

# SECURING OUR FUTURE

SUSTAINABILITY DEVELOPMENT  
REPORT 2014-15



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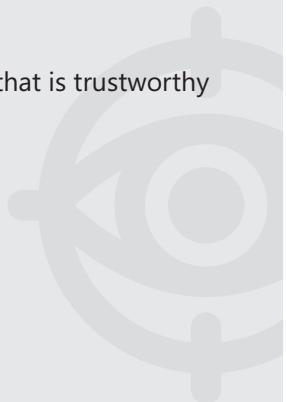
## VISION

Black Mountain Mine strives to be world-class, driven by a professional team that is trustworthy and passionate about sustainable mining for the benefit of all stakeholders.



### In practice, this vision means:

- Creating a performance and sustainability culture amongst our people
- De-bottlenecking the production processes
- Cost Leadership to get into Q1/2 of the C1 Curve
- Optimising the life of the mine reserve and resources
- Ensuring highest governance of the business
- Improving public image both regionally and nationally



## MISSION



- To demonstrate care for our people
- To continually strive for performance improvement
- To play our part in building the future of South Africa



## VALUES



- Trust
- Entrepreneurship
- Innovation
- Excellence
- Integrity
- Respect



# REPORT CONTEXT

We are glad to present to you our 2nd Annual Sustainability Report. This report captures our performance for the year FY 2014-15. Our sustainability performance entails accomplishments and financials associated with our business performance, endeavours to meet commitments for the environment, and efforts to keep promises made to society. The report is an amalgamation of our strategic aims and objectives, mapped with relevant technical and quantitative information.

## Audience

We hope all our stakeholders will find answers to their queries and concerns about Black Mountain Mining (Pty) Ltd (BMM) in this report. This report is intended to be useful to our employees, local communities, the Government, Media and those with business interests in our company (e.g., shareholders, business partners or industry associations).

## Scope and Boundary

The report covers all operations of our company BMM. Located in the Northern Cape Province of South Africa, BMM comprises of: the 30-year-old operation – the Black Mountain Mine (with ore bodies in Broken Hill Deep and Swartberg); and the Gamsberg project that was approved during FY 2014-15.

## Report Content

This report discloses sustainability data from 1st April 2014 to 31st March 2015. While last year's Sustainability Report FY 2013-14 – "Extractive to Additive. The Story We Mine" – was compiled as per GRI G3.1 guidelines, this year's report has been developed as per the fourth generation guidelines of GRI "in accordance" with comprehensive criteria including the technical protocols of the Mining and Metals Sector Supplement. We have discussed the Material Aspects identified and our attempts to manage these aspects effectively. We have also reported the progress on the long-term goals and targets that were set in the last reporting period. For the material aspects, we have attempted to project our targets for the coming year as well.

The data has been reviewed for completeness and accuracy at the operations level. Unless otherwise stated, we have reported the data using the metric system and the currency has been reported as USD. The currency exchange rate used was 1 USD = 12.18 South African Rand. There are no specific restatements of the information and no significant changes in terms of acquisition and physical boundaries from the previous reporting period. The GRI Index on pages 62-73 provides a list of GRI indicators and Disclosures (as per GRI G4 guidelines) and their locations within this report.

## For Further Details

Please visit <http://www.vedanta-zincinternational.com/operations/black-mountain/>

or

email us at [pventer@vedantaresources.co.za](mailto:pventer@vedantaresources.co.za) or [lahuja@vedantaresources.co.za](mailto:lahuja@vedantaresources.co.za)

# MESSAGE FROM THE CEO



I was appointed as CEO designate in November 2014 and as of February 2015 formally assumed full responsibility in the role. So though I did not witness most of the reporting year's operations first hand, I do have the advantage of a fresh perspective. Having spent my entire career in the mining industry, one of the first significant differentiator of Vedanta Group philosophy is an emphasis on Sustainability and the Environment. What impressed me was the specific focus on 'Preserve, Retain, and Replace'. In addition to that there are a few observations on BMM, in particular, which I would like to share with you, with regard to the key highlights of the reporting year.

## Safety - Zero Harm

For me, Safety is our number one priority and the most critical aspect at all our operations. Each business operation has a unique set of risk profiles – as we go deeper and deal with aging infrastructure – which brings about challenges that have not been encountered in the past and it is therefore critical to have a safety radar that is tuned into every possible incident. We remain focused on implementing the 'Critical Control Standards' to eliminate the possibility of any accident or fatality. Each and every one of us is responsible to create a safe work environment for ourselves and those around us. We must not let up on achieving our goal of zero-harm to our people – because we want you to return home safely to your families at the end of each day. We will therefore continue to strive towards this goal – focusing efforts on eliminating fatalities and injuries. We need to continue being our brother's (and sister's) keeper.

## Environment

At BMM, we believe in managing biodiversity as an asset. Located in the heart of ecologically sensitive 'Bushmanland Inselberg Region', we are more careful about conducting business without compromising the needs of the natural biodiversity. We have ensured that 90% of BMM's property is maintained as a conservation area. In line with the Vedanta Sustainability Framework, commitment to "No net loss" on biodiversity features was undertaken and the entire design of the Gamsberg Project was based on this philosophy. At the onset of the Gamsberg Project, that was approved during the reporting period, a Biodiversity Offset Agreement was signed with the Department of Environment and Nature Conservation given the biodiversity sensitivity of the region. Further, as a continuous practice our priorities lie in managing our environmental footprint by keeping a close guard on water, energy, air emissions, tailings and fugitive emissions.

## New Projects

The Gamsberg Project was approved in November 2014. Our approach to sustainability for the project has been to go beyond compliance. We are going in with a stakeholder inclusive approach right from the start where every concern is addressed and every precaution and measure is implemented to ensure the basic tenets of Preserve, Retain and Replace. We are leaving no stone unturned to try and conserve the sensitive habitat of endemic succulents to the best of our ability. For us to deliver best in practice biodiversity management projects we have partnered with global NGO, International Union for the Conservation of Nature. The project has the potential to create approximately 500 new jobs and further opportunities for the associated supply chain & SMMEs. In the same context, IUCN's role has also been extended to guide us for livelihood enhancement in the Namaqua region.

## **Regional Economic Development**

Our success as a business has a direct impact on 'Securing the Future' of the regions where our operations are located. In line with our vision to create a regional Zinc Complex, we continue our focus on the collaboration between two of our Zinc assets – Gamsberg (South Africa) and Skorpion Zinc (Namibia). While Gamsberg would ensure production of Zinc ores from its huge reserves, Skorpion Zinc would further process these ores in its world class refinery. Both, the companies would together offer the world refined metal of the highest grade of purity. I am confident, that the regional economic development will benefit from the success of this venture.

Lastly, I would like to add, that success of our business operations will lead to enhanced opportunities for 'Securing the Future' for all our Stakeholders and ultimately strengthen our Sustainability frontiers.

**Deshnee Naidoo**  
**Chief Executive Officer, Zinc International**



# MESSAGE FROM THE GM



Our Sustainability Report for FY 2014-15 attempts to bring you the whole story, inclusive of the hits and misses. The year has been challenging from a production perspective due to the drop in the grades of ore mined. The plan is to increase the amount of ore mined to counter the drop in reserve grades and fundamental shifts in the way we operate. A lot of the ground work has been done during the year like making changes to the mining method to do more long hole mining, increasing the amount of backfill placed and improving our productivity. This is setting us up for improved performance next year. The Gamsberg project was finally launched in early 2015 and we had a fatality-free year. Our focus for sustainable growth during FY 2014-15 continued with some areas getting prioritised further to help us 'Secure our Future'.

## Safety and Health

This continues to be our number one priority and main area of focus. We deployed top safety systems with extensive safety plans to prevent Fall of Ground, which is our most significant safety risk. We undertook several training to help us manage ground conditions optimally using rock engineering systems. We have also undertaken live modelling of rock stresses. External consultants were brought in for peer reviews, in order to identify further risks that our familiarity with existing processes may deter us from perceiving. Apart from that, Vedanta Critical Controls were implemented throughout the mines.

Whilst we had no fatality, rather than considering it an achievement, we think that is the fundamental aspect of our business responsibility. Zero fatality doesn't guarantee fool-proof systems either. Safety is an evolving and challenging concept, and as we mine further, we encounter new challenges. We need to be equipped to deal with these challenges appropriately and most important we must ensure that our employees' are continuously motivated to follow our safety processes. To enable our employees to do this, we train them using psychological and behavioural-based safety programmes. To ensure that the message of safety reaches every employee, we at BMM have initiated Wednesdays as a Safety Day. On these safety days Management conducts VFL (Visible Felt Leadership), Site inspections, Safety Talks and there are also sessions on incident reflections where previous incidents are reviewed and discussed. This initiative commenced following the no production day held on 27 May 2015 across all sites at Zinc International following the tragic death of our colleague, Lukas Shikongo, who was a rigger at Skorpion Zinc.

To reduce the risk of lead exposure, we introduced clean and dirty change houses, as well as supplements and vitamins proactively, which help curtail the harmful effects of lead. In addition to safety, proactive health is another aspect that we take seriously at BMM. In the reporting year, we undertook a number of initiatives for 'fatigue management'. We implemented change in shifts, and encouraged our employees to get fitter through exercise, diet, sleep and weight management. We organised special instructors for each of these to ensure overall health and well-being for our employees.

## Environment and Biodiversity

Managing our environmental footprint is imperative if we want to 'Secure our Future'. Our emphasis continued on reducing our resource consumption (water, energy and raw materials) and reducing emissions and effluents (carbon, air, water and waste). For farmers in our community, who depend on groundwater, we have intensified our monitoring efforts to keep a close guard on contamination of water sources. Currently, we have 32 boreholes strategically placed in the vicinity of contamination plumes, which are sampled to detect pollution of water at early stages.

We continue to target zero discharge. For this, we recycle the treated effluent in our Golf Course and reuse tailings and waste rocks generated in mining operations for backfill operations. Biodiversity being our prime focus, we have signed a 'Biodiversity Offset' agreement with the Department of Environment and Nature Conversation (DENC) for our Gamsberg project. We plan to translocate the native species from the Gamsberg hilltop and will be maintaining them in our nursery until we replace them back on the hilltop post closure of the Gamsberg operations.

## Community

To secure our future, we engage in creating value for the community that hosts us. Local economic development of the Khai-Ma region remains our constant endeavour. However, due to the delay in approval of the Social Labour Plan, we were not able to make significant progress on the same. We continue to make progress on our existing cataract surgeries programme. We also undertook a successful trial of our olive plantation project.

## Future Projects

The Gamsberg project will support BMM's business for over 30 years. Our partner International Union for Conservation of Nature (IUCN) will work on developing livelihood options for the local community as well. The construction and development of the Gamsberg project will create further job opportunities for the Khai Ma region. BMM plans to process a portion of the concentrate produced at Gamsberg at the Skorpion Zinc Refinery, in Namibia. Skorpion Zinc is part of the Zinc International portfolio. The integration of the Gamsberg and Skorpion Refinery Conversion Projects will extend the life of both operations and promote economic development across the regions within which we operate.

Our pursuit of economic development and business conduct is underpinned with safety, environmental and biodiversity concerns. We endeavour to seek our every opportunity to ensure that we 'Secure the Future' for all our stakeholders.

**Andre Trytsman**  
**General Manager, Black Mountain Mining (Pty) Ltd.**

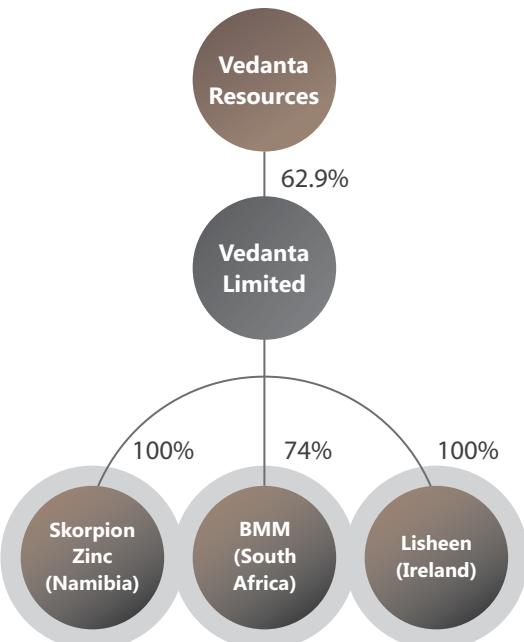


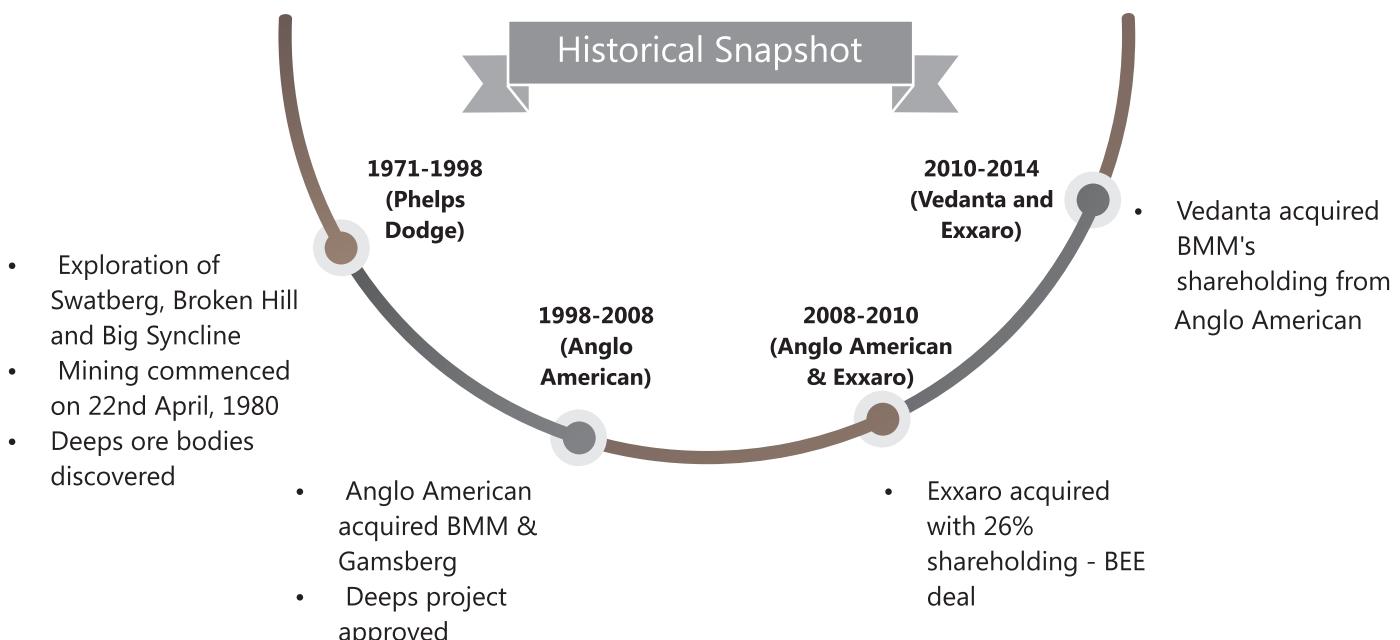
# BLACK MOUNTAIN MINING – A PREVIEW

BMM, located near the town of Aggeneys in the Northern Cape Province of South Africa, has a reputation for being a stable employer in the Bushmanland and Namakwa region for more than three decades now. The company comprises of – the Deeps Mine and the Gamsberg project (situated approximately 20 km from the town of Aggeneys). While BMM has been in operation since 1980, the Gamsberg project was approved in November this year. With the opening of this new project, BMM will take the opportunity to develop the nearby areas and help promote sustainable growth opportunities in the region.

BMM forms part of the Vedanta Zinc International portfolio. Vedanta Zinc International (ZI) is a grouping of the zinc assets, in southern Africa and Ireland, of Vedanta Limited (a listed subsidiary of Vedanta Resources plc). The ZI business includes Black Mountain Mining (South Africa), the Lisheen Mine (Ireland) and Skorpion Zinc (Namibia) and has its corporate headquarters in Johannesburg, South Africa.

BMM, with an expanse of 39,403 ha, is involved in exploration, development, treatment, production and sale of concentrates of zinc, lead, copper and silver. The concentrates are processed from a polymetallic ore body from our underground mine reserves at both Deeps and Swartberg. The existing underground operation has ore hoisting capacity of 1.7 Mtpa. The mine life of the Deeps Mine extends to FY 2020/21. The future of BMM is the Gamsberg Project, which is one of the world's largest undeveloped zinc deposits.





## Production Performance

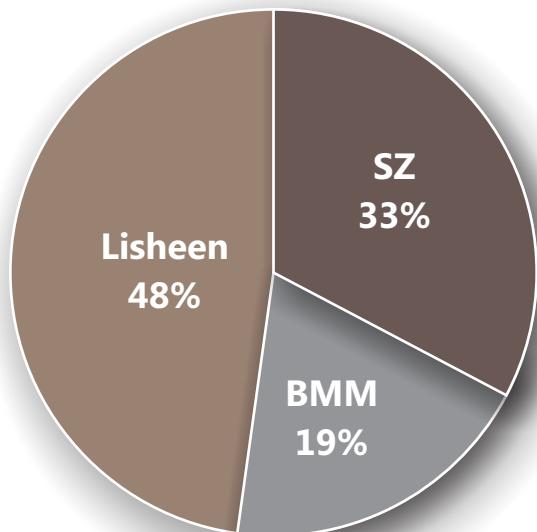
During FY 2014-15, our production was 59 kt of metal in concentrate, which contributed 19% to the total ZI production volume. Our production performance was 12% lower compared to FY 2013-14. This was mainly due to lower ore grades and our inability to increase the mining capacity proportionally. The groundwork has however been completed to increase the mined tonnes significantly next year.

## Product Quality

We are guided by our exclusive Product Stewardship Policy to maintain the quality of our product, which strengthens our relationship throughout the supply chain. With minimal marketing communications and focused engagement with specific customers, we are able to sustain our position globally. We maintain our standards through periodical assessments of our products and services from quality, health and safety aspects. We conform to the globally harmonised system contained in the Material Safety Data Sheet (MSDS). We are also registered and comply with the Regulation (EC) °1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Whilst we do not conduct customer feedback surveys, we engage with our customers on a regular basis and take their inputs on our products and services. No complaints were received from customers on customer privacy and we were not subjected to any kind of legal actions for anti-competitive behaviour, anti-trust or monopoly practices during the reporting year. There were no instances of non-compliance with laws related to the use of the company's products and services, marketing communications, environmental laws and regulations, and no monetary or any other penalties were levied upon us during the reporting period.

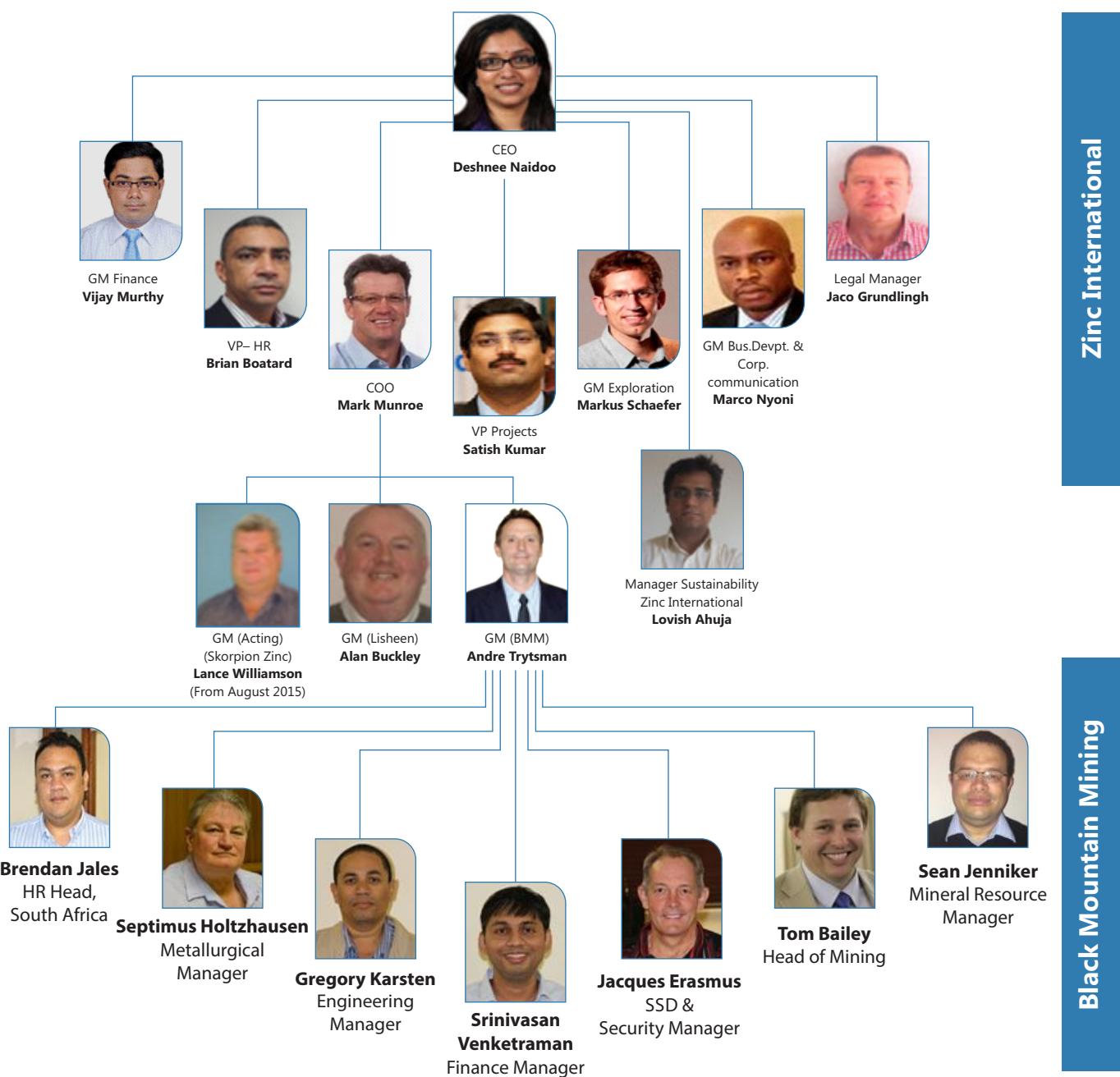
## Zinc Production Statistics



# CORPORATE GOVERNANCE

## Governance Structure

Our governance structure is in accordance with the Vedanta Corporate Governance systems. The GM who heads the company reports to the COO – Zinc International. The GM is ably supported by an EXCO team that includes the Senior Executive Committee members of all the functions, such as Finance, Human Resources (HR), Metallurgy, Mining, Engineering, Mineral Resources and SSD & Security. The organisational structure and governance framework at ZI Group level, headed by the CEO, ensures accountability to operational management, within the purview of business strategy, policy guidelines and standards laid down by the Board of Directors (Vedanta Resources Plc).



## Committees

The details of various Board-level committees constituted by our parent company, Vedanta Limited and its holding company Vedanta Resources plc, for various aspects of governance are listed in the corporate governance section of its Annual Report for the year 2014-15.



### Sustainability Committee

The Sustainability Committee at ZI steers the sustainability agenda at BMM. It ensures that there are appropriate mechanisms in place to meet the sustainability goals. By way of extensive reviews and meetings on a quarterly basis, the committee evaluates performance as against the set objectives and targets. Changes in policies and procedures are recommended based on the performance.

### Engagements at Site

- Quarterly meetings chaired by Sustainability Head (GM)
- Site evaluates performance as determined against set objectives and targets and recommends changes to policies and procedures.

### Engagements at Corporate

- Monthly meetings at ZI and Vedanta Corporate chaired by Sustainability Head (COO) where performance against set targets is discussed and safety learnings are shared. The same is used as a platform to roll out uniform standards for sustained application in the Vedanta.

### Remuneration Committee

For all ZI operations, remuneration is linked to sustainability performance. The Remuneration Committee of the Board of Directors reviews the performance of each operation on the dimensions of safety, business, financial and other sustainable development parameters. This is used as the basis for setting the annual performance payments and incentives for the Senior Management. The variable performance system for executives is linked to the company and unit's performance on profits, safety and other key drivers. Safety performance is also a factor applied to individual performance for the evaluation and reward of final incentives.

## Code of Business Conduct

We uphold the highest standards of business integrity, ethical values and professionalism in all our activities. We follow a statutory document – the Code of Business Conduct and Ethics of our parent, Vedanta Resources plc. This document is based on the values that we embark on and it is a unified protocol for all aspects of business performance, encompassing legal compliances, aspects of health, safety and environment, whistle blower policy, conflicts of interest, insider trading law compliance, corporate opportunities, competition and fair dealing, gifts and entertainment, protection and use of company assets, information management, external communications and corporate social responsibility.

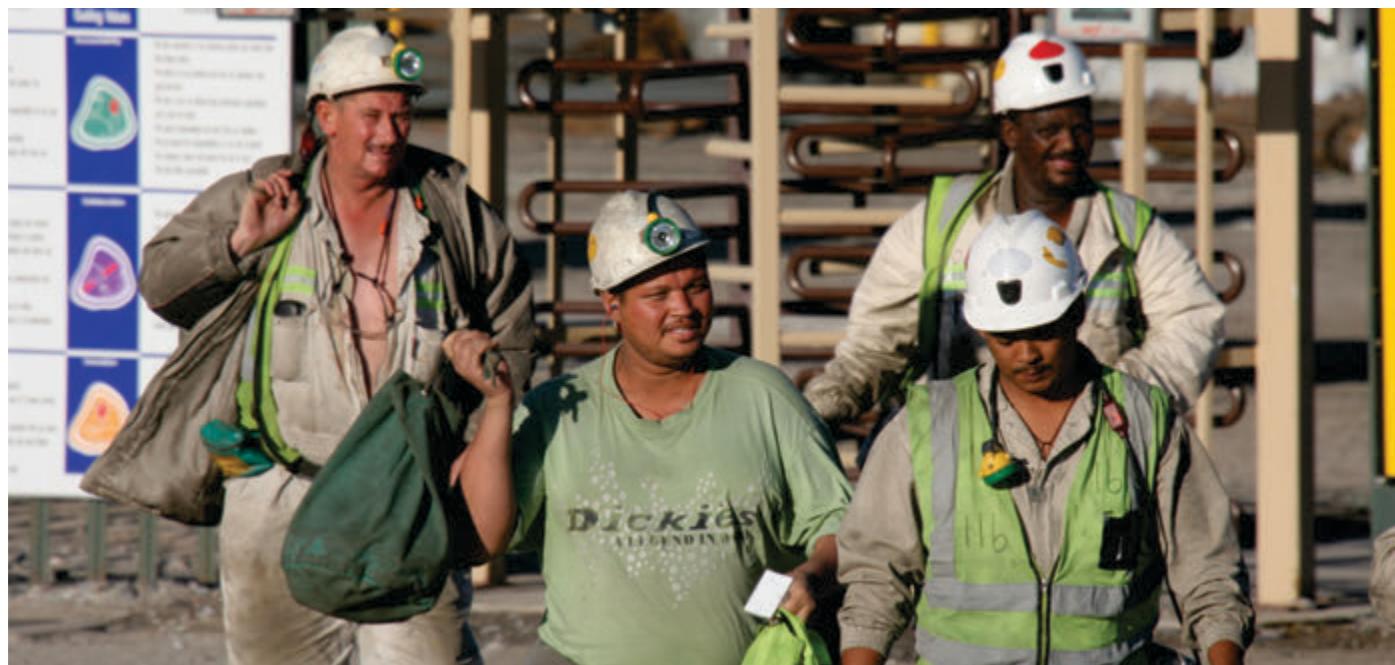
We ensure that all the employees acknowledge and sign to the company's Code of Conduct as soon as they become a part of the BMM family. This apart, employees get several opportunities to interact with the Senior Management, which ensures that they have understood the modus operandi within the organisation. We also have an exclusive Supplier Code of Conduct that defines our relationship and conduct with our business partners – suppliers, vendors, agents, contractors, joint venture partners and third parties.

## Bribery and Corruption

Indulgence in bribery and corruption is considered to be an offence at BMM. We follow Vedanta group's policies based on the UK Bribery Act of 2010, to discourage such practices amongst our employees and partners in business. All executives of our company are briefed on the company guidelines against bribery and corruption, and all executives are signatories to these guidelines. Our Code of Business Conduct and Ethics has elements of anti-corruption and anti-fraud. We provide specific training to our employees on anti-corruption policies and procedures. We assess all our business units for risks related to corruption, and have an internal auditor and SOX auditor onsite who are vigilant about such risks. We have a confidential hotline process in place for reporting incidents of corruption. During the reporting period, no incidents of corruption have been reported.

## Human Rights

Protecting and respecting human rights is central to our everyday business operations and integral to the sustainability of our organisation. Our Social Policy and Security Policy guide us in safeguarding the human rights of our people.



Human rights training is an integral part of the Vedanta Sustainability Framework implementation, and this is a part of the induction training programme. During FY 2014-15, 66% of our employees received training on human rights and the total training hours was 61,861. We also train our security personnel on human rights. A total of 62 (2 BMM employees and 60 third party employees) security personnel, accounting for 100% of employees, were trained on human rights during the reporting period.

All our significant investment agreements and suppliers are screened for human rights criteria. Our suppliers are supposed to abide by our Labour Relations Act, which prohibits indulgence in child labour, forced or compulsory labour. Through periodic checks, we do ensure that they do not employ or engage any forced labour or child labour. Although we respect the dignity of every individual and have formal procedures in place, we have not vested our efforts in assessing our operations for human rights reviews/impacts.

During the reporting period, there have been no reported cases of human rights grievances in our operations. As there is no indigenous community living in the vicinity of our mines, there is no scope for violation of the human rights of the indigenous people.

## Whistle Blower Mechanism

To formalise our commitment to running an ethical business, we have enabled our employees and other stakeholders to have their grievances reach the Senior Management.

**Whistle Blower Policy:** We provide our employees with a readily accessible procedure for addressing any problems or concerns they may have at work. By way of an exclusive Whistle Blowing and Fraud Hotline policy, we try and ensure the fair, expedient and equitable treatment of all employees, and address the problems they face. We have set up a confidential fraud/whistle blowing hotline system that operates 24x7. The stakeholders can communicate their grievances/concerns through calls, e-mails or fax to the Whistle Blowers. The identity of the Whistle Blowers is kept confidential and their contact details are displayed on notice boards from time to time. They are responsible for escalating the matter to the GM or the CEO and the cases are resolved either by internal investigations, through external auditors, or by subjecting the matter to an independent investigation. During FY 2014-15, a total of 10 grievances were recorded, of which four were related to labour criteria. We are glad that we have resolved all the filed grievance cases.



# OUR SUSTAINABILITY STRATEGY

To deliver excellence in all aspects of our operations, our strategy is focused on maintaining high standards of governance, safety and social responsibility. We believe these operational drivers would enable us to sustain longer and also support us during adverse scenarios. The Vedanta Sustainable Development Model is our roadmap for ensuring the sustainable future of our operations, meeting our growth targets, and creating long-term value for all our stakeholders. The Framework comprises a full set of policies, technical and management standards, and supporting guidance notes aligned to international standards like IFC, ICMM and OECD guidelines.

## Vedanta Sustainability Development Framework

- **Responsible Stewardship**

It is our responsibility to respect natural and human resources, at all stages of a project.

- **Building Strong Relationships**

Connecting with stakeholders helps us build a business fit for the future.

- **Adding and Sharing Value**

We have a purpose beyond profit and make an important contribution to socio-economic development.

- **Strategic Communications**

We are committed to complete transparency and emphasise our principles of community dialogue and mutual respect.



## Implementation of Sustainability Strategy

Our sustainability objectives are in line with the Vedanta Sustainability Framework requirements and we monitor performance at regular intervals. In keeping with the goal of our parent company, we disseminate the Framework to all our employees and embed it in every decision we take, ensuring what we do is safe, ethical and transparent. Our approach to achieve sustainability targets is implemented in consultation with our group Sustainability Committee. The Committee oversees and reviews the sustainability performance of the company through the EXCOs. We endeavour to update our approach in context to changing market trends, the local context and stakeholder feedback. We use the Vedanta Sustainability Assurance Programme (VSAP) as our internal sustainability risk management tool to ensure Framework compliance. Results and action plans are reviewed by our Sustainability Committees and EXCOs on a regular basis.

## Stakeholder Engagement

We believe that stakeholders are key to our business success. Therefore, we constantly strive to engage with them effectively and understand their needs, to make a positive impact on both our business and their needs. We are planning to upgrade our systems for effective interaction with our stakeholders, and will soon introduce a Stakeholder Engagement Tool – an online model that would keep a record of all stakeholders, continuously update progress and manage stakeholder interactions. The details of our stakeholders and modes of engagement are as follows:

Category of Stakeholder	Description of Stakeholder	Stakeholder	Modes of Engagements
Primary	Stakeholders that can make decisions that will impact Gamsberg project and BMM performance	<input type="checkbox"/> Unions <input type="checkbox"/> Staff <input type="checkbox"/> Northern Cape Govt. <input type="checkbox"/> Khai-Ma Municipality <input type="checkbox"/> Nama Khoi Municipality	<input type="checkbox"/> Minimum: Quarterly engagement <input type="checkbox"/> Preferred: Bi-monthly <input type="checkbox"/> Meeting notes to be circulated & archived
Secondary	Stakeholders that can influence BMM's business and/or whose support will be critical to the overall project & business proposition	<input type="checkbox"/> Exxaro BMM Directors <input type="checkbox"/> DMR (Regional) <input type="checkbox"/> DENC (Regional) <input type="checkbox"/> Local Chambers of Commerce	<input type="checkbox"/> Minimum: semi-annual engagement <input type="checkbox"/> Preferred: Quarterly <input type="checkbox"/> Meeting notes to be circulated to internal stakeholders to whom the subject matter has relevance & archived
Others (Notification required - direct/indirect)	Stakeholders that need appropriate and timely notice of developments that may impact/influence them. Notification can also be indirect, i.e. through other stakeholders	<input type="checkbox"/> Chamber of Mines <input type="checkbox"/> Northern Cape Mine Managers Assoc. <input type="checkbox"/> Local Residents <input type="checkbox"/> Unions (other)	<input type="checkbox"/> Generally engaged as and when required <input type="checkbox"/> Quarterly review required, i.e. may need to 'make up' an engagement for some stakeholders <input type="checkbox"/> Meeting notes to be archived

## Materiality Determination

We arrived at our materiality matrix for FY 2014-15 by collating the perspectives of the BMM management team and the stakeholders on material issues. The materiality process began with identification of sustainability topics that were of relevance, followed by prioritisation of these topics on a high to low scale, and verification of our analysis with the performance indices for 2014-15. Stakeholder priorities were included by considering the outcomes of stakeholder engagement meetings throughout the year and also by interaction with an external consultant by way of employee-focused group discussions, interviews with functional teams and personal interviews. The exercise resulted in identification of five stakeholder groups: Community, Farmers, Government, Trade Unions & Employees, and Contractors. The Management perspective emerged out of a materiality workshop conducted by an external consultant through a rigorous materiality exercise focusing on prioritisation of material issues to be managed, measured and disclosed through our sustainability reporting process.

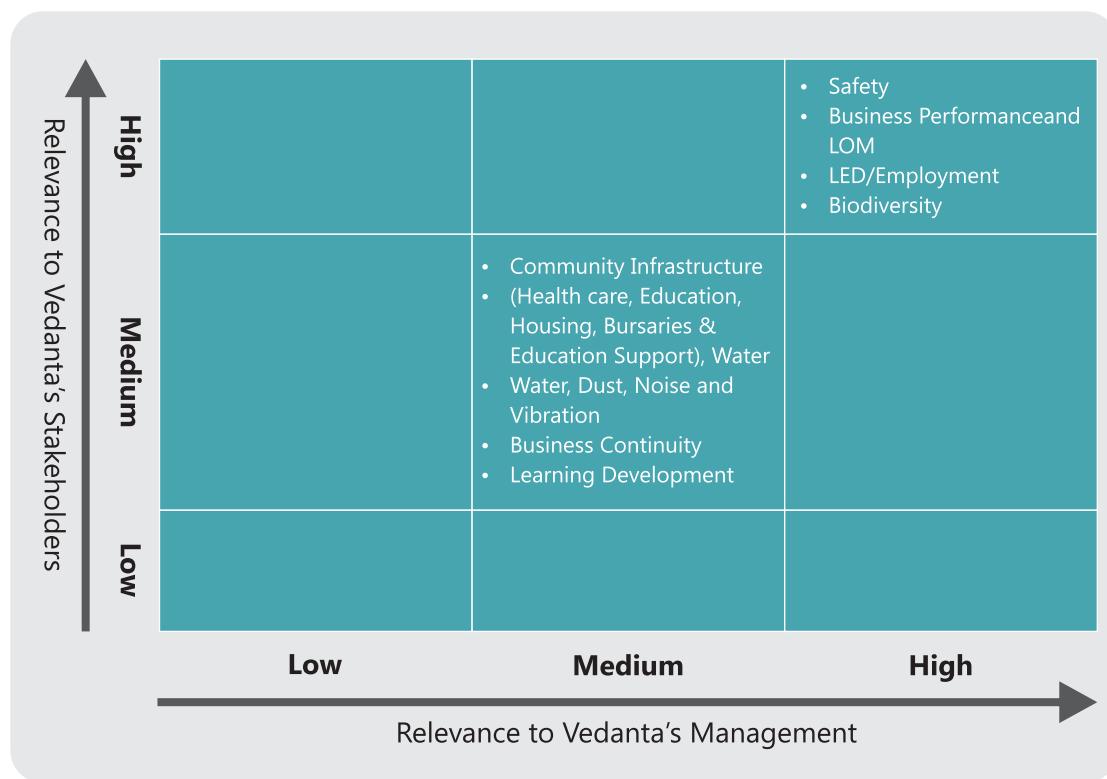
## Stakeholder Perspective

Stakeholders	Ranking by Stakeholder		
	Low	Medium	High
<b>Community</b>	Safety, Biodiversity	Infrastructure, Healthcare, Education, Housing, Bursaries & Education Support, Water	Employment, Business Continuity
<b>Farmers</b>	Security of their farms	Infrastructure, Biodiversity	Water, Dust, Noise and Vibration
<b>Government</b>		Safety	Tax revenues, Employment, Business Continuity, Biodiversity
<b>Trade Unions, Employees</b>		Career Development	Employment, Benefits, Safety in Working Conditions, Employee Health
<b>Contractors</b>			Safety & Health, Business Assurance, Equal Treatment

## Management Perspective

Management	Ranking of Material Issues by Stakeholders		
	Low	Medium	High
	Trade Unions, Contractor Issues	Biodiversity, Farmers, Government regulations	Safety, Business Performance/LOM Employment Business Development for Community

## Materiality Matrix for FY 2014-15



## Risk Analysis and Mitigation Plans

Our top risks for FY 2014-15 and mitigation plans are detailed below:

### **Safety**

With an increasing number of LTIs, Safety is our primary concern. Fall of Ground (FoG) remains one of the most important risks and challenges of underground mining. Whilst in FY 2014-15, we did not report any FoG injuries, most incidents were due to material handling. After detailed analysis of these incidents, we have concluded that the record of near misses and high potential incidents are quite high. Hence, our major focus is to reduce the near misses and avoid fatalities. We have geared up our Trigger Action Response Plan (TARP) system, emphasised ZIP training, and introduced 'Safety Token of Appreciation' - a rewards system that makes employees responsible for their own safety; as our safety action plans for FY 2014-15.

### **Business Continuity**

With the reserves of our existing mines depleting, grades declining and costs increasing, avenues to continue our business profitably and sustain the livelihood of all involved seems a challenge. We continue on exploring new resources within the license area of BMM, and are also working towards commencing production at Gamsberg by FY 2018-19. In the same context of continuing business, we plan to process some of the Gamsberg concentrate at the Skorpion Zinc Refinery, in Namibia. The total capital investment for the Gamsberg Project is estimated at 630 million USD.

### **Commodity Pricing and Financial Exposure**

Commodity prices, exchange rates and rising input costs have an impact on the profitability of the business. Cost and production controls are in place to partially mitigate the commodity price volatility.

## Organisation Structure

At this juncture, where we are open to expanding our business vistas (exploring further near Deep and developing Gamsberg), we are bound to face situations that need immediate change, which would directly impact productivity. Through an integrated Change Management model, we are trying to address the needs at all levels across our operations. Optimising manpower contingent, restructuring of organisation systems and talent management are some of the initiatives we have embarked upon.

## Biodiversity Restoration

With the phased development of Gamsberg planned, we place emphasis on appropriate measures to preserve the rich biodiversity in the vicinity of the project. For this, we have collaborated with IUCN, which guides us for an appropriate biodiversity offset. One of our initial approaches has been to restore the natural flora from the Gamsberg project site and preserve them till mine closure.



- Promote 'Zero Harm'
- Behavioural safety interventions and Visible Felt Leadership
- Management of Change
- Emphasis on leading indicators of safety - sectional risk assessments
- Deliver safe and environmentally responsible project execution
- Updation and implementation of closure plans
- Robust stakeholder engagement and corporate social initiatives/social & labour plans



- **Highlights**
  - Received all necessary environmental approvals for Gamsberg project
  - Zero occupational diseases reported during the year
  - Focus on behavioural safety through ZIP training, SENTIS
  - Roll out revised contractor management policy in line with Vedanta Sustainability Framework
  - High level of focus on ground control management and TARP system
- **Lowlights**
  - High numbers of LTIs
  - Serious safety HIPOs



# SUSTAINABILITY BLUEPRINT

In this report, we are disclosing our sustainability progress for FY 2014-15 by mapping our performance against the triple bottom line concept of Sustainability. Our sustainability indices, as aligned to the Vedanta Sustainability Framework, depict our Blueprint of Sustainability Performance. The following sections are structured as per the thematic areas of triple bottom line and our performance in FY 2014-15 is also reported, elucidating our conformity to the Vedanta Sustainability Framework.



## **Responsible Stewardship**

- Safety Management
- Employment

## **Building Strong Relationships**

### **Change Management**

- Talent Management
- Employee Engagements

## **Adding and Sharing Value**

- Employee Trainings
- ZIP Trainings
- Community Initiatives

## **Strategic Communications**

- OHSAS 18001
- Sustainability Report



## **Responsible Stewardship**

- GHG Reduction
- Water Management
- Recycling Waste
- Composting
- Tailings Management

## **Building Strong Relationships**

### **Change Management**

- Biodiversity offset

## **Adding and Sharing Value**

- Mine Closure Planning

## **Strategic Communications**

- ISO 14001
- ISO 9001
- Sustainability Report



## **Responsible Stewardship**

- Remain Stable Employer of Namakwa Region
- Safe Production

## **Building Strong Relationships**

### **Change Management**

- Launch of Gamsberg
- Extension of Life of Mine

## **Adding and Sharing Value**

- Integrated Gamsberg-Skorpion Zinc project



# SECURING OUR PEOPLE

We consider our people as our most prized asset. We owe our reputation to our workforce, whose efforts translate to growth of the company; our supply chain, who extend a helping hand by supporting us in our activities; and our community, on whom we rely for most of our needs. As a company, we feel that Securing our People's Future is Securing our own Future.

## HIGHLIGHTS: 2014-15

- INTEGRATED CHANGE MANAGEMENT
- TALENT MANAGEMENT

## Human Resource Goals and Strategy

The culture of a company and the value it adds to society is dependent on the quality of its workforce. Competent, passionate and empowered employees build a competitive atmosphere and work objectively to expand the business horizons. Creating an enthused work culture is paramount to our human resource strategy. Our focus for 2014-15 has been the health and safety of our workforce, capacity building and increased stakeholder communications, underpinned by the Integrated Change Management Programme.

### Short-term Goals

#### Reconnect to Value Driven Leadership Phases 1 & 2 Principles

- Restart Check-ins
- Wheel of Reflection
- Close out on Training Gaps

#### Drive Communication Plan

- Continue with GM Engagement sessions
- Written comms (GM Note/Noticeboards)
- Revitalise Departmental Communication meetings
- Departmental KPI reviews
- Panel discussion

#### Employee Engagement

- Focus Groups (D Band) Bain Survey
- Mid Managers Engagement
- OE Survey

### Long-term Goals

#### Cultural Assessment

- Revitalise and roll out VDL Phases 3 & 4
- Associated Development and rollout of Action Plan to address highlighted issues in OE Survey

#### Human Capital Management

- Functional Structures
- Roles and Responsibilities
- KPI Setting and Review Process

#### Employee Engagement

- Panel Reviews
- One on One Culture

### Mid-term Goals

#### Development

- Leadership Development and rollout of Programme
- Mentoring & Coaching
- IDP
- Anchor values/engagement principles



## Talent Management and Learning

- Roll out Stars of Business selection process
- Structured Succession Planning and Leadership Development Plan
- Talent migration to & from Group: minimum of 10 employees to be moved to & from ZI
- Centralisation of learning function and establishing effective system and processes
- Effective training and document management through SAP HCM



## Stakeholder Engagement

- Internal: Employees, Unions and Community relations
- Culture and Values alignment programme rollout
- Employee surveys results action plans to address negative perceptions (in order to realise overall year on year improvement)



## Workforce

### Employees and Contractors

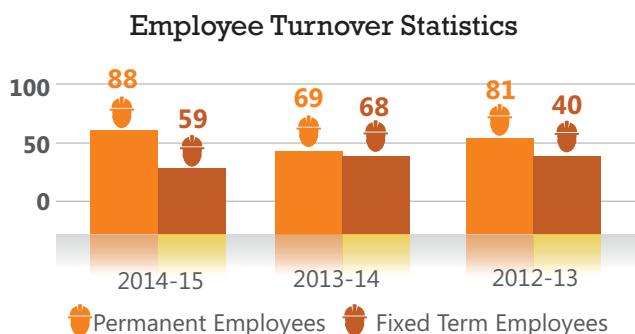
During FY 2014-15, we had a manpower strength of 1,491 employees spread across various workforce levels at BMM and Gamsberg units. This included permanent employees, fixed term employees and contractors. The details of workforce categories and employee diversities by type, gender and age are provided in the following table:

Region	Workforce Categorisation	2014-15			2013-14			2012-13		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>By Employee Category</b>										
<b>BMM</b>	Corporate	27	8	35	34	6	40	21	2	23
	M1-M3: Exco and Senior Management	7	0	7	8	0	8	6	0	6
	M4 - M7: Functional Managers, Engineers, Mine Overseers	55	10	65	54	8	62	57	7	64
	M8 & 9: Supervisors and Management Trainees	67	11	78	59	12	71	61	8	69
	Below M9; Bargaining Unit, Operators, Artisans, Clerks	529	72	601	474	64	538	493	75	568
	Fixed Term Employees	24	17	41	52	29	81	64	14	78
<b>By Employee Type</b>										
	Permanent	685	101	786	629	90	719	638	92	730
	Contract	565	90	649	566	82	648	558	81	639
	<b>By Age (only permanent employees)</b>									
	<30	112	45	157	72	29	101	102	45	147
	30-50	438	53	491	402	55	457	395	41	436
	>50	135	3	138	155	6	161	141	6	147
<b>BMM Total Employees</b>		<b>709</b>	<b>118</b>	<b>827</b>	<b>681</b>	<b>119</b>	<b>800</b>	<b>702</b>	<b>106</b>	<b>808</b>
<b>By Employee Category</b>										
<b>Gamsberg</b>	Executives	5	0	5						
	Non-Executive (Technical)	6	1	7						
	Non-Executive (Non-Technical)	2	1	3						
	<b>By Employee Type</b>									
	Permanent	10	1	11						
	Contract	3	1	4						
<b>By Age</b>										
	<30	4	1	5						
	30-50	8	1	9						
	>50	1	0	1						
	<b>Gamsberg Total Employees</b>	<b>13</b>	<b>2</b>	<b>15</b>						
	<b>Total Workforce</b>	<b>1287</b>	<b>210</b>	<b>1491</b>	<b>1247</b>	<b>201</b>	<b>1448</b>	<b>1260</b>	<b>187</b>	<b>1447</b>

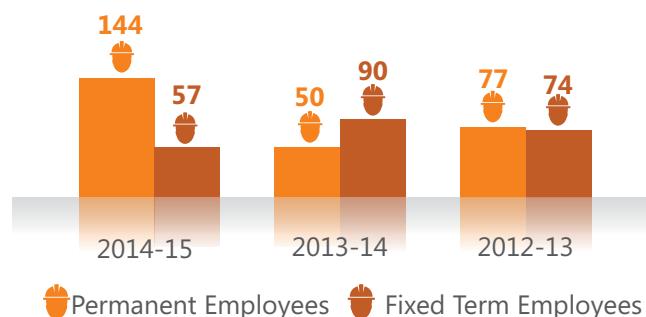
## Employee Retention

### Employee Turnover

During FY 2014-15, 147 employees left the organisation, and our employee turnover rate was 19%. This was inclusive of 88 permanent employees (71 male; 17 female) and 59 fixed term employees (28 male; 31 female). Most of the employees who left BMM were in the age group of 30-50 years. The employee turnover for Gamsberg was nil.



### Employee Statistics of New Hires



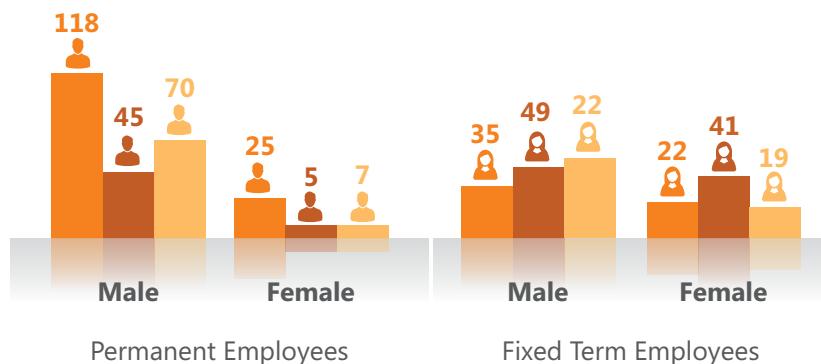
### Recruitment and Local Hiring

During FY 2014-15, we hired a total of 201 employees at BMM, including permanent employees and fixed term employees. Most of the new hires were in the age group of 30-50 years. The ratio between the male and female permanent employees has reduced to half, compared to the previous years. The detailed statistics of new hires are depicted in the infographs. Amongst the new hires, 24 fixed term employees (14 male, 10 female) and 6 permanent employees (3 male, 3 female) quit their jobs during the same year. We have two employees with disabilities who are continuing with us. No new hires with disabilities have been recruited during FY 2014-15.

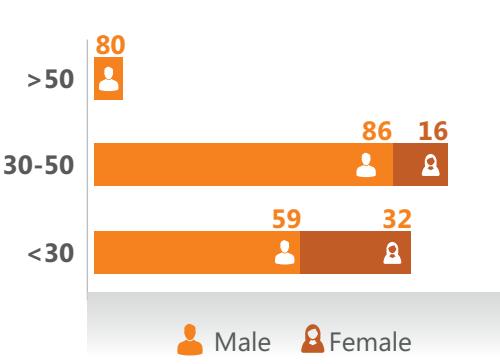
All employees at Gamsberg were recruited during the reporting period. Their details have been provided earlier in the table representing total workforce of the company.

BMM has been the major employer of the Khai-Ma region in South African Northern Cape Province for almost three decades now. We will continue with this trend as we consider this as an opportunity to pay back to our community. By this, we also meet the employment equity norms of the Mining Charter of DMR (Department of Mineral Resources), South Africa. With the launch of the new Gamsberg project, there is a further upsurge in the expectations of the local community from us. We are optimistic that we will meet most of our recruitment from the neighbourhood and thus satisfy our commune. The only challenge we encounter is the lack of a skilled workforce in the nearby areas. This compels us to expand our reach beyond the Khai-Ma region to ensure productivity. We already have a selection criteria for recruitment, where preference is given to locals from the Khai-Ma region (Pella, Pofadder, Aggeneys, Onseepkans), followed by Nama Khoi district (Springbok, Okiép, Nababeep, etc.), greater Northern Cape Province, the rest of South Africa, and all over the world.

### Gender Diversity of New Hires



### Age Group Diversity of New Hires



## Diversity and Equal Opportunity

We believe in providing equal opportunity and hence, do not discriminate amongst our employees on the basis of gender, race, religion, age, disability and HIV/AIDS. We abide by the Employment Equity Act for women and people with disabilities as per the South African norms. We ensure that South African nationals are a part of our governance bodies. During the reporting period, we had a total of 8 SA nationals represented in our Senior Management, of which 5 were from the non-minority group and the rest hailed from the minority group. 13% of locals are represented in the Senior Management team at BMM, with one of the members being from the Namakwa region. "Local" to us refers to the expanse within a 300-km radius of our operations. The details of employee diversity of SA nationals across all levels of the workforce, categorised by gender and minority group during the reporting period are provided in the table below:

Employee Category	Employee Diversity of SA Employees (FY 2014-15)			
	Minority Group		Non-Minority group	
	Male	Female	Male	Female
Corporate	7	2	8	6
M1 - M3: EXCO and Senior Management	2	0	3	0
M4 - M7: Functional Managers, Engineers, Mine Overseers	25	2	21	6
M8 & 9: Supervisors and Management Trainees	14	3	53	8
Below M9: Bargaining Unit, Operators, Artisans, Clerks	32	6	497	66
Fixed Term Employees	2	1	22	16
<b>TOTAL</b>	<b>82</b>	<b>14</b>	<b>604</b>	<b>102</b>



We recognise the importance of gender sensitivity and take special care to protect the interests of our women employees and address the issues/grievances raised by them. We encourage women employees in leadership roles at all levels and provide them with the best opportunities at work. There is no discrimination in remuneration amongst employees based on gender and there is no differentiation between the basic salaries of men and women. A basic salary plus additional amounts such as bonuses, including cash and/or equity such as stocks and shares, benefit payments, overtime, time owed and any additional allowances are paid to all employees. In spite of all our efforts, there were four cases of discrimination (3 based on race/colour, 1 based on gender) reported. We resolved these issues amicably during the reporting period.

## Employee Rights and Benefits

### Employee Representation

We enjoy a harmonious relation with the Labour Unions. We strongly believe that harmony between management and employees is pivotal in achieving higher growth and maintaining good industrial relations. 78% of our employees are covered by collective bargaining agreements. We have a Labour Relations Act that safeguards the freedom of association of our employees/suppliers from any kind of violation. All employees are notified on any operational changes, but there is no statutory notice period specified in the collective bargaining agreement. The notice period is dependent on the situation at hand. Owing to our participatory management approach, we consider the views of our Unions on all matters concerning the welfare of the employees. On an annual basis, we negotiate wages and other employment conditions with the Unions. Through regular worksite communication meetings and meetings with the community, we interact and communicate progress and changes on matters that are necessary. There were no strikes/ lock-outs during the reporting period.

### Employee Benefits

To retain our 'Preferred Employer' tag, we ensure that we provide all the necessary facilities to our employees. We make sure that our employees can enjoy maximum benefits with our organisation – both and after their tenures. Our remuneration is consistently higher than the stipulated minimum wage levels. The ratio of the standard entry level wage compared to the local minimum wage is 2.99:1. We have a structured compensation and benefit scheme that includes healthcare, parental leave, retirement provision, accidental death benefit and funeral cover for our permanent employees. Pension and provident fund schemes are the plans envisaged to benefit employees post their retirement. Our women employees are provided with 3 months' paid maternal leave as per the law. Eight employees availed of maternity leave during the reporting period. 88% of the employees returned to work after availing of the leave and the retention rate was 75%.

Contribution to Benefit Plan	USD		
	2014-15	2013-14	2012-13
Contributions to Provident and Other Funds	3,967,147.37	4,546,629.00	5,350,392.00
Staff Welfare Expenses	209,486.70		
Total	<b>4,176,634.07</b>	<b>4,546,629.00</b>	<b>5,350,392.00</b>





## Change Management 12-hour shifts – the new Magic Wand

In 2014, we embarked on a shift trial to improve both, the quality of life for employees and productivity of the mine. Under the previous shift structure, our employees were working for 8-hour shifts that involved 5 on – 2 off – 11 on – 3 off. In August 2014, we commenced a trial at Swartberg mine for an 11-hour shift, working 5 on – 3 off – 2 on – 2 off. For many of our workers who were living more than 100 km from the mine, travel time was excessive. So, again in February 2015, a new trial was initiated at Swartberg, using a 12-hour shift, working 4 on – 4 off. This trial was successful, and workers, Unions and Management expressed a desire to extend the trial to Deeps mine. A cross-functional team was assembled and the change management process has been initiated, to implement the shift trial at Deeps mine.

The new shift system has reduced travel time and fuel costs to and from work by 28% for employees, compared to the original shift system, whilst also decreasing the risk of road accidents. Productive time has also increased by 23%. The change in shift required the addition of a fourth mining team. A restructure was completed to optimise labour and facilitate the addition of a team with only a 5% increase in underground workers. The new shift system represented a win-win scenario for both, mine workers and BMM, and provided a platform for BMM to achieve record production in April 2015. Quality of life, worker morale and productivity continue to improve under the new shift system.

## Capacity Building

### Training & Development

Our commitment to employee development is built on our strong, inclusive culture of collaboration, experiential learning and meritocracy. It has always been our endeavour to encourage employees to realise and develop their full potential through a continuous learning environment. We believe that effective training and development benefits the individual and organisation as a whole, and contributes to the achievement of the objectives of the company. Through various internal and external courses, we continuously work towards building capacity throughout the organisation. The various internal trainings provided to our employees include technical training, soft skills training, induction programmes and safety training. We also encourage knowledge exchange outside the company and support our employees financially for the same. Our role as an enabler is not restricted till the tenure of the employee at BMM. We think beyond and extend our responsibility even when the employees cease to be a part of the company. In the retrenchment process that we underwent during 2014, we informed the retrenched employees to take training and enhance their skill sets to a certain value.



# Training Programmes

## **Frontline Leadership Programme (FLP)**

Aims at training employees to be leaders at Vedanta.



## **Graduate Development Programme**

In-house two-year programme to enable employees to grow in leadership roles.

## **Learnerships/Apprenticeships**

Annually 10 engineering learnerships – Fitting, Plater/Welder, Electrical, Instrumentation, Diesel Mechanic and Auto Electrical

## **Rock Breaking Certificates in Mining**

Mining Qualifications Authority (MQA) accredited training on onsite rock breaking to select employees

## **Training Details**

Training Data for the year 2014-15										
Category/Level/Grade of Employees	Total No. of Employees per Category			No. of Hours of Training per Category			Average Hours of Training per year per employee			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b>BMM</b>										
Associates	601	119	720	41096	4880	45976	68	41	64	
Middle Management	120	29	149	10432	2016	12448	87	70	84	
Senior Management	41	5	46	2176	192	2368	53	38	51	
Top Management	28	1	29	1080	16	1096	39	16	38	
<b>Gamsberg</b>										
Associates	3	2	5	48	32	80	16	16	32	
Middle Management	5	0	5	80	0	80	16	0	16	
Senior Management	4	0	4	64	0	64	16	0	16	
Top Management	1	0	1	16	0	16	16	0	16	

## Performance Appraisals

In our current strategy to enhance our production capacity and transform to a profit-making business, we rely on performance monitoring to create a talented workforce. Both by alignment through business and individual scorecards, we keep track of the progress of our employees. The performance reviews are an annual activity and the advancement on the agreed KPIs (Key Performance Indicators) in the beginning of the year are gauged through performance checks between managers and employees every quarter. Performance appraisals are conducted at the end of the business year. Individual development plans also form part of the Performance Management system. All Management Trainees, Supervisors (C-Upper) and Managers in the D and E-Band are eligible for performance reviews. Employees in the Bargaining Unit as well as Fixed Term employees are excluded from performance reviews. The performance review statistics for FY 2014-15 are reflected in the table alongside.

Performance Reviews for the year 2014-15			
	% of Employees who received Performance Reviews		
	Male	Female	Total
<b>Employees at BMM</b>	22.69	31	<b>23.75</b>
<b>Employees at Gamsberg</b>	84.62	50	<b>80</b>

## Talent Management

We have been dwelling on the thought of creating 'Leaders' amongst our workforce who would play a pivotal role in escalating the performers to non-performers ratio. Our strategy would be to select talent at all levels and nurture them to attain leadership roles. We aim to achieve this by permeating the concept of Value Driven Leadership at all levels, developing leadership attributes in selected talents, and by increasing engagements with the employees.

### Value Driven Leadership (VDL)

Leadership guided by values will create long-term assets for the company. Hence, we plan to introduce this concept to all our employees and we have finalised proposals for the rollout of our VDL programme next year. Other scopes likely to be extended along with the programme in future, would be introducing the VDL principles to the Management and Supervisory levels, integrating VDL into KPIs and individual score cards, and mass rollout of VDL principles mine-wide through refresher training.

### Leadership Development

This initiative is based on Talent identification and Talent grooming. Through our ACT UP (Accelerated Competency Tracking & Upgradation) programme, we identify potential talented individuals who can then be trained to fill leadership positions. The 'Stars of Business' are identified for various functions and are then trained through our Stars development business education programmes that include training in various universities globally, gathering experience from other ZI group companies, and other global exposures. We are in the process of planning the rollout of a revised ACT UP in the following year.



## **Employee Engagements**

We are inspired to develop our inclusive culture and interact more often with our employees, to get their perspectives on all aspects of our organisation. This is being done to keep up the motivation of our employees and align them to the company's goals and targets by way of regular dialogues. We are striving to improve our communication channels and our employee engagement schedules include:

- Monthly EXCO meetings – Business level operations review
- Quarterly GM Roadshows and CEO Roadshows
- Weekly Safety/OR/AO/Cost review meetings by COO to drive unit specific challenges & opportunities
- Daily Site-wide communication, newsletters, CEO & GM communications
- Systematic dialogue process in performance management & production incentive scheme
- Celebrate success: Functional, Unit team get-together to celebrate target achievements
- Unit EXCO team off-site workshops and ZI Annual Leadership Conference, Alignment Sessions



## **Employee Health & Safety**

The health and safety of our people is the topmost on our priority list. We strive to ensure that every employee returns home safely from work. With our goal to deliver business with 'Zero Harm' to people, we are working on improving our safety standards and escalating the safety culture across all work functions, including our employees and contractors. Our concerns are the high potential incidents and the near-misses that are quite high, and all our systems are geared to track and deal with them.

### **Safety Performance**

During the reporting year, we have achieved a LDR of 5.36 for employees at BMM and a LDR of 3.14 for independent contractors. Analysis of accidents/incidents for FY 2014-15 suggests that most of the accidents occurred during material handling; followed by incidents due to slip, trip and fall, struck by, TMM, FoG and Explosives.

	Employees				Contractors	
	BMM (Swatberg & Deeps)		Gamsberg		BMM	
	Male	Female	Male	Female	Male	Female
<b>Injury Rate (IR)</b>	8.59	0	0	0	6.36	0.31
<b>Occupational Disease Rate (ODR)</b>	0	0	0	0	0	0
<b>Lost Day Rate (LDR)</b>	5.36	0	0	0	3.14	0
<b>Absentee Rate (AR)</b>	0.05					
<b>Fatalities</b>	0	0	0	0	0	0

All international accreditations are renewed and maintained – OSHAS 18001, ISO 14001 and ISO 9001. Safety training is a primary and integral part of our operations. Emphasis on safe production processes is laid down in our formal agreements with Unions. The formal agreement covers the topics of Personal Protective Equipment; joint Management-employee health and safety committees; participation of worker representatives in health and safety inspections, audits and accident investigations; training and education; complaints mechanism; right to refuse unsafe work and periodic inspections.

### Health Aspects

Over 25% of our workforce is represented in formal joint Management-worker health and safety committees that help monitor safety at the workplace. Emphasis on safe production processes is laid down in our formal agreements with the Union. The most common occupational health disorders witnessed at our sites are noise-induced hearing loss, silicosis, pneumoconiosis and chronic obstructive airway disease.



## Safety Improvement Plan (SIP)

The focus of our Safety Improvement Plan for the following year is to strengthen our systems to avoid such safety-related occurrences. We have planned cross audits for all our operations, ways to enhance behaviour-based safety trainings (ZIP), the introduction of VFL for new joinees, and detailed reviews of the frequently occurring cases of accidents/incidents.

## THE 'WASH' PLEDGE: Promoting hygiene

Our commitment to safe water, sanitation and hygiene at the workplace. Setting a 3-year target, we aim to provide access to safe and clean water, and promote hygiene in all our premises.

### Cross Audits

### Review of most common cases of accidents/ incidents

### Behaviour-based Programmes

- Material Handling
- TMM
- Slip, Trip and Fall
- Explosions

## Zero Incident Process (ZIP)

We continued training our employees on ZIP through SENTIS. This behaviour-based safety management system has been a success in the past. Its role in empowering employees with a deeper insight about safety issues and taking responsibility of their own lives has been remarkable. We have also introduced a rewards system to encourage employees to be motivated towards their own safety.



## Safety Rewards The new 'Safety Inducers'

We launched a unique rewards programme to ensure the safety and well-being of our employees. The days worked by an employee without any MTC injury, diagnosed health impairments, Category 4 and 5 environmental incidents, and damage to company property are recognised by a Safety Rep. The employee is entitled to a reward upon achieving the required Safety Days.

- Small Gift – the nature and value as determined by the SHE Manager.
- Gift – the nature and value as determined by the SHE Manager.
- Token – A financial award issued at the discretion of the BMM HODs for safety performance.

The token of appreciation would be issued by a nominated person; one token per positive observation.

This incentivisation of Safety has steered enthusiasm amongst the employees and they have started making efforts to stay tuned to the safety culture at BMM.

## **Safety Campaigns: Building Safety Awareness**

Our Safety Awareness charter begins with encouraging employees to participate in the SIP for the mine. We focus on ensuring employees get a proper understanding of the safety procedures; our tools for this are the SOPs and disseminating the right knowledge through discussions involving supervisors. Further to this, odd shift visits by FTSHRs and conducting Visible Felt Leadership to aid in the behaviour-based human interactions have kept our employees geared up on safety throughout. The safety representatives' role is the key to success here, for they perform with great zeal during inspections and on Safety days, ensure monthly recording of data, promote Safety culture awareness via the GM Roadshow and help in counselling persons involved in traumatic incidents. The motivation of these reps is enhanced by timely and adequate acknowledgement from their supervisors.

## **ZERO HARM CULTURE: Stay Trained, Stay Safe**

Right from induction, we see to it that the responsibility of safety is taken seriously by every employee. Our training centres conduct induction training every Tuesday on underground induction, surface induction and first aid. Our training administrators are available to assist our employees in scheduling training sessions.





## My Personal BIG 5

An innovative campaign infusing the need for SAFETY amongst employees – My Personal BIG 5, was a great success at BMM. All employees participated with great zeal as they recognised their 5-topmost priorities in life. They were introduced to the 'Think-Feel-Do' practice for their personal Safety Controls; Risk Awareness; and their Operating Attitude.

With the combination of an interesting event: Wall imprint of their hands-defining their BIG 5; and personal interviews and videos, the event inscribed the Safety culture in the minds of BMM fraternity.



***'Safety is not about protecting us FROM something; it is about protecting us FOR something.'***



## Our Business Partners

We are dependent on our huge supply chain for goods and services. We conduct procurement practices with utmost transparency and are guided by our exclusive Procurement Policy to leverage markets to produce more sustainable goods and services. We aim to achieve complete transparency, and broaden our supplier base by recognising equality and diversity amongst our suppliers. Our annual procurement spends for FY 2014-15 was 59,000,786.5 USD. Ensuring our compliance to the mining charter, we focus on investing in our local suppliers. 'Local' for us refers to the area within 300 km radius of our operations. Our total spend on local suppliers was 17,264,654.5 USD, which was about 29% of our total supplier spend.

### Procurement Process

Our procurement process begins with a stringent selection method. The process includes screening of suppliers on varied criteria, especially relevant to the sustainability context of the company. All our suppliers are required to submit a declaration consisting of an extensive checklist of criteria based on their credibility, bribery & corruption issues, licensing & permitting, insurance, supply chain, subcontracting, sustainability management, environment, health & safety, child & forced labour, human rights and other social issues. This marks the registration of the suppliers at BMM. Following this, we continuously monitor the actions of our suppliers against the set criteria. Any violation detected at any stage may lead to termination of the contract. During FY 2014-15, our contract with 'Turnstone Drilling' was terminated on the premise of discrimination.

### Local Procurement

Local procurement remains our priority, and we work for the economic development of our communities by creating a sustainable supply chain. We are influenced by two of our policies, namely, Local Procurement Policy and HDSA/BEE Procurement Policy, for development of the local supply chain. With a general framework for procurement across the supply chain, they also enable access of the local businesses and HDSA/BEE to our supply chain opportunities. One of the biggest challenges to sustain the local supply chain has been to find the required service quality.

We have therefore rendered a helping hand to develop the business skills of SMMEs (Small Medium Micro Enterprises) and improve their level of services to Black Mountain Mining and other mines in the Northern Cape. Some of our initiatives include developing a database of SMMEs, recruiting SMMEs and prioritising their training needs, training and mentoring quality assurance and monitoring macro-level stakeholder engagement, and enabling them to assess progress and identify next steps. Though it is a slow process, we visualise our endeavours resulting in the delivery of quality service by our local suppliers in the long run.



## Our Community

We owe our community – our extended family – for all the support they provide for our ventures. We consider it our responsibility to identify their challenges and understand their specific needs. Our CSR function interacts with the local community, assesses their needs and co-ordinates planning and implementation of projects for the benefit of the community. Our strategic aim of 'Adding and Sharing Value', the third Sustainability Pillar of Vedanta, is achieved by constructive efforts on an annual basis. In keeping with our vision for the overall economic development of the Khai-Ma region, we work closely with our NGO partners in consultation with the Government. Our objective is to find immediate, yet long-term, solutions for our community and also create platforms that benefit society even beyond the life of our mine.

We take steps to provide practical solutions to their problems and help them have a comfortable life in the Khai-Ma region. We conducted social impact assessment studies as part of the 'Life after Mine' vision and Wits Socio-economic study to understand the needs of our community. The community challenges of the semi-rural Khai-Ma region include inadequate or un-resourced clinics, inadequate schools, retention of qualified teachers, increased drop-out rates, increased teen pregnancy rate, limited access to study finance, limited Infrastructure, isolated area far from major markets and opportunities leading to brain drain.

Through our monthly community engagement meetings, we identify their needs and address their grievances. The outcomes of these interactions help us implement Community Development Programmes in consultation with local stakeholders and the municipality. We shared questionnaires with our community to get their feedback on SLP. The SLP Report outlines all projects undertaken during FY 2014-15. Community grievances were resolved during meetings and not through the formal grievance procedures during the reporting period.

### CSR VENTURES: A SNAPSHOT (2014-15)



#### Healthcare

- Cataract surgeries



#### Education

- Bursaries for Skills Development



#### Poverty Alleviation

- Olive Project - Pilot Study
- SMME Support - Centre in Pofadder

For FY 2014-15, we progressed with CSR ventures under three thematic areas: Healthcare, Education and Poverty Alleviation, for the development of the mine community and other local communities. While some of our projects (Cataract Surgeries, Bursaries) were a continuation from the past, the others were initiated during the reporting period (Olive project; SMME Support Centre in Pofadder). Over the last five years, most of our community development projects were implemented through our Social Labour Plan (SLP), which is aligned to the criteria set by the Department of Mineral Resources (DMR) for local economic development. The first SLP, which took off in 2009, was successfully completed in 2013. The revised SLP for the next five years, 2014-2019, has been submitted to the DMR and currently awaits approval. Therefore, during the reporting year, we could not significantly progress with the proposed projects under the SLP. The major successes during FY 2014-15 have been the Cataract Surgeries in the Northern Cape Province and the launch of a Pilot Scale – Olive Project aimed at achieving economic development of the region by olive farming.

## CSR HIGHLIGHTS: 2014-15

CATARACT SURGERIES - EXCEEDED TARGETS

OLIVE PROJECT - SUCCESS IN TRIAL PROGRAMME

## Cataract Surgeries

### "Towards Zero Cataract Blindness in the Northern Cape"

*"As a responsible corporate citizen, we recognise the role that we can play in working with our partners in Government in the fulfilment of its mandate. The Cataract Operations Drive helps us to contribute to the sustainability of the communities we operate in."*

**Andre Trytsman,  
General Manager, BMM**

Cataracts are the major cause of blindness in the Northern Cape. A cataract surgery that can return the gift of sight to each patient in less than 30 minutes is part of the approved plan for the Vision 2020 Strategy of the World Health Organisation and the South African Government. Our Cataract Surgeries project that took off in 2012 was initiated to help decrease the cataract surgery backlog of 2,000 per annum in the Northern Cape Province of South Africa. It was initially intended for people in the remote districts of Namakwa and ZF Mgawu, located in the vicinity of the mine's operation areas. Owing to its success, the programme extended its footprint to the Frances Baard district during the reporting year. With the objective set, we aimed at providing funding and support for 400 cataract surgeries and post-operation evaluations in the Northern Cape during FY 2014-15.

The programme is run in close partnership with the Northern Cape Department of Health and the following NGOs – the South African National Council for the Blind (SANCB), African Vision and Wellness Educators.

#### **Eye Care Footprint**

As part of the cataract programme, we held eye care clinics in Upington, Calvinia, Alexander Bay and Aggeneys. We plan to donate eye care equipment to the SANCB and the Department of Health, and ensure facilities for quality screening and post-operative care of patients. World Sight Day, an important day in the Eye Care calendar, was celebrated at BMM from 6th – 9th October 2014, by marking the expansion of its Cataract Operations Drive into Kimberley and Barkly West. Inspired and involved, our Management is keen on continuing the effort in future, and encourages the local people to get their eyes tested to prevent the eventuality of blindness with age.

#### **THERE'S A STORY IN EVERYONE'S EYES**

One of many heart-warming stories is that of Mr. Setomo Molai, who went from being almost blind to seeing again on his 84th birthday, giving him a new lease of life in his twilight years.



Cataract Surgeries Statistics			
FY	Target	Done	%
<b>2012-13</b>	47	47	100
<b>2013-14</b>	400	404	101
<b>2014-15</b>	400	414	103.5
<b>Total Beneficiaries</b>	<b>847</b>	<b>865</b>	

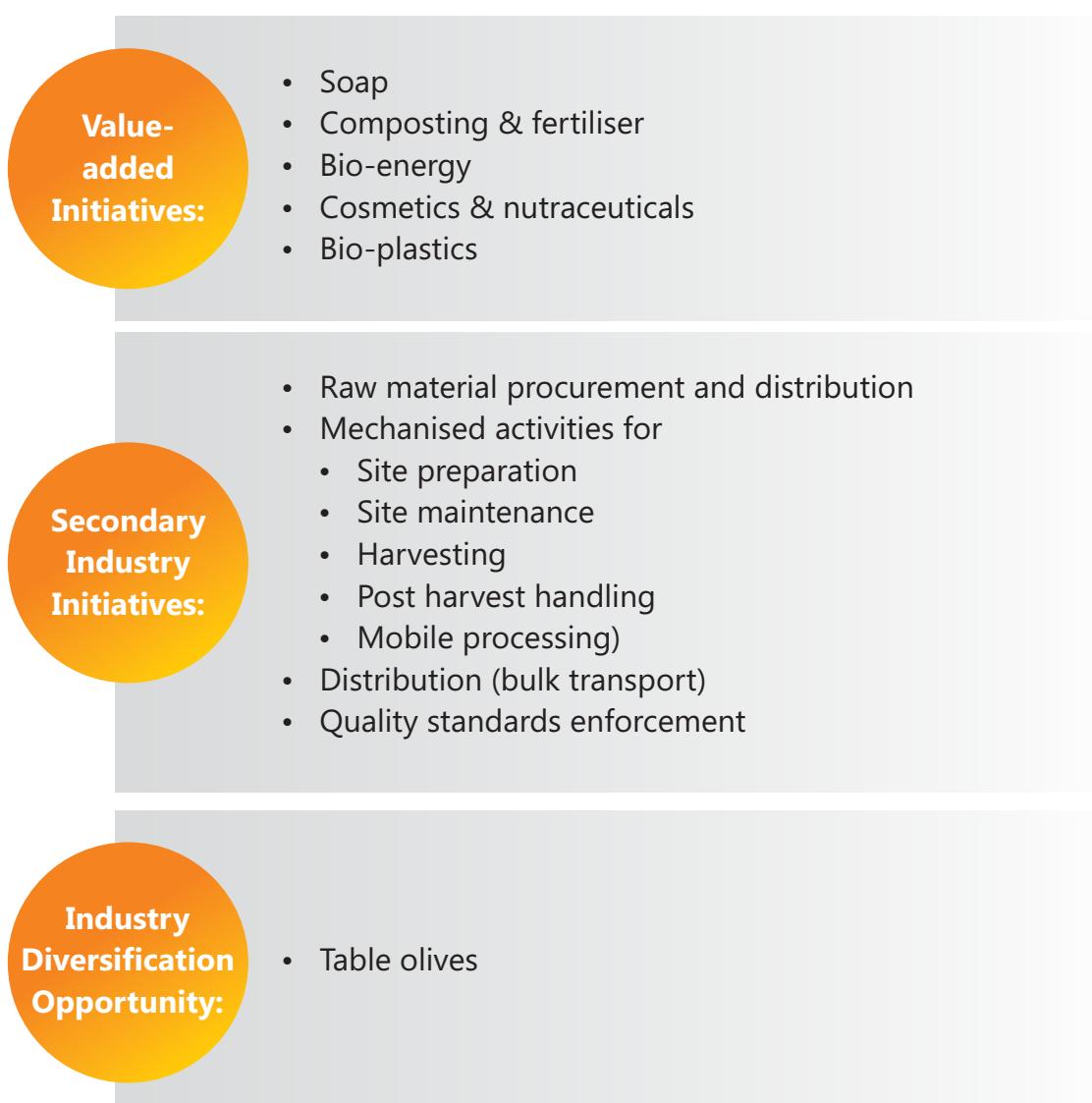
On 17th September 2014, CEO of SANCB, Mr. Jace Nair, awarded BMM's General Manager, Andre Trytsman, a certificate in recognition of the company's sterling role in the cataract surgeries drive.

### Study Trust Bursaries

We are continuing with this effort where we provide financial support to people from the local community to pursue courses and programmes for skill development. During FY 2014-15, a total of 8 beneficiaries were supported to continue their education in various universities in South Africa.

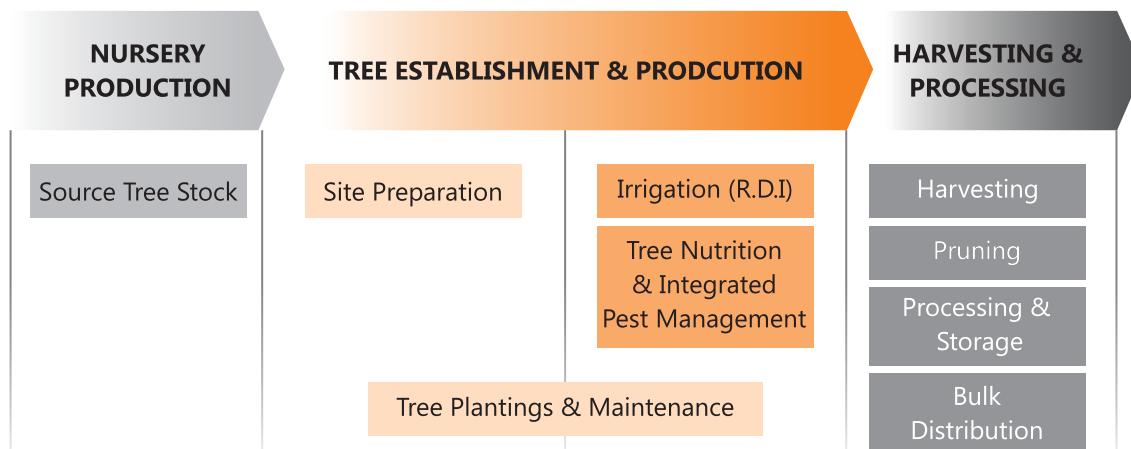
### Olive Diversification Project

With the vision to secure our future, we initiated an Olive Oil Diversification Project in 2012, which aims at alternative economic development within the Khai-Ma region, post closure of mining. Whilst promoting sustainable opportunities, this project aims to establish mining independent businesses, through commercially viable agriculture. It also has the potential to proliferate secondary industries, creating opportunities for SMMEs.



## Implementation Plan

This undertaking has been planned meticulously and is backed by extensive research of the Khai-Ma region, including the socio-economic and environmental parameters. We have developed a detailed implementation outline for lower Orange River, Northern Cape. Currently, the project has been initiated at a pilot level and with success, it would be escalated further. With inputs from a detailed survey conducted by AE-GS (Africa Eco-Gro Services) and continuous interactions with them, we developed an implementation outline that would take off in three distinct phases – nursery production, tree establishment and production, and harvesting and processing.



**The project scope has been formatted for large scale commercial development, consecutively to generate positive financial returns, integrated by size, progressive management style, and current oil olive production methods.**

## Current Status

Our Management had finalised allocating land available on company premises at Aggeneys and possible site locations on community land at Pella, during the approval of the feasibility study in 2012. A trial study was initiated by planting 144 trees at Aggeneys, which was completed by late September 2014. Following this, monitoring and evaluation activities, in line with the trial objectives set out, commenced from October 2014. The results of this trial study in FY 2014-15 has verified that the Khai-Ma region has an advantageous climate, which is expected to produce premium type olive oils with earlier harvests under less disease pressure, increasing economic profitability. With a green signal in the pilot venture, the project will be taken to the next level.



## SMME Support Centre

As part of our Corporate Social Responsibility, we created positive change in the 45 previously disadvantaged businesses in the Khai-Ma district, which are small black-owned businesses in rural South Africa, through an Enterprise Development Project. The Business Development Centre was established at Pofadder, which provided business skills training and support to local entrepreneurs, including the provision of financial assistance to existing local SMMEs, or for establishing new SMMEs in the Khai-Ma municipal region. The programme was successfully completed in FY 2013-14 as part of SLP 2009-2013. The support centre is also provisioned in the SLP 2014-18, which is yet to obtain approval. During the reporting period, the centre was left open for use by the community we contributed towards the rent and upkeep of the offices.

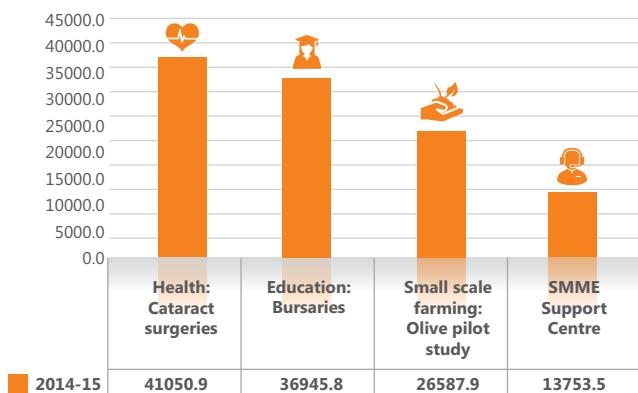
## WOMEN IN CHARGE: Entrepreneurship at its best

Our Women in Mining members weaved beautiful designs in crochet for the first ever annual farmers market. We hope this initiative encourages more entrepreneurs and artists to come forward to showcase their talents, helping make our community stronger and self-reliant.

## Community Investment

During FY 2014-15, 118,338 USD were spent for various community development projects. Only about 36% of our total CSR budget has been utilised. A significant amount of the budgeted amount remains unutilised as the SLP awaits approval from DMR.

CSR INVESTMENTS FY 2014-15



CSR SPENT (USD)



# SECURING OUR PLANET

We are aware that our business has the potential to impact the environment considerably. To minimise this impact, we have attempted to set up robust environment management systems across our various operations. Our business philosophy is embedded with sustainability as one of its core pillars, much like our holding company, Vedanta Resources plc. We continue to focus our efforts on constantly innovating our process and operational efficiency to be less resource-, energy- and water-intensive, and result in minimal emission and waste. Our systems and processes continue to adhere to the regulatory requirements and certifications, including ISO 9001, ISO 14001 and OHSAS 18001. All our operations have mine closure plans.

## ENVIRONMENTAL PHILOSOPHY AT BMM

To achieve environmental and biodiversity management through the application of sustainable operational and strategic processes throughout the BMM operation, in co-operation with local companies in the BMM sphere of influence.

As outlined in our Materiality Matrix, our priorities lie in biodiversity conservation of the Bushmanland and Inselberg biome, and managing our environment footprint by keeping a close guard on water, dust, vibration and noise. Our dedicated SHE (Safety Health Environment) team continues to execute our Environment Management Plan, which is intertwined with our Water Management Policy and Biodiversity Policy. Their efforts also extend to creating awareness on environmental issues among our employees and the local communities by way of innovative and interesting activities, presentations, campaigns, posters, etc. Our efforts and performance on these parameters have been highlighted throughout this section. No environmental grievances have been reported during FY 2014-15, nor has there been any pending grievance from previous years.



### OUR CHECKLIST FOR ENVIRONMENT IN FY 2014-15

- Managing our Environment Footprint
  - Reduced Use of Resources
  - Optimisation of Discharge Streams
  - Monitoring Our Impacts
- Biodiversity Conservation

## Managing our Environment Footprint

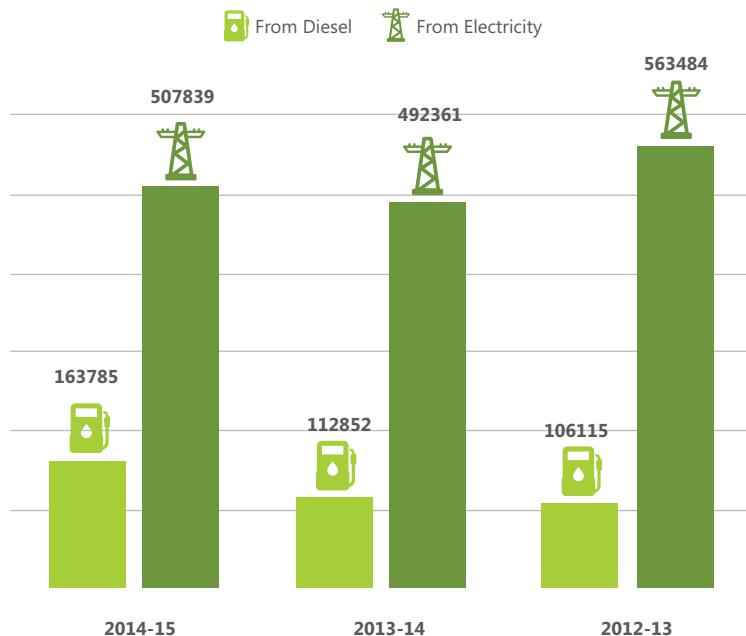
In keeping with our environmental philosophy to be the leading operation in Vedanta Resources Ic in terms of environmental and biodiversity protection, we work towards reducing water, energy and raw material consumption, optimising the discharge streams (carbon, air, waste, water), reducing our waste footprint by extensive use of waste separation, reuse and recycling, and identifying opportunities to turn environmental liabilities into potential areas for development of secondary industries.

## Reduced Use of Resources

### Energy

Our operations are energy-intensive – from the diesel needed to extract and transport ore, to the electricity used to run the large processing and milling plants. Therefore, we recognise our role in improving our energy efficiency, by reducing our greenhouse gas emission and mitigating climate change, which is a threat to our business. During the reporting year, we recorded consumption of 671,624 GJ of total energy. The energy intensity for the ore milled was 0.4 GJ/T and for the concentrator was 11.4 GJ/T. In the reporting period, approximately 27,000 GJ of energy were conserved by reducing compressed air leakages, improved underground de-watering pumping sequence and by replacing floodlights with those of the LED type.

## ENERGY CONSUMPTION IN GJ

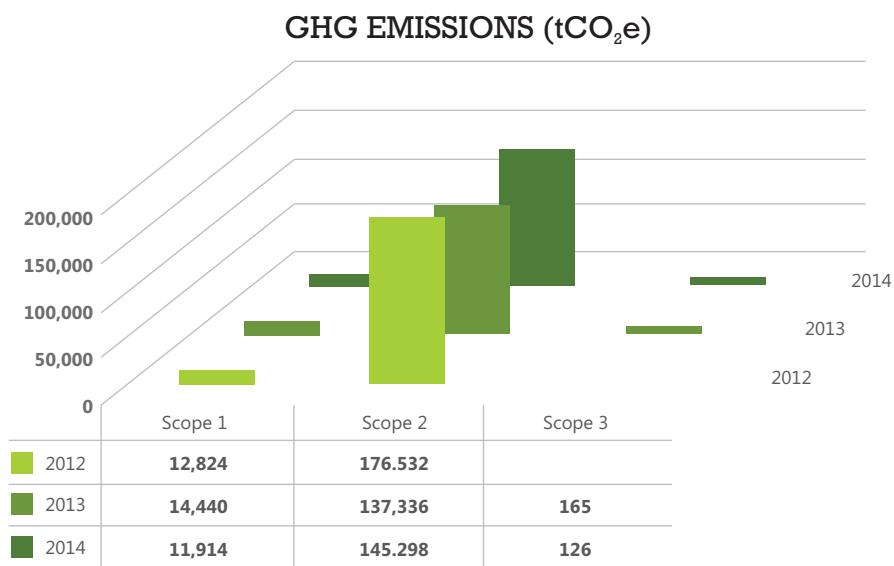


### Carbon Footprint

Our energy consumption at operations results in greenhouse gas (GHG) emissions. It is our endeavour, as per our Environment Management Plan, to reduce our emissions. During the reporting year, the total GHG emitted was 157,369 tCO<sub>2</sub>e, of which Scope 2 emissions from electricity usage were the highest, followed by Scope 1 emissions from usage of diesel, petrol and explosives. Scope 3 emissions resulted from air travel, employee commute and waste generation. The GHG intensity ratio for FY 2014-15 was 2.66 tCO<sub>2</sub>e/T. The carbon emissions data, in the chart following, depicts a reduction in our Scope 3 emissions, which can be attributed to regular servicing of the operations and township fleet of vehicles. Also, the mine has indirectly maintained the electricity usage, whereby we use less electricity to mill the same amount of ore.

- All BMM employees were encouraged to walk or use alternative (energy saving) ways to get to work on World Environment Day.
- Indigenous trees were planted at the Aggeneys High School and Primary School in September 2014, as a part of the Arbor Week.





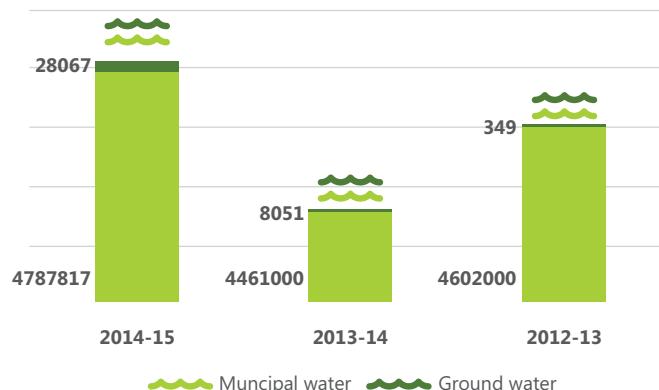
## Water

Our commitment to create a positive water stewardship legacy is stated in our Water Management Policy, which sets the minimum requirements to proactively plan, manage and monitor our performance throughout the mine lifecycle to protect the water resources. Water is an important resource for our mining processes, as well as for sustaining the environment. We constantly try to make mining less impactful on water resources. We source our water primarily from the municipal supply and a small percentage is sourced from the ground.

Our total water consumption was 4,815,884 cubic metres during FY 2014-15. Due to recycling and reusing measures, about 341,891 cubic metres (27% of the total water withdrawn) was recycled this reporting year. The ground water withdrawal did not have any significant negative impact on the water table of the region.

- Awareness on Water was created with the Grade 8's of Aggeneys High through a visit to Pella water pumping station to appreciate where the towns of Aggeney, Pella and Pofadder get water from.
- The private school and Aggeney primary had an activity day with the Environmental Department and Ladies Forum, where they learnt how they could save water at home and school.

## WATER CONSUMPTION (CUBIC METRES)



## Raw Materials

For processing the metal concentrate, the primary input materials are the ore bodies. Materials such as sulphur, lime, cyanide, copper sulphate and explosives are used in various stages of the life cycle of the product as shown in the table below. Our backfilling process involves reusing or recycling the tailings, as well as the waste rock generated as part of the mining operations. This accounts for usage of 175960 tonnes of tailings and 115806 tonnes of waste rock as backfill material.

Types of Raw Materials Used	2014-15
	Tonnes/year
Raw: ORE (tonnes milled)	1658778
Associated: CuSO4	289
Associated: Sodium Ethyl Xanthate and Potassium Amyl Xanthate	89
Associated: Lime	1319
Associated: Sulphur	265
Associated: Cyanide	230
Associated: Powergel	19.6
Associated: Anfex	601.3
Associated: Explosmooth	83.1
Associated: Explogel	106.8

## Optimising Waste Discharge Streams

### Waste Management

The waste streams generated in our operations can be categorised into solid wastes, wastewater discharges and air and other fugitive emissions. Waste management is taken seriously under our Environment Management Plan. We aim at reducing the waste quantity produced, recycling it and then disposing the remaining waste appropriately, following the norms and regulations. During FY 2014-15, no major spills occurred at the mine site. As a mitigation measure to spills, all our transporting vehicles are equipped with a spill kit and need to have an emergency response plan.

World Environment Day message was conveyed to the Aggeney Primary School by educating them on recycling plastics to lower the impact they have on climate change. The Private School students were engaged in a talk about science and human impact on the climate.

### SOLID WASTE GENERATION STATISTICS (MT)



### Solid Waste

Scrap metal, high-density polyethylene pipes and oily steel wastes are the primary solid wastes generated from our operations. Waste is disposed of in registered landfill sites according to the waste types generated. The hazardous waste generated is sent to the hazardous waste landfill in Vissershok. For disposal of used oil, we acquired the services of Oilkol who specialise in the handling, storage and transportation of used oil. These wastes are not deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII. During FY 2014-15, 54 MT of hazardous waste was generated, which less than that of last year was. A slight decrease in the quantities of non-hazardous solid wastes was evidenced in FY 2014-15 as depicted in the table following:

Waste Statistics									
	2014-15			2013-14			2012-13		
Types of Waste	Waste Generated	Waste Disposed	Disposal Method	Waste Generated	Waste Disposed	Disposal Method	Waste Generated	Waste Disposed	Disposal Method
Scrap Metal	85.75	85.75	Recovered						
HDPE pipes	16.2	16.2	Recovered	0	0		4.25	4.25	Recovered
Paper	3.55	3.55	Recovered	4	4	Recovered	12.08	12.08	Recovered
Steel	0	0		10.2	10.2	Recovered	0	0	
Oily Steel	21.9	21.9	Recovered	25.1	25.1	Recovered	59.9	59.9	Recovered
Glass	7.9	7.9	Recovered	9.1	9.1	Recovered	19.43	19.43	Recovered
Copper Cable	0	0					3.25	3.25	Recovered
Fire extinguisher bottle	0	0		1.8	1.8	Recovered	0	0	
PVC pipe	0	0		18.05	18.05	Recovered	0	0	
Rubber	0	0		0	0		38.9	38.9	Recovered
Tins and Cans	0	0		2.42	2.42	Recovered	0	0	



## Composting – the new recipe for gardens

Aligned with the South African Vision to achieve zero waste by landfill in 2022, we launched the first ever Composting project at BMM. The project took off with initial tests which revealed that composting would be most sustainable for treating garden waste. To fulfil our waste management objectives and guided by the Department of Environmental Affairs under the National Organic Waste Composting Strategy, Agarob nursery was approached to manage this community project. Compost training was also given to the community to encourage composting at home.

During the reporting year, approximately 267.15 tonnes of compost was generated. We believe that by initiating the Compost project, we have prevented the irreversible financial and environmental consequences of developing another landfill site.

## **Waste Recycling**

There has been significant reduction in the waste inflow into the landfill site, since 75% of the waste generated at BMM and the Aggeneys community is now recycled. Additional waste facilities for residents were constructed to facilitate waste separation. During FY 2014-15, the final stage of the waste recycling strategy was embarked on, along with the feasibility of launching a commercially viable garden waste to compost project. The feasibility during 2014 indicated that the project could produce compost of an outstanding quality.



## **Continual Improvement: BMM's Tailings Management Facility**

Constructed as early as 1978, the tailings dam is a hand-packed design dam with a slope of 75 degrees, used as a repository for the tailings waste from the Deeps and Swartberg UG operations. Currently, the tailings are produced at a rate of 1.1 million tonnes per year, and these are deposited in the tailings dam. This is done by means of a ring main line with feeder stations going up to the top of the dam, and feeder stations going down to the buttress area. The walls are now raised mechanically by an excavator due to increased weight.

In order to reduce the closure cost, the design of the tailings dam was extended in 2010 by including the tailings in a series of benches. Whilst this will increase the footprint of the tailings dam, it will also allow for the gradual rise of the tailings dam slopes at an angle of 22 degrees. This slope angle will greatly reduce the cost of the closure rehabilitation of the tailings dam. Further improvements included the replacement of the original clay-lined return water dam with a new HDPE-lined return water dam.



## Waste Water

We treat the mine discharge water using scientific processes and ensure that we comply with our zero-discharge policy by re-channelling and re-using the effluent discharged from the mine. We regularly monitor the run-off and effluents to maintain quality standards and regulatory requirements. The treated wastewater was used for irrigation of the golf course and as backfill water.



## Responsible Risk Management The Groundwater Story

In keeping with the principle of responsible stewardship to our community and the environment, we at BMM manage risks from our operations through regular monitoring and evaluation. Impacts to the environment are assigned a risk rating; any impact with a rating exceeding 20 is termed as 'significant' risk. Our mining operations pose a significant risk to the ground water in the region. Dewatering of the mines is unavoidable for purposes of extraction of the ore and leaching of the chemicals into groundwater is a probable occurrence during the operations. Groundwater contamination is also affected by tailings disposal, storage of waste rock, and underground activities.

Our Integrated Risk Management rating system confirms that groundwater contamination and dewatering are significant risks to BMM and the community. Farmers in the region depend on groundwater for agriculture and domestic purposes. The high evaporation rates in the region lead to scarcity of surface water and low annual rainfall makes rainwater harvesting less viable as a source of water for agriculture. Hence, farmers have no choice but to rely on ground water sources.

In order to comply with regulations and ensure that the quality of ground water is not adversely affecting water users, we attempt to minimise the potential for water contamination, and prevent the release of polluted water into the environment. Surrounding groundwater levels and quality are monitored regularly to minimise the risk to neighbouring farmers. Prior to 2000, we initiated ground water monitoring by placing boreholes near potential contamination sites including the TSF plume site. Over the years, more boreholes were drilled as part of our monitoring plan for groundwater levels and quality and the current count of boreholes drilled is 32 in number.

## Air and Fugitive Emissions

While mining operations generally do not emit significant amounts of SOx and NOx, dust emissions are considerable and require effective monitoring and management. No ozone depleting substances are emitted from our processes. Other fugitives that impact include noise and vibrations created due to our activities. In keeping with our EMS, we continuously monitor the air quality and adhere to the prescribed emission limits. We undertake several measures to keep the dust under control, including regular wetting of the roads around the mines, washing of the wheel base of trucks carrying ore, covering the ore with tarpaulins during its transportation and using truck-mounted sweeping machines to clear dust from the roads.



## Innovative Monitoring Methods: Vibration Monitoring

Monitoring of vibrations due to blasting activities involves measuring short-term movements in the ground by using a seismograph. This is also attached to a microphone that is used to measure vibrations arising from mine operations. Commonly used for identifying potential vibration damage problems before and during construction, it is a preventive way to detect potential harm to health and property.

In 2014, the equipment was set up at the nearest occupied farm as part of the agreement between the Gamsberg project and neighbouring farmers, to monitor and record vibrations from the Gamsberg operations. The equipment can capture real-time data that can be recorded on a weekly basis.

This procedure was introduced at the Gamsberg project as part of the legal compliance to help mitigate any impacts thus caused on the environment and wellbeing of the community



## Biodiversity Conservation

The Black Mountain Mine and the newly proposed Gamsberg Mine are situated in one of the world's biodiversity hotspots, which makes our operations and their impacts to the surrounding area all the more critical. The Bushmanland area is home to a vast number of endemic flora and fauna. Protecting the biodiversity of the 24,800 Ha area, home to 14 Endemic and 4 restricted species nomenclature under the IUCN Red List Species, is pivotal to our environment management as the repercussions are huge. It is our endeavour to minimise and mitigate our impacts by adhering to our robust Biodiversity Action Plan (BAP).

According to Vedanta's Integrated Biodiversity Assessment Tool, our sites are categorised as follows:

Name of the site	Size (Ha)	Category
BMM Aggeney	742 Ha	Medium
BMM Swartberg	250 Ha	Medium
BMM Gamsberg	1221 Ha	High

We manage the non-operational and undisturbed areas as a biodiversity protection zone, which amounts to 90% of the mining property set aside for conservation of the endemic ecology of the Northern Cape region of South Africa. We have a Game camp located along the N14 (National Road) which houses several of the endemic species.

Our focus area in FY 2014-15 has been the Gamsberg project, and we have been actively involved from the start to safeguard and manage the unique biodiversity through a thorough and robust Biodiversity Management System. Feasibility studies have been conducted and plants harvested from Gamsberg Project were relocated to a nursery for rehabilitation purposes and sent to SANBI Kirstenbosch and donated to SANBI Karoo Desert. More information on the Gamsberg project can be found in the section 'Mission Gamsberg: Securing our Future'.



## Environmental Expenditure

During FY 2014-15, we have invested to manage environment in a sustainable manner. We incurred a total expenditure of 811,338.89 USD. About 43% of our expenditure was spent on biodiversity management. An additional 3% of the expenditure was on the Game camp created in the vicinity of our mine premise. We continued with our regular monitoring efforts and environmental audits. No fines or non-compliance with the laws and environmental regulations have been registered against BMM during the reporting period.

Total Expenditures and Investments in FY 2014-15	USD
Monitoring	123,066.95
Biodiversity	349,207.37
Game Camp	24,747.41
Audit	8,018.06
Specialist Report	299,223.42
Training & Awareness	7,075.68
<b>Total</b>	<b>811,338.89</b>



# SECURING OUR PROSPERITY

While it is our endeavour to sustain our business for a long time and in the process secure the future of our people and community, without damaging the environment, the fact remains that the Mining industry has a limited lifetime. At this juncture, when we are on the verge of closure of our mines, we are compelled to seek alternatives to continue our business, whilst simultaneously planning for a progressive closure. During the reporting period, we have understood our challenges in depth, analysed alternatives and discovered avenues for continuing and expanding our business through the extension of our existing projects and initiating new ones.

## SUSTAINABILITY HIGHLIGHTS

- GAMSBERG PROJECT LAUNCHED
- INTEGRATED SKORPION ZINC-GAMSBERG PROJECT

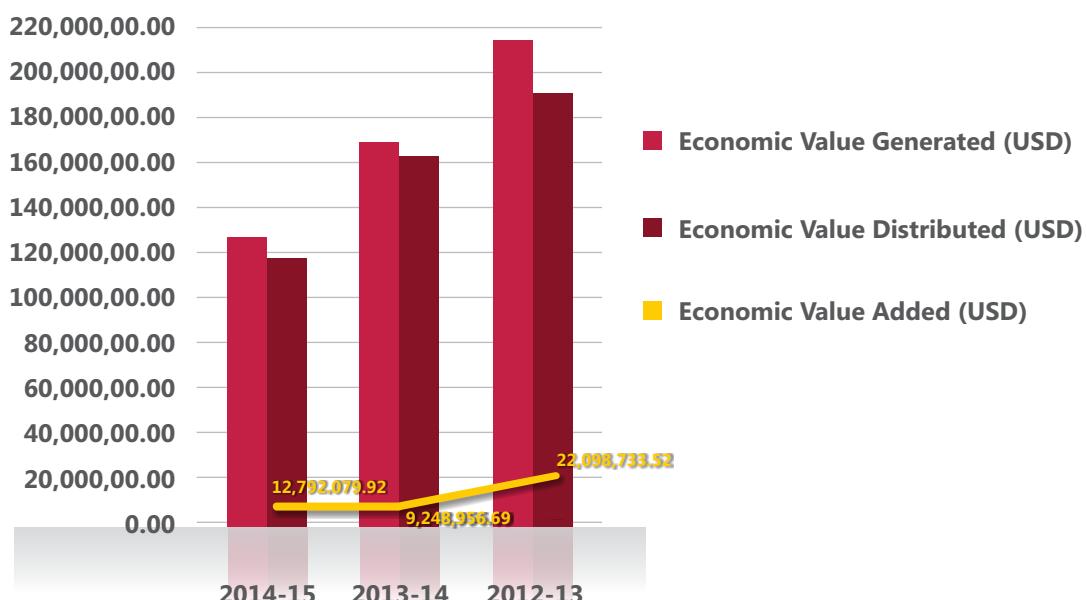
## Economic Performance

We generated a revenue of 129,125,190.4 USD during FY 2014-15, combining all our core and other businesses. The low revenue generated is attributed to less production of 18,000 tonnes of refined metal. This, as previously discussed, was mainly due to the degrading quality of the feed grades and a change in mining methods. Although the revenue generated was less compared to the previous year, the economic value added was higher compared to the last reporting year. The details of economic performance are provided in the table below:

Economic Performance	USD		
	2014-15	2013-14	2012-13
<b>Economic Value generated (A)</b>			
Revenue (through core business segments)	128,980,945.60	171,946,735.28	211,887,334.64
Other income (through other sources)	144,244.83	200,207.62	375,596.23
Total	129,125,190.43	172,146,942.90	212,262,930.87
<b>Economic Value Distributed (B)</b>			
Operating cost	75,870,875.29	80,094,862.40	95,103,585.14
Personnel expenses (wages + benefits)	32,142,841.30	31,252,003.39	35,522,333.70
Interest charges	6,757.307061	27,188.69	28,901.06
Taxes and royalties (given to various Governments wherever business units are located)	7,872,464.204	23,860,101.83	32,524,510.68
Dividends (payments to capital providers)	0	27,188,689.51	26,433,891.77
Donations (political parties/politicians)	21,473.89163	7,071.59	17,458.94
Community development/CSR investments	418,698.5222	473,068.80	533,516.06
Total	116,333,110.51	162,902,986.21	190,164,197
<b>Economic value added (A-B)</b>	<b>12,792,080</b>	<b>9,243,956.69</b>	<b>22,098,733.52</b>

*We have not received any other significant financial assistance from the Government.*

## ECONOMIC PERFORMANCE



## Business Continuity

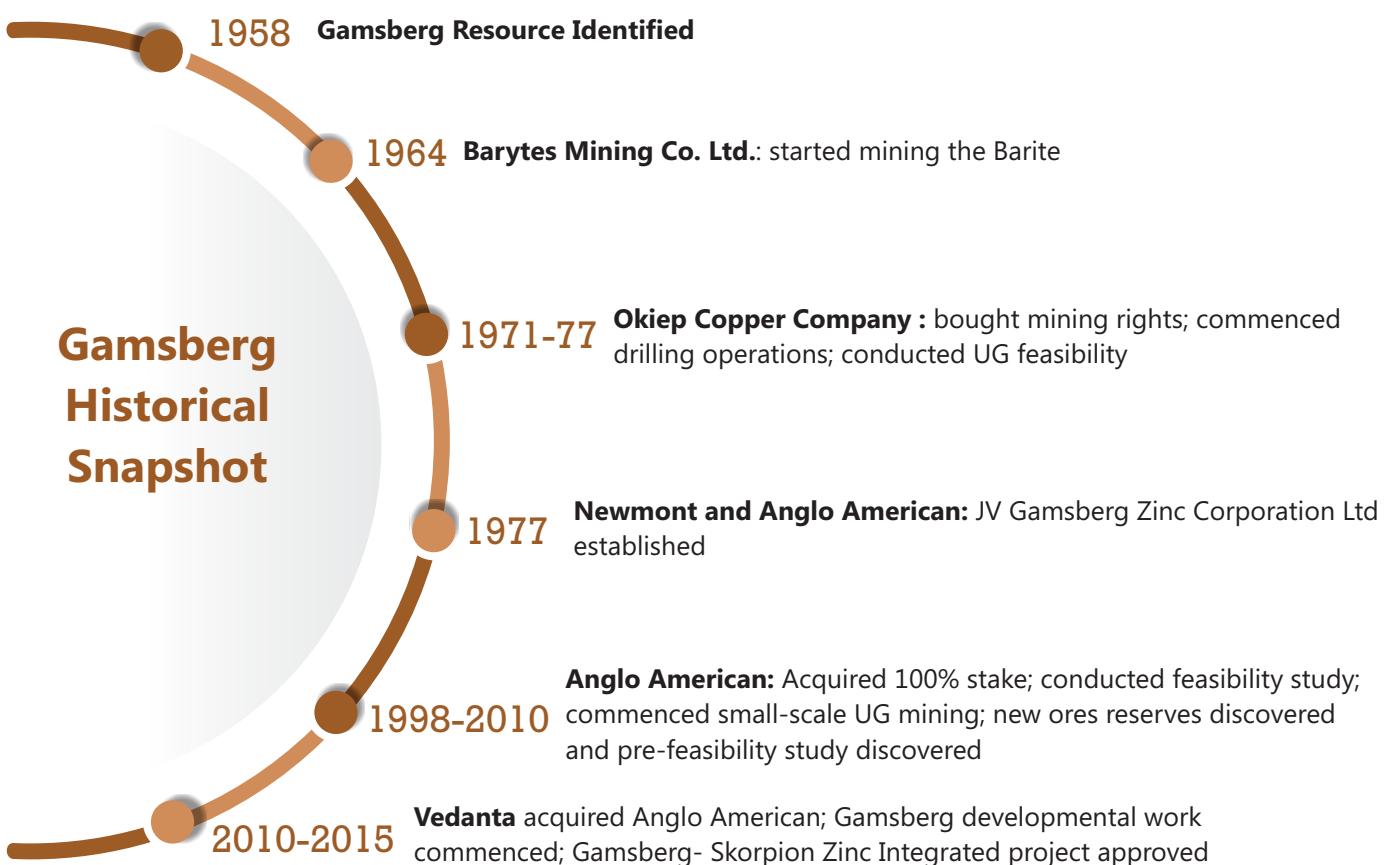
At this juncture, when the Deeps mine reserves are predicted to sustain the company's economy, an avenue for new business was inevitable. The launch of the Gamsberg project sheds new light on the continuity of our business whilst offering immense opportunities for the development of the Khai-Ma region. Encompassing prospects of employment for locals and our supply chain, and offering new avenues for SMMEs, the Gamsberg project will contribute profitably for the next two decades. A chronicle elaborating the sustainable approaches we have adopted for launching Gamsberg follows in 'Mission Gamsberg – Securing our Future'.

The reporting year also marked another significant event – the integrated Gamsberg-Skopion Zinc project, a plan of Vedanta Resources plc envisioning the development of the Northern Cape Province, South Africa and //Kharas Region, Namibia, by creating a regional Zinc Complex. More details on this can be found in 'Mission Gamsberg – Securing our Future'.



# MISSION GAMSBERG – Securing our Future

A proud moment for Vedanta Resources Plc, the greenfield project – Gamsberg Mine project – was inaugurated in 2015. As with all mining explorations and discoveries, the buzz surrounding the Gamsberg project has been intense. Vedanta is mindful of the expectations from its stakeholders to not only create a significant economic footprint, but also to sustainably manage and uphold the environmental, social and governance aspects of a new venture of this scale. Located close to the Black Mountain Mine, the Gamsberg Mine is touted as having the largest zinc deposits in the world and is expected to accelerate economic and social development in South Africa and Namibia. Located 22 km east of the existing Black Mountain Mine and the town of Aggeneys, the open-pit mining operation is likely to commence in 2018. The mineral resource in the newly explored Gamsberg area is believed to have a potential of 214 MT of mineral with component metal of zinc, manganese and lead. The project will lease a second life to the Skorpion Zinc facility, which will undergo an infrastructural enhancement to its hydrometallurgical refinery in order to process the vast amount of zinc concentrate hoisted from the Gamsberg mine



## Sustainable Growth

Sustainability is not just a 'byword' at Zinc International.

We are committed to responsible mineral development that results in positive, sustainable change for all our stakeholders. Mining is a long-term business spanning years of operation, with commitments and investments made to society. The profits we generate are at the expense of significant social and environmental risks, which we take seriously. How we manage these risks directly impacts our ability to create value for our stakeholders. As we journey to unravel the unexplored, we embark on cautious moves to add value to our assets – people, planet and profits.

*"I always heard of Gamsberg in my 30-year career at BMM. But it's only Vedanta that made Gamsberg happen."*

**Pieter Clarke**  
**Employee, BMM**

### People Priorities

We recognise that early engagement with stakeholders is an important precursor to undertaking any project activity. This is particularly important with greenfield projects, as the initial interaction with local communities sets their perceptions, and is an important precedent for our ongoing presence in that location. We are committed to ongoing and honest dialogue with transparent and fact-based communications, especially at the start of this new venture.

In order to understand the specific interests and concerns that may have developed in the course of the new exploration and development, we engaged with our stakeholder groups through formal and informal modes. For systematic and effective engagement with stakeholders, we classified them into three groups as depicted below. The mode and frequency of engagement follows:

Stakeholders					
Primary			Secondary		Through Notifications
Provincial Government	Local Municipalities	Employees and Unions at BMM	Regulatory Authorities	National Government	Media
Economic development of Northern Cape Province, growth of local businesses, job creation, local participation in mining/other businesses	Increased investment in the region, recruitment & training of locals, opportunities for local businesses, development of local infrastructure, CSR sponsorships and activities	Ownership (ESOP) through BEE, retention of jobs, extension of BMM Life of Mine, preference for locals in recruitment; development in the local area	Environmental compliances, monitoring and audits	Compliance with Mining Regulations, attract investments in mining & related businesses, stimulate economic development of South Africa, job creation	Gamsberg project and the future of ZI & Vedanta, local development

## Engagement Modes

- **Primary Stakeholders**, whose decisions can impact the Gamsberg project and our performance, are engaged directly and their approval and support for the project is critical.
- **Secondary Stakeholders**, who can influence our business and/or whose support will be critical to the overall project, are apprised of developments and in some cases consulted for their views.
- **Other Stakeholders**, who may have external influence, are engaged through formal notifications directly or indirectly through other stakeholders.

### Primary Stakeholder Engagements

- Bi-monthly to quarterly meetings
- Minutes of meetings are recorded and archived

### Secondary Stakeholder Engagements

- Bi-monthly to quarterly meetings
- Minutes of meetings are recorded and archived

### Engagement with Stakeholders through formal notifications

- Bi-monthly to quarterly meetings
- Minutes of meetings are recorded and archived

## Creating Value for our Stakeholders

### Growth and Prosperity of Khai-Ma region

The Gamsberg Mine is expected to create approximately 500 permanent jobs and 1,500 temporary employment opportunities during its construction phase. Another 500-800 jobs are likely to be created indirectly along the supply chain. Special focus will be given to recruiting local people for these jobs. Anchored around the mining operations, supply and support contractors will be encouraged to make local hires to the tune of 40% of their employee strength. Preference will be given to locals from the regions of the Khai-Ma municipal area, i.e. Pella, Pofadder and Aggeneys, followed by the Namakwa district. The recruitment process is a detailed one, outlining the criteria to be adhered to including anti-discrimination policies, establishing recruitment centres for unskilled and temporary workers, health & safety criteria and housing requirements.

### NEW BEGINNINGS: A secure future



For Archie Moses, a geologist, 11th December 2014 will be etched in his memory as he became the first employee to be appointed at the Gamsberg Mine. We look forward to many more such partnerships. In preparation for the influx of people into the region on commencement of Gamsberg operations, Pofadder and Pella have been identified as locations for extra housing to accommodate the future employees of Gamsberg.

## Biodiversity – Our Concern

We understand that excellence in environmental performance, as with all of our activities, is a critical component of our new project development. The importance given to the conservation of biodiversity at BMM and Gamsberg through 'Biodiversity Offsetting' is possibly the most unique and critical aspect of the Gamsberg project. A substantial 90% area of the BMM site is reserved for the purpose of conservation of the ecologically sensitive Bushmanland Inselberg Region. In partnership with IUCN, NGOs and community-based organisations, we are leaving no stone unturned in securing and safeguarding this biodiversity hotspot against the impacts of mining.

'No Net Loss' –  
BMM's Biodiversity Offset Mantra

## Conservation Strategies

Emphasis was given to identifying mitigation measures (including offsets) for impacts on biodiversity that would occur in open-pit mining, and evaluating mining viability from the very start of the project. The systematic process of biodiversity assessment and the Biodiversity Management System we have adopted are aligned to Vedanta's Sustainability Framework, which in turn accords with the International Finance Corporation's framework standards on environmental and social sustainability. By way of seeking all required environmental approvals and permits for the Gamsberg Mine, we have marked the beginning of responsible

### Department of Environment and Nature Conservation

- Environmental Approval and License for the Gamsberg project
- Environmental Approval for installation of water pipeline to Gamsberg
- Biodiversity permits for road infrastructure
- Approval for setting up early works such as roads, construction camp, offices and fencing

### Department of Mineral Resources

- Approval for the Gamsberg Environmental Management Programme

### Department of Environmental Affairs

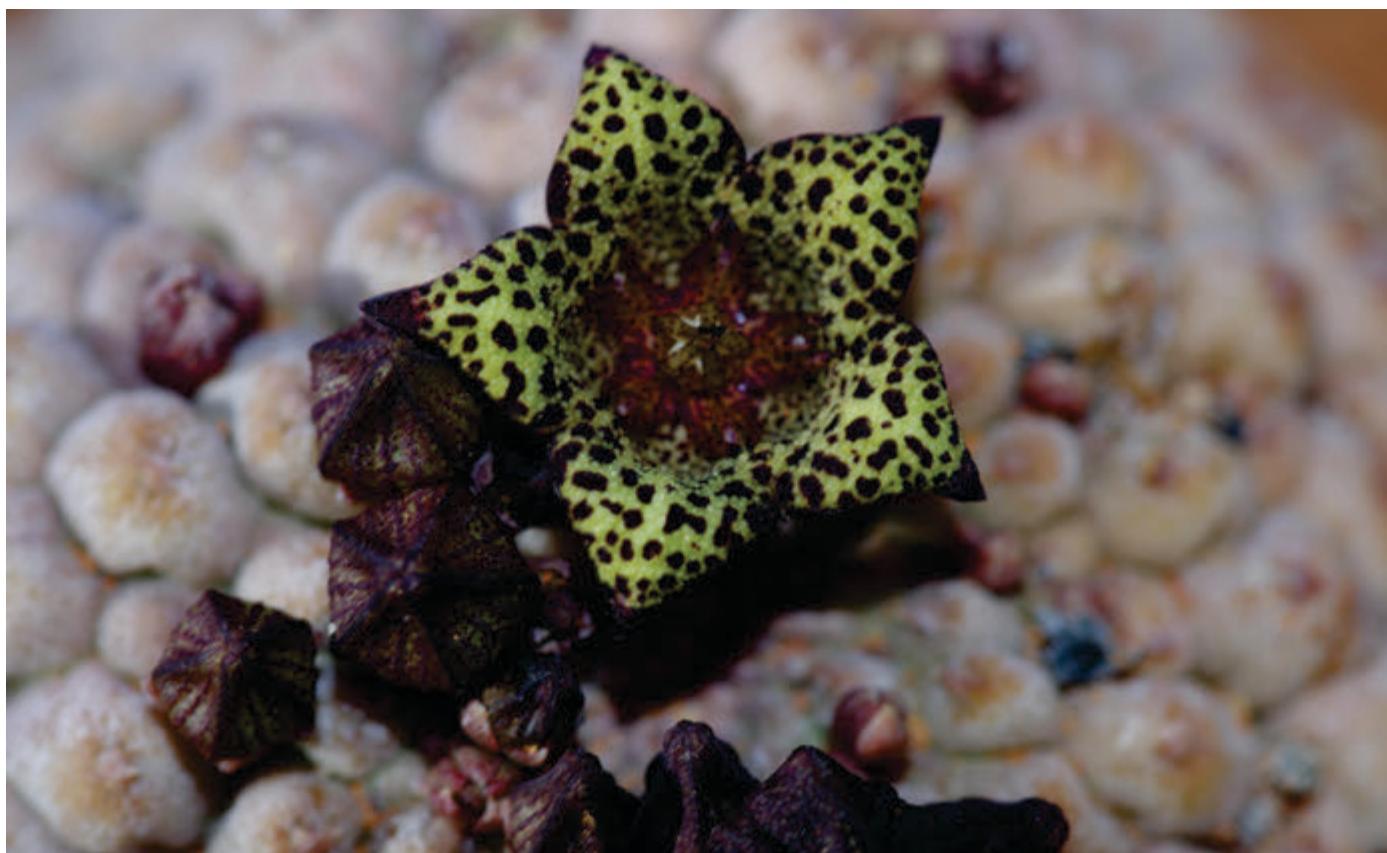
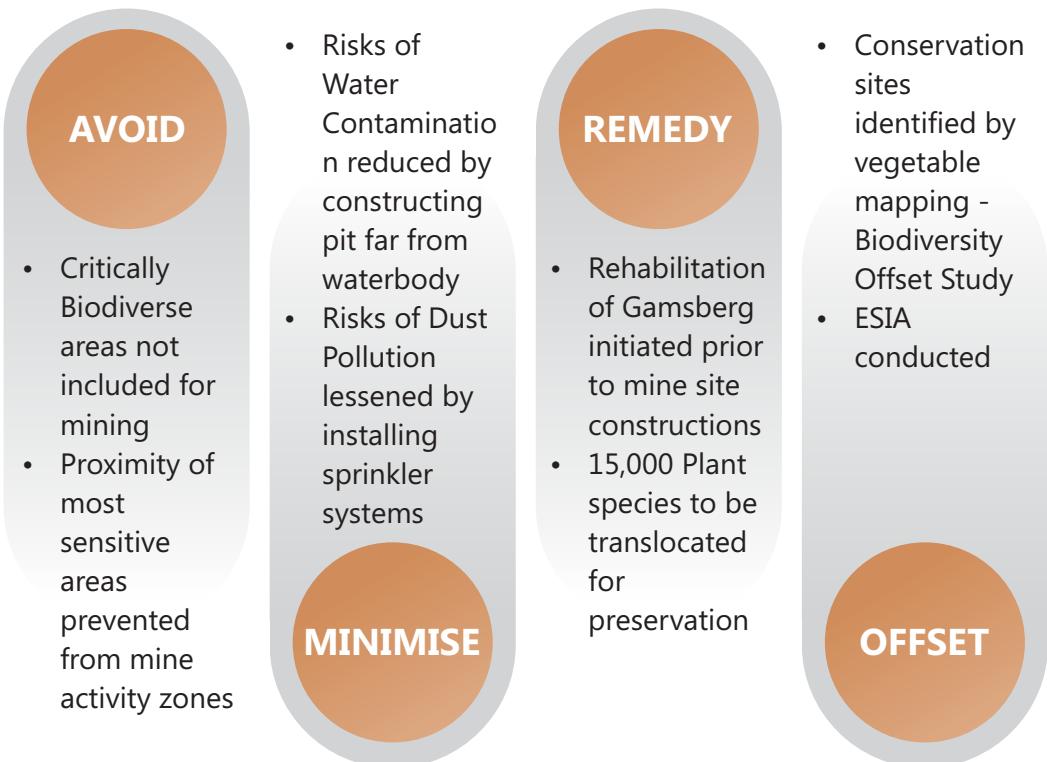
- Receipt of Waste License

### Department of Environmental Affairs

- Integrated Water Use License

## Biodiversity Offset

In fulfilment of the license to operate requirements, a Biodiversity Offset Agreement was signed in late 2014 between the Mine and the regulatory authorities, under which the mining company is required to manage the biodiversity offset. We will make adequate financial provisions for its management. According to the agreement, we commit to apply the principles of Avoid, Minimise, Remedy, Offset for ensuring 'No Net Loss' to the rich biodiversity of the Bushmanland region and the company.



## Partnering for Prosperity

Prosperity to us is long-term value for our people and strengthened association with our environment. Our constant efforts are to create a culture of continuity to sustain the needs of our people, our environment and our business. To attain this, we have engaged in partnerships with organisations who will play a key role in adding value to our endeavours.

### Partnership with IUCN

We have collaborated with IUCN to put in place local, national and international good practices in establishing the Biodiversity Management System and its action plans to minimise the impacts of mining on the biodiversity hotspots and to enhance and diversify rural livelihoods within the Gamsberg ecosystem and surrounding regions. In this regard, IUCN will establish an Independent Review Panel (IRP) to review, audit and advise us at regular intervals. A Biodiversity and Livelihoods Coordination Committee (BLCC) will, in collaboration with local community bodies and NGOs, oversee the planning and implementation of BMM's CSR programmes, which include rural livelihoods and biodiversity relationships. IUCN will be the primary monitoring authority on the Biodiversity Offset Programme that we have established for the Gamsberg project. A consolidated review and verification protocol is underway, which will allow independent ongoing reviews and verification of the programme. In order to promote awareness across the workforce on the biodiversity conservation initiatives we have undertaken, IUCN will provide training sessions on ways to manage and mitigate business impacts on biodiversity of the region.

## Gamsberg-Skorpion Zinc Integrated Project

The partnership with Skorpion Zinc is a future focus initiative by Vedanta Resources plc to create a regional Zinc Complex involving its operations in South Africa and Namibia. The Gamsberg Mine, with a predicted life of 13 years, would have enough zinc ores to source to the world-class refinery at Skorpion Zinc. This would also influence the continuity of the Skorpion Zinc Refinery, whose mine reserves are currently predicted at less than two years. The project has been approved with a capital investment of 782 million USD for development, construction and commissioning of an open-pit zinc mine, concentrator and associated infrastructure at Gamsberg, and for the enhancement of the Skorpion Zinc Refinery to enable it to treat zinc sulphide deposits extracted from the Gamsberg Mine. The project will also result in partially offsetting the loss of volume of production resulting from the end of life of mine at Lisheen in Ireland.

### AGGENEYS'S 'MANDELA MOMENT'

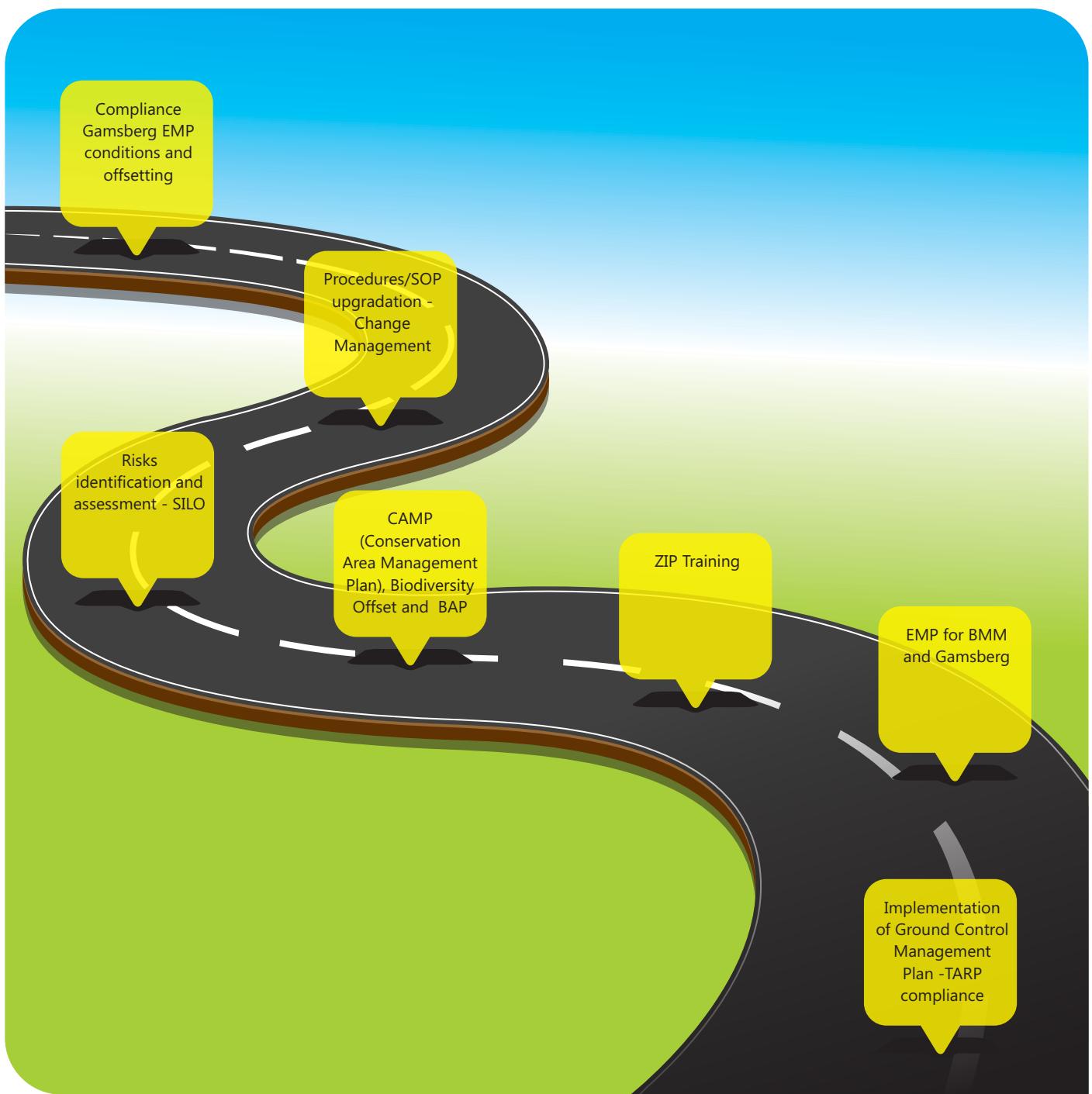
Coined the 'Mandela Moment' of Aggeney by our Hon. Minister Olyphant, 18th November 2014 will go down in history as the day that the integrated Gamsberg-Skorpion Zinc Project was inaugurated, bringing hopes of better livelihoods, more jobs and better communities.

The integrated venture is sure to augment the GDP of South Africa and Namibia. For the duration of the Gamsberg Mine and beyond, the Vedanta Group and Zinc International will continue to drive the economic and social development of the communities of the Black Mountain and Skorpion Mines. In keeping with the sustainability framework and programmes, the focus and strategy of the Group company will remain on developmental work in the fields of education, agriculture, health and SMME, while safeguarding the environment and conserving biodiversity in the region.

*"The Integrated Gamsberg-Skorpion Zinc Project is central to Vedanta's long-term aspirations for Southern Africa. It will also allow Vedanta to make a significant contribution to enabling the South African Government to achieve its goal of using the country's vast mineral wealth to help fight poverty and uplift communities through the creation of sustainable, long-term employment opportunities."*

**Tom Albanese,  
CEO, Vedanta Resources plc**

# SUSTAINABILITY ROAD MAP 2015-16



# GLOSSARY

%	Percentage
ACT UP	Accelerated Competency Tracking & Upgradation
AE-GS	Africa Eco-Gro Services Company
AO	Asset Optimization
AR	Absentee Rate
BAP	Biodiversity Action Plan
BEE	Black Economic Empowerment Programme
BLCC	Biodiversity and Livelihoods Coordination Committee
BMM	Black Mountain Mine
CEO	Chief Executive Officer
CFCs	Chlorofluorocarbons
CO2e	Carbon Dioxide equivalent
COO	Chief Operating Officer
CSR	Corporate Social Responsibility
DMR	Department of Mineral Resources
DENC	Department of Environment and Nature Conservation
EC	European Council
EMP	Environmental Management Plan
EMS	Environmental Management System
ESOP	Employee Stock Ownership Plan
EXCO	Executive Committee
FLP	Frontline Leadership Programme
FoG	Fall of Ground
FTSHR	Fulltime Safety Heath Representatives
FY	Financial Year
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GJ	Giga Joules
GJ/T	Giga Joules per Tonne
GM	General Manager
Govt.	Government
GRI	Global Reporting Initiative
Ha	Hectare
HCM	Human Capital Management
HDPE	High Density Polyethylene
HIPO	High Potential
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HOD	Head of Department
HR	Human Resources
HSE	Health, Safety and Environment
ICMM	International Council on Mining and Metals

IDP	Individual Development Plans
IFC	International Finance Corporation
IR	Injury Rate
IRP	Independent Review Panels
ISO	International Standards Organisation
IUCN	International Union for Conservation of Nature
JV	Joint Venture
Km	Kilometre
KPIs	Key Performance Indicators
Ktpa	Kilo tonnes per annum
LDR	Lost Day Rate
LED	Light Emitting Diode
LOM	Life of Mine
LSE	London Stock Exchange
Ltd	Limited
LTI	Lost Time Injuries
LTIFR	Lost Time Injuries Frequency Rate
m3	Cubic metres
MCFs	Methyl Chloroform
MQA	Mining Qualifications Authority
MSDS	Material Safety Data Sheet
MT	Metric Tonne
NGO	Non-Governmental Organisation
NOx	Oxides of Nitrogen
NYSE	New York Stock Exchange
OCC	Okiep Copper Company
ODR	Occupational Disease Rate
ODS	Ozone Depleting Substance
OECD	Organisation for Economic Co-operation and Development
OHSAS	Occupational Health and Safety Assessment Series
Plc	Private Limited Company
Pty	Private
PVC	Poly Vinyl Chloride
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Rep	Representative
SA	South Africa
SANCB	South African National Council for the Blind
SAP	Systems, Application and Products
SHE	Safety, Heath & Environment
SIP	Safety Improvement Plan
SMME	Small, Medium and Micro Enterprises
SLP	Social and Labour Plan
SOP	Standard Operating Procedure
SOX	Sarbanese Oxley
SOx	Sulphur Dioxide
t	Ton
TARP	Trigger Action Response Plan
TMM	Trackless Mobile Machinery
TSF	Tailings Storage Facility
UG	Underground
UK	United Kingdom
USD	United States Dollar
VDL	Value Driven Leadership
VFL	Visible Felt Leadership
VSAP	Vedanta Sustainability Assurance Programme
WB	Whistle Blower
ZI	Zinc International
ZIP	Zero Incident Process

# GRI INDEX

GENERAL STANDARD DISCLOSURES			
GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-1</b>	Statement from the most senior decision-maker of the organization	5-8	
<b>G4-2</b>	Description of key impacts, risks, and opportunities	18	
<b>G4-3</b>	Name of the organization	9	
<b>G4-4</b>	Primary brands, products and/or services	9	
<b>G4-5</b>	Location of the organization's headquarters	9	
<b>G4-6</b>	The number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	9	
<b>G4-7</b>	The nature of ownership and legal form	9	
<b>G4-8</b>	The markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	9	
<b>G4-9</b>	The scale of the organization including total no. of employees, total no. of operations and net sales	9, 23, 52	
<b>G4-10</b>	The total number of employees by employment contract, position and gender and any significant variations in employment in the reporting year	23-24	
<b>G4-11</b>	The percentage of total employees covered by collective bargaining agreements.	26	
<b>G4-12</b>	Description of the organization's supply chain	35	
<b>G4-13</b>	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain		None
<b>G4-14</b>	How the precautionary approach or principle is addressed by the organization	15	
<b>G4-15</b>	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	15	
<b>G4-16</b>	Memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization participates	56	
<b>G4-17</b>	All entities included in the organization's consolidated financial statements or equivalent documents	51	
<b>G4-18</b>	a. The process for defining the report content and the Aspect Boundaries b. Explanation on how the organization has implemented the Reporting Principles for Defining Report Content.	20	

<b>GRI G4 Indicator</b>	<b>Description</b>	<b>Page (s)</b>	<b>Omissions (if any and reason for omitting)</b>
<b>G4-19</b>	The material Aspects identified in the process for defining report content.	18	
<b>G4-20</b>	The Aspect Boundary within the organization for each material Aspect	16-18	
<b>G4-21</b>	The Aspect Boundary outside the organization for each material Aspect	16-18	
<b>G4-22</b>	The effect of any restatements of information provided in previous reports, and the reasons for such restatements.		None
<b>G4-23</b>	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	4, 53	
<b>G4-24</b>	List of stakeholder groups engaged by the organization	16-17	
<b>G4-25</b>	The basis for identification and selection of stakeholders with whom to engage.	16-17	
<b>G4-26</b>	The organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	15-16	
<b>G4-27</b>	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting, and the stakeholder groups that raised each of the key topics and concerns.	16-17	
<b>G4-28</b>	Reporting period (such as fiscal or calendar year) for information provided.	4	
<b>G4-29</b>	Date of most recent previous report	4	
<b>G4-30</b>	Reporting cycle	4	
<b>G4-31</b>	The contact point for questions regarding the report or its contents.	4	
<b>G4-32</b>	The 'in accordance' option the organization has chosen and the GRI Content Index for the chosen option	4	
<b>G4-33</b>	The organization's policy and current practice with regard to seeking external assurance for the report.		Our data is audited during the report assurance process of our parent company - Vedanta Resources Plc.
<b>G4-34</b>	The governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	11	
<b>G4-35</b>	The process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other	11-12	

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-36</b>	Has the organization appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body?	11-12	
<b>G4-37</b>	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	12	
<b>G4-38</b>	The composition of the highest governance body and its committees	11-12	
<b>G4-39</b>	Whether the Chair of the highest governance body is also an executive officer	11	
<b>G4-40</b>	The nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	12	
<b>G4-41</b>	Processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders	13	
<b>G4-42</b>	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	11	
<b>G4-43</b>	The measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	13	
<b>G4-44</b>	Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics.	12	
<b>G4-45</b>	<ul style="list-style-type: none"> <li>a. The highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities and due diligence processes.</li> <li>b. Was stakeholder consultation used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities?</li> </ul>	12	
<b>G4-46</b>	The highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	12	
<b>G4-47</b>	The frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	12	

<b>GRI G4 Indicator</b>	<b>Description</b>	<b>Page (s)</b>	<b>Omissions (if any and reason for omitting)</b>
<b>G4-49</b>	The process for communicating critical concerns to the highest governance body.	12	
<b>G4-50</b>	The nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	5-8	
<b>G4-51</b>	The remuneration policies for the highest governance body and senior executives	12	
<b>G4-52</b>	The process for determining remuneration.	12	
<b>G4-53</b>	Are stakeholders' views sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable?	12	
<b>G4-54</b>	The ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	12	
<b>G4-55</b>	The ratio of percentage increase in annual total compensation for the organization's highest-paid individual to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual)	12	
<b>G4-56</b>	The organization's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics.	13	
<b>G4-57</b>	The internal and external mechanisms for seeking advice on ethical and lawful behaviour, and matters related to organizational integrity, such as helplines or advice lines	13-14	
<b>G4-58</b>	The internal and external mechanisms for reporting concerns about unethical or unlawful behaviour, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	13-14	
<b>SPECIFIC STANDARD DISCLOSURES</b>			
<b>CATEGORY: ECONOMIC</b>			
<b>ASPECT: ECONOMIC PERFORMANCE</b>			
<b>G4-EC1</b>	Direct economic value generated and distributed	51-52	

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-EC2</b>	Financial implications and other risks and opportunities for the organization's activities due to climate change	42	Financial implications not included; We currently do not have systems in place for calculating those but in future we will endeavour to establish it.
<b>G4-EC3</b>	Coverage of the organization's defined benefit plan obligations	26	
<b>G4-EC4</b>	Financial assistance received from government	51	
<b>ASPECT: MARKET PRESENCE</b>			
<b>G4-EC5</b>	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	26	
<b>G4-EC6</b>	Proportion of senior management hired from the local community at significant locations of operation	25	
<b>G4-EC7</b>	Development and impact of infrastructure investments and services supported	53-58	
<b>G4-EC8</b>	Significant indirect economic impacts, including the extent of impacts	36-40	
<b>ASPECT: PROCUREMENT PRACTICES</b>			
<b>G4-EC9</b>	Proportion of spending on local suppliers at significant locations of operation	35	
<b>CATEGORY: ENVIRONMENT</b>			
<b>ASPECT: MATERIALS</b>			
<b>G4-EN1</b>	Materials used by weight or volume	44	
<b>G4-EN2</b>	Percentage of materials used that are recycled input materials	44	
<b>ASPECT: ENERGY</b>			
<b>G4-EN3</b>	Energy consumption within the organization	41-42	
<b>G4-EN4</b>	Energy consumption outside of the organization	41-42	
<b>G4-EN5</b>	Energy intensity	41	
<b>G4-EN6</b>	Reduction of energy consumption	41	
<b>G4-EN7</b>	Reductions in energy requirements of products and services	41	
<b>ASPECT: WATER</b>			
<b>G4-EN8</b>	Total water withdrawal by source	43	

GRI G4 Indicator		Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-EN9</b>		Water sources significantly affected by withdrawal of water	43	
<b>G4-EN10</b>		Percentage and total volume of water recycled and reused	43	
<b>ASPECT: BIODIVERSITY</b>				
<b>G4-EN11</b>		Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	49	
<b>G4-EN12</b>		Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	49, 56	
<b>MM1</b>		Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	49	
<b>G4-EN13</b>		Habitats protected or restored	49	
<b>MM2</b>		The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria the number (percentage) of those sites with plans in place.	49, 56	
<b>G4-EN14</b>		Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	49	
<b>ASPECT: EMISSIONS</b>				
<b>G4-EN15</b>		Direct greenhouse gas (GHG) emissions (Scope 1)	42-43	
<b>G4-EN16</b>		Energy indirect greenhouse gas (GHG) emissions (Scope 2)	42-43	
<b>G4-EN17</b>		Other indirect greenhouse gas (GHG) emissions (Scope 3)	42	
<b>G4-EN18</b>		Greenhouse gas (GHG) emissions intensity	42	
<b>G4-EN19</b>		Reduction of greenhouse gas (GHG) emissions	42	
<b>G4-EN20</b>		Emissions of ozone-depleting substances (ODS)	48	
<b>G4-EN21</b>		NOX, SOX, and other significant air emissions	48	
<b>ASPECT: EFFLUENTS AND WASTE</b>				
<b>G4-EN22</b>		Total water discharge by quality and destination	47	
<b>G4-EN23</b>		Total weight of waste by type and disposal method	44-47	
<b>MM3</b>		Total amounts of overburden, rock, tailings, and sludges and their associated risks	44	

GRI G4 Indicator		Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-EN24</b>		Total number and volume of significant spills	44	
<b>G4-EN25</b>		Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention2 Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	44	
<b>G4-EN26</b>		Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	49	
<b>ASPECT: PRODUCTS AND SERVICES</b>				
<b>G4-EN27</b>		Extent of impact mitigation of environmental impacts of products and services	41-50	
<b>G4-EN28</b>		Percentage of products sold and their packaging materials that are reclaimed by category		No packaging materials are used for our product
<b>ASPECT: COMPLIANCE</b>				
<b>G4-EN29</b>		Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	49	
<b>ASPECT: TRANSPORT</b>				
<b>G4-EN30</b>		Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	42	
<b>ASPECT: OVERALL</b>				
<b>G4-EN31</b>		Total environmental protection expenditures and investments by type	50	
<b>ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>				
<b>G4-EN32</b>		Percentage of new suppliers that were screened using environmental criteria	35	
<b>G4-EN33</b>		Significant actual and potential negative environmental impacts in the supply chain and actions taken	35	
<b>G4-EN34</b>		Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	41	
<b>CATEGORY: SOCIAL</b>				
<b>SUB CATEGORY: LABOUR PRACTICES &amp; DECENT WORK</b>				
<b>ASPECT: EMPLOYMENT</b>				
<b>G4-LA1</b>		Total number & rates of new employee hires and employee turnover by age group, gender and region	24	

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>G4-LA2</b>	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	26	
<b>G4-LA3</b>	Return to work and retention rates after parental leave, by gender	26	
<b>ASPECT: LABOUR/MANAGEMENT RELATIONS</b>			
<b>G4-LA4</b>	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	26	
<b>MM4</b>	Number of strikes and lock-outs exceeding one week's duration by country	26	
<b>ASPECT: OCCUPATIONAL HEALTH &amp; SAFETY</b>			
<b>G4-LA5</b>	Percentage of total workforce represented in formal joint management-worker health & safety committees that help monitor and advise on occupational health & safety programs	30	
<b>G4-LA6</b>	Type of injury & rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and by gender	29	
<b>G4-LA7</b>	Workers with high incidence of high risk of diseases related to their occupation	30	
<b>G4-LA8</b>	Health & safety topics covered in formal agreements with trade unions	31	
<b>ASPECT: TRAINING AND EDUCATION</b>			
<b>G4-LA9</b>	Average hours of training per year per employee by gender and by employee category	27-28	
<b>G4-LA10</b>	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	27-28	
<b>G4-LA11</b>	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	29	
<b>ASPECT: DIVERSITY &amp; EQUAL OPPORTUNITY</b>			
<b>G4-LA12</b>	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership and other indicators of diversity	25	
<b>ASPECT: EQUAL REMUNERATION FOR WOMEN AND MEN</b>			
<b>G4-LA13</b>	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	26	

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>ASPECT: SUPPLIER ASSESSMENT FOR ALBOUR PRACTICES</b>			
<b>G4-LA14</b>	Percentage of new suppliers that were screened using labour practices criteria	35	
<b>G4-LA15</b>	Significant actual and potential negative impacts for labour practices in the supply chain	35	
<b>ASPECT: LABOUR PRACTICES GRIEVANCE MECHANISMS</b>			
<b>G4-LA16</b>	Number of grievances about labour practices filed, addressed and resolved through formal grievance mechanisms	14	
<b>SUB CATEGORY: HUMAN RIGHTS</b>			
<b>ASPECT: INVESTMENT</b>			
<b>G4-HR1</b>	Total number & percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	13-14	
<b>G4-HR2</b>	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	14	
<b>ASPECT: NON-DISCRIMINATION</b>			
<b>G4-HR3</b>	Total number of incidents of discrimination and corrective actions taken	14	
<b>ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>			
<b>G4-HR4</b>	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	14	
<b>ASPECT: CHILD LABOUR</b>			
<b>G4-HR5</b>	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	14	
<b>ASPECT: FORCED OR COMPULSORY LABOUR</b>			
<b>G4-HR6</b>	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour	14	
<b>ASPECT : SECURITY PRACTICES</b>			
<b>G4-HR7</b>	Percentage of security personnel trained in the organisation's human rights policies or procedures that are relevant to operations	14	

GRI G4 Indicator		Description	Page (s)	Omissions (if any and reason for omitting)
<b>ASPECT: INDIGENOUS RIGHTS</b>				
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	14		
MM5	Total number of operations taking place in or adjacent to indigenous people's territories, and number and percentage of operations or sites where there are formal agreements with indigenous people's communities	14		
<b>ASPECT: ASSESSMENT</b>				
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments			None
<b>ASPECT: SUPPLIER HUMAN RIGHT ASSESSMENT</b>				
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	35		
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	35		
<b>ASPECT: HUMAN RIGHTS GRIEVANCE MECHANISMS</b>				
G4-HR12	Number of grievances about human rights impacts filed, addressed and resolved through formal grievance mechanisms	14		
<b>SUB CATEGORY: SOCIETY</b>				
<b>ASPECT: LOCAL COMMUNITIES</b>				
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	36-40		
G4-SO2	Operations with significant actual or potential negative impacts on local communities	36-40		
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples			None; since there are no indigenous communities in the vicinity
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and the outcomes	14		
<b>ASPECT: ANTI-CORRUPTION</b>				
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	13		
G4-SO4	Communication and training on anti-corruption policies and procedures	13		
G4-SO5	Confirmed incidents of corruption and action taken	13		

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>ASPECT: PUBLIC POLICY</b>			
<b>G4-SO6</b>	Total value of political contributions by country and recipient/beneficiary	51	
<b>ASPECT: ANTI-COMPETITIVE BEHAVIOUR</b>			
<b>G4-SO7</b>	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	10	
<b>ASPECT: COMPLIANCE</b>			
<b>G4-SO8</b>	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	10	
<b>ASPECT: ARTISANAL &amp; SMALL-SCALE MINING</b>			
<b>MM8</b>	Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks.		None
<b>MM9</b>	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.		None
<b>ASPECT: CLOSURE PLANNING</b>			
<b>MM10</b>	Number and percentage of operations with closure plans	41	
<b>SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY</b>			
<b>G4-SO9</b>	Percentage of new suppliers that were screened using criteria for impacts on society	35	
<b>G4-SO10</b>	Significant actual and potential negative impacts on society in the supply chain and actions taken	35	
<b>ASPECT: GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY</b>			
<b>G4-SO11</b>	Number of grievances about impacts on society filed, addressed and resolved through formal grievance mechanisms	36	
<b>SUB CATEGORY: PRODUCT RESPONSIBILITY</b>			
<b>ASPECT: CUSTOMER HEALTH &amp; SAFETY</b>			
<b>G4-PR1</b>	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	10	
<b>G4-PR2</b>	Total number of incidents for non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle by type of outcomes	10	

GRI G4 Indicator	Description	Page (s)	Omissions (if any and reason for omitting)
<b>ASPECT: PRODUCT AND SERVICE LABELING</b>			
<b>G4-PR3</b>	Type of product and service information required by the organisation's procedures for product and service information and labelling, and percentage of significant product and service categories subject to such information requirements	10	
<b>G4-PR4</b>	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.	10	
<b>G4-PR5</b>	Results of surveys measuring customer satisfaction	10	
<b>ASPECT: MARKETING COMMUNICATIONS</b>			
<b>G4-PR6</b>	Sale of banned or disputed products		None
<b>G4-PR7</b>	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising promotion, and sponsorship, by type of outcomes.	10	
<b>ASPECT: CUSTOMER PRIVACY</b>			
<b>G4-PR8</b>	Total number of sustainability complaints regarding breaches of customer privacy and losses of customer data.	10	
<b>ASPECT: COMPLIANCE</b>			
<b>G4-PR9</b>	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	10	

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