |        |        |        |
| No. of personal annual radiation exposures above 20 mSv/annum                   | 0               | 0               | <b>0</b>      | 0      | 0      | 0      | 0      |
| New cases of pneumoconiosis   | 0               | 0               | <b>0</b>      | 0      | 1      | 1      | 0      |
| New cases of dermatitis   | 0               | 0               | <b>0</b>      | 0      | 0      | 1      | 0      |
| New cases of hearing loss   | 0               | 0               | <b>0</b>      | 0      | 0      | 0      | 0      |
| New cases of chronic bronchitis   | 0               | 0               | <b>0</b>      | 0      | 0      | 0      | 0      |
| All Injury Frequency Rate (AIFR)  | 0.69            | 0.81            | <b>0.73</b>   | 0.91   | 0.71   | 0.59   | 0.89   |
| No. of lost-time injuries   | 0               | 0               | <b>6</b>      | 8      | 9      | 6      | 8      |
| Source dust levels at Fine Crushing Plant (mg/m <sup>3</sup> )                  | 0.9             | 1               | <b>2,33</b>   | 1,52   | 0.93   | 1.49   | 1.12   |
| Freshwater consumption ('000 m <sup>3</sup> )                                   | 3,044           | 3,200           | <b>3,131</b>  | 3,700  | 3,300  | 3,315  | 3,170  |
| Fresh water per tonne of ore processed (m <sup>3</sup> /t)                      | 0.26            | 0.26            | <b>0.25</b>   | 0.29   | 0.26   | 0.28   | 0.27   |
| Ratio of fresh water:total water  | 0.29            | 0.31            | <b>0.33</b>   | 0.36   | 0.32   | 0.35   | 0.37   |
| Seepage water collected ('000 m <sup>3</sup> )                                  | 3,263           | 3,058           | <b>2,879</b>  | 2,740  | 3,050  | 2,736  | 2,018  |
| Energy use on site (GJ x 1,000)   | 2,022           | 1,650           | <b>2,168</b>  | 1,812  | 1,534  | 1,366  | 1,152  |
| Energy use per tonne of ore processed (MJ/t)                                    | 149.5           | 124.6           | <b>174.3</b>  | 140.9  | 121.6  | 113.7  | 95.8   |
| CO <sub>2</sub> total emission (kt CO <sub>2</sub> equivalent)                  | 261.9           | 252.9           | <b>243.2</b>  | 222.6  | 197    | 181.2  | 161    |
| CO <sub>2</sub> equivalent emission per tonne of production (t/t uranium oxide) | 65.4            | <b>63.2</b>     | <b>58.6</b>   | 54.2   | 64.7   | 50.1   | 43.4   |
| Product and customers   |                 |                 |               |        |        |        |        |
| Uranium spot market price (US\$/lb) (average)                                   | No target       | No target       | <b>46</b>     | 61     | 99     | 49     | 29     |

# Our value addition

| Stakeholders' Value Added Statement <sup>1</sup>            | Notes | N\$'000          | N\$'000          | N\$'000          | N\$'000        | N\$'000        |
|---|-------|------------------|------------------|------------------|----------------|----------------|
| For the years ended   |       | 2009             | 2008             | 2007             | 2006           | 2005           |
| Turnover  |       | 3,232,493        | 4,492,442        | 3,396,282        | 1,554,766      | 926,346        |
| Less: purchased material and services from non-stakeholders |       | 1,634,751        | 1,667,719        | 1,255,211        | 647,944        | 459,053        |
| Total value added   |       | 1,597,742        | 2,824,723        | 2,141,070        | 906,822        | 467,293        |
| Investment income   |       | 5,196            | 24,103           | 31,050           | 1,844          | 3,287          |
| <b>Total wealth created</b>                                 |       | <b>1,602,938</b> | <b>2,848,826</b> | <b>2,172,120</b> | <b>908,666</b> | <b>470,580</b> |

|                                 |   |                  |                  |                  |                |                |
|---------------------------------|---|------------------|------------------|------------------|----------------|----------------|
| Employees                       | 1 | 534,600          | 455,241          | 310,766          | 233,787        | 190,205        |
| Providers of equity capital     |   | 177,603          | 342,441          | 140,176          | -              | -              |
| Providers of loan capital       |   | 18,616           | 7,128            | 6,469            | 6,395          | 4,917          |
| Government                      | 2 | 528,559          | 934,719          | 736,924          | 300,816        | 141,025        |
| The Rössing Foundation          |   | 11,586           | 59,181           | 48,787           | 15,103         | 1,827          |
| Reinvested in the Group         | 3 | 331,974          | 1,050,116        | 928,998          | 352,565        | 132,606        |
| <b>Total wealth distributed</b> |   | <b>1,602,938</b> | <b>2,848,826</b> | <b>2,172,120</b> | <b>908,666</b> | <b>470,580</b> |

## Notes to the Stakeholders' Value Added Statement

|                                   |  |         |           |         |         |         |
|-----------------------------------|--|---------|-----------|---------|---------|---------|
| <b>1. Employees</b>               |  | 534,600 | 455,241   | 310,766 | 233,787 | 190,205 |
| - Net salaries and wages          |  | 412,851 | 381,748   | 253,990 | 188,334 | 150,989 |
| - Pay-as-you-earn taxes (PAYE)    |  | 121,749 | 73,493    | 56,776  | 45,454  | 39,216  |
|                                   |  |         |           |         |         |         |
| <b>2. Government</b>              |  | 528,559 | 934,719   | 736,924 | 300,816 | 141,025 |
| - Dividend                        |  | 6,213   | 11,943    | 4,724   | -       | -       |
| - NamWater                        |  | 25,566  | 26,447    | 21,893  | 22,395  | 26,592  |
| - NamPower                        |  | 118,383 | 95,727    | 84,531  | 66,939  | 65,991  |
| - Rates and licences              |  | 1,639   | 1,192     | 1,374   | 1,793   | 1,923   |
| - Mining royalty tax              |  | 173,269 | -         | -       | -       | -       |
| - Receiver of Revenue             |  | 160,059 | 762,608   | 598,454 | 184,609 | 25,142  |
| Current tax                       |  | 146,006 | 573,677   | 502,277 | 158,096 | -       |
| Deferred tax                      |  | 14,053  | 188,930   | 96,177  | 26,513  | 25,142  |
| - Telecom Namibia                 |  | 7,165   | 3,786     | 4,258   | 2,791   | 2,213   |
| - TransNamib Ltd                  |  | 36,265  | 33,017    | 21,689  | 22,289  | 19,165  |
|                                   |  |         |           |         |         |         |
| <b>3. Reinvested in the Group</b> |  | 331,974 | 1,050,116 | 928,998 | 352,565 | 132,606 |
| - Depreciation                    |  | 226,348 | 168,880   | 94,893  | 48,848  | 98,672  |
| - Retained earnings               |  | 105,626 | 881,236   | 834,105 | 303,717 | 33,934  |

|                     |  |         |         |         |         |        |
|---------------------|--|---------|---------|---------|---------|--------|
| Capital expenditure |  | 266,801 | 619,067 | 405,339 | 272,667 | 25,874 |
|---------------------|--|---------|---------|---------|---------|--------|

<sup>1</sup> Stakeholders in this context: Shareholders, Government, lenders, employees and The Rössing Foundation

**Our Stakeholders' Value Added Statement reflects the wealth created through the sale of our uranium oxide; payment for services and supplies; taxes to the Government and investments made in the community in which we operate.**

**Amidst major challenges facing us during the year under review, overall we remain financially sound and continue to generate wealth in Namibia.**

In 2009, total wealth of N\$1.6 billion was created, which is 44 per cent lower than the previous year. This is mainly due to a lower turnover, which is a reflection of the lower uranium market price compared with the previous year, as well as an unfavourable exchange rate.

We are also a major consumer of utility services. Here, State-owned enterprises (SOEs) represent an important group of suppliers. In 2009 we spent N\$118.3 million on electricity, N\$36.3 million on rail transport, N\$25.6 million on water, and N\$7 million on telecommunications, representing a total payment of N\$187.4 million to SOEs, up from N\$158.9 million in 2008.

Employment creation continues to increase as we gear up for expansion, as indicated in the rise in employment costs from N\$455 million in 2008 to N\$535 million in 2009.

While much lower than the previous year, other investment in Namibia via the Rössing Foundation amounted to N\$11.6 million during 2009.

**Contribution to the fiscal authorities**

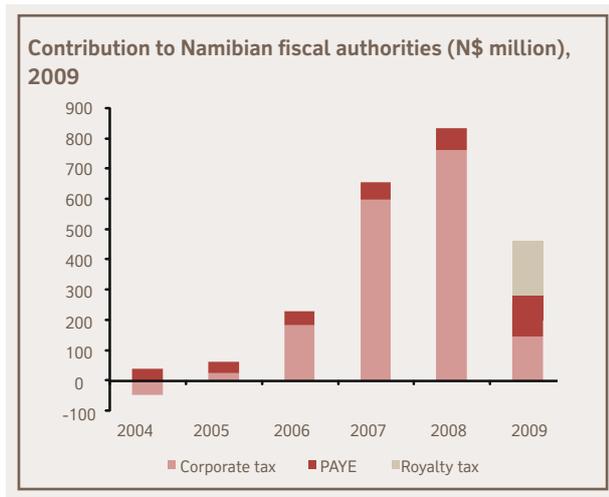
Despite a challenging year, we continued to demonstrate our value to Namibia through contribution to the fiscal authorities. While much lower than the previous year, total corporate tax paid amounted to N\$146 million.

In addition, we paid just over N\$173 million to the Receiver of Revenue in the form of the mining royalty tax, as per the requirement of the Minerals Act of 2008. Pay-as-you-earn taxes amounted to N\$121.7 million, thus bringing our total contribution to the fiscal authorities to N\$441 million.

A quick look back shows that, since 2006, we have paid over N\$2 billion in direct taxes and royalties to the national fiscal authorities.

*“Rössing Uranium has been in Namibia so long that people forget what an important contribution it makes to the Namibian economy. Concerns about global warming added to rapidly rising demand for energy from both developed and developing countries have resulted in an upsurge in interest in uranium. Rössing has already started preparing to make an even greater contribution to economic growth and employment in Namibia than it has in the past 33 years. The operation looks set to continue to play a vital role in generating exports and tax revenues as well as catering for the wider educational needs of the population through the Rössing Foundation.”*

*Robin Sherbourne, Group Economist, Old Mutual Namibia*



*"JJD was recently appointed as the contractor for the Heap Leach project at Rössing in addition to the sand hauling contract that we have with the mine. I am proud that Rössing has entrusted us with such a mammoth task: it speaks volumes about their confidence in a local, wholly Namibian-owned company. To date we have invested a total of N\$45 million in equipment in order to meet the needs and demands of the project. We have also invested in the training and skills enhancement of our employees. This will enable us to successfully meet the needs of the project and continue to supply Rössing with skilled contractors in the future and beyond."*

Johnny Johnson Doeseb,  
Chairman and MD of  
JJD Holdings Company



### Procurement

As a business entity, we generate income through our production of uranium oxide and make use of goods and services, which are all likely to affect macro economic activities. By measuring and understanding such impact, we are able to determine the value that we add to the local and regional economies and to benefit society.

Rössing Uranium is one of the major consumers of goods and services within the Namibian economy and, thus, gives rise to a significant 'multiplier effect', where our spending generates incomes and triggers further spending by others.

This leads to a long chain of value adding throughout the economy. Our widespread impact on the economy can be understood more clearly by breaking our turnover down into its components and understanding what value addition each of these has.

In 2009, we spent N\$2.7 billion on purchasing goods and services to run our operations, which includes our discretionary spend on suppliers of choice, as well as our spend on non-discretionary suppliers, such as business amenities, rail, water, power and land-lines telecommunications.

Many of these purchases were for items that are not locally available, such as sulphuric acid, manganese and iron oxide. Thus, we have to balance our need to buy goods and services from the best suppliers worldwide, while maximising our contribution to the local economy.

We adopted the guidelines of the Namibian Preferential Procurement Council to maximise our spend to the benefit of local Black Economic Empowerment (BEE) suppliers.

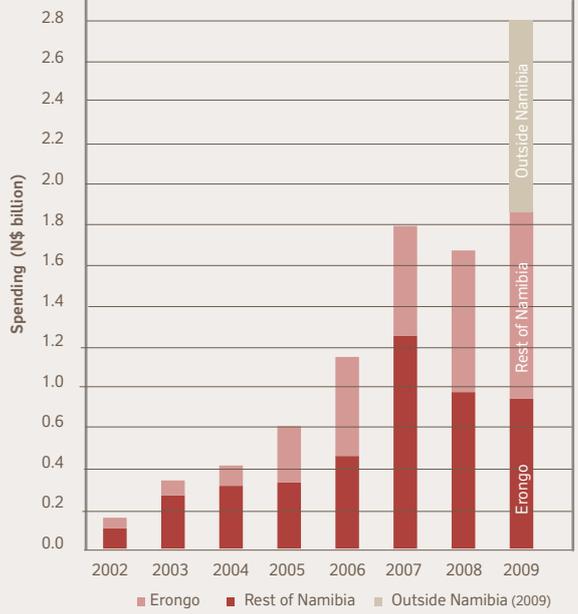
As in the previous year, most of the procurement spend was on Namibian-registered suppliers. An increasing number of suppliers are made up of smaller local businesses in the Erongo Region, where approximately N\$931 million



was spent, representing 56 per cent of Namibian spend. Swakopmund (77 per cent, N\$714 million) is a prominent player in this regard, followed by Walvis Bay (20 per cent, N\$189 million) and then Arandis (1 per cent, N\$7 million) and other towns in the region.

In this way, up-and-coming black-owned as well as established businesses benefit from Rössing. While supporting up-and-coming businesses sometimes represents a significant cost to the company, it demonstrates, at the same time, the value that we bring to both local and national economies by creating additional job opportunities and raising incomes.

Payments to external suppliers of goods and services, 2009





An employee of Namib Clothing, a clothing manufacturing company specialising in protective clothing and uniforms, adds the finishing touches to a Rio Tinto employee's personal protective equipment.

*"Namibian companies such as Rössing Uranium do a great service to the country by supporting local, emerging companies. This not only directly invests in the local economy, but also invests in our local skills. At Namib Clothing, we have taken up that spirit of investing in the local community by implementing an artisan training programme. Through this programme, we are able to transfer vital skills to young Namibians in order to supply future demand. This ensures that we are investing in the future of young Namibians, the industry, the community and the country."*



Grace Rudolph, Owner of Namib Clothing

## Employment and skills development

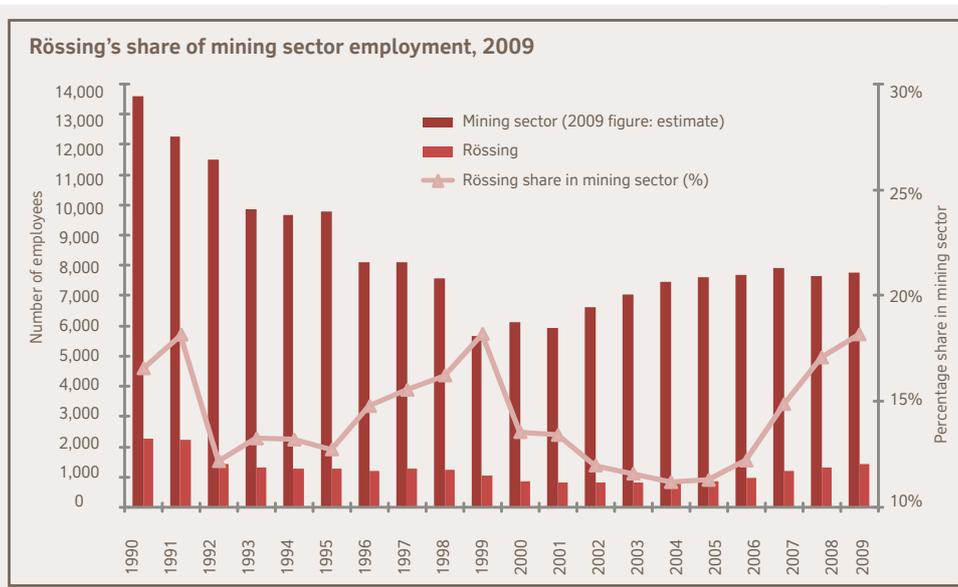
Our commitment to the welfare of our employees remains a key priority. This commitment is borne out by the above-inflation increase of 10 per cent of basic salaries for employees in Grades 1 to 12, among others. Thus, total payments benefiting employees in 2009 amounted to N\$534 million, up from N\$455 million in 2008.

Given that the majority of employees are residents from the surrounding towns of Arandis, Swakopmund and Walvis Bay, it is probable that a significant portion of these incomes was spent in the domestic economy, thus stimulating economic activities not only locally but possibly even beyond.

Amidst many challenges, Rössing remained committed to its skills development objectives. A total of 440 participants

were involved in various skills development programmes in 2009 and the total training programme costs amounted to N\$18.4 million, compared with N\$17.7 million in 2008 and less than N\$5 million in 2005. While most of these participants were employees, a large number were not. Historically, some non-employees have often found employment within Rössing, while others have found jobs elsewhere. For example, some employees' children have benefited from Rössing's educational assistance scheme, and have in turn contributed to development in the country as a whole.

Over the past few years, when we moved from potential closure to extending our mining activities into 2023, and possibly even further into the future, morale at Rössing has undergone a complete change. Plans were announced to expand production back to the nameplate capacity of 4,500 t a year by 2012, and we are now looking forward to a long and productive mine life. As a result, we aim to continue to play our role as a major contributor to the economic and social well-being of the people of the Erongo Region and to the Namibian economy.



Our objective of being a world-class, responsible company requires us to conduct our business in compliance with international leading practices on how the company should be governed. Issues such as transparency, accountability, and business ethics are key to achieving our objectives. We are proud of our reputation and need to ensure that Rössing remains held in high esteem around the world.

Corporate governance is the system by which Rössing Uranium is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the company, such as the Board of Directors, Managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on company affairs.



Rehabeam Hoveka  
Chairperson of the Rössing  
Board of Directors

By doing this, it also provides the structure through which the company's objectives are set, as well as the means of attaining those objectives and monitoring performance.

The only way the owners or shareholders who have invested in the company can interact with the business is through the Board of Directors. Indeed, it is they who have tasked the Board of Directors to manage the company.

The Board executes the mandate they received from the shareholders to ensure that Rössing Uranium is a world-class and responsible organisation by putting an executive team in place with certain targets to be achieved. However, the accountability is that of the Board of Directors to ensure that the company is run in accordance with their mandate as described in Rössing Uranium's Memorandum of Association. The Board of Directors ensures that the various stakeholder interests such as those of the owners, the employees, the vendors, the financiers, Government and the community in which the business operates are balanced and receive the required attention.

The Board of Directors is constituted as follows:

- Non-executive Chairperson: RR Hoveka
- Managing Director: MD Leech
- Executive Directors: PD Carlson (Chief Financial Officer); EA Genis (General Manager, Engineering and Projects); ZK Kasete (General Manager, Corporate Services); W van Rooyen (General Manager, Operations);

- Independent Non-executive Directors: EHT Angula; F Fredericks; MM Kapia; VB Moll
- Rio Tinto Shareholder Representatives: BH Beath; EJ Dorward-King; DCW Ritchie; AM Lloyd (Alternate to DCW Ritchie)
- Iranian Foreign Investment Company Shareholder Representatives: SN Ashrafizadeh; AV Kalantari
- Government of the Republic of Namibia's Shareholder Representative: A Ilende
- Other Shareholders' Representative: JS Louw; GP Louw (Alternate to JS Louw)
- Other persons co-opted to Board Committees to provide the required supplementary skills: CA Asubonten; C Beyer; CV Kauraisa; MKK Mhopheni
- Company Secretary: GD Labuschagne.

The Rössing Board is structured in such a manner that the majority of its Directors are non-executive, which means that they are not involved with the daily running of the business. Whilst it is the Board as a whole which is the final authority, executive and non-executive Directors are likely to contribute in different ways to its work.

Non-executive Directors have two particularly important contributions to make to the governance process as a consequence of their independence from executive responsibility. Neither is in conflict with the unitary nature of the board. The first is in reviewing the performance of the Board and of the executive. The second is in taking the lead where potential conflicts of interest in the boardroom arise.

An important aspect of effective corporate governance is the recognition that the specific interests of the executive management and the wider interests of the company may at times diverge. The independent non-executive Directors, whose interests are less directly affected, are then well-placed to help to resolve such situations.

The Board sets up various Committees to assist them in achieving their mandate. These enable the Board to make informed decisions by dividing the workload among the members, allowing them to focus more intensively on different aspects of the business and to debate the issues raised more intensively, based on their areas of expertise.

They take proposals and recommendations to the Board for approval.

The Audit Committee reviews the effectiveness of the risk management process, reviews the accuracy of external reporting, and manages the effectiveness of assurance activities. They are also the custodian of the company's standards of business conduct and ethics, and ensure compliance with all the relevant laws of the countries in which we operate.

The Sales Committee reviews the pricing policy and market condition assumptions used in the uranium marketing strategy.

The Nominations and Remuneration Committee manages the recruitment process, reviews the succession plans, reviews the effectiveness of the Board Members, and determines Board Member remuneration.

The Rössing Environmental Rehabilitation Fund Trustees review the closure plans and trust funds put aside for eventual rehabilitation of the mine site.

The Transformational Economic and Social Empowerment Framework (TESEF) Committee was established in 2009 to review and propose strategies to ensure our compliance with Government's TESEF policy statements.

The Company Secretary is legally accountable to the Government and the Board of Directors, and, thus, has the responsibility to ensure that no company statutes are contravened.

In 2009, the Board formally decided to adopt the King III report as a guiding document for our corporate governance. Training was provided to the Directors and Senior Management towards the end of 2009.

The year 2010 will see the implementation of King III principles.

In addition, a reputable Windhoek-based law firm assisted us in identifying all legislation which could have an impact on Rössing.

Responsibility for the review of these laws was then allocated to the various Managers responsible for the areas in question. They were also tasked with identifying any areas of non-compliance, and dates by which compliance could be achieved. To assist them, a position was created for a person with a strong legal background.

# Management team



**Mike Leech**  
**Managing Director**  
 Fellow of The Chartered Institute of Secretaries and Administrators  
 38 years' experience in finance  
 (24 with Rössing)



**Peter Carlson**  
**Chief Financial Officer**  
 BCom (Accounting)  
 34 years' experience in finance  
 (4 with Rössing)



**Willem van Rooyen**  
**General Manager: Operations**  
 Higher NDip (Education), Certified HSE auditor, MBA  
 34 years' experience in mining  
 (34 with Rössing)



**André Genis**  
**General Manager: Engineering and Projects**  
 BSc, B Eng (Pr Eng)  
 30 years' experience in engineering  
 (3 with Rössing)



**Zebra Kasete**  
**General Manager: Corporate Services**  
 NDip (Biochemistry), MBA  
 22 years' experience in mining  
 (19 with Rössing)



**Ebenhard Kandanga**  
**Manager: Human Resources**  
 NDip (Business Management)  
 20 years' working experience



**Chris Murangi**  
**Manager: Training and Organisational Development**  
 MSc (Human Resource Management)  
 12 years' working experience



**Jerome Mutumba**  
**Manager: Corporate Communications and External Relations**  
 SMP, HED, MA, MBA  
 20 years' working experience



**Glynis Labuschagne**  
**Manager: Compliance**  
 BCom, MBA  
 28 years' working experience



**Werner Ewald**  
**Manager: Mining Operations/ Acting Manager: Long-term Planning**  
 BSc (Electrical Engineering)  
 25 years' working experience



**Shambweka Cikwililwa**  
**Manager: Engineering Services**  
 B Eng (Mechanical)  
 30 years' working experience



**Frances Anderson**  
**Manager: Sustainable Development**  
 BSc, M Phil (Science)  
 15 years' working experience



**Paul Rooi**  
**Manager: Health, Safety and Environment**  
 Grad Dip (Management)  
 32 years' working experience



**Bernard Morwe**  
**Manager: Processing**  
 NDip (Chemistry), NHD (Chemistry), NHD (Chem Eng), BCom, SMP, MBA  
 20 years' working experience



**Mudiwa Gwisai**  
**Manager: Business Controls**  
 BCom (Hons)  
 10 years' working experience



**Dave Garrard**  
**Manager: Development Projects**  
 BSc (Hons) (Geology/Geochemistry), Grad Dip (Applied Finance), MBA  
 18 years' working experience



**Noël Mouton**  
**Manager: Business Administration**  
 Tech Dip (Com), HED, Grad Cert (Marketing & Sales), B Acc, MBA  
 25 years' working experience



**Stoffel Swartz**  
**Manager: Business Improvement**  
 Nat Tech Dip (Telecommunication)  
 27 years' working experience



**Graham Crook**  
**Manager: Exploration**  
 BSc (Hons)  
 14 years' working experience



**Brian Gerrell**  
**Manager: Technical Support**  
 Higher Nat Dip (Extraction Metallurgy)  
 17 years' working experience



**Dewald Meyer**  
**Manager: Technical Innovation**  
 B Tech  
 39 years' working experience



**Carlo van Heerden**  
**Manager: Power Efficiency**  
 B Eng (Electrical & Electronic), NDip (Power Engineering), Certified Energy Manager (CEM) (SAAEE) (Pr Eng)  
 10 years' working experience



**Du Preez Calitz**  
**Manager: Projects**  
 B Eng (Mechanical) (Pr Eng)  
 17 years' working experience



**Edmund Roberts**  
**Manager: Procurement**  
 Certificate in Industrial Relations  
 28 years' working experience



**Jomo Appolus**  
**Manager: Innovation**  
 BSc (Hons), MSc (Biochemical Engineering)  
 20 years' working experience

## Assurance

Our vision is to undertake our business with integrity, honesty and fairness at all times, building from a foundation of compliance with relevant laws and regulations and international standards, as well as being in line with various Rio Tinto and Rössing guidelines on leading business practices, such as *The way we work*.

Various external assurance and verification processes are conducted throughout the year on much of our work. For example, our financial statements are audited by the external auditors, and environmental figures are audited annually by an external environmental auditing company. Auditing companies, Government bodies and other institutions that checked the company's practices in 2009, were as follows:

- PricewaterhouseCoopers (external audits)
- Ernst & Young (internal audits)
- Rio Tinto Corporate Assurance (internal audits)
- Det Norske Veritas (ISO 14001:2004 certification)
- International Atomic Energy Agency (IAEA)
- Metago Environmental Engineers; Aquaterra Consulting; and Steffen, Robertson & Kirsten (SRK) (annual review of tailings and associated environmental aspects)
- Environmental Resources Management Ltd (Rio Tinto operational and business unit assessment)
- Ministry of Labour and Social Welfare – Affirmative Action (Employment) Act, 1998 (No. 29 of 1998) (compliance verification in respect of labour-related Acts)
- Ministry of Health and Social Services (compliance verification in respect of health and related Acts)
- Ministry of Agriculture, Water and Forestry (compliance verification in respect of effluent management and water-related Acts)
- Ministry of Mines and Energy (compliance verification in respect of mining operation-related Acts), and
- Ministry of Finance (compliance verification in respect of income tax and financial Acts).

## List of references

|  |  |
|--|--|
| <i>The way we work</i>                           | Our statement of business practice   |
| <i>The way we buy</i>                            | Our statement of procurement practice  |
| <i>Human rights guidance</i>                     | Guidance for managers on implementing the human rights policy in <i>The way we work</i>  |
| <i>Compliance guidance</i>                       | Programme guidance and guidelines for Group managers on implementing Group policies, including those contained in <i>The way we work</i> |
| <i>Business integrity guidance</i>               | Guidance to Group managers implementing the policies on business integrity and political involvement set out in <i>The way we work</i>   |
| <i>Corporate governance guidance</i>             | Guidance to Group managers on Rio Tinto's corporate governance policies and procedures   |
| <i>Antitrust policy and guidance</i>             |  |
| <i>Our key relationships</i>                     |  |
| <i>Sustainable development</i>                   |  |
| <i>Corporate standards – Safety</i>              |  |
| <i>Corporate standards – Occupational health</i> |  |
| <i>Corporate standards – Environment</i>         |  |
| <i>Corporate standards – Communities</i>         |  |
| <i>Corporate standards – Closure</i>             |  |

These reference documents are all available electronically from the Rio Tinto website – [www.riotinto.com](http://www.riotinto.com) – or in hard copy by writing to Rio Tinto, 2 Eastbourne Terrace, London, W2 6LG, United Kingdom.

## Health, Safety and Environment (HSE) Policy

Excellence in HSE management is one of the foundations of Rössing's vision to be a safe, long-term supplier of  $U_3O_8$  to the nuclear power industry around the world. This is in line with our commitment to corporate citizenship, social responsibility and sustainability.

To accomplish this, Rössing will –

- recognise that nothing is more important than the protection of the health and safety of our stakeholders, specifically our employees, contractors, host communities, clients and shareholders
- commit to operating our business with respect and care for both the local and global environment in order to prevent and mitigate residual pollution
- be in full compliance with all applicable legislation, standards and requirements
- seek continual improvement in HSE performance and adopt leading practice where applicable and feasible
- provide adequate training and resources to employees, contractors and visitors
- identify and assess hazards arising from our activities and manage associated risks to the lowest practical level
- enhance biodiversity protection by assessing and considering ecological values and land-use aspects in investment, operational and closure activities
- continue in our efforts to raise awareness of HSE issues in our host communities

- regularly review our performance and publicly report our progress, and

- communicate our commitment to this HSE Policy to all our stakeholders and ensure that the Policy is readily available to all our stakeholders.

In implementing this Policy we will engage in constructive dialogue with our employees, contractors, host communities and all other stakeholders in sharing relevant information and responsibilities for meeting our requirements.

This Policy is complemented by the HSE Strategy, which is also readily available to all our stakeholders.



Managing Director  
Rössing Uranium Limited

## Rössing's production of uranium oxide and the nuclear fuel cycle

Uranium is a relatively common element that is found in the earth all over the world, mined in many countries and processed into yellow cake or uranium oxide ( $U_3O_8$ ). It must be processed before it can be used as a fuel for a nuclear reactor where electricity is generated to produce heat and steam and drive a turbine connected to a generator.

### Rössing Uranium's operations



**1. Drilling and blasting**  
Through drilling, blasting, loading and haulage, the uranium ore at Rössing is mined. Due to the erratic distribution of minerals in the ground, waste and ore are often mixed. Radiometric scanners measure the radioactivity level of each truckload, determining whether the material is sent to the primary crushers or to the low-grade stockpile. Waste is transported to a separate storage area.



**2. Crushing**  
Ore is delivered to the primary crushers by haul truck and then by conveyor to the coarse ore stockpile. It passes through a further series of crushers and screens until the particles are smaller than 19 mm. After weighing, the fine ore is stored on another stockpile.



**3. Grinding**  
Wet grinding of the crushed ore by means of steel rods reduces it further to slurry with the consistency of mud. The four rod mills, which are 4.3 m in diameter, are utilised as required by production levels and operate in parallel.



**4. Leaching**  
A combined leaching and oxidation process takes place in large mechanically agitated tanks. The uranium content of the pulped ore is oxidised by ferric sulphate and dissolved in a sulphuric acid solution.



**5. Slime separation**  
The product of leaching is a pulp containing suspended sand and slime. Cyclones separate these components and, after washing in Rotoscoops to remove traces of uranium-bearing solution, the sand is transported via a sand conveyor to a tailings disposal area.



**6. Thickening**  
Counter-current decantation thickeners wash the slimes from previous stages. A clear uranium-bearing solution ('pregnant' solution) overflows from the thickeners, while the washed slime is mixed with the sands and pumped to the tailings area.



**7. Continuous ion exchange (CIX)**  
The clear pregnant solution now comes into contact with beads of specially formulated resin. Uranium ions are adsorbed onto the resin and are preferentially extracted from the solution. Beads are removed periodically to elution columns where an acid wash removes the uranium from the beads. The resulting eluate is a purified and more concentrated uranium solution.



**8. Solvent extraction (SX)**  
The acidic eluate from the ion exchange plant is mixed with an organic solvent which takes up the uranium-bearing component. In a second stage, the organic solution is mixed with a neutral aqueous ammonium sulphate solution which takes up the uranium-rich 'OK liquor'. The acidic 'barren aqueous' solution is returned to the elution columns.



**9. Precipitation**  
The addition of gaseous ammonia to the 'OK liquor' raises the solution pH, resulting in precipitation of ammonium diuranate, which is then thickened to a yellow slurry.



**10. Filtration**  
The ammonium diuranate is recovered on rotating drum filters as yellow paste - known as 'yellow cake'. (Photo: www.aveva.com)



**11. Drying and roasting**  
Final roasting drives off the ammonia, leaving uranium oxide. The product is then packed into metal drums. Neither ammonium diuranate nor uranium oxide are explosive substances.



**12. Loading and despatch**  
The drums of uranium oxide are loaded and exported to overseas converters for further processing. At full capacity, the plant can produce 4,000 t of uranium oxide each year. **This step completes the Rössing production process.**

### Our customers' operations



**13. Conversion**  
The uranium oxide is converted to uranium hexafluoride crystals. Conversion plants operate commercially in Canada, China, France, the UK, and the USA. (Photo: www.aveva.com)



**14. Enrichment**  
This step increases the concentration of the isotope  $U^{235}$  from its naturally occurring level of 0.7% to higher levels required for nuclear reactors - about 3%. (Photo: www.aveva.com)



**15. Fabrication**  
Enriched uranium is converted into uranium dioxide, formed into solid cylindrical pellets, sealed in metal fuel rods, and bundled into fuel assemblies. (Photo: www.aveva.com)



**16. Power generation**  
Fuel assemblies are loaded into nuclear reactors where the  $U^{235}$  fissions, producing heat and steam used to generate electricity. (Photo: www.aveva.com)

For any feedback, comments, concerns or suggestions about this report please contact us.

### **Rössing Uranium Limited**

Registered in Namibia  
No. 70/1591

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