


**Sustainable Practices  
Regenerating Resources  
Unearthing the Future**



WE SUPPORT  
GRI G3.1 compliant  
Application level A+

**Sesa Goa Limited**  
Sustainability Report 2012

# SESA GOA LIMITED

## Our Vision

**To be one of the top four iron ore mining companies in the world**

## Our Mission

- To maximise stakeholder wealth by exploiting core skills of iron ore mining, coke and iron making
- To constantly seek high levels of productivity and technical efficiency; to maintain technological superiority over competitors
- To aggressively seek additional resources
- To maintain costs in the lowest quartile globally
- To be an organisation with best-in-class people and a performance driven culture by attracting and retaining quality manpower
- To continue to maintain a pre-eminent position in safety, environment and quality control management in the respective industry sectors
- To contribute to the development of the communities, the Company operates in, or have influence on its business activities
- To uphold human rights in the workplace and communities surrounding our operating areas

## Our Values



### Entrepreneurship

We foster an entrepreneurial spirit throughout our businesses and value the ability to foresee business opportunities early in the cycle and act on them swiftly. Whether it is developing organic growth projects, making strategic acquisitions or creating entrepreneurs from within, we ensure an entrepreneurial spirit at the heart of our workplace.



### Growth

We continue to deliver growth and generate significant value for our shareholders on a sustainable basis. Moreover, our organic growth pipeline is strong as we seek to continue to deliver significant growth for shareholders in the future. We have pursued growth across all our businesses and into new areas; always on the basis that value must be delivered.



### Excellence

Achieving excellence in all that we do is our way of life. We strive to consistently deliver projects ahead of time at industry leading costs of construction and within budget. We are constantly focused on this and aspire to achieve a top decile cost of production in each of our businesses. To achieve this, we follow a culture of best practice benchmarking.



### Trust

The trust that our stakeholders place in us is key to our success. We recognise that we must responsibly deliver on the promises we make to earn that trust. We constantly strive to meet stakeholders' expectations of us and deliver ahead of expectations without compromising our other values.



### Sustainability

We practice sustainability within the framework of well-defined governance structures and policies and with the demonstrated commitment of our management and employees. We aim not only to minimise damage to the environment from our projects, but also to make a net positive impact on the environment wherever we work.

# CONTENTS



<b>Overview</b>	<b>3</b>
About Sesa	4
Chief Executive's Statement	7
7 Features of Our 7 <sup>th</sup> Report	10



<b>Environmental Stewardship</b>	<b>39</b>
Regenerating Resources	40
Product Responsibility	47



<b>Strategy &amp; Governance</b>	<b>11</b>
Our Sustainability Approach	12
Our Stakeholders	13
Economic Performance	17
Risks and Mitigation	20
Corporate Governance	22



<b>Empowering Communities</b>	<b>49</b>
Reaching Out to Community	50



<b>Ethics &amp; Human Rights</b>	<b>27</b>
Ethics	28
Human Rights	29
Sustainable Supplier Relations	30



<b>Assurance</b>	<b>57</b>
GRI Content Index	58
UNGC & NVG Guidelines	67
NVG Report Application Table	68
Assurance by DNV	70
GHG Verification by DNV	72
Memberships and Associations	74
Glossary	75



<b>Nurturing People</b>	<b>31</b>
Our People	32
Health and Safety	37

## YEAR IN REVIEW

Sesa continued to pursue improvements across all areas of its sustainability performance. Our ongoing drive of “Zero Accident Mindset” efforts and focus on addressing the root causes of safety and near-miss incidents over the last few years has led to a 60% decline in the lost time injuries since 2006-07.

### Highlights

- 5% reduction in lost time injuries to 0.81 per million hours worked
- Pig Iron and Shipbuilding Division achieved zero lost time injuries; whereas Pig Iron Division achieved this for the second consecutive year
- Zero cases of occupational illness / disease from exposure to current occupational hygiene hazards
- 101,129 CERs have been accrued while we continue to reduce carbon and GHG
- Voluntary corporate social involvement of Rs. 310 millions to support communities
- Contribution of over Rs. 35,000 million in terms of taxes, duties and royalties to the exchequer
- Ranked amongst the “Top Ten Leaders” for CDLI (Carbon Disclosure Leadership Index) in the CDP 2011, India 200 Report
- 96,208 man hours of training were imparted

Table 1: Performance Parameters 2011-12

Parameters		Units	Performance (2010-11)	Target (2011-12)	Performance (2011-12)	
Economic	Production (Iron Ore)	mt	18.8	21.3	13.8	
	LTIFR	per million man hours worked	0.86	0.68	0.81	
Environment	LCA	Lifecycle Assessment (LCA) studies for all the products	-	Compilation of baseline data and awareness program to identified persons	Study results will be revealed end of 2012	On track
		Specific Water consumption	SGL Mining	kL / t	0.732	5-10% reduction on previous year's achieved targets
	SGL PID		kL / t	2.002	2.038	
	SGL MCD		kL / t	0.779	0.799	
	Specific Energy Consumption	SGL Mining	GJ / t	0.106	3-5% reduction on previous year's achieved targets	0.150
		SGL PID	GJ / t	0.568		0.666
		SGL MCD	GJ / t	0.136		0.144
	Social	High Impact Projects	-	1 completed 5 ongoing	6	2 completed 11 ongoing
		Workplace Betterment	-	SA 8000 Awareness and Training	SA 8000 Audit & Certification	Completed & Certificate obtained from Bureau Veritas

# OVERVIEW

Sesa believes in sustainable development in all aspects of its operations, and over years has created long-standing value for stakeholders through responsible stewardship. Sustainability at Sesa is a three-fold philosophy:

- Sustainable operational practices
- Sustainability through resource generation
- Sustainability of the organisation

## Highlights

- Community initiatives benefit more than 4,00,000 lives in and around our operations
- Gross addition of over 257 mt of reserves and resources over the last four years, increasing the mine life by more than 10 years
- Environmental friendly generation of electrical power of 60 MW, using heat from waste gases
- Sesa Goa Limited is the first iron ore company in the world to receive SA 8000 certification



## ABOUT SESA

Sesa is India's largest producer and exporter of iron ore in the private sector, with operations in the states of Goa and Karnataka in India and a project site in Liberia, West Africa. Founded in 1954, it has about 6 decades of expertise in the exploration, mining and processing of iron ore.

Sesa is a part of Vedanta Resources plc., the London-listed FTSE 100 diversified global metals and mining group, with operations in the core business sectors of zinc-lead-silver, copper, aluminium, iron ore and energy across India, Australia, UAE, Zambia, Liberia, South Africa, Namibia and Ireland.

Sesa also produces pig iron and metallurgical coke and provides proprietary environment-friendly met coke making technology, along with power. The Power Plant, Met Coke Division and Pig Iron Division operate as independent business divisions.

In 2011, Sesa acquired 51% interest in Western Cluster Limited, with mineral development rights for iron ore in Liberia.

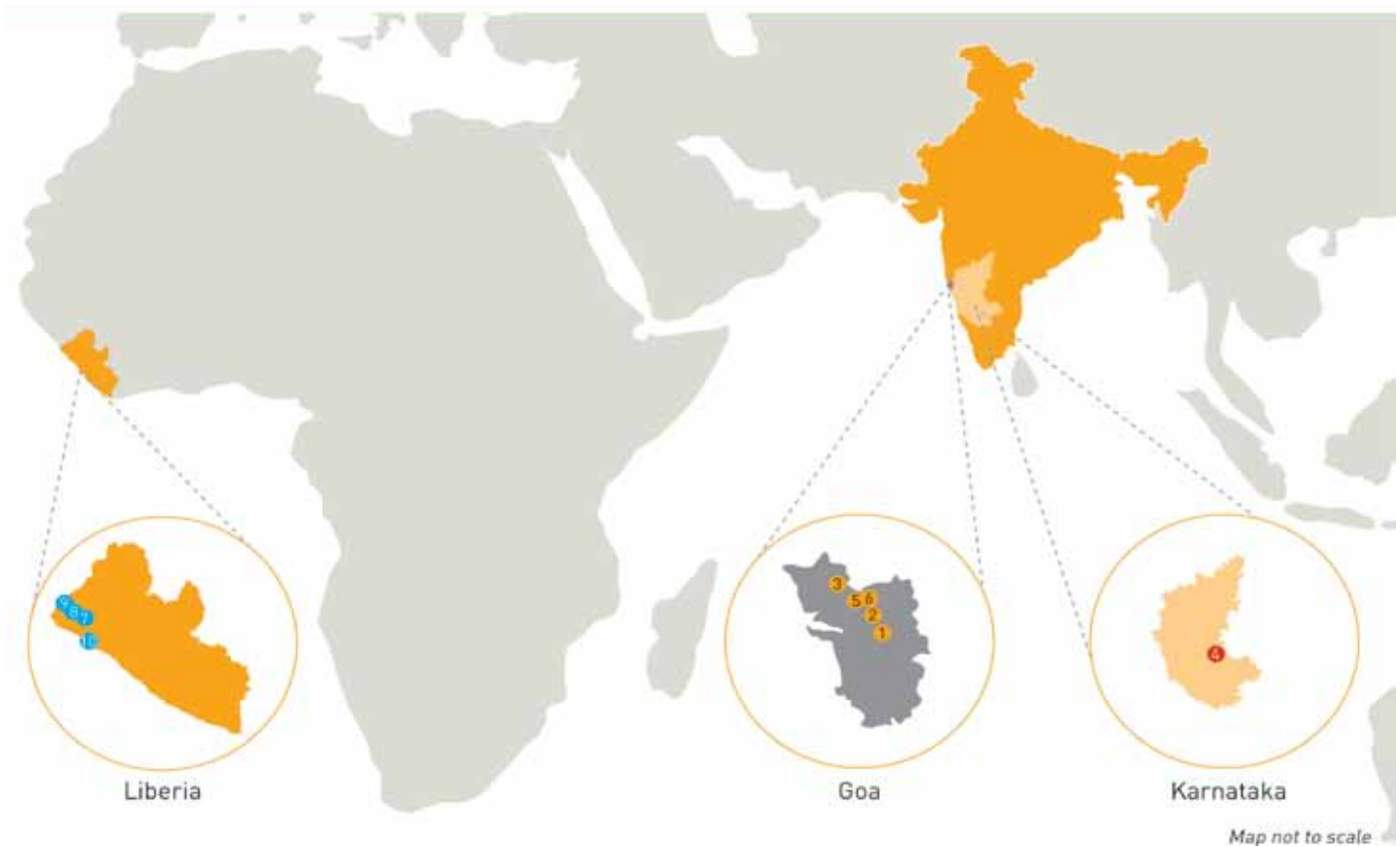
Sesa also holds 20% interest in Cairn India Limited, India's second-largest private sector upstream oil company (by reserves).

Sesa is listed on the Bombay Stock Exchange and National Stock Exchange.

Sesa aims to be a leading global iron ore producer, with an impeccable track record of operational safety, while delivering superior stakeholder value. With this driving commitment, teams at Sesa work towards excellence through a systematic approach to exploration and mining, continuously seeking innovation in operations and technological up gradation of processes.

## Operations

Below is a map showing our operations. The Liberian iron ore project depicted in the map does not fall under the scope of this report.



### India

#### Iron Ore Operations

1. Codli Mines, Goa
2. Sonshi / Surla Mines, Goa
3. Bicholim Mines, Goa
4. A Narrain Mine, Karnataka

#### Pig Iron & Met Coke Operations

5. Pig Iron Plant, Goa
6. Met Coke Plant, Goa

### Liberia

#### Iron Ore Project

7. Bomi Hills
8. Bea Mountain
9. Mano River
10. Monrovia Port

## Certifications

The below table indicates the Sesa Goa Limited organisation, along with its subsidiaries, divisions and operations. The table also indicates which operations or projects are covered / not covered under the scope of this report, and the certifications applicable to each unit / operations.

**Table 2: Business Units and Certifications**

Company	SD Report	ISO 9001	ISO 14001	OHSAS 18000	SA 8000
<b>Iron Ore Division, Goa</b>					
Codli Group of Mines	✓	✓	✓	✓	✓
Gawal Sonshi Mine*	✓	✓	✓	✓	✓
Sanquelim Mine	✓	✓	✓	✓	✓
Orasso Dongor Mine	✓	✗	✗	✗	✓
Mareta Sodo Mine	✓	✗	✗	✗	✓
<b>Iron Ore Division, Karnataka</b>					
A Narrain Mine, Chitradurga	✓	✓	✓	✓	✓
<b>Pig Iron Division</b>					
Pig Iron Plant, Amona	✓	✓	✓	✓	✓
Expansion Project, Navelim	✗	✗	✗	✗	✗
<b>Met Coke Division</b>					
Met Coke Plant, Amona	✓	✓	✓	✓	✓
Expansion Project, Navelim	✗	✗	✗	✗	✗
<b>Other Divisions</b>					
Shipbuilding Division, Sirsaim	✓	✓	✓	✓	✓
River Fleet & Shipping, Vasco	✓	✓	✓	✓	✗
<b>Sesa Resources Limited</b>					
Surla Sonshi Mines	✓	✓	✓	✓	✗
Colomba Mine	✓	✗	✗	✗	✗
Curpem Mine	✓	✗	✗	✗	✗
<b>Sesa Mining Corporation Limited</b>					
Bicholim Group Of Mines	✓	✓	✓	✓	✗
<b>Western Cluster Limited</b>					
Liberia Project Site	✗	✗	✗	✗	✗
<b>Goa Energy Private Limited</b>					
Power Plant, Amona	✗	✗	✗	✗	✗

\*SGL is a raising contractor in Gawal Sonshi mine (Cosme Costa and Sons)

✓ Covered / Certified

✗ Not Covered / Not Certified

The units that are not covered, as above, in the current SD Report, are either recent acquisitions made by the Company during the reporting period, or are projects that have been commissioned / undergoing commissioning during the reporting period. These projects and units will be covered, from the reporting period, when they start operations.

Note: No artisanal and small-scale mining operations take place either on or adjacent to any of our Company's mining sites. All mining operations present adjacent to our mines in Goa and Karnataka are run by major mining companies.

## Shareholding Pattern

**Table 3: Shareholding Pattern as on 31 March 2012\***

Shareholders	Percentage Holding
Promoters	55.13%
Institutional Investors	30.53%
Private Corporate Bodies	2.03%
Indian Public	11.85%
Non Resident Indian	0.24%
Other	0.23%

\* No government holding

As on 31 March 2012, paid-up capital was Rs. 869,101,423.

## Awards

Sesa was awarded with the following prestigious awards during the year 2011-12:

- Sesa was conferred with the award for Consistent Liquidity Management among Large Companies at the Best CFO Awards 2012 given by Business Today. (March 2012)
- Sesa's Mining Division received the CSR Excellence Award and Met Coke Division won the Environment Award, while the Pig Iron Division, Met Coke Division and Shipbuilding Division won safety awards. Green Triangle Society (GTS), Goa Chamber of Commerce and Industry (GCCl) and Ideaz Unlimited promoted CSR and Environment awards, while Inspectorate of Factories and Boilers, Goa, and Green Triangle Society promoted safety awards. (May 2011)
- Asia's Best Employer Brand Award: Sesa won an award for 'Best Practices in Talent Management' hosted by Employer Branding Institute, World HRD Congress, and Stars of the Industry Group, with CMO Asia as Strategic Partner. (July 2011)
- Sesa's Pig Iron Division and Metallurgical Coke Division were awarded "Silver Certificate of Merit – India Manufacturing Excellence Awards 2011", presented by The Economic Times in partnership with Frost & Sullivan. (November 2011)
- Codli Mines, Sonshi Mines, Pig Iron and Metallurgical Coke Divisions received a Certificate of Merit from the British Safety Council. (March 2012)



Mr. S.L. Bajaj conferred an award at the Best CFO Awards 2012 given by Business Today



## CHIEF EXECUTIVE'S STATEMENT



Mr. P. K. Mukherjee, M.D.

I am pleased to present the seventh edition of Sesa Goa's Sustainability Report. There are two fundamental, existential, inescapable truths of any mining business.

By its very nature, mining is an extractive process and has a basic impact on ecology. Mining operations involve extraction and processing of natural resources and this process can impact the environment in many ways and, therefore, have significant sustainability challenges. However, dissimilar to other industries, there is no choice on the location of the operations, which are determined by geology and more often than not discovered by painstaking exploration and reconnaissance work.

Secondly, mineral resources are finite and, due to their non-renewable nature, pose a challenge in terms of their exploitation, consumption and host of other related issues.

To add to the diverse ways of affecting the environment in the extraction of these resources, the non-renewable nature of the resource itself underscores the pervasive need for "sustainability" in the management outlook in a responsible mining company. With this in our mind, sustainability remains at the core of our business strategy. We are steadily integrating sustainability into our policies and standards, risk management, strategy and business planning.

Sustainability at Sesa is a three-fold philosophy:

1. Conducting mining and business operations in a sustainable manner, which itself is a three-pronged activity; ensuring the health and safety of all involved in the process; ensuring that the above mentioned impacts of mining operations on the surrounding environment are at the benchmarked minimum; and establishing the efforts / laying the path for the restoration of the environment to near to its original state, once mining operations have ceased in those areas.
2. The second approach to sustainable operations is on the resource front, where Sesa lays strong emphasis on resource exploration. Despite exploration for mineral resources becoming more challenging geologically, it is necessary to

maintain a sustainable supply of mineral resources to society. In order to do this, the Company continues to emphasise on more advanced exploration techniques, and in turn improved understanding of ore deposits, leading to additions to resources & reserves, and positively impacting longevity of sustainable operations.

3. The third approach is sustainability of the organisation (existence), with a constant endeavour to grow, organically and inorganically, to continue to deliver a strong and consistent stakeholder value.

### Sustainable Practices

Sesa is committed to sustainable development, which focuses on maintaining a pre-eminent position in health, safety and environment practices, and in contributing to the development of communities where it operates. Health and safety is a priority at Sesa. While our health, safety and environment systems are certified for ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007, at a majority of our units\*, many units have also been certified for 5S workplace management and housekeeping system.

During the year, Sesa has been certified for SA 8000 for most of its units\*, on a standalone basis making us the first iron ore company in the world to achieve this. SA 8000, as one of the world's first auditable social certification standards for decent workplaces, based on conventions of the ILO, UN and other locally applicable laws, brings in further improved impetus to the sustainable implementation of basic human rights ensuring decent workplaces.

Our safety performance has been improving over the years. In 2011-12, Sesa's overall Lost Time Injury Frequency Rate (LTIFR) reduced from 0.86 in 2010-11 to 0.81 per million manhours worked. I am also happy to report that the pig iron division (PID) maintained its zero-accident record for the last two years and our shipbuilding division achieved a zero-accident record for 2011-12. During the year, despite the Company's best efforts to achieve zero accidents, unfortunately, we suffered a fatality at our Colomba mine to an unusual incident. An investigation was conducted and mitigation mechanisms have been put in place.

**"CDP India 200 Report, 2011, has ranked Sesa 7<sup>th</sup> in the Carbon Disclosure Leadership Index in India."**

Sesa's responsibility towards environment does not end with operating the mine; it extends much after the mine site is closed. It ensures regeneration of the very earth that has been mined, helps sustain biodiversity and addresses the needs of local communities, particularly on the ecology front. In the long term, the goal is to return the land as close to its original state as possible. Long before environment consciousness became de rigueur for the corporate world, Sesa had commenced initiatives to preserve and protect the environment. Our exhausted mining pit has been rehabilitated and reforested and operates as a rainwater harvesting facility. We have also initiated "Back to Farming" – an Agriculture Rejuvenation Project aimed at reviving paddy fields in the proximity to mining areas in collaboration with zonal agriculture departments and farmers' groups.

\*Please refer to table of business units and certifications, listed earlier in the report.

As part of its climate change initiatives, the Company measures and reviews its impact on the environment by mapping its carbon footprint periodically. The Company's Amona plants utilise waste heat recovery based power plants, which have capacity to generate 60 MW of electricity. The plants are registered with the UNFCCC generating CERs. About 101,129 CERs have been accrued during 2011-12.

Since few years, Sesa has been disclosing its carbon emissions, and strategies to minimise GHG emissions, through Carbon Disclosure reporting. The Carbon Disclosure Project (CDP), a UK-based independent not-for-profit organisation, in its CDP India 200 Report, 2011, has ranked Sesa 7<sup>th</sup> among the top 10 companies in the Carbon Disclosure Leadership Index in India.

Sesa has a long-term comprehensive approach to corporate social responsibility. This is achieved through stakeholder engagement and consultation process, socio-economic baseline studies and need assessments, and partnering with like-minded organisations, including government agencies, NGOs, local communities and Panchayat bodies in the implementation of development projects. Our community development work, through the Sesa Community Development Foundation, Mineral Foundation of Goa and other specific need-based initiatives, continues to focus on social projects in line with our overall sustainability objectives. Our development initiatives have impacted about 4 lakh lives in and around the areas in which we operate. The details of our key CSR initiatives are elaborated further in the community section, two of which are mentioned below:

- Paediatric Neuro Rehabilitation Centre in Goa has developed facilities to treat disabled in association with Goa Medical College & Paediatric Neuro Development Clinic, Mumbai. The centre has treated nearly 700 patients since its establishment in 2010.
- Sesa currently runs 10 community medical centres and 2 mobile health units making timely basic healthcare available to the needy.

Sesa Technical School and Sesa Football Academy, the two pioneering efforts of the Company towards local youth development, under the aegis of the Sesa Community Development Foundation, continue to excel in their respective fields of vocational education and football training.

Since 1994, Sesa Technical School has provided the industry with 778 (up to 31 March 2012) technically trained youth in six different vocational trades. The school has been achieving 100% results all throughout and the alumni of the school are placed with reputed industrial houses in Goa. In 2011, Sesa also started a second technical school in Digas, Panchwadi, to cater to the growing demand and needs of youth in South Goa.

Since 1999, Sesa Football Academy, with an aim to nurture the talent in Goa's youth, has given the country over 93 talented young footballers, who are currently a part of some of the top professional football teams in our country. Few of Sesa's alumni have gone on to represent the Indian national team in select international tournaments.

Over the past two years, the Company has strengthened its various people initiatives with focussed interventions in continuous learning & development, leadership development and behavioural training. Initiatives such as Gen-Next Operational Leadership Development (GOLD) programme, Accelerated Competency Tracking and Up-gradation (ACT UP), Management Development Programmes, etc., are aimed at creating the pool of next

generation leaders to drive the future growth of the organisation with sustainable practices.

This year we introduced Connect, an Employee Engagement Survey. We are pleased to have received a strong response with 83% of our employees taking part in the survey. The survey, which provides an opportunity to employees in a participative building of the work environment and work culture, will now be an annual feature and will form the foundation of our people strategy.

Sesa continues to focus on providing employment opportunities to local population and Sesa is the single largest employer in Goa, after the state government. In our Goan operations, more than 85% of our employees are of Goan origin.

Our people initiatives have extended beyond capacity building within the organisation to the local community. In furtherance to the other CSR initiatives on the education front, we have partnered with the Department of Education and the Goa Engineering College at Farmagudi, Goa, to start a graduate programme in mining engineering (BE). A steady supply of quality mining engineers is a fundamental need for sustainable mining industry in the country. It will also give an opportunity to Diploma mining engineers to get a graduate degree.

**“Pig Iron Division maintained its zero-accident record for the last two years”**

### Regenerating Resources

Our commitment and drive for sustainable growth was underscored by our strong performance on resource addition. Primarily, I wish to present an argument for exploration resource augmentation as a sustainable initiative. At a superficial glance, sustainability and mineral resource development appear to be in conflict. As resources are finite and mining depletes them, it is often argued that continuing to mine will eventually exhaust the available supply of minerals. This perspective ignores the dynamics of mineral supplies. A few factors make the benefits of mining much more sustainable than they appear to be.

Firstly, through the process of exploration and development, mining organisations continually revive, supplement, or sustain their reserves. At any point of time, current reserves only represent a small portion of the mineral resources in the earth's crust. Exploration and development lead to the discovery and proving of previously unknown mineral deposits, or additional reserves at existing mines or known deposits. Further, technological improvements in exploration increase the discovery rate of mineral deposits and reduce costs besides enabling more scientific mining with reducing waste to be left behind in future. Looking from a different angle, it helps in 'conservation' of national resources.

Exploration, which is the pillar of strength for our growth strategy added 68 million tonnes of additional resources during the year, about 5 times what we have extracted during the year. Sesa's exploration team through their sterling efforts have added over 250 million tonnes of fresh resources over the last 4 years, drilling more than 200,000 meters. As on 31 March 2012, the Company's total reserves and resources in India were at 374 million tonnes.

## Unearthing the Future

In all respects, 2011-12 was a mixed bag for the Company. During the year, the iron ore industry in India as a whole, and our Company, was gripped in a seemingly ceaseless national debate on mining practices. The Indian iron ore mining industry was severely impacted by events related to regulation, policy, social activism and other contextual concerns, which have also impacted our Company. At the Company, this spilt into other aspects of the business and business segments. Despite all round best efforts put in by teams, the Company's performance has been under pressure as compared to the last year.

On the operational front, the Company, as the whole Indian mining industry, faced significant challenges. Our team worked tirelessly to mitigate any potential impact, to ensure the continuity of operations and to reassure our stakeholders; responding proactively to all agencies. In the current environment, the company enhanced its level of engagement with stakeholders during the year, to reinforce and reiterate responsible mining practices that are followed by our Company.

On the other hand, it was a milestone year as the Company made key strides towards becoming a diversified global resource major. Significant acquisitions, like a major offshore iron ore asset, a substantial investment in oil & gas, and an eco-friendly power-generation facility for domestic consumption, spur the Company to becoming a resource company with a global footprint. The planned merger of Sterlite Industries (India) Limited, along with other associated mergers, will diversify the business, enabling large scale operations, creating opportunities for organic growth, and thereby ensuring a sustainable delivery of consistent and higher stakeholder value.

The announcement of merger with Sterlite Industries (India) Limited, coupled with the integration of varied commodity businesses, copper, zinc and aluminium, herald a diversified natural resources company with a global footprint. The proposed Sesa Sterlite will become one of the largest diversified Companies in the world.

**“Since 1994, Sesa Technical School has provided the industry with 778 technically trained youth in six different vocational trades”**

Taking the Company's iron ore business truly global, Sesa's acquisition of 51% stake in Western Cluster Limited in Liberia has a potential iron ore resource of over 1 billion tonnes. Western Cluster Project presents an excellent opportunity for developing a large integrated mining operation and establishes our presence in the upcoming iron ore hub in West Africa. The Company has successfully completed the aeromagnetic survey in Liberia and exploratory drilling is in full swing.

During the year, Sesa Goa Limited, along with its subsidiary, Sesa Resources Limited, acquired 20% of the share capital of Cairn India Limited. Cairn India is a unique oil and gas exploration and production platform with the second largest oil reserves in India.

Sesa also embarked on expansions of pig iron and met coke facilities, along with a sinter plant and the associated power plant. The enhanced pig iron capacity of 625 ktpa will make Sesa the largest low-phosphorous pig iron producer in the country and the addition of the sinter plant will give us the ability to utilise iron ore fines, giving Sesa a strong cost advantage.

## In closing

Sesa remains committed to sustainable development. As evidenced, despite the period of industry uncertainty, Sesa has endeavoured to maintain its focus on both the financial and non-financial aspects of sustainability. We understand that care for our people, neighbours and the environment is critical to our business. With its efforts to consolidate, diversify and de-risk its business, the Company continues to focus on sustaining its business operations and delivery of stakeholder value.

Despite the complexities, mining has the proven potential for creating value for the society as a whole and it is possible to do so, as Sesa continues to do, in a manner which is economically, socially, and environmentally sustainable. Mining has been a significant contributor to the global economy, founding the basis of the industrial revolution and has played a significant role in the makeover of the economies of Britain, Australia, Canada, Brazil and United States among others. The global mining industry forms the backbone of agriculture, household appliances, automotive, airline, manufacturing and even information technology industry enhancing the standard of living for people across the world. Often not recognised by the community at large, we remain humbled and ever conscious of the responsibility on our shoulders in building a better future for the coming generations.

As evidenced in earlier reports, Sesa has always believed in responsible mining and continues to mine in ways that minimise negative impact of operations. This reports also sets out a comprehensive and balanced account of our activities and approach to the above mentioned and many other sustainability challenges, endeavours and initiatives of the Company.

At Sesa, we aim to inculcate and build a culture of continuous improvement. We constantly seek to understand, strategize and execute proactive and need-based sustainability initiatives. We have implemented a system of multi-tiered system of periodic internal and external reviews, and are aligning ourselves to the umbrella philosophy of the Vedanta sustainability governance framework. Reviews, interactions with stakeholders and various other feedback mechanisms yield sustainability development improvement plans, specifically, for each of our operations, divisions, units or businesses.

With each year, we look forward to improving our reporting on these areas, improving results, newer targets and fresher initiatives.

We look forward to your feedback on this report (which is published every year voluntarily) or any other aspect of our sustainability performance.

**P. K. Mukherjee**  
Managing Director

## 7 FEATURES OF OUR 7<sup>TH</sup> REPORT

### 1. What is this report about?

This is the 7<sup>th</sup> sustainability report of Sesa Goa Limited (Sesa), an organisational report that discloses our economic, environmental, social and governance performance. Through this sustainability report, Sesa aims to present its activities, issues and practices of the past year, while sharing its plans for the future. Sustainable development is an integral part of our business practices, long-term strategy and overall ethos and we have attempted through this report to reflect our triple bottom-line approach. While creating this report, the guiding principle was to be as clear and transparent as possible. This report will give you a fair idea of our activities.

### 2. What period does the report cover?

Our sustainability reports are published annually. This report covers the fiscal year 2011-2012 and is the 7<sup>th</sup> report in the series. Sesa published its first sustainability report in the year 2005-06.

### 3. Which units does the report cover?

This report covers all our Indian operations, including Goa and Karnataka, where we have 100% operational control. The table in the previous chapter on “About Sesa” indicates the units and divisions that are covered in this report. It covers the following companies, including subsidiaries and their units.

- Sesa Goa Limited
  - Iron Ore Division, Goa
  - Iron Ore Division, Karnataka
  - River Fleet and Shipping Office, Goa
  - Shipbuilding Division, Goa
  - Pig Iron Division, Amona, Goa
  - Metallurgical Coke Division, Navelim, Goa
- Sesa Resources Limited
- Sesa Mining Corporation Limited

The report does not cover the recently acquired majority stake in iron ore assets in Liberia, which are in the project stage. It also does not cover the recently acquired power business, Goa Energy Private Limited, (GEPL) in Goa. Sesa has acquired 20% stake in Cairn India Limited during the year and as those operations are completely separate, this report does not include or disclose any data pertaining to Cairn India Limited.

### 4. What are the methods used for the data measurement and calculations?

The data presented has been recorded and reported by various departments within the organisation for the period of 1 April 2011 to 31 March 2012. The data and figures in the report are actual numbers based on the methodology and standard management systems followed by our Health, Safety, Environment & Corporate Social Responsibility (HSEC) and other departments, in line with industry practices. Our performance is reported on a year-on-year basis (YoY), comparing the current year’s performance against the previous year, and therefore, targets are not reported where they are not specified.

During 2011-12, Sesa has integrated all its mining operations into one single division of mining and hence, from this report onwards, the data for subsidiaries, Sesa Resources Limited (SRL) and Sesa Mining Corporation Limited (SMCL), will not be reported separately. Apart from this, there has been no significant

change from previous reporting periods in the scope, boundary or measurement methods applied in the report.

*Note: For 2009-10, data reported is only for SGL’s operations, not SMCL and SRL. For 2010-11, data mining division has been revised (as compared to the SD report 2010-11) and reported to include SMCL and SRL. For 2011-12, data was collected in the aggregate for the mining division.*

### 5. How have we made this report as transparent as possible?

The quantity and quality of information reported indicates the transparency of the report. The report is based on the GRI 3.1 Guidelines and GRI’s Mining Supplement, and we report on all relevant core and additional indicators. The data points reported cover economic, environmental and social performance indicators as per the GRI G3.1 Guidelines. In addition to this, the report also follows United Nations Global Compact (UNGC) principles and the National Voluntary Guidelines (NVG) formulated by the Ministry of Corporate Affairs in India. Specific reference to each indicator is indexed in the GRI Content Index and the NVG Guidelines Index, which are located at the end of the current report.

### 6. How have we made this report relevant to all our stakeholders?

The report is organised into broad dimensions of the Company’s sustainability performance and the content is based on the concerns voiced by our stakeholders, both internal and external. We follow a structured process to collect inputs for our report. Our stakeholder and materiality sections outline critical issues, as well as our focus areas for the following years.

### 7. How have we ensured the trustworthiness of the report?

In continuation of our previous reports, this year too, we have subjected our report to an independent, third party verification, ensuring credibility and improving acceptance. We have engaged Det Norske Veritas AS (DNV) to independently audit and assure the report. The scope of DNV’s assurance engagement includes the verification of the content, focus, and quality of the information presented in the report, covering the Economic, Environmental and Social information for the period of April 2011 to March 2012.

Sesa has submitted this report in compliance and confirming to the GRI requirements of the Application level A+. For the convenience of the readers of this report, we have provided the Report Application Level Table at the end of the report.

In addition, DNV has reviewed our direct and indirect greenhouse gas (GHG) emissions data for the reporting period of 2011-12 and has provided a verification statement.

Sesa has followed and incorporated almost all the principles on National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business as laid by the Ministry of Corporate Affairs, Government of India, while drafting the Sustainability Development Report for the year 2011-12.

# STRATEGY & GOVERNANCE

Despite a challenging regulatory environment, Sesa continues on its journey to be a diversified mining major with the acquisition of Western Cluster mines in Liberia and the proposed merger of Sesa -Sterlite. The expansion of the Pig Iron plant is another feather in our cap.

## Highlights

- Revenue generated is Rs. 9,057 crores
- Dividend of Rs. 4 per share including interim dividend of Rs. 2 per share
- Strategic investments: Acquisition of 20% stake in Cairn India Limited, 51% in Western Cluster Limited and 100% of Goa Energy Private Limited
- Iron ore sales volumes were at 16 million tonnes, despite significant external challenges
- Exploration success: Net addition of 68 million tonnes of reserves and resources, taking the total R&R to 374 million tonnes (excluding Liberia)
- Profit after Tax of Rs. 2,696 crores, including additional income as share of PAT from associate company, Cairn India Limited, from 8 December 2011



## OUR SUSTAINABILITY APPROACH

Sustainable development is a key part of our strategy and overall ethos. It reflects in the way we operate and represents a core commitment of our management and employees. In its approach to sustainable mining, Sesa has been focusing on four core areas:

### Occupational Health And Safety

The health and safety of our people is of utmost priority for Sesa. The Company continues to take a proactive role in providing employees a safe working environment through engendering responsibility, providing training, and implementing and monitoring the best safety and environmental practices across all locations.

### Nurturing People

Our employees are our most valued assets and we constantly strive to provide all of them a challenging and rewarding work environment. From creating avenues to sustain and enhance performance, to providing continuous learning opportunities, and empowering and engaging employees, our HR teams at units put practices and procedures in place for a happy workforce.

## Sustainability

### Environmental Stewardship

With the help of our dedicated HSEC team, we have been trying to minimise the impact our operations have on the environment. From energy efficiency initiatives, reducing our carbon footprint, to the latest land reclamation technologies, etc., we continuously strive to champion best practices in all our environmental initiatives.

### Empowering Communities

Sesa firmly believes that sustainability of its operations is only possible in tandem with community development. The Company, through its Corporate Social Responsibility (CSR) team, interacts with the community on a continuous basis, engaging stakeholders to understand their needs, identifying solutions, formulating plans, and implementing community development initiatives.

In consideration of the precautionary principle, we are developing a more robust risk assessment and sustainability development framework by incorporating issues relevant to all stakeholders and the business. We recognise the importance of such a framework in our approach to sustainable mining. As a step towards achieving a robust framework, we are in the process of developing policies and procedures in line with IFC guidelines aligned with Vedanta Sustainability Governance System to address overall sustainability issues. Read more details about our environmental management plan and mitigation initiatives in our Environment section. Sesa also has embarked on evaluating the impact of these community initiatives, which will further reinforce its commitment to the development of these communities.

## Standards And Management Systems

We translate our commitment towards sustainable mining into action by adhering to the highest standards and setting-up robust systems in each of the above focus areas. We were the first iron ore company in the world to be certified for ISO 14001 in 1996, and we are the first iron ore company in the world to be certified for SA 8000 in 2011.

Please refer to the table in the chapter on “About Sesa” to see which specific units and operations are certified for the various standards for quality, environment, safety and social accountability.

### Environment Management System

Sesa has a well-developed Environmental Management System (EMS), which helps manage operations' compliance requirements, control environmental issues and identify mitigation strategies. All our existing operations, excepting the new acquisitions of GEPL, the expansion projects, the project site in Liberia and the south mines of Sesa Resources Limited, are certified for ISO 14001.

### Occupational Health and Safety Management System

Most of our units\* have been certified for OHSAS 18001, an international occupational health and safety management system specification. The system has helped us in managing and mitigating risks related to occupational health and safety, thus ensuring a safer workplace for our employees.

\*Please refer to table of business units and certifications, listed earlier in the report.

### Workplace Standards

In 2011, Sesa Goa Limited was certified for SA 8000, an international social accountability standard for improving workplace standards. The standard is based on a number of existing international human rights' standards including the United Nation's Universal Declaration of Human Rights and the UN Convention on the Rights of the Child. Sesa underwent an assessment of its practices, and Bureau Veritas, the international certifying agency for the Social Accountability 8000 Standard (SA 8000), has certified Sesa.

The certifications issued on 23 November 2011, for a period of three years, have been awarded for complying with the best management practices in the workplace, based on global norms related to social impact at the workplace, as laid down by ILO and other human rights bodies. The parameters of the standard include practices related to child labour, forced labour, health and safety, discrimination, remuneration, working hours, etc. The certification has been awarded to the units of Sesa Goa Limited, including the mining divisions of Goa and Karnataka, Corporate Office in Goa, Pig Iron Division, Met Coke Division and Shipbuilding Division. Sesa Goa Resources Limited (SRL) and Sesa Mining Corporation Limited (SMCL) are currently not covered in this phase.

## OUR STAKEHOLDERS

Organisations can become sustainable by engaging and addressing the critical concerns of their stakeholders. To ascertain our most important stakeholders, we use a formal prioritising process wherein we map them on the basis of those who are directly impacted by the Company's operations and those who impact our business. Based on the prioritisation mapping, our key stakeholders are: shareholders, employees, government / regulatory authorities, suppliers, customers, NGOs and community.

### Stakeholder Engagement

Stakeholder and Significance	Frequency	Mode	Key Sustainability Concerns	Initiatives by the Company
Shareholders: Owners, Providers of capital	Annually / Need based	AGM / Communication	1) Profitability and growth 2) Governance for sustainability	Announcing and publishing quarterly results of the company through websites and newspapers (national & regional) Posting information related to shareholding pattern, compliance with corporate governance norms, etc., on the company's website Publishing and distribution of annual reports Sesa Goa's website is a comprehensive source of information on our portfolio of business, social responsibility activities and environment, occupational health and safety performance: a. The entire Report and Accounts, as well as quarterly and half-yearly financial results, are now available in downloadable formats under the section 'Investors Relations'; b. The 'News & Media' section provides press releases from the company and relevant press clippings; c. Clarifications as and when provided to institutional investors and analysts, including presentations (if any), are also posted on the company's websites
		Shareholders / Investor Grievance Committee		The committee reviews investor-related issues and recommends measures to improve investor services.
Government: Regulatory Bodies and Policy Makers	As and when required	Regular meetings and structured communication on key parameters a. Economic; b. Environment, health and safety; c. Social issues; and d. Regulatory trends	1. Regulatory 2. Compliances and community interest 3. Environmental pollution 4. Clean technology	1. Proactively and periodically fulfilling all formalities and procedures. 2. Compliance with applicable laws, conditions of clearances / consents / licences / permits etc. 3. Technologies implemented to reduce GHG emissions and CERs accrued 4. Participation in emissions trade in domestic market
Employees: Main resource to undertake sustainable development initiatives	Periodically	Communication, Workshops & Training	Health and safety Union & workmen Employee grooming & development Guidance to fresh recruits Employment opportunities to Locals	1. Organising EHS, behavioural and technical training programmes. 2. Periodic health check-ups 1. Conducting awareness programmes. 2. Navjyoti for workmen wellness also extended to their family GOLD initiative helps in creating a talent pool of successors to operational leadership positions through multiple interventions Mentorship programme guides new recruits to ensure their smooth on-boarding and acclimatisation to our organisation culture 1. Sesa Technical School (STS) pass outs are employed. 2. Sesa partnered with the Government of Goa to start a Degree course in Mining Engineering

## Stakeholder Engagement contd...

Stakeholder and Significance	Frequency	Mode	Key Sustainability Concerns	Initiatives by the Company
Employees: Main resource to undertake sustainable development initiatives	Periodically	Idea Mela	Employee participation in improving business operations	Implemented 302 ideas of the 600 feasible ideas, which collected in Idea Mela. Cost savings amount to Rs. 2.5 crores after implementing these ideas.
		Surveys	Attracting and retaining talent	Connect - an employee engagement survey measures employee satisfaction across diverse parameters
		Participation in external studies	Benchmarking & Improvisation	Participation in global employee engagement study- Hewitt Best Companies to Work and Great Places to Work, to receive unbiased independent feedback, which helps formulate action plans for further improvement
		Grievance Redressal Committee	Employee Rights	1. Established a Code of Conduct 2. Publishing Staff Handbook 3. Grievance Redressal Policy
		Trade Union		1. 51% of employees are covered under collective bargaining. 2. Periodic meetings have ensured smooth functioning and zero incidences of strikes & lock-outs
Community	Periodically Need Based	Surveys through our CSR Team, NGOs	Community Welfare & Relations	1. Need based interventions in the areas of Education, Health, Infrastructure development, women and youth empowerment through livelihood projects. 2. Sesa Technical School for employability of local youth in mining sector. 3. Contribution to Mineral Foundation of Goa (MFG)
		Meetings with community representatives through BDC & FGDs	Community Engagement & Communication Community grievance redressal	1. Conducting public awareness programmes on EHS for communities. 2. Periodic engagement with village panchayats Mulgaon village people affected due to breach of bund due to heavy downpour; were all reimbursed for their damages, water pipeline was restored, bund was repaired
Community	Periodically Need Based	Need-based discussions/written communications;	Land availability & Management	1. Reclamation of mined out lands, e.g.; Sanquelim. 2. Planning & seeking approval for all other Biodiversity Management plans for other mines. 3. Obtaining necessary clearances.
			Transportation of iron ore by road	1. Widening of roads. 2. Cleaning of roads to reduce dust pollution from ore transport. 3. Supporting government initiatives- railway corridor, studies to understand impacts of mining
			Mine Closure & Exit Plan	1. Creating livelihood opportunities - training SHG women in income generation activities, Back to Farming, Gerbera Cultivation. 2. Systematic land reclamation
Suppliers: Providers of contract labour, machinery, and consumables	Periodically	Formal communication through letters & online web updates on policies and practices	Policies & Practices related to Suppliers	1. Supplier's code of conduct. 2. Issuance of letters as a formal communication emphasising on human rights following SA 8000 certification. 3. e-Procurement
Customers: Source of revenues and future growth	Periodically Need Based	Surveys	Customer satisfaction, product quality	1. Customer Satisfaction Surveys. 2. Test Certificates issued to customers for each product consignment delivered. 3. Monthly operational review meetings and management review meetings to improve customer experience



## Materiality

A materiality determination exercise was conducted to identify the most material issues to Sesa, adhering to the principles of GRI. The issues were identified by following the below steps:

1. **Organisational Perspective:** Assessment of the Company's existing policies and systems, business performance – global industry outlook and challenges, examining the Company's initiatives in sustainability aspects as defined by GRI namely environmental, social, labour and people practices. Mining sector related benchmarks and frameworks like International Council on Mining and Metals (ICMM) were also taken into consideration.
2. **Stakeholder Engagement:** An independent study with multiple levels of interactions was conducted with key stakeholder groups to gain their perspective on sustainability related issues. It included interviews with senior leaders of the company, discussions with internal employees, union representatives, and interactions with external stakeholders including local community groups, NGOs, and other partners of the company. Perspectives were also gauged from existing internal stakeholder feedback processes like customer satisfaction surveys, vendor meets, and employee engagement mechanisms as well as the Carbon Disclosure Report.

Based on these interactions and assessment, 17 material issues were identified. These issues were then discussed in a pan-department materiality assessment session, based on which the first 7 were identified to be priorities.

### Organisation Perspective

- Assessment of existing systems & initiatives
- Business performance & global outlook

### Stakeholder Identification

- Stakeholder engagement
- Local community interaction

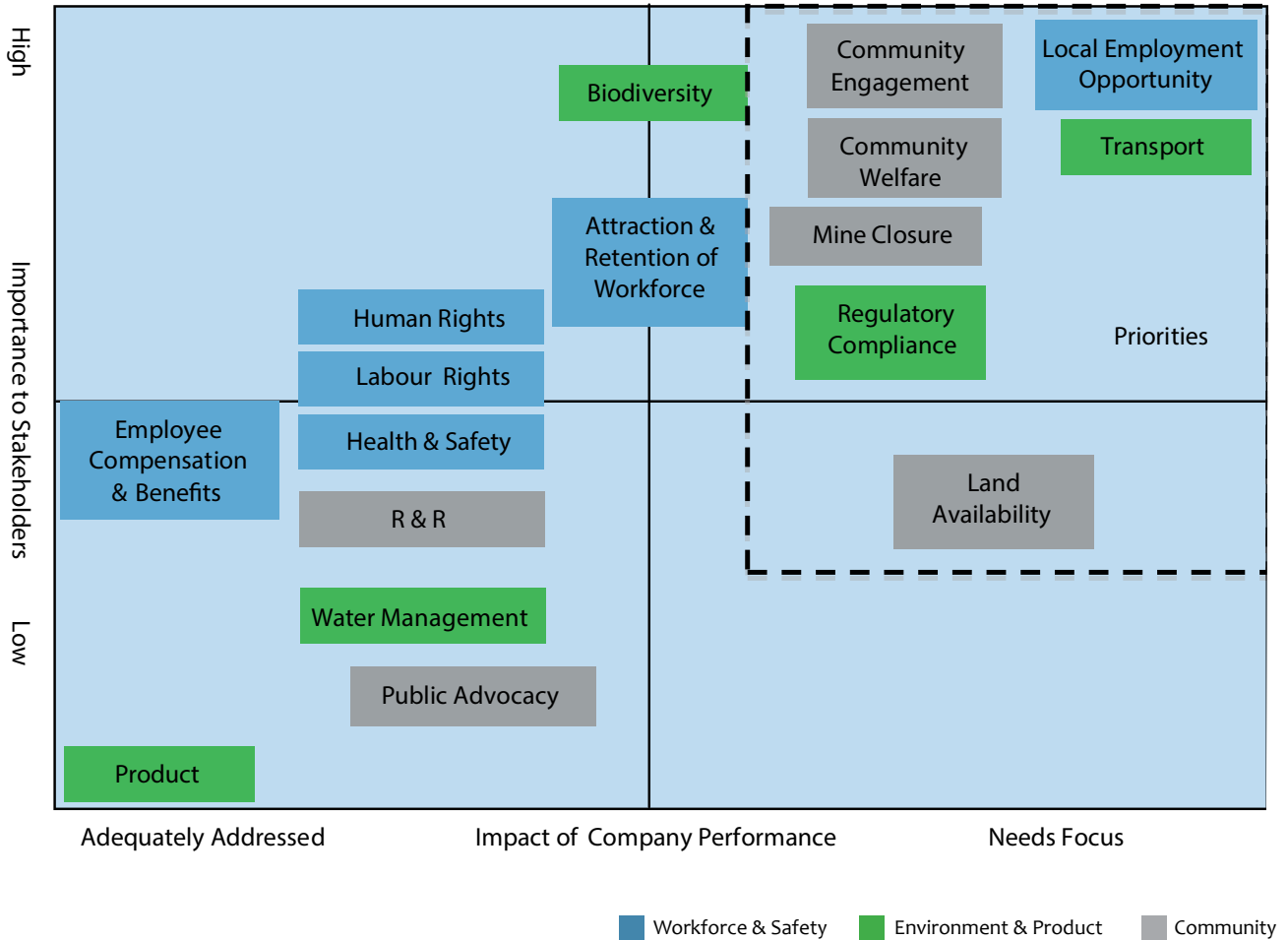
### Materiality Assessment

- Prioritisation of issues
- Significance for stakeholders
- Impact on organisation



Self Help Group Meeting at Amona, Goa

## Materiality Matrix



- Local Employment Opportunities
- Transportation of Iron Ore: Issues related to spillage, noise and dust pollution and safety issues related to speeding and overloading
- Regulatory Compliances & Laws
- Community Engagement
- Community Welfare & Relations
- Mine Closure & Exit Plan (Indirect impact on social aspect)
- Land Availability and Management
- Biodiversity

- Attraction & Retention of Workforce
- Public Advocacy
- Human Rights
- Labour Rights & Relations
- Health & Safety
- Resettlement & Rehabilitation (R&R)
- Water Management
- Employee Compensation & Benefits
- Product Responsibility

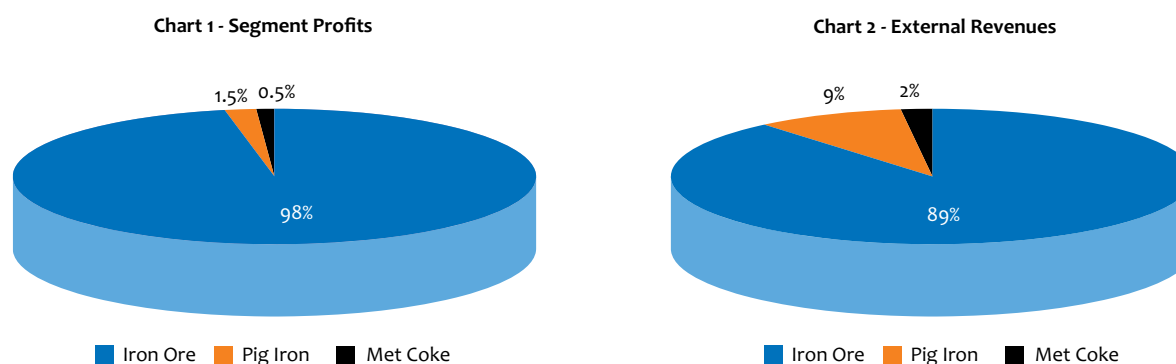
All our material issues have been addressed in this report in the ensuing sections on people, environment and community.

## ECONOMIC PERFORMANCE

Sesa aims to be one of the leading global diversified mining majors, and to be an employer of choice, driven by its operational excellence and world-class assets, through a resolute commitment to the highest standards of safety and sustainable mining. Our effort towards sustained growth is well demonstrated by our expansion, resource additions and exploration capabilities that eventually add value to our business, as well as our stakeholders.

### Products and Business Segments

The below charts reflect the share of individual business segment in Sesa's consolidated performance.



**Table 4 : Production in each Business Segment**

Production	2009-10	2010-11	2011-12
Iron Ore (mt <sup>*</sup> )	19.2	18.8	13.8
Pig Iron (kt)	280	276	249
Met Coke (kt)	262	263	257

\* mt - million tonnes in dry metric tonnes

### Iron Ore

This is Sesa's core business segment, which contributed to 89% of consolidated external revenues and 98% of segment profits in 2011-12. The Company has a niche positioning with cost competitive iron ore mines that are relatively closer to ports, with part of the distance covered by waterways to support global seaborne iron ore trade.

**Table 5 : Sesa's Iron Ore Market – Geographic Spread**

	2009-10	2010-11	2011-12
China	85%	77%	69%
India – Domestic	6%	10%	19%
Japan & Korea	7%	10%	11%
Europe	2%	2%	1%
Others	-	1%	-

During the year, we produced 13.8 million tonnes of iron ore and sold 16 million tonnes. Of this, we sold 2.7 million tonnes from Karnataka including 0.9 million tonnes through the court-directed e-auctions of inventory. As compared to last year the sales and production volume declined mainly on account of external challenges such as the ban on mining in Karnataka since August 2011 and logistics constraints in Goa, which impacted our production and sales volumes in 2011-12. Although we launched several internal operational initiatives to mitigate these impacts, we are in the process of expanding existing roads and establishing exclusive road corridors in Goa to reduce logistical bottlenecks.

While China remains the predominant geography, we are focusing on developing other markets. With the growth in the domestic

Indian steel industry, there is a growing emphasis on domestic iron ore sales. Sesa's share of domestic total iron ore sales has increased from 10% in 2010-11 to 19% in 2011-12. Similarly, the share of Japan and Korea has marginally increased from 10% to 11%.

### Pig Iron

The Company's Pig Iron Division commenced its operations in 1992, and was the first to introduce low phosphorous foundry grade pig iron in India. The PID facility consists of two blast furnaces; each having a working volume of 173 m<sup>3</sup>.

PID contributed 9% of total external revenues in 2011-12 and its share in segment profits was 1.5%. The business focuses mainly on the domestic Indian market, especially foundries and steel mills in western and southern India. It has also extended its reach in the exports market to the Middle East and South East Asia.

With the imminent commissioning of the third blast furnace of 450 m<sup>3</sup> capacity, Sesa's PID would be the largest producer of low phosphorous pig iron in India with an installed capacity of 0.625 mtpa. PID produces several grades of pig iron, including basic, foundry and spheroidal (nodular) grades that cater to steel mills and foundries in India and abroad. PID also produces slag as a by-product, which is sold to the cement industry. The demand for pig iron fluctuated throughout 2011-12. Further, it was severely impacted by irregular supply of high-grade iron ore from Karnataka, due to the Karnataka mining ban since August 2011. However, PID operated its blast furnaces throughout the year with the support of Company's own iron ore operations and high priced Karnataka ore inventory purchased through e-auction and catered to the needs of valuable customers. Overall, production reduced by 10% from 276,117 tonnes in 2010-11 to 248,729 tonnes in 2011-12.

PID adheres to the best standards of quality, environment, health and safety, with an exemplary record of two-years of zero-accident operations. It is certified to ISO 9001, ISO 14001 and OHSAS 18001 systems for quality, environment and safety respectively, through a third party certification agency, Bureau Veritas Certification (India) Pvt. Ltd. The PID's R&D activities have resulted in reduction in operating costs, improvement of product quality and development of new products for downstream industries. It has developed special grades of pig iron to cater to the fast-growing niche market of ductile iron castings in India.

## Met Coke

The Company's Met Coke Division is operated as an independent business unit. The MCD at Amona produces a range of coke fractions from over 70 mm for foundries, 20 mm to 60 mm for blast furnaces, and 6 mm to 25 mm for the ferrous alloy industries. The product is mainly low-ash coke. The principal input, low-ash coking coal – both hard and semi soft coking coals – is imported and to ensure stable raw material supply, Sesa enters into long-term procurement contracts. Coking coals of different types are carefully blended with precision controls to produce the desired high-quality low-ash met coke, using the cost-effective eco-friendly proprietary Sesa Energy Recovery Coke Making Technology. This process produces high quality met coke and has the lowest pollution levels among comparable technologies.

MCD is primarily a backward integration initiative to support the pig iron business, with 62% of its sales to the Pig Iron Division, and the balance is sold externally. During the year 2011-12, MCD contributed 2% of total external revenues and its share in segment profits was 0.5%.

There was moderate growth in production and sales volumes. However, external sales revenue increased significantly due to increase in global prices of met coke.

- Sales volume (internal & external) was at 251,264 tonnes in 2011-12.
- External sales revenues increased by 24% to Rs. 200 crores in 2011-12.
- Profits before interest, tax, dividends and other non-recurring or non-allocable incomes for the met coke business decreased from Rs. 89 crores in 2010-11 to Rs. 16 crores in 2011-12.

Sesa has developed a technology for non-recovery coke making, which is environment-friendly, characterised by low capital and operating costs, high levels of energy recovery, and has the capability to produce high quality metallurgical coke. We have received a European and an Indian patent for this technology. In addition, we have introduced a German technology for densification of coal charge, employing vibro-compaction for producing stable coal cake with bulk density. MCD has also set up a state-of-the-art coal carbonisation laboratory for coal characterisation and evaluation of coke quality.

## Market Outlook

### Global Scenario

China continues to remain the major driver of metals demand and higher prices, as the country consumed large quantities of metals for its internal infrastructure and manufacturing needs. As it moves from being a significantly export-driven economy to a domestic consumption economy, the metals demand is expected to decline from current levels to relatively sustainable levels, propped up by

urbanisation and infrastructure needs. Urbanisation has been the driver for economic and social transformation in China, and this is expected to be a feature of the overall economy, as it moves beyond the Eastern regions of China.

World Steel Association (WSA) forecasts that global apparent steel use will increase by 3.6% to 1,422 mt in 2012, following growth of 5.6% in 2011. In 2013, it is forecast that world steel demand will grow further by 4.5% to around 1,486 mt.

As per WSA estimates, China's apparent steel use in 2011 increased by 6.2% with 2012 & 2013 steel demand forecast to maintain a 4% growth rate, bringing China's apparent steel use to 648.8 mt in 2012 and 674.8 mt in 2013. In 2012, India's steel use is forecast to grow by 6.9% to reach 72.5 mt. In 2013, the growth rate is forecast to accelerate to 9.4% on the back of urbanisation and surging infrastructure investment.

The global steel output in 2011 increased to 1.5 billion tonnes from 1.4 billion tonnes in 2010 and the global seaborne iron ore trade increased from 986 mt in 2010 to 1,090 mt in 2011 (an increase of 11%).

## Indian Context

India is considered the next China in terms of its consumption of commodities, given its growing population and needs for development and infrastructure. To reach China's current consumption levels, India's metal demand will have to increase at 15% per annum for more than two decades. India's per capita apparent steel consumption at 51 kg remains significantly lower than China's 454 kg per capita consumption and South Korea's 1,082 kg per capita. Further, the current levels of urbanisation are at a low 29%, almost half that of China. A continued healthy longer-term demand appears to be an increasingly likely scenario.

## Financial Performance

In 2011-12, Sesa's operating profit was Rs. 3,501 crores. Amidst the tough operating conditions significantly impacting the iron ore business, Sesa delivered a PAT of Rs. 2,696 crores, including additional income of Rs. 588 crores as share of PAT from associate company, Cairn India Limited, from 8 December 2011.

During the year, Sesa made strategic investments into a 20% stake in Cairn India Limited at Rs. 13,075 crores, 51% stake in Western Cluster Limited at an acquisition cost of Rs. 411 crores and 100% stake in GEPL at Rs. 104 crores.

## Indirect Economic Impact

The mining industry has played an important role in the economic development of the state of Goa. It has created employment opportunities for many qualified individuals directly, and also other avenues for employment in logistics and ore transportation for both skilled and unskilled labour. As the predominant market for our products is exports, our operations generate valuable foreign exchange for the country. Sesa is one of the largest taxpayers in the country, having contributed Rs. 3,500 crores to the exchequer in terms of taxes, duties and royalties paid in 2011-12. In this process, Sesa indirectly contributes to the overall socio-economic development of the country.

Sesa has a long-term comprehensive approach to corporate social responsibility. This is achieved through stakeholder engagement and consultation, socio-economic baseline studies and need

## Economic Value Added

**Table 6 : Economic Value Generated & Distributed**

(Rs. in Crore)

Direct Economic Value Generated (A)	2009-10	2010-11	2011-12
<b>Net turnover (net of ocean freight)</b>			
Iron Ore	5,170	8,384	7,380
Metallurgical coke*	144	155	210
Pig Iron*	596	737	780
Energy	-	-	2
Other Income**	419	533	819
<b>Total</b>	<b>6,329</b>	<b>9,809</b>	<b>9,211</b>
<b>Economic Value Distributed (B)</b>			
Cost of materials, goods and services	2,209	2,773	2,187
Personnel expenses	169	207	268
Interest Charges	52	87	433
Taxes and royalties	1,213	2,448	3,518
Dividends	270	304	174
Community Contributions	18	25	31
<b>Total</b>	<b>3,931</b>	<b>5,843</b>	<b>6,612</b>
Economic value added (A-B)	2,398	3,965	2,599

\* Includes amount of excise duty

\*\* Includes income from investment and profit / loss on sales of investment

assessments, and partnering with like-minded organisations, including government agencies, NGOs, local communities and panchayat bodies in the implementation of developmental projects.

Community development initiatives continue to be implemented through Sesa Community Development Foundation (SCDF), which runs the Sesa Technical School (STS) and Sesa Football Academy (SFA). STS has become a leading vocational training institute in Goa and has a reputation of identifying and nurturing potential excellence of young Goans. Growth is something which we aim in everything we do; with this same philosophy our technical school started the second STS in South Goa at Panchwadi during the reporting period, to meet the growing needs of the communities around our operations. Even our SFA has two campuses: the Sanquelim Academy continues to deliver high quality young footballers and the new Sirsaim Academy is focused on developing a team of young senior players. The Sanquelim Academy has graduated six batches of 93 trainees in total, and some of them have even represented the Indian national team in many national and international tournaments.

Sesa has partnered with the Department of Education and the Goa Engineering College at Farmagudi, Goa to start a graduate programme in mining engineering (BE), targeted to meet the critical need for mining engineers in the country.

To further gauge the impact of our activities, an impact assessment is currently underway. The Community section of this report provides additional information about specific programmes and the number of beneficiaries.

## Mining Closure Provisions

Sesa is committed to the systematic rehabilitation and restoration of the environment and land, both during the life of the mine and after the closure of the mines. All its operations have a plan that takes into account various reclamation and rehabilitation activities such as land backfill, afforestation, and specific biodiversity plantations.

**Table 7 : Mining Closure Provisions as on 31 March 2012** (in Rs. Crores)

Nature of obligation	2009-10	2010-11	2011-12
Opening carrying amount	2.5	2.7	3.5
Additional provisions made during the year	0.2	0.8	-
Amounts used during the year	-	-	-
Unused amounts reversed during the year	-	-	-
Closing carrying amount	2.7	3.5	3.5

## RISKS AND MITIGATION

### Regulatory Concerns

The Indian iron ore industry is in a continual state of flux, grappling with ever-changing dynamics on multiple fronts. Firstly, the industry as a whole is facing increased challenges with social licensing as a result of the competition for resources, especially land. With current mineral prices moderated reasonably, but still at levels higher than historical past, there is an increased social pressure on extractive industries to share more benefits with society for earning and retaining their 'Social License to Operate'. Finally, as the regulatory regime across industries undergoes modifications, the mining industry in particular is facing increasing challenges (including corrective actions to tackle misuse / illegal operations).

### Karnataka Operations

On 26 August 2011, the Honourable Supreme Court of India ordered a ban on iron ore mining operations in Karnataka. The Court also ordered the sale of existing inventory by e-auction through a Government appointed agency. As a consequence of this ban, the mining operations of Sesa's unit in Karnataka were stopped. Following the submission of the Central Empowered Committee report to the Supreme Court in February 2012, the Company expects a resolution in this matter in the near term. The Company continues to take all legal measures to protect its interests in this matter.

### Goa Operations

The Ministry of Mines, Government of India, constituted the Shah Commission for inquiry into aspects of compliances for iron ore mining across India. Sesa was subjected to investigations by the Shah Commission and has provided all the requisite information to the Commission during their visit to Goa.

### Export Duty

During the year, Sesa was adversely affected by a significant increase in the export duty on iron ore. The duty rates on both lumps and fines, which were at 15% and 5% respectively, were increased to 20% earlier during the previous year and then from 20% to 30% effective 30 December 2011.

### MMDR Act

The Mines and Minerals Development and Regulation Bill has been proposed to replace the existing Mines and Minerals (Development and Regulation) Act, 1957. The bill proposes a number of changes to mining regulations, including the introduction of auction for allocation of leases, and a proposed imposition of additional cost in terms of social contribution equivalent to the royalty (currently 10% ad valorem). Levies of export duties, social contribution levies, royalties, etc., continue to pose significant cost challenges to the iron ore mining industry, affecting its competitiveness on the global front.

### Growth

Despite regulatory and market concerns, Sesa continues to focus its business strategy to fulfil its vision of being amongst the top four mining companies globally. During the reporting period, Sesa made strategic investments with a 20% stake in Cairn India Limited at Rs. 13,075 crores, 51% stake in Western Cluster Limited at an

acquisition cost of Rs. 411 crores and 100% stake in GEPL at Rs. 104 crores.

### Sesa Sterlite Merger

Sesa announced the intended merger of Sterlite Industries (India) Limited. This merger will foster the creation of one of the world's largest diversified natural resources companies and the merged entity will have exposure to zinc-lead-silver, iron ore, oil & gas, copper, aluminium and commercial power with assets located in India, Australia, Liberia, South Africa, Namibia, Ireland and Sri Lanka.

### Goa Energy Private Limited

Sesa acquired 100% shares of Goa Energy Private Limited (GEPL) for an enterprise value of Rs. 104 crores (including working capital of Rs. 6 crores approx.) on a cash-free debt-free basis. GEPL owns and operates a 30 MW waste heat recovery power plant in Goa, which utilises the waste heat and gases from Sesa's metallurgical coke making and pig iron facilities.

### Expansion Projects

Sesa is in the final stages of commissioning its expansion project for the pig iron and met coke manufacturing facilities. With the commissioning of the 450 m<sup>3</sup> blast furnaces and 2 batteries of 36 coke ovens each, the Company's overall pig iron production capacity increases to 625 ktpa and met coke production to 560 ktpa. The project also comprises 800 ktpa sintering facility that would enable the PID to partially meet its iron ore requirement with sintered iron ore fines, resulting in significant cost savings and increasing efficiencies.

### Demystifying Risks

As with any enterprise, Sesa too faces several risks. Our risk mitigation process constitutes a formal process of identification of inherent risks and root causes related to various aspects of our Company (its processes and the environment) and identifying actions to reduce these risks. A thorough and intensive enterprise risk management process involves identification and monitoring of mitigating factors and evaluating the residual risk after action plans are implemented. The senior management and the Board of Directors are involved in monitoring the progress on these action plans. Further, audits, incident investigations, and routine reporting provide management with information to monitor performance on risk mitigation. Some broad risks are detailed below.

### Market Risks

Sesa exports over 81% of its iron ore production. Being a player in the global seaborne iron ore market, our business is exposed to adversities in demand and supply. Moreover, with 69% (as against 77% in the previous year) of sales being exported to China, any slowdown in that economy can affect the Company's business. There are two mitigating factors. First, Sesa's share of total Chinese iron ore imports is small and there continues to be various opportunities in China for Sesa to increase its market presence. Second, Sesa's low operations cost also acts as a significant assurance of its ability to ride out short-term adverse market conditions.

Sesa continues to work towards diversifying its customer mix. In terms of our geographic market spread, in the past few years, we

have been continuously reducing our exports to China. The iron ore industry is highly concentrated with the top three producers accounting for more than 70% of the global seaborne iron ore trade. Such scale provides these players with a significant ability to affect competition, and pose a potential threat to Sesa's exports. We continue to focus on building relationships with major customers and geographically diversifying our customer base.

## Commodity Price Risks

Sesa's revenue and earnings are dependent on prevailing iron ore and pig iron prices, which are determined by the supply-demand scenario and raw materials prices. Commodity prices may fluctuate widely for all products affecting revenue and earnings. We strive to maintain our operational costs at globally competitive levels in order to sustain through the commodity price cycles.

## Regulatory Risks

Sesa has exposure to the regulatory uncertainties facing the mining sector in India. In the last few years, our Company has been exposed to several changes in the regulatory environment, including increase in export duty on iron ore to 30% for iron ore lumps and fines during the year. Periodically, non-tariff restrictions, export ban, mining ban, etc., are applied to various ores, similar to the one in vogue in 2011-12 in Karnataka. Environmental regulation policies also remain unclear and prone to changes or changes in interpretation. Case-to-case administration of such regulations leads to uncertainty and risk in mining activities. Cap and Trade schemes, if made mandatory, will result in increased operating costs.

Sesa's Liberia operations are exposed to the regulatory regime in Liberia. While the execution of the Mineral Development Agreement with the Government of Liberia provides stability, especially with respect to the fiscal regime, Sesa remains exposed to regulatory changes in Liberia and to delays in requisite approvals for the project.

## Operational Risks

Our Company is exposed to the risks of delays in obtaining final government clearances for increasing our current production capacities. Besides, delays in allocation of new mineral leases or changes in the policy on allocation of such leases in favour of captive steel companies could affect our future plans. Our operations are also exposed to a number of factors which are outside our control, such as unusual or unexpected geological features, ground conditions, climatic conditions such as flooding, interruptions to power supplies, congestion at logistics facilities, industrial action or disputes, environmental hazards, technical failures, fires, explosions and other incidents at a mine, processing plant, or related facility.

## Project Execution Risks

Our aggressive growth plan is contingent upon the successful completion of investments in several developmental projects, including investments in the underlying infrastructure to support the logistics of ore extraction. These new investments require project management skills, and have exposure to project execution risks. Our projects are exposed to technical uncertainties, delays in delivery of machinery and equipment, delays in erection and construction, delays in acquisition of land, escalations in costs, etc. We rely on our strong project execution and extensive mining experience to assess and mitigate identified project risks.

## Health and Safety Risks

We place special focus on EHS-related risks and managing them because of the industry in which we operate. In an extractive industry, health and safety are of paramount importance, and our safety and health programmes focus on reducing this risk. Most of our units are OHSAS 18001 certified.

## Environment and Biodiversity Risks

Mining is a process of extracting and processing mineral resources and by its very nature, has an impact on the environment. We take utmost care in ensuring compliance with related regulations. We also adhere to regulations stipulated by the Pollution Control Board and have measures in place to prevent pollution due to spillages, overburdens and runoffs. Further, we also invest in a long-tenure restoration programme to restore land to pre-mining levels. In order to protect biodiversity, we have in place many biodiversity plans. Last year, a bund collapsed in Mulgao during the monsoon due to heavy and incessant rains concentrated over a short period of time. This embankment collapse led to the flooding of adjacent fields and affected the crops of farmers in the periphery. We took care of the situation and have put mitigation measures in place.

## Transport and Logistics Risks

Dust, noise and congestion are some of the concerns arising out of ore transportation by trucks carrying ore from the mines to the jetties. They cause discomfort to the community, and also affect the efficiency of our operations. Congestion on roads and restrictions on timings for movement of trucks cause delays in transportation of the ore. This also leads to storage of ore in the mine, which creates a bottleneck for production. We are working with the Government of Goa to mitigate these risks through the construction of mining corridors. For additional details, please see the brief on transportation in the ensuing sections of the report.

## Currency Risks

With a majority of its iron ore being exported, Sesa's revenues are primarily quoted in US dollars. This exposes us to foreign exchange fluctuation risks, particularly in relation to the US dollar.

## Climate Change Risks

Global warming is an increasing risk for us since a large part of our operations are concentrated in Goa, which is located on the western coast of India, and, as such, are vulnerable to rising sea levels and adverse weather. Our management committee assesses physical risks to our various facilities and develops detailed plans for minimising impact of such risks. Emergency preparedness training has been provided to employees to deal with such extreme physical calamities.

## Managing Community Expectations

The sustainability of an organisation is not possible without the in-tandem progress of the community and this is a firm belief at Sesa. Our dedicated CSR department continuously engages with our stakeholders, assesses needs comprehensively and focuses on initiatives that benefit the community. We undertake various interventions related to healthcare, education & training, livelihood, agriculture and infrastructure development. We continue to proactively address the concerns of the community and also respond transparently to all agencies that seek to know more about our Company, its activities or their impact on society.

## CORPORATE GOVERNANCE

*Sesa is committed to executing sustainable business practices and creating long-term value for all its stakeholders. To pursue this objective, we remain steadfast in our value systems that incorporate integrity, transparency and fairness across all our business activities.*

Sesa has a robust governance framework. Our approach is to entrust authority and accountability to business managers, who have the optimal skills and information to respond to business challenges and opportunities. Our business strategy, policy and performance standards are set by the Board and Executive Committee, and are aligned with international best practices and standards.

Our auditing and assurance processes ensure that our business principles and standards are being upheld at each operational level and project. We also aim to facilitate the sharing of good practices across the Vedanta group companies and provide examples of best practices from outside our organisation.

We continue to focus on our commitments towards the development of the community where we operate. We have adopted best practices towards preserving the environment and adherence to the highest safety standards remains a focus area across all operations. Our value systems are based on the foundation of fair and ethical practices in all our dealings with stakeholders, including customers, vendors, contractors, suppliers and all others who are part of our business value chain.

The Board is responsible for Sesa's stand on public policy lobbying and donations to political parties. Our senior management team looks after the business operations and we have a structured process in place to evaluate their performance. All senior members have performance scorecards in place at the beginning of the year. Scorecards focus on financial as well as customer and sustainability perspectives. Performance is reviewed half-yearly on these parameters.

### Code of Conduct

Sesa has adopted a Code of Conduct for Executive and Non-Executive Directors, Senior Management Personnel and other executives of the Company. The Code of Conduct covers aspects like conflict of interest, human rights, bribery, insider trading, whistleblowing, gifts, confidentiality, etc. All our employees are required to reiterate their adherence to the Company's Code of Conduct annually. We have received confirmations from the executive and non-executive directors, as well as senior management personnel, regarding compliance of the code during the year under review. We target 100% employee awareness through classroom-based training. Regular communication from senior management is also sent to all employees, informing them about our Code of Conduct and the implications of having any vested interest in Company operations.

All Directors and senior management are committed to the Company's Code of Conduct, compliance to which is periodically reviewed. Additional information can be found in our Annual Report, which is also available on our Company website at [http://www.sesagoa.com/attachments/article/115/sesa\\_goar\\_2012\\_web.pdf](http://www.sesagoa.com/attachments/article/115/sesa_goar_2012_web.pdf).

The Code of Conduct is at <http://www.sesagoa.com/images/stories/sesagoa/pdf/codeofbusinessconductandethics.pdf>.

### Governance

The organisational structure and governance framework ensure a strong system of authority and accountability to operational management, within the purview of the business strategy, policy guidelines and standards laid down by the Board of Directors. The executive team constituting the operational (divisions and units) management and other corporate functions ensures that Company's sustainability development standards are maintained and operations are aligned to these standards.

### Board of Directors

As on 31 March 2012, the Company had six Directors on its Board, of which two are Executive Directors and four are Non-Executive Directors. Mr. A. K. Rai, Executive Director, retired w.e.f. 01 August, 2011. Mr. P. G. Kakodkar, Non Executive Independent Director, resigned w.e.f. 25 October 2011. All four Non-Executive Directors are independent. Eight Board meetings were held during 2011-12 and the gap between two meetings did not exceed four months.

The Board periodically reviews compliance reports of all laws applicable to the Company. Steps are taken by the Company to rectify instances of non-compliance, if any. During 2011-12, Sesa did not have any material pecuniary relationship or transactions with Non-Executive Directors.

**Table 8 : Board of Directors**

Name of the Director	Category
Mr. Kuldip K Kaura	Independent Non-Executive
Mr. Gurudas D Kamat	Independent Non-Executive
Mr. Jagdish P Singh	Independent Non-Executive
Mr. Ashok Kini	Independent Non-Executive
Mr. Amit Pradhan (Whole-time Director)	Executive
Mr. Prasun K Mukherjee (Managing Director)	Executive

### Governance Structure

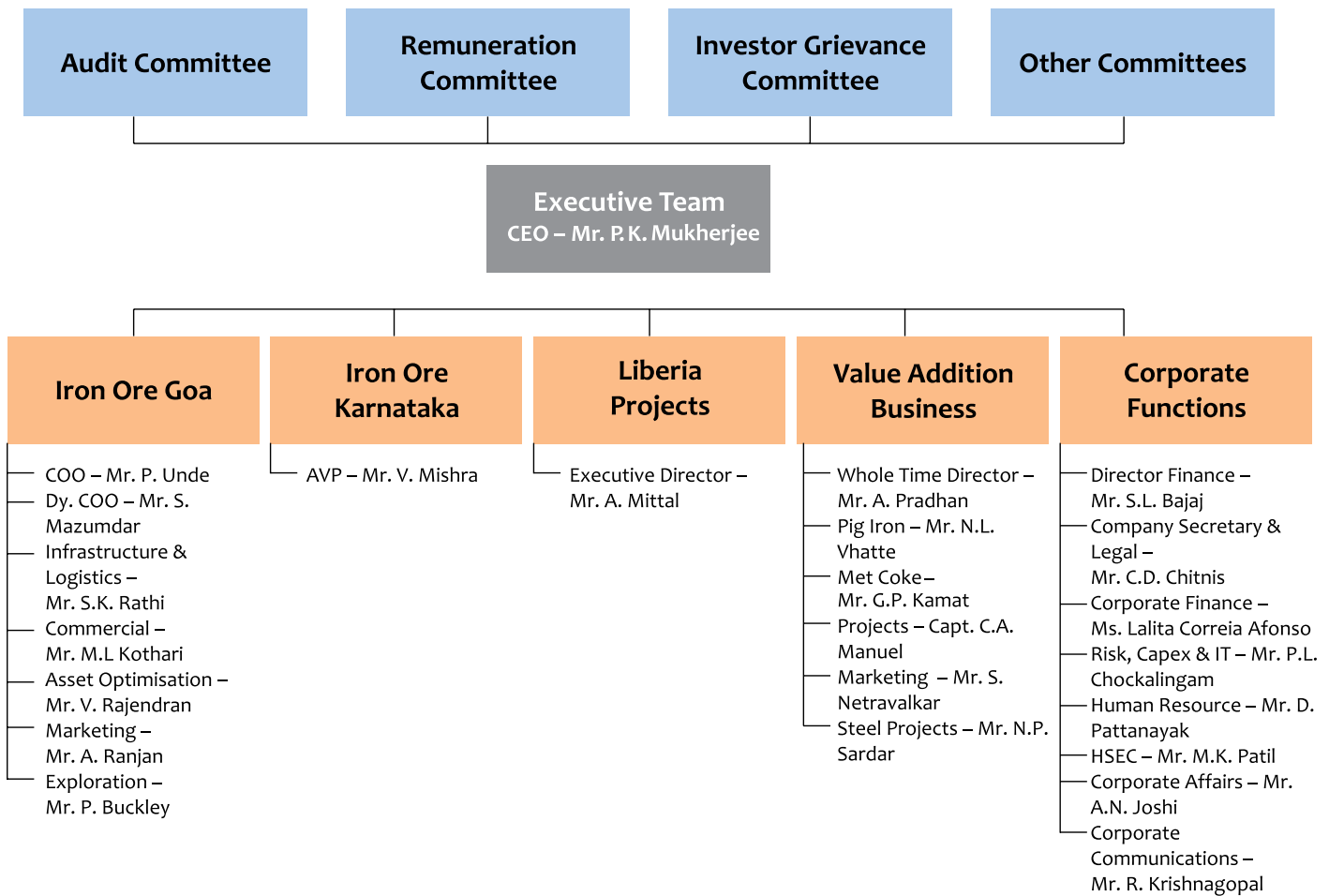
Structured multi-tier internal business reviews along with our Management Assurance Systems (MAS) function, which oversees the internal audit process carried out by reputed third-party auditors, ensure that business performance is assessed, monitored for improvement and our business and sustainable development policies and guidelines are followed across the organisation. The structured internal review process consists of the following committees, other than the statutory committees for works, safety and welfare.

- Executive Committee (at the Vedanta group level)
- Business Management Group
- Operations Review Committee
- Compliance Committee
- Sustainability Core Committee

The Company also endeavours to constantly upgrade its own knowledge and processes in reference to the best-in-class practices around the world.



## Board of Directors



## Remuneration

At Sesa, remuneration is linked to sustainability performance. The Remuneration Committee of the Board of Directors reviews the performance of the Company and all its operations 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 company and unit performance on profits, safety performance and other key drivers of performance. Safety performance also is a factor applied to individual performance in the evaluation and reward of final incentive.

## Governance Committees

The details of various committees constituted at the level of the Board of Directors of the Company, for various aspects of governance of the Company are listed in the corporate governance section of the Company's Annual Report for the year 2011-12.

## Disclosures

### Subsidiary Companies

The revised Clause 49 defines a "material non-listed Indian subsidiary" as an unlisted subsidiary, incorporated in India, whose turnover or net worth (i.e. paid-up capital and free reserves) exceeds 20% of the consolidated turnover or net worth respectively, of the listed holding company and its subsidiaries in the immediately preceding accounting year. As per this definition, none of the subsidiaries of Sesa Goa Limited, viz. Sesa Resources Limited and Sesa Mining Corporation Limited, are material non-listed Indian subsidiaries.

### Materially Significant Related Party Transactions

The Board has received disclosures from key managerial personnel relating to material financial and commercial transactions where they and / or their relatives have personal interests.

Transactions with related parties are disclosed in note no. 45 of the Financial Statements in the Annual Report. In the opinion of the Board, the transactions during 2011-12 between Sesa Goa Limited and its subsidiaries, Sesa Resources Limited, Sesa Mining Corporation Limited and Goa Energy Private Limited, have been done at arm's length.

## Directors' Profile



Mr. Kuldip K. Kaura is a Non-Executive Director of Sesa. Mr. Kaura retired as the Chief Executive Officer of Vedanta in September 2008 and was appointed as Director of Sesa on 30 October, 2007.

He holds a Bachelor of Engineering (Hons) in Mechanical Engineering from Birla Institute of Technology & Science, Pilani in 1968.

Prior to his appointment as Director and Chief Executive Officer of Vedanta in March 2005, Mr. Kaura was Chief Operating Officer of Vedanta Resources plc. and Managing Director of Sterlite Industries (I) Ltd. During his tenure with the Vedanta Group, Mr. Kaura was also the Managing Director of Hindustan Zinc Limited from April 2002 to March 2004.

Mr. Kaura is currently Chief Executive Officer and Managing Director of ACC Limited. Before joining the Vedanta group, Mr. Kaura served at ABB India for 18 years and was the Managing Director and Country Manager from 1998 to 2001. He has served as a member of the National Council of Confederation of Indian Industries and is office bearer of such professional bodies.



Mr. Gurudas D. Kamat is a Non-Executive independent Director of Sesa.

Mr. Kamat retired as Chief Justice of the Gujarat High Court in January 1997. He is engaged in judicial work relating to arbitration and conciliation. Mr. Kamat was appointed as Director of Sesa on 23 December, 2005.

He has over 47 years of experience in the field of legal practice and judiciary, having practiced in Mumbai as well as in Goa in various branches of law. Mr. Kamat was prosecutor for the Government of Goa from 1967 to 1969.

From 1980 onwards, Mr. Kamat was an advocate for the Customs and Central Excise Departments of the Government of India. He was a member of the senate and faculty of law of Mumbai University from 1978 to 1980. Mr. Kamat was appointed as a judge of the Bombay High Court on 29 November, 1983.



Mr. Jagdish P. Singh is a distinguished civil servant with over 38 years of executive experience in key positions in the Union and State Government.

He is an alumnus of Harvard University, where he attended the Kennedy School of Government as a Mason Fellow. He also holds a Masters degree from the University of Allahabad.

Mr. Singh has occupied varied positions in his career, such as district and divisional administrator, later working as Chief Executive and Chairman of the Board of numerous corporate bodies.

He was responsible for turning around several State and Central corporations engaged in Industrial and Services activities such as Tourism, Infrastructure, Cooperative Finance, Mining and Minerals Exploration. He initiated measures in amendments in Labour Laws. He shaped the new National Mineral Policy in 2008 and piloted its passage.

He is widely travelled internationally, having led delegations to multilateral bodies and conventions to participate in global conferences, workshops, seminars and conventions. He has conducted bilateral and country-specific discussions to further joint economic activities with South Africa, Australia and Indonesia.



Mr. Ashok Kini is a Non-Executive independent Director of Sesa. He holds a Postgraduate from Madras Christian College, Chennai.

He retired as MD of State Bank of India in December 2005, after serving the Bank for 38 years. He was responsible for the Bank's IT plans, from concept and RFP to execution and vendor management, domestic distribution, retail business, consumer banking, marketing/brand management, etc.

He is currently on the Board of IndusInd Bank Limited, Gulf Oil Corporation Limited, UTI Asset Management Company and Financial Inclusion Network & Operations Limited.



Mr. Amit Pradhan is a Whole Time Director of Sesa, currently responsible for the Group's value addition business including Steel, Pig Iron, Met Coke and Power.

Mr. Pradhan joined Sesa in January 1990 as Manager - Purchase. He holds a Postgraduate in M.Sc. (Physics) from the Indian Institute of Technology, Delhi.

Mr. Pradhan was appointed as Director of Sesa on 01 July, 2000. He has 34 years of experience in materials/project management with a stint in Business Development. Mr. Pradhan was appointed as Whole Time Director of the Company effective from 01 May, 2006. He was also distinguished and listed by the International Who's Who Professionals in 2007.



Mr. Prasun K. Mukherjee is the Managing Director of Sesa since April 2006.

Mr. Mukherjee holds a Bachelor of Commerce (Hons) degree from Kolkata University. He is a fellow member of the Institute of Chartered Accountants of India and an associate member of the Institute of Cost and Works Accountants of India.

He has around 33 years of experience in finance, accounts, costing & taxation, legal and general management.

Mr. Mukherjee was rated as one of India's Best Chief Financial Officers (CFOs) in the year 2005 by Business Today magazine and in 2009, Business World magazine declared Mr. Mukherjee as India's most 'Value'able CEO.

## Compliance

Sesa has complied with all the requirements of regulatory authorities. No penalties or strictures were imposed on it by the stock exchanges or SEBI or any statutory authority on any matter related to the capital market during the last three years.

On 23 October 2009, the Ministry of Corporate Affairs of the Government of India ordered SFIO to investigate the affairs of Sesa and its then subsidiary, SIL (which has since been amalgamated with Sesa with effect from 14 February 2011). During the year, SFIO had submitted its report on the investigation into Sesa's affairs pursuant to section 235 of the Indian Companies Act, in which it made certain allegations, and recommended, inter alia, action against the directors of Sesa during 2001-2008.

In response to this report received by the Company on 26 May 2011, Sesa filed representations to the Secretary, Ministry of Corporate Affairs, with a copy to SFIO, explaining in detail Sesa's position on the allegations in the SFIO report and denying the allegations made therein. No further communication has been received till date.

## Contributions to Political Parties

During the reporting period, Sesa has made contributions to various political parties. The details of the same are reported transparently in the Annual Report of the Company. The donations made by Sesa to political parties during the year 2011-12 are detailed on page 92 in our Annual Report.

## Financial Assistance

During the year, the Company has availed an excise duty savings of Rs. 0.43 crores on indigenous purchases of capital goods under the continuing Export Promotion Capital Goods Scheme during the year. The Company has not received any other government subsidy, tax break, duty drawback, government benefits, etc., during the reporting period. Neither the Central Government nor any State Governments are shareholders in the Company.

## Means of Communication

All financial disclosures are available on the Company's website [www.sesagoa.com](http://www.sesagoa.com). Sesa has formal and informal meetings with media and institutional investors. Authorised persons of Sesa also respond to queries telephonically and by letters. A Management Discussion and Analysis statement is a part of the Company's Annual Report. Sesa has a common grievance cell for all shareholder grievances. For each of its policies Sesa has a grievance redressal process in place including supplier code of conduct and human rights.

The quarterly, half-yearly and annual results are published in the Economic Times, Mumbai edition and an English and Konkani/ Marathi daily newspaper in Goa. The results, along with official news releases, are also posted on the Company's website.

# ETHICS & HUMAN RIGHTS

As part of our ongoing journey of sustainable mining, we believe in pushing the envelope when it comes to developing responsible practices. Our SA 8000 certification is a big part of this journey. We are now looking at extending these practices to our suppliers as well. The first step was the creation of a supplier code of conduct.

## Highlights

- *The first iron ore company in the world to be SA 8000 certified*
- *Creation of a Supplier Code of Conduct*



## ETHICS

*For any business, it only makes sound business sense to ensure that its conduct is right and is cognisant of the rights of others. Our conduct, integrity and behaviour, in all interactions with our stakeholders, enhance and strengthen our relationships and our respect, for the interests of these stakeholders, ensures sustainability of relations over a longer period.*

Sesa is focussed on operating with utmost transparency in all dealings, as possible, which is also reflected in all its reporting. Sesa continues to lay emphasis on improving its performance on human rights, reflected in this year's endeavour to achieve and standardise workplace conditions through certification of SA 8000.

### Business Conduct

The Code of Business Conduct and Ethics governs all employees of Sesa. This code contains general guidelines for conducting the business of the Company consistent with the highest standards of business ethics. As stated in the policy, the code requires a higher standard than what is required as per commercial practice or applicable laws, rules or regulations. The code adheres to the following guidelines:

- Zero tolerance in ensuring strict adherence to local and international laws and regulations, also including the Company's ethical standards
- Ensuring all business transactions of the Company are fully and fairly recorded
- Regular monitoring of ethical conduct and ensuring that systems are in place and accessible to all employees and others to report potential violations

In addition to the regular conduct and misconduct rules, the code also covers other aspects of business performance and individual behaviour, including compliance with the law of the land, human rights and work environment, bribery and corruption, conflicts of interests, disclosures, and other related aspects. An effective compliance system is in place to ensure and monitor the maintenance of these standards. The Company also has a formal Compliance Committee and designated Compliance Officer to ensure monitoring of the same.

All employees are trained on the Code of Conduct and ethics policies. All new employees, as a part of the induction process, need to be aware, read, appraise themselves and formally acknowledge that they will adhere to these policies when they join us. Significant contractors and workmen are also included in anti-corruption training.

### Bribery and Corruption

As an emergent global company, it behoves us to have strong anti-corruption policies in place. As a part of the Vedanta group, the UK Bribery Act of 2010 is applicable to us. All our business units were taken into consideration for assessing risks related to corruption. All executives of the Company have been briefed on the Company guidelines against bribery and corruption and all executives are signatories to these guidelines, having read and understood them as a part of their conduct rules. During the reporting period, no substantiated incidents of corruption have been reported.

**Table 9: Percentage of employees trained in organisation's anti-corruption policies and procedures**

No.	Employee Category	Employees	Percentage Trained
1	Board / Senior Management*	46	100%
2	Executive	1,245	78%
3	Non-executives	3,342	Not covered presently
4	Trainees	63	100%

*Board members and senior management include whole-time directors & executives with general managerial responsibilities in the organisation.*

### Whistle Blower Policy

Amongst the other components of the code, we also have a formal Whistle Blower and Anti-corruption policy. The Company's Whistle Blower Policy outlines procedures and policies to deal with any complaint relating to fraud and other financial irregularities.

### Insider Trading Policy

As per the SEBI (Prevention of Insider Trading) Regulation Act, 1992, Sesa has an Insider Trading Policy, which all the designated employees are required to abide by. Any designated employee who trades in securities or communicates any information for trading in securities, in contravention of this code of conduct may be penalised and appropriate action taken by the Company which may include termination of services, suspension, ineligibility for future participation in employee stock option plans, or other such appropriate action.

\*In data tables across this report, wherever it is mentioned as Board / Senior Management, it refers to whole-time directors of the Company and executives who have general managerial responsibilities in the organisation.

# HUMAN RIGHTS

*Organisations cannot be sustainable, and no sustainability strategy is complete, without taking human rights into consideration across all aspects of their operations.*

As a signatory to the United Nations Global Compact, Sesa has voluntarily made a commitment to guarantee basic human rights according to the UN Universal Declaration of Human Rights. Recognising the significance of management of Human Rights and its impacts on the stakeholders, Sesa has developed a formal Human Rights policy in line with the Vedanta Sustainability Governance system and the same is under implementation. For new projects, it is being implemented from the commencement of operations and for existing projects, its applicability is being reviewed.

In accordance with the provisions of the policy, we ensure that our employees receive fair and reasonable remuneration and fair working conditions. The Company neither employs nor encourages forced, bonded or child labour and conducts proper checks and audits to ensure that our contractors follow our example. In the course of the SA 8000 audits conducted, no operations have been identified as a source of significant risk for child labour or forced labour. None of our operations are adjacent to indigenous people and as such, no rights have been violated.

Currently, there is no process to either include human rights screening or a mandatory human rights clause in significant contracts agreements and investments. Having just incorporated a formal policy on Human Rights, we are working on a process and plan to translate the policy into an effective action plan that will cover significant aspects of human rights in the day-to-day operations including major investments and our stakeholders. As per the Liberian legal requirements, we included a mandatory human rights clause in our investment agreement on the purchase of our 51% stake in Western Cluster Limited.

## Human Rights Training

Employees are provided training on significant aspects of human rights as a part of the overall training plan of the Company. SA 8000 awareness training has been conducted throughout the Company and plans are underway to conduct training sessions for contractors also.

Security is an important requirement at our sites and we have outsourced security to a third party vendor. Of the 980 security personnel, 7 are on our rolls and they have all been trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations. These security personnel support us on a daily basis to ensure the smooth flow of operations in the mines and production units. Sesa will continue to train its own and contractual security personnel on organisation's policies and procedures, and training on human rights aspects concerning its operations will be a focus area.

**Table 10: Formal Training to Employees on Organisation's Policies & Procedures Related to Human Rights Issues**

Category	Employees	Employees Trained	Total Training Hours	% Trained
Board / Senior Management	46	21	16	4%
Executive	1,308	552	3,610	42%
Non-executives	3,342	502	2,848	15%
<b>Total</b>	<b>4,696</b>	<b>1,056</b>	<b>6,474</b>	<b>22%</b>

## Grievance Redressal

We have an official Grievance Redressal Policy to expedite the resolution of grievances of employees. The policy covers all employees and staff (executives) working at various units. As per the policy, grievances must be reported within a month orally to the aggrieved person's superior. If unresolved within a week, the issue gets escalated to the department head or Unit HR head. If still unresolved, the issue is escalated to the Grievance Redressal Committee. During the reporting period, no incidences on grievances related to Human Rights have been reported.

## Employee Representation

51% of our employees (2,403 out of 4,696) are covered by collective bargaining agreements. All the non-executive employees of Sesa are represented by independent trade unions. The Company does not prevent any employee from exercising the right to freedom of association or collective bargaining. Sesa abides by Section 9A of the Industrial Disputes Act, 1947, wherein a minimum notice period of 21 days is required before any operational change is effected by the Company. Health and safety policies are also covered under the collective bargaining contracts. There have been no incidents of strikes and lockouts exceeding a week during the reporting period.

## SUSTAINABLE SUPPLIER RELATIONS

Sesa believes that suppliers influence a large portion of our daily business operations. Our requirements are met through OCMs, OEMs, transporters, maintenance contractors and general traders – a diverse group of people that constitute our supplier base.

All raw materials, equipment and spares are procured from indigenous manufacturers; metallurgical coal (with low ash content) and specialised machinery are imported from offshore suppliers. Competent Indian contractors carry out construction and other services. Besides our own iron ore mines in Goa and Karnataka, we also operate mines in Goa, which are third party leases, and ore produced in these third party mines is purchased. Payments to suppliers for iron ore, goods and services are made as per agreed terms and conditions.

**Table 11: Value of Imports on CIF Basis** (in Rs. Crore)

Particulars	2009-10	2010-11	2011-12
Raw Materials	344	510	697
Components and Spare Parts	17	21	17
Capital Goods	22	155	85
Total	383	685	799

As an ethical practice, we do encourage that all segments of society have the opportunity to participate by demonstrating support for small, disadvantaged and minority-owned businesses. Following the SA 8000 certification, there has been greater emphasis on human rights and with this perspective, Sesa has issued formal letters to the regular supplier base. We conducted an awareness session to update suppliers about our Supplier's Code of Conduct; the signing of which is mandatory before any purchase order is issued.

### Suppliers and Procurement

Our suppliers are a crucial part of our business operations. We segregate them based on frequency, costing, etc., as A, B and C Suppliers:

- Raw material suppliers (mostly mine owners)
- Suppliers of spares and consumables (OCMs and OEMs), service and maintenance providers and transporters
- General suppliers and traders

A & B categories are our critical suppliers as it is necessary to maintain a sustainable supply chain for sustainable operations. Our procurement processes also reinforce our commitment to human rights, related to minimum wages and child / forced labour, ethical behaviour to mention a few. We have a formal Supplier Code of Conduct that requires suppliers to stringently follow norms on child labour and forced labour, amongst other norms. As on 31 March 2012, 18.3% of suppliers' contracts had the code included in their agreements.

In addition to the Supplier Code of Conduct, we also have plans to conduct awareness sessions for our major suppliers. One such awareness session, attended by our 10 major suppliers, was conducted at our Head Office in August 2011. We also plan to conduct formal supplier audits in the near future.

Our employees are sensitised to report any human rights violation when visiting supplier locations. We have also started the practice of asking for written undertakings from suppliers on various clauses of SA 8000. So far, there have been no cases of discontinuation of contracts.

Contractors who have deployed workmen at our sites have been audited under SA 8000 certification. We ensure that our contract labourers do not face any violation of human rights. Contractual labour age is verified and documents maintained to prevent employment of child labour. We have not noticed any curtailment of freedom of collective bargaining at our suppliers.

Sesa has introduced a new e-procurement system that encourages greater transparency and provides decision support for our suppliers and us. We train our buyers through a dummy auction process to familiarise them with the portal. Plans are in place to develop a Supplier Relationship Management system as well.

## E-Procurement

### Objective

To implement an e-sourcing module that selects the best mix of suppliers, products and services while minimising cost, improving quality, reducing supply risks and reducing sourcing cycle time. In line with the vision to be a leading iron ore producer and to ensure sustainability of operations, it is necessary to optimise costs. Raw material is a major contributor to operational costs. It is imperative to procure material at the right price, quality and time. In order to create a real-time system to assess suppliers, products and services, to help decision-making, Sesa launched the e-procurement system. Emptoris (an IBM Company) was selected to implement the e-Auction module.

### Benefits of e-Sourcing

This online auction model streamlines the procurement process. Instead of meeting and negotiating with vendors and suppliers over several days and then agreeing on a price, there is a limited time period during which suppliers log in and provide their bid value. At the end of the auction, all participating suppliers receive reports on whether they are successful and, if not, the reason for it. All suppliers are trained on the module before the auction takes place.

Our suppliers have welcomed the efficiency and transparency of the auction process. Some of the benefits of the new system include reduction in costs, reduced supplier risk, optimal allocations in spend categories, and stimulating efficiencies across the sourcing process. We now complete our negotiations with fewer resources and in less time.

### Conclusion

Sourcing now consumes half the resources and is twice as fast. Our suppliers are happy with a fairer, more transparent and streamlined process.



# NURTURING PEOPLE

Our growth is inextricably tied to our employees' health and satisfaction at work. Over the reporting period, several initiatives were taken to ensure that our employees grow along with us. The results of our employee engagement survey, "Connect", will drive future engagement initiatives. Professional growth is another aspect we take seriously. Our training hours have doubled this year and our people receive more opportunities to interact with senior management. Our safety record has improved as well this year.

## Highlights

- 4,696 employees, including 1354 executives, 654 professionals from diverse educational backgrounds
- 83% participation in our employee engagement survey, "Connect"
- 67 Gen-Next leaders in the GOLD program
- 110 stars of business identified
- 96,208 hours of training
- Over 20 hours of training per employee
- 15.6% of women in the executive category
- Our LTIFR has improved from .86 in 2010-11 to .81 in 2011-12



## OUR PEOPLE

*“Sesa Goa Limited is committed to pursue the best management practices for its employees. We are pleased with being the first iron ore mining company in the world to be certified SA 8000. The management and employees of Sesa Goa will strive harder to perform even better on the parameters set by the standard.” – Mr. P K Mukherjee, MD, Sesa Goa Limited*

The lifeblood of any organisation is its people; at Sesa, our employees are our key assets. We strive hard to provide them with a healthy and safe working environment by incorporating the best employee practices, policies and standards. To be a world-class employer, the Company’s focus is on key strategic initiatives:

- Recruiting best in class
- Identifying and nurturing the right talent
- Encouraging and motivating future leaders
- Individual development
- Providing a stimulating and challenging workplace

Health and safety continues to be a focus area as we take measures to eliminate hazards at the workplace. Through regular training

**Table 12: Break-up of Employees**

Category	2009-10		2010-11		2011-12	
	Male	Female	Male	Female	Male	Female
Board / Senior Management	23	1	32	1	45	1
Executive	952	128	1,129	186	1,096	212
Non-executives	2,879	27	3,390	23	3,318	24
<b>Total</b>	<b>3,854</b>	<b>156</b>	<b>4,551</b>	<b>210</b>	<b>4,459</b>	<b>237</b>
	<b>4,010</b>		<b>4,761</b>		<b>4,696</b>	

As on 31 March 2012, the workforce at Sesa, in all its units and operations, constituted 4,696 permanent employees and 5410 contractual workforce. (The contractual figure is a simple average of monthly contract workmen attendance in all units.) Sesa does not currently assess the gender break up for contract employees, as the number of female employees is very low. However, we plan to start capturing this information from the next reporting period.

During the year, Sesa has stepped up its employee engagement initiatives. The biggest change has been our Employee Engagement Survey, called Connect, which will be an annual fixture henceforth. We hope that by eliciting our employees’ opinions and incorporating them into our HR practices, we will build a stronger culture where everyone is driven by the goal to make Sesa a world-class organisation. We hoped that by identifying the strengths of our organisation and the areas of improvement, we would be able to retain and motivate our employees, improve productivity and profitability of the organisation. The survey was a great success with an 83% response rate in 2011-12. The results were shared with all employees and based on the outcome, several organisational development initiatives were introduced and existing systems were modified.

As we continue to grow, we continue to infuse young talent into the organisation and assimilating this talent into the organisation becomes an imperative. New recruits undergo a structured induction programme followed by an orientation specific to the units where they are posted. To improve the engagement of our young trainees (Graduate Engineer Trainees and Management Trainees), we are reinventing our induction process to incorporate a good mix of classroom and field training. Further, special initiatives, like interaction with the CEO, named Coffee and Conversations with MD, and a modified mentoring scheme, have been introduced to foster interaction between senior management and new trainees.

and interaction between managers, workers and supervisors, we hope to limit accidents from taking place.

### Human Resource Management

The Company’s Human Resources department is entrusted with the implementation of HR policies and achieving business objectives. The core team operates from the Corporate Office in Goa, while unit HR Teams handle the responsibilities at the respective operational units.

Continuous learning is an integral part of the development process at Sesa. During 2011-12, a total of 96,208 man-hours of training were provided to all employees, from senior management to non-executives.

The Gen-next Operational Leadership Development (GOLD) programme, launched in 2009-10 to develop operational leaders, continued to be in focus during the year. Since inception, 67 operational leaders have participated in the GOLD programme in two waves, each lasting 7 months. The programme has been successful, both in identifying successors for critical operational leadership positions and also accelerating the development of several managers. This year, in the second wave, 27 employees were identified as Gen-Next Leaders.

### Recruitment

Sesa’s mission is to be an organisation with best-in-class people and a performance-driven culture by attracting and retaining quality manpower. A strong recruitment philosophy and on-boarding process is crucial for attracting and retaining the best talent from across the world. At Sesa, this objective is achieved with a fair and transparent recruitment process, supported by a focussed induction programme, followed by a continuous learning and development process

Sesa encourages diversity in its people profile, while being focussed on hiring local talent. Our management team is a diverse group of people with differing cultural affiliations, qualifications and backgrounds. While we recruit our management and graduate engineer trainees from across the best institutes in the country, all other officer trainees and operational trainees (ITI graduates) are recruited from within Goa. We visit all reputed educational institutes within Goa to source this fresh talent. During the year, we have also participated in job fairs. Also, in order to enhance the competence of local talent and thereby improve their suitability to

meet industry manpower needs, Sesa engages with the community to conduct various skills development activities. This year, we welcomed 277 new employees into our organisation.

**Table 13: New Employee Hiring & Turnover 2011-12**

Grade	Hiring					Turnover				
	Age (yrs)			Gender		Age			Gender	
	< 30	30 - 50	>50	M	F	< 30	30 - 50	>50	M	F
BSc Trainees	61	-	-	42	19	8			5	3
Below M9 Grade	70	10		77	3					
M9	3	2		5						
M8	5	1		1	5					
Graduate Engineer Trainees	24			21	3	20			17	3
Management Trainees	6				6					
M7	57			49	8					
M6	15	2		10	7					
M5	3	2		5						
M5		3		2	1					
M4		5	1	5	1					
M3		3	2	5						
M2		1		1						
M1			1	1						
P			1							
<b>Total</b>	<b>244</b>	<b>29</b>	<b>4</b>	<b>224</b>	<b>53</b>	<b>28</b>			<b>22</b>	<b>6</b>
		<b>277</b>		<b>277</b>			<b>28</b>		<b>28</b>	

## Local Hiring

Sesa's recruitment policy ensures attraction of the right mix of attitude, aptitude, knowledge and skills, experience and demographics. For this, the policy lays down specific guidelines on qualifications, academic performance, background, job specifications, etc. Selection processes and procedures ensure fairness in the recruitment process, equal opportunity to all aspirants and the selection of meritorious and deserving candidates.

Sesa operates in more than one geographical location and the management team comprises individuals from different backgrounds, cultures and regions, ensuring the right mix of strategic talent, operational leadership and requisite experience. The Company adopts a clear and unambiguous policy of meritocracy, which provides equal opportunities to people from all backgrounds and capabilities.

Sesa focuses on hiring capable, qualified, and meritorious candidates from local and surrounding areas. Our senior management hiring policy is based on merit and often encourages transfers from within Vedanta group companies. During the reporting period, the total number of senior management personnel hired was three (non-local). To aid local hiring, we focus on ensuring that talent in the local area is equipped with the requisite skills and knowledge through various community development efforts. Sesa, along with Government of Goa, has started a Degree course of Mining Engineering at the existing campus of Goa Engineering College.

## Women Employees

Sesa has a target to achieve 20% women employees in the organisation, and the HR team is working towards achieving this goal. Women currently constitute 15.6% of the executive category, up from 11.7% over the last two years. We offer equal roles and responsibilities to our women employees and do not discriminate on the basis of gender. The ratio of basic salary of men to women in all staff categories across all locations is 1:1.

**Table 14: Distribution of Employees by Age Group**

Age Group	Male	Female	Overall
<30	1,515	179	1,694
30-50	2,238	43	2,281
>50	706	15	721
<b>Total</b>	<b>4,459</b>	<b>237</b>	<b>4,696</b>

## Diversity and Equal Opportunity

Diversity is the lynchpin of innovation. To achieve our goal of being the fourth largest iron ore mining company in the world, and to be a world-class enterprise with a high performance culture, it is important to have a workforce that is diverse in its skills, outlook

and backgrounds. Our HR Policy clearly states that the Company is an equal opportunity employer and all employees will be treated with respect and dignity, and judged solely on their performance irrespective of their race, religion, caste, gender, age, disability, HIV / AIDS status or any other characteristic.

**Table 15: Composition of Governance bodies (As on 31 March 2012)**

Governance Bodies	Age Group			From Minority Group		From Non-Minority Group	
	<30 years	30-50 years	>50 Years	Male	Female	Male	Female
Board of Directors	0	0	6	0	0	6	0

In addition to the above, Sesa has various governance bodies such as Business Management Group, Compliance Committee, Operations Review Committee, Management Review Committee (for IMS), Sustainability Core Group, Sexual Harassment Complaints Committee, etc., which look into various specific aspects of business and governance performance. Composition of these governance bodies and breakdown of employees will be reported in subsequent reporting periods.

No incidence of discrimination has occurred during the reporting period. As of now, Sesa does not have a specific policy in place to hire people with disabilities, due to the nature of the industry in which it operates. We do not discriminate on pay, and our minimum wages either meet, or are higher than, the statutory requirements. During the reporting year, 5 cases of sexual harassment of female employees were reported and were substantiated. The Company has taken appropriate action and all the cases have been resolved.

## Employee Turnover

At Sesa, we track our employee turnover in the following ways:

- **Total Attrition:** all separations, which includes separations due to resignations, terminations or retirements
- **Voluntary Attrition:** all separations by employee choice, such as resignations
- **Forced Attrition:** all separations for reasons of non-compliance, disciplinary action or terminations

During the year 2011-12, a total of 207 employees (15%) left the organisation, by resignation, termination or retirement.

**Table 16: Employee Attrition by Gender and Age**

Year	Total Employees	Total Attrition	Male	Female	< 30 yrs	30 – 50 yrs	>50 yrs
2009-10	81	7.3%	70	11	49	21	11
2010-11	106	7.8%	96	10	59	36	11
2011-12	207	15.2%	183	24	154	30	23

During the year, there was an increase in employee attrition due to the turnover among the younger engineers and officers, who had joined the Company in the last two years.

## Training

Regular, relevant and timely training is essential for employees to exercise their skills and perform efficiently. We have a systematic approach to training, with the annual training plan based on training needs identified in the various appraisal and assessment processes. The annual training calendar ensures employees get an opportunity to plan and undergo necessary training. Enhancing the skillsets and knowledge of our employees is important to ensure that the performance of the company keeps pace with the exponential growth of Sesa. The training hours have been doubled and that budget increased by 1.5 times over the last reporting year. On an average, our employees received 20.76 hours of training during the reporting period.

We have introduced an improved mentorship programme to guide new recruits and ensure their smooth on-boarding and acclimatisation to our organisation culture. Our GOLD initiative helps identify and create a talent pool of successors to operational leadership positions and ensures planned development of star performers through multiple interventions, including challenging projects and assignments.

**Table 17: Training Provided**

Employee Category	No. of Personnel		No. of Hours of Training	
	Male	Female	Male	Female
Board / Senior Management	45	1	1,232	0
Executive	1,096	212	36,920	6,096
Non-executives	3,318	24	51,960	0
<b>Total</b>	<b>4,459</b>	<b>237</b>	<b>90,112</b>	<b>6,096</b>
	<b>4,696</b>		<b>96,208</b>	



*Exploration team working on the geophysical modelling at Codi, Goa*

A new programme for workmen wellness called 'Navjyoti' was started this year, involving spouses and focussed on creating a "Winning Family". The programme tackles issues like alcoholism, which are faced by family members at home. Sessions were held at the iron ore division at Codli, Amona, Bicholim and the shipbuilding division at Sirsaim.

Due to regulatory circumstances, our Karnataka operations have witnessed a lean productive phase during the year. During this period, we focussed on training and cross-skilling our employees. We also conduct re-training programmes to support employees who are retiring, and in some cases, employees leaving due to other reasons. Over the course of the reporting period, over 96,000 hours of training were imparted to employees at Sesa.

## Employee Retention and Engagement

High employee turnover is costly for any organisation both in terms of time and loss of productivity. Hence it is important to retain talented employees by motivating them and providing them a challenging job environment.

In order to improve employee engagement at Sesa this year, we embarked on a survey called 'Connect', which will henceforth be an annual feature. The survey measures employee engagement across many facets including, and not limited to, training, growth opportunities, facilities, benefits, etc. Our goal is to improve our satisfaction score year on year through a number of measures, small and big. In order to validate these assessments, Sesa also participates regularly in global employee engagement studies, such as Hewitt Best Companies to Work and Great Places to Work, to receive independent feedback, which helps formulate action plans for further improvement.

To further enhance engagement and interaction of younger employees with senior management, we have started events like Coffee and Conversation with MD, where young trainees and engineers get an opportunity to interact with the CEO and understand the organisational context from a direct perspective. During the year, we also launched a series of personality-based training programmes, such as Myers-Briggs Type Indicator (MBTI) workshops.

In order to maintain a cohesive culture in the organisation, in line with the growing organisation strength, Sesa has sponsored and supported the formation of Sesa Sports Club, a forum managed and sustained voluntarily by employees, which conducts various sports and other co-curricular activities. Sports tournaments offer an excellent opportunity to encourage and engage employees.

During the year, events conducted, such as the Women's Cricket Championship, garnered great participation and appreciation from employees. They also partake in social and cultural events and celebrations with fervour. To promote a culture of employees wishing each other on joyous occasions, we have introduced birthday reminders.

Our talent management practices have also been recognised by external agencies; at the Asia's Best Employer Brand Awards ceremony held in Singapore on 22 July 2011 Sesa won an award for its best practices in Talent Management. These awards are presented to individuals and organisations that have been exemplary role models and leaders, and have demonstrated excellence in their practices.

Equity-based award plans, called Long Term Incentive Plans (LTIP) of the parent group, Vedanta, are also offered by the Company to recognise key, high-performing employees.

## Performance Appraisals

Appraisals are a great tool to appreciate employees' performance, address their concerns and provide them with the required support to improve performance. Sesa strives to ensure a high performance work culture and all employees of the executive category undergo a formal, open and transparent appraisal process, which includes self-appraisal and employee feedback as a critical component. Employees undergoing training and probation are also appraised to assess their level of performance during these stages. Currently, non-executives (workmen) of the Company are not assessed through a formal open performance review mechanism.

**Table 18: Performance Feedback – Executives 2011-12**

	Male	Female	Total
Total Number of Employees	1,141	213	1,354
Total Number of Employees receiving regular performance appraisals	1,048	172	1,220
Percentage	91.85%	80.75%	90.10%

## Employee Benefits

A comprehensive employee benefits package plays an important role in the recruitment and retention of the best talent. Over the past few years, we have endeavoured to streamline and ensure uniformity in benefits to our full-time employees across various units and subsidiaries.

The following table indicates the coverage of organisation's defined benefit plan and obligations, and shows the contributions made by the Company towards various funds and the expenses made by the Company towards welfare expenses of the employees.

**Table 19: Payroll and Contribution to Benefit Plan** (in Rs. crores)

	2009-10	2010-11	2011-12
Number of Employees (Nos)	4,010	4,761	4,696
Salaries, Wages, Bonus and Allowances	147	172	219
Contributions to Funds (PF, Gratuity, Annuity)	11	18	27.44
Staff Welfare Expenses	10.60	17.27	21.66
<b>Total</b>	<b>168.86</b>	<b>207.08</b>	<b>268.43</b>

Note: As opposed to the previous years' reports, the table indicates all employees on its roll and not just workmen.

## Business Excellence

During the reporting period, we have continued to focus on Total Quality Management implementation with multiple initiatives that drive quality and business excellence. The Sesa Youth Club and Quality Circles are new initiatives that were implemented. The Idea Mela Programme that we started in the previous period continues to grow with several ideas already implemented during this reporting period.

### Idea Mela

Idea Mela was conducted in December 2010 to strengthen the employee suggestion management system and fast-track the process of collecting suggestions from employees. A day was selected and declared as Idea Mela Day to collect ideas related to productivity improvement, cost reduction, safety / environment performance improvement, quality improvement, employee welfare, etc., from employees. The event was a great success with 5,000 ideas received from 2,000 employees. Of these, 600 ideas were found to be feasible for implementation. Employees were also rewarded with prizes for the most creative idea, highest number of ideas submitted by an individual, and the highest number of ideas from a department. These awards motivated employees to implement these ideas at a faster pace.

Business heads and the senior management team appreciated the concept and allocated adequate resources to implement feasible ideas. With a specific focus on fast-tracking high priority ideas, we could implement 302 ideas out of 600 feasible ideas during 2011-12. The estimated cost savings from the implementation of these ideas would be around Rs. 2.5 crores.

We currently have an online portal called Idea Map to manage our idea system from collection to implementation. Ideas can now be collected and evaluated at a business unit level, campaigns can be started for specific focus areas, and a committee can be selected to evaluate these ideas. The portal was started in November 2011 and is currently being piloted in Sesa. Plans are currently underway to promote the tool within the Company, both in the offices as well as in the mines through special kiosks.

### Quality Circles

We kicked off the Quality Circle initiative in the Pig Iron Division (PID) in 2011 with an objective of providing a platform for employees to join hands and be a part of our overall improvement journey. Quality Circles are self-managed teams made up of about eight volunteers who identify and solve work-related problems using structured problem-solving methods. This process enhances involvement and inculcates a sense of ownership and belonging among employees. Currently, there are about 20 Quality Circles registered in the PID.

### Sesa Youth Club

Sesa Youth Club was inaugurated on 22 October 2011 as a forum that provides a platform for the young and energetic youth of Sesa to utilise their ideas and energy for organisation development, while helping them network with fun-filled activities. As of now, 100 voluntary members have registered for this movement. Members will work on various themes of process improvements and support Company-wide quality improvements.

Apart from regular benefits, Sesa provides retirement schemes to support the future of its retiring employees. The Company administers these funds through duly constituted and approved trusts, except the Family Pension Fund, to which contributions are made through the Employees' Provident Fund Organisation. Full-time employees of the Company are a part of benefit plans, where the contributions fall under certain statutory / fiduciary arrangements, such as the Provident Fund, Family Pension Fund and Superannuation Fund, in the case of executives. Employees also contribute to their provident and pension fund, equal to the contribution made by the Company, while annuity fund contributions are made only by the Company. The coverage of the organisation's defined benefit plan obligations is detailed and reported in the Annual Report of the Company for 2011-12 on page 134.

Sesa has a comprehensive medical benefits programme, in which the Company reimburses all medical expenses, including hospitalisation, to full-time employees. In some cases, Sesa insures the employees and families for their medical and hospitalisation requirements. Moreover, an employee is also eligible to avail requisite paid leave for recuperation and recovery. All permanent employees are covered under Personal Accident Insurance for a minimum Rs. 7.5 lakhs. These benefits do not accrue to contract employees.

Women employees have a provision to avail maternity leave of three months, as per law, which can be further extended on

medical grounds, if needed, for a short period. As with any other paid leave, availing this leave does not impact position or work role of the employee. In 2011-12, six women employees availed maternity leave, and all have resumed at the same position. As a part of its medical benefits policy, Sesa reimburses / covers the expenses of hospitalisation and expenses incurred for the birth of the first two children.

As part of the contractual obligations of any work order, it is mandatory for contractors to comply, in all respects, with the provisions of all statutes, rules and regulations applicable to the contractor and / or to the contractor's employees, including but not limited to, Minimum Wages Act, ESI Act, PF Act, Bonus Act and, in particular, the Contract Labour (Regulation & Abolition) Act, 1970 and the Rules made thereunder, Factories Act, Workmen's Compensation Act, Payment of Wages Act and Contract Labour (Regulation) Act. As per labour welfare legislations, the contractor / tenderer should have a separate code number under the Provident Fund and ESI schemes and such number should be furnished within seven days from the date of awarding the contract. The contractor should also comply with the Contract Labour (R&A) Act and must be eligible to obtain a license from the authority. The minimum wages paid by the Company are at par with the industry and are higher than those prescribed by the Government. There were no incidents of delay in payment of wages during the reporting period. The current salary at entry level is Rs. 211.54 per day.



Amona team celebrating a victory in an inter-unit cricket tournament

## HEALTH AND SAFETY

We are committed to providing an accident-free and safe working environment to our employees, contractors and the communities in which we operate. This is an integral part of our business philosophy and is laid down in our health and safety policies, standards and working procedures. We have a well-established and comprehensive Safety, Health, Environment and Quality Policy that underlines our commitment to create a healthy, hygienic and injury-free workplace. This year, Sesa Resources Limited (SRL) achieved the OHSAS 18001 certification (except the smaller operations in Colomba and Curpem mines, where the process is underway).

Safety is a collectively achieved state of well-being and we encourage participation of every individual employee in contributing to ideation, implementation and monitoring of safe and healthy practices at the workplace. Safety is a priority at Sesa and safety training is a primary and integral part of our operations. Our entire workforce is represented in formal joint management-worker health and safety committees that help monitor safety at the work place. Emphasis on safe production processes is laid down in our formal agreements with employee unions. These formal agreements also include provisions for proactive and remedial care, including benefits such as medical and accident cover.

### Zero Accident Mindset

Our Company continues to undertake initiatives that drive home the importance of having a safety-oriented mind-set at work. The PID has remained accident-free for the last two years and our SBD remained accident-free during the reporting period. All around our units, posters and signs advocate the necessity of safety measures. Behaviour-based safety training conducted by Sesa to build a safety culture in the organisation reinforces safety behaviour and its need. In the mining division, we conduct simulator driving training for drivers to enhance skills and inculcate safe practices. Various

audits were conducted under the unsafe condition elimination programme, which included audits of conveyor belts, ladders, welding machines, air receivers, gas cylinders, lifting tools and tackles. Compliance to audit observations is regularly monitored for improvement. No injuries related to the women workforce were reported during the reporting period. The absenteeism rates were 1.94%, calculated based on sick leaves totalling 33,500.5 days.

Despite our best efforts, we suffered one fatality this year. A security guard at our Colomba mine met with an unfortunate accident involving a DG set radiator fan. A department enquiry revealed that the incident occurred due to lack of administrative control and wearing loose clothes while working near moving equipment. Learning from the incident and to prevent such or other incidents from occurring, we have implemented necessary control mechanisms. At the location, the DG set has been replaced with an acoustic enclosure. All DG sets at other locations were checked for compliance with requisite proper guards on all machines. Security personnel were trained on general safety, illumination was improved and proper housekeeping is ensured near moving machinery. In 2011-12, Sesa's overall Lost Time Injury Frequency Rate (LTIFR) reduced from 0.86 in 2010-11 to 0.81 per million man hours worked.

**Table 20: Safety Performance**

Area	Frequency Severity Index (FSI)			Lost Time Injury Frequency Rate (LTIFR)			Number of Lost Time Injury Accidents (LTIA)		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
Mining	0.782	0.594	0.477	1.23	1.02	0.79	17	19	19
PID	1.648	0	0	0.95	0	0	2	0	0
MCD	0	0	0.243	0	0	1.64	0	0	2

Note: From 2011-12, LTIFR & FSI is calculated as per ICMM definitions

### Occupational Health

For us, sustainability implies ensuring employees follow sustainable practices in their personal lives too. This means taking care of their health, practicing safety, and maintaining a healthy work-life balance. At Sesa, we have introduced several initiatives that help employees achieve this balance. To improve awareness on stress and health, we have initiated programmes like the Employee Assistance Programme that provides counselling for employees and their immediate families to resolve interpersonal issues; Employee Counselling for mental well-being; and yoga and meditation sessions to help employees de-stress.

**Table 21: Total Medical Examinations**

Type	2009-10	2010-11	2011-12
Executives	116	417	327
Non Executives (Periodic Medical Examination)	309	982	600

**Table 22: Statutory Medical Examinations**

Area	2009-10	2010-11	2011-12
Mining	810	1,429	829
PID	189	189	186
MCD	79	69	73

All our units are equipped to provide medical consultation and examination facilities. Well-equipped consultation rooms are located at each of our units, with basic facilities such as examination table, weighing scale, height chart, apparatus to check blood pressure, glucometers for random sugar tests, and employees' health records are maintained at the unit. Doctors' visits are scheduled to ensure employees across all locations and shifts get an opportunity to consult these doctors for their issues. Sesa also provides cashless hospitalisation facility to all its employees and families. Health weeks are observed during which health check-ups and quizzes are conducted, along with talks by eminent doctors on ailments such as diabetes, computer vision syndrome, awareness campaign on the dangers of drinking and driving, etc.

To encourage employees to maintain a healthy lifestyle, some sports facilities (badminton courts & table tennis tables) and gymnasiums are provided at various accommodations. Senior management employees are also provided with a benefit to enrol in health clubs to keep healthy and fit. Various sports events like Sesa Kreedha and other sports tournaments are regularly organised.

Over the course of the reporting period, we conducted several education and training, counselling and prevention / risk control sessions to assist workforce members, their families and community members regarding serious diseases. These sessions covered diseases and issues such as AIDS / HIV, diabetes, hypertension, vector-borne diseases like malaria and dengue, tuberculosis, substance abuse, waterborne diseases, respiratory diseases, infectious diseases, etc. Apart from these, awareness sessions on nutrition and anaemia, hygiene, RCH camps, tobacco usage, quality of life, ergonomics, stress management and health & fitness for women employees were also conducted.

Since most of the units of Sesa are OHSAS 18001 certified, we have adopted a reporting system based on OHSAS 18001, for recording and reporting all occupational accidents and diseases in the Units as per the provisions of The Factories Act, 1948, The Mines Act, 1952, and Goa Factory Rules. All injuries are also reported in the prescribed format with information on department, section, nature of injury, time and date of accident, probable cause and unfit period. During the reporting period, no cases of occupational diseases were detected.

## Behaviour Based Safety Training

### Objective

A proactive approach to influence people to inculcate safe work habits, and help them follow safe work practices on the job.

### Description

Most accidents at the workplace occur due to unsafe behaviour of employees. Traditional methods of safety management focus on the working environment and a safe system of work, and do not adequately focus on controlling unsafe behaviour of employees. Focussing on this "human factor" is essential to avoid accidents.

To address this critical issue, we have commenced a series of training programmes on behaviour-based safety named 'Suraksha Jagruti', covering contract as well as company employees. Employees were explained how 'attitude' leads to safe or unsafe behaviour, which governs safe / unsafe execution of work. The ABC analysis, i.e., Activators / Antecedents of unsafe Behaviour and the Consequence of the behaviour was elucidated with examples. In the first phase (FY 2011-12), training has been imparted to around 800 staff and workmen from different locations.

### Impact

The programme has helped workers improve the way they notice and observe unsafe conditions and acts, which has led to an increase in reporting and correcting these conditions.





# ENVIRONMENTAL STEWARDSHIP

As a part of the extractive industry, the very nature of the mining industry poses an enormous challenge – exhausting natural resources. And, with growing demand outstripping the availability of resources, it is imperative to replenish and regenerate these resources. Being a responsible company, Sesa recognises the need for sustainable mining and follows practices and processes that minimise the negative impacts of our operations on the environment. We continuously look for new technologies to improve our extraction and land reclamation efforts.

## Highlights

- Our new Tele-presence system helps reduce business travel
- Our energy saving initiatives resulted in a total savings of 674.76 GJ
- Implemented several Green IT initiatives like server virtualisation and data centre restructuring
- GHG verification was done for the first time this year



## REGENERATING RESOURCES

“Sesa remains committed to sustainable development, which focuses on maintaining a pre-eminent position in health, safety and environment practices, and in contributing to the development of communities where it operates.” – Mr. P. K. Mukherjee, MD

Mining and the environment have a symbiotic relationship and Sesa is committed to achieve a harmonious balance between profitability and environmental management. With robust systems and a full-fledged environment management team to plan, implement and monitor environment management programmes, we continuously seek to mine in environmentally responsible and cleaner ways through:

- Use of technology and the latest software to develop a ‘minimal impact mining plan’
- Choosing an optimal plan for extraction and waste minimisation
- Stressing on the aspect of land reclamation while developing the mine

The focus of the environment management team is to put in place an effective system that ensures the regeneration of the mined resources, and implementing the best practices for mines closure and environmental rehabilitation. We have 5 focus areas for environmental management – Energy, Water, Land, Air and Waste.

Sesa’s Health, Safety, Environment and Community (HSEC) department & the Management Review Committee frame the policy and guidelines on HSE; they also review the effectiveness of the system periodically. Today, we have a well-defined policy in Safety, Health, Environment & Quality (“SHEQ”) for all our operating units. The committee guides our sustainable development endeavour, sets annual targets and monitors progress in line with our HSE and social policies with a clear focus on integrating HSE aspects in the decision-making process. Most of our operations are certified for ISO 9001, ISO 14001 and OHSAS 18001.

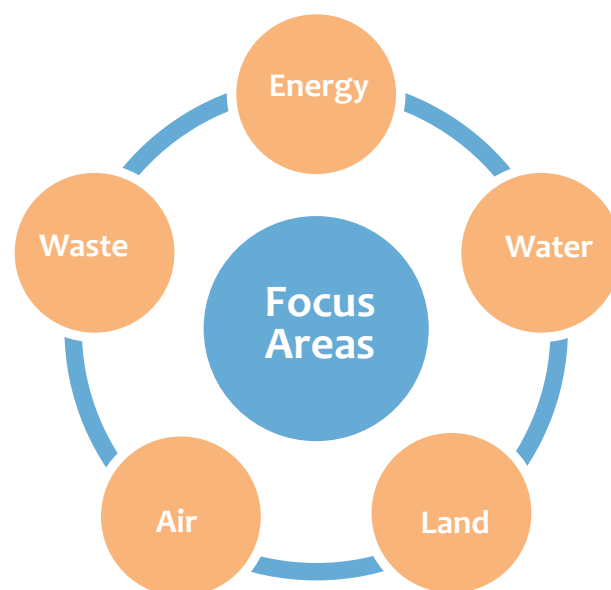
Land reclamation and rehabilitation of mined-out areas is a major part of our environmental efforts. Through the constant integration of new technologies, like the use of geo-textiles and nutrient-inducing plants, we aim to revitalise soil before planting trees that are indigenous to the region. Water conservation, biodiversity, making land cultivable, reducing waste and emissions, and optimising energy consumption are just some of our other initiatives to minimise our impact on the environment and the community.

During the reporting period, we received around twenty complaints and show cause notices under environmental laws; however, these complaints have been resolved / responded satisfactorily.

ANML, Chitradurga, Karnataka operations have been stopped as per a Supreme Court directive for closure of all iron ore mining operations in the state of Karnataka.

### Energy

As we continue to expand, our consumption of energy increases as well. We strive to balance this desire for growth with the need for energy conservation. As part of our focus on sustainable mining, we endeavour to reduce inefficiencies wherever possible. We understand that energy efficiency can help us preserve the environment and limit climate change, while also serving as a significant source of cost savings. Our focus is on reducing our overall energy consumption through a range of initiatives. We have established and implemented clear objectives under environment management systems for energy conservation. The set energy conservation targets are 3% to 5% at all locations. This year our overall energy consumption decreased due to the temporary closure of our mines in Karnataka.



**Table 23: Specific Energy Consumption**

Consumption	Mining			PID			MCD		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
Direct Energy (GJ)	16,45,207	21,05,254	19,33,460	27,660	23,012	30,298	19,065	17,894	19,511
Direct Sp. Energy (GJ/T)	0.091	0.1	0.140	0.099	0.083	0.122	0.076	0.069	0.076
Indirect Energy (GJ)	1,01,946	1,21,332	1,36,785	1,28,561	1,33,855	1,35,207	15,967	17,580	17,523
Indirect Sp. Energy (GJ/T)	0.006	0.006	0.01	0.46	0.485	0.544	0.064	0.067	0.068
Total Energy (GJ)	17,47,153	22,26,586	20,70,245	1,56,221	1,56,867	1,65,605	35,032	35,474	37,034
Total Sp. Energy (GJ/T)	0.105	0.106	0.15	0.56	0.568	0.666	0.139	0.136	0.144

Note: Sp. Energy is the energy consumed per unit of product

## Energy Saving Initiatives

Over the last few years, we have been actively eliminating inefficiencies and reducing our energy consumption. During 10-11, we initiated specific projects for the same and reported cumulative energy savings. Some more projects were started in 2011-12. Through a combination of process changes, improved technology, and behavioural change, we were able to reduce our energy consumption and achieve a total savings of 674.76 GJ for the year 2011-12. Sesa was able to save energy through the following initiatives as shown in the table below.

**Table 24: Energy Savings**

	GJ
Reduction in compressed air consumption	370
VFD installation to jetty pump	155
Installation of voltage transformer for high mast tower	111
CB-2 conversion to star mode operation	5
Lighting audit	4
Installation of LED lighting fixtures, 5 Star AC, Solar Street Lights	30
<b>TOTAL</b>	<b>675</b>

The proposal to create a wind energy plant in Karnataka is currently under consideration. A feasibility study has been conducted and we are currently evaluating our options.

Attempting to reduce the total energy consumption, we encourage all our operations to implement energy saving initiatives through use of energy-efficient or renewable energy based products. For example, by phasing out old welding transformers, our Ship Building Unit decreased its energy consumption marginally. The total energy used through these renewable energy initiatives is less than 1% of total energy consumption, though small it is still a significant step forward for the company.

## Water

Mining is a water-intensive activity and we recognise the social, economical and environmental impact of water. To combat the growing global scarcity of water, Sesa has developed a water management policy and procedure in line with the Vedanta Sustainability Governance system and the same is under implementation. Aiming to become more efficient in water usage and conservation, we have carried out assessment of our water footprint across all our operations and reported in CDP Water for the year 2011-12.

After the ore is extracted, some of it needs to be washed with water to remove impurities and increase iron ore concentration. This process is called beneficiation. Care needs to be taken that this water is not released without being treated. As part of our focus on sustainable mining, we make sure that we keep a check on our water consumption, and at Sesa, we achieve this by harvesting rainwater in mine pits. This water is then used for beneficiation, spraying on the roads for dust suppression, watering plants that are growing on reclaimed land, etc. Water after beneficiation is sent to settling ponds and is used again. On an average, our mining division, uses 19 million m<sup>3</sup> of water in a year. At our major operations of Codli and Bicholim we have beneficiation plants that recycle and reuse water. The water recycled or reused at these two mines combined amounts to 87,82,276 cubic metres (47% of total water used).

## Environmental Impact Reduction through Technology

Technology can be a great enabler for sustainable mining. A Command and Control system is live at our mine in Bicholim. This ingenious system makes it possible for us to control all our field equipment from a central point. Geological software systems help us optimise our extraction process, thereby helping us minimise our environmental impact.

Off the mining fields, we focus our efforts on saving energy and reducing waste. Our IT department has focused on making itself energy efficient. Over the last year, we have switched our computer monitors from CRTs to TFTs. Our data centres have become greener as we have upgraded our servers to rack-mountable versions, which are managed by a central screen. The data centres at our Head Office and our Data Recovery Site at Navi Mumbai have received ISO 27,000 certifications. We are now implementing server virtualisation. In addition to this, we also have plans to implement a Business Continuity Plan in the coming year.

With the aim of reducing business travel especially by Air, we invested in installing a tele-presence system, using it to conduct meetings between executives. While we have not calculated the emissions and energy consumption reduced due to this, we are happy to report that 618 hours of meetings were conducted using tele-presence.

To save paper, we have introduced systems like automated workflows for common approvals, emailing soft copies of payslips, etc. Our e-procurement system has simplified our vendor management system and to bolster this, we have also instituted e-payments. We currently do not have systems in place to measure the reduction in energy consumption and paper usage.

**Table 25: Water Consumption**

Unit	Total Withdrawn & Consumed (kL)		
	2009-10	2010-11	2011-12
Mining	1,49,39,392	1,54,31,417	1,85,56,795
PID	5,55,220	5,52,974	5,06,875
MCD	2,10,296	2,03,268	2,04,937

**Table 26: Specific Water Consumption**

Unit	Specific Consumption (kL/MT)		
	2009-10	2010-11	2011-12
Mining	0.898	0.732	1.348
PID	1.986	2.002	2.038
MCD	0.837	0.779	0.799

In Karnataka, ground water is used to meet partial requirements. We have tried to supplement this by collecting rainwater in ponds during the monsoon. Since no water bodies near our operations have been impacted, no significant effect of withdrawal of ground water is seen.

We have a zero-discharge policy and there is no discharge outside our operations, except during the monsoon. We are trying to limit this further, with pipes to re-route rain water and boulder walls to prevent run-offs. By employing these practices, we maintain a balance between what is needed for our business and what is good for the environment.

## Effluent Discharge

While we try to maintain a zero discharge policy, during the monsoons, effluents, mostly suspended solids from the mining operations, are generated due to dump run-off. Before this run-off water joins any water bodies, we ensure that norms are met as per statutory and regulatory requirements. The run-off water / effluents are monitored regularly and are well within the prescribed limits of Fe (0.1-0.39 mg/L) and TSS (3-44 mg/L), as per statutory conditions.

## Land And Bio-Diversity

At Sesa, we try our best to set an example of maintaining biodiversity. Our reclaimed mine at Sanquelim is an example of our ongoing effort to recreate the biodiversity of the area to the extent possible. We believe in systematically reclaiming mined-out areas. At all our mines, reclamation efforts happen concurrently with mining activities. There has not been any new resettlement activity in the reporting period, as no new land was explored or mined.

Our mines in Goa are not located in any ecologically sensitive areas, and our PID and MCD facilities are situated in an industrial belt. Some of our mines are located close to wildlife sanctuaries. All necessary forest clearances / permissions have been obtained to continue with operations and there is no significant impact on biodiversity. No species, listed in the IUCN Red List species or national conservation list species, are found in and around our areas of operation. A list of flora and fauna around mining operations / buffer zones is obtained from the local forest department and necessary measures implemented as required.

Sesa has developed a biodiversity policy and procedure in line with the Vedanta Sustainability Governance system and the same is under implementation. For new projects, it is being implemented from the beginning and for existing projects, its applicability is being reviewed. At the Sanquelim group of mines, a Biodiversity Management Plan has been approved and implemented. At Codli, Mareta Sodo and Botvadeacho Dongor mines, the biodiversity management plans are awaiting forest department approval.

**Table 27: Proximity of Operational Sites to High Biodiversity Value Areas**

Name of Operating Sites	Operating Site Size (Ha)	Area Rehabilitated (Ha)	Trees Planted (Nos)	Area Rehabilitated (Ha)		Trees Planted (Nos)	
				2009-10	2010-11	2011-12	2011-12
<b>Sesa Goa Limited</b>							
Codli mines consisting of 3 contiguous leases	299	4.6	7,551	5.2	8,272	6.4	15,866
Sanquelim mines consisting of 3 contiguous leases	203	0.3	500	0.3	500	6.1	15,331
Mareta Sodo mine	26	-	-	-	-	1.6	4,050
Gawal Sonshi mine*	62	1.2	4,200	3.3	5,331	2.0	5,050
Botvadeacho Dongor	24	-	-	-	-	-	-
Orasso Dongor mine	99	1.6	4,200	2.2	5,500	0.6	1,500
A. Narrain mine, Karnataka	163	5.5	110,350	3.5	100,000	7.5	225,000
<b>Sesa Resources Limited</b>							
Surla Sonshi mine	253	-	-	4.2	42,000	3.6	35,570
Curpem mine	148	-	-	1.0	2,200	-	-
Colomba mine	98	-	-	1.8	6,829	-	-
<b>Sesa Mining Corporation Limited</b>							
Bicholim mine consisting of 5 contiguous leases	479	-	-	8.0	65,544	3.7	34,329

Note: The above numbers have been rounded to the nearest hectare. \*SGL is a raising contractor in Gawal Sonshi mine (Cosme Costa and Sons)

Biodiversity offsets have been used for habitat protection and restoration. At ANML, Karnataka, in consultation with forest department, a wildlife protection area of 19 Ha has been created to compensate forest area used for mining. In Sanquelim, by working with a forest consultant and local forest department, 105 Ha of mined area has been reclaimed.

**Table 28: Amount of Land Disturbed or Rehabilitated FY 2011-12 (Ha)**

Disturbed and not yet rehabilitated (opening balance)	976
Newly disturbed within the reporting period	26
Newly rehabilitated within the reporting period to the agreed end use	8
Disturbed and not yet rehabilitated (closing balance) (D=A+B-C)	994



## Potential of Regeneration

India is the second richest country in bamboo genetic resources after China. These two countries together have more than half the total bamboo resources globally. With the increasing population pressure, natural stands of bamboo are being overexploited for fuel wood and furniture.

With the objective of promoting Bamboo cultivation as a resource and enterprise, Sesa has developed a Bamboo Setum (a garden of Bamboos) in our reclaimed mine of Sanquelim.

### Objective

To create a resource centre of bamboo mother plants from where people can get planting material and propagation methods for growing bamboo on a commercial scale.

### Business Case

The world market for bamboo is valued at US\$ 10 billion, of which China's share alone is to the tune of 50%. Market for bamboo is expected to reach about US\$ 20 billion by 2015. The size of the domestic bamboo industry is estimated to be about Rs. 6505 crores, which may grow to Rs. 26,000 crores by 2015. While it can be grown like any other commercial crop by tilling the land, the domestic bamboo sector is faced with many constraints, such as:

- Lack of scientific methods for propagation and cultivation
- Lack of post harvest treatment and technology for product development

- Inadequate trained manpower
- Inadequate infrastructure for large scale harvesting in the event of gregarious flowering

### Solution

Keeping in view the immense potential of bamboo, an attempt was made to develop a bamboo setum in association with the Goa State Forest Department to collect various species of bamboo from different parts of India. Experts like Mr. A. C. Lakshmana (Retd. IFS) and renowned botanist Dr. H. B. Naithani supported the project by providing us with various planting material and identification of the same. Some planting material was collected from the Forest Research Institute, Dehradun.

Around 30 different species of bamboo are planted in the bamboo setum developed in our reclaimed mine at Sanquelim. Each plant is provided with an identification board with details like its botanical name, use, habitat in which it grows, propagation methods, etc. In the long run, it will become a resource centre consisting of mother plants from where people can get planting material for growing bamboo on a commercial scale. This is in addition to the bamboo pavilion that was described in last year's report.

## Air

### CO<sub>2</sub> Emissions and Reduction Initiatives

We have been participating regularly in the Carbon Disclosure Project. (Our report is available online at [www.cdproject.net](http://www.cdproject.net)). During the year, Sesa was ranked 7<sup>th</sup> in the CDP India 200 Report, 2011. Climate change can have a severe and direct impact on our operations. We undertake various initiatives to reduce our carbon footprint, which are spread across various functions and activities of the organisation; our tele-presence described before, is one such initiative. In the past, we were successful in achieving this through our 'waste heat recovery based power plant project' with UNFCCC. Apart from internal initiatives to reduce carbon, we also take part in emissions trade through domestic markets and GHG abatement projects. 1,01,129 CERs have been accrued during 2011-12, as compared to 1,00,438 last year, but these credits are yet to be sold.

**Table 29: GHG Emissions**

GHG Emissions (TCO <sub>2</sub> E)	Mining			PID			MCD		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
Scope 1	61,657	73,566	77,060	3,90,120	3,94,088	3,62,330	1,88,001	2,46,015	2,32,139
Scope 2	23,774	36,135	34,572	26,628	27,244	30,227	3,302	3,577	3,920
Scope 3	54,316	74,500	59,304	1,358	1,405	1,903	1,021	965	1,130

**Table 30: CO<sub>2</sub> Emissions**

CO <sub>2</sub> Emissions	Mining			PID			MCD		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
Scope 1 / Direct	0.004	0.004	0.006	1.396	1.427	1.457	0.748	0.943	0.905
Scope 2 / Indirect	0.001	0.002	0.003	0.095	0.099	0.122	0.013	0.014	0.015
Scope 3 / Other Indirect	0.003	0.004	0.004	0.005	0.005	0.008	0.004	0.004	0.004

### Air Emissions and Ambient Air Quality

Maintaining good ambient air quality is as important as conserving water. Our mines, unlike manufacturing units, are not a significant source of SO<sub>x</sub> and NO<sub>x</sub>, and these levels are well within the limits. (The SO<sub>x</sub> and NO<sub>x</sub> emissions from HEMM source has not been calculated.) Our Pig Iron and Met Coke divisions in Amona monitor these levels and they have been found to be within the prescribed limits, and are reported to the State Pollution Control Board. Annual average figures of Suspended Particulate Matter (SPM) are well within the prescribed National Ambient Air Quality standards, with PID reporting 0.1563 tonnes and MCD levels being 5.93. Ambient Air Quality for our mines, in terms of RSPM, at Karnataka and Goa states has been well within the prescribed limits.

Air pollution from mining usually is in the form of dust. We ensure to minimise this through various dust suppression mechanisms like regularly wetting the roads within and surrounding the mines, washing the wheel base of trucks carrying ore, preventing overburden and covering the ore with tarpaulin during transport, using truck mounted sweeping machines to clear dust from the roads and covering our dumps. We also use fuel efficient machinery and schedule regular maintenance for them.

### Ozone Depleting Substance

As part of its process to manage ozone-depleting substances, Sesa adopted a policy on ODS which entails purchasing equipment free from CFCs, halons and MCFs. As envisaged last year, we have started measuring data on refilling substances for our Met Coke and Mining divisions.

**Table 31: Ozone Depleting Substances**

Unit*	Ozone Depleting Substance	Quantity In MT	Ozone Depleting Potential	CFC Equivalent For The Year 2011-12	Sources Of Emission / Area Of Usage
MCD	R 22	0.04	0.05	0.002	Mobile car ACs & office installation ACs
Mining Division	R134	0.56	0	0	HEMM refrigerants/office installation ACs

\*Data for PID will be reported from next year onwards.

## Waste

Waste generation is a part of mining operations and we endeavour to minimise its impact on our surroundings. As part of our regular operations, we produce mainly non-hazardous wastes. Wastes like overburden, tailings, slag and other waste from plants are collected, stored and disposed off appropriately. None of the hazardous waste falling under the terms of the Basel Convention Annex I, II, III and VIII is transported, imported, exported or treated at any of Sesa's operations.

At each stage of operation like mining, beneficiation, metal extraction and coke making, we try to follow the '4R' waste strategy model: reduce, recycle, reuse and reclaim. As part of our focus on sustainable mining, we use exploration software to arrive at the most economical

scale, to extract maximum resources while reducing waste. To minimise tailing pond volumes, we have added Wet High Intensity Magnetic Separation (WHIMS) units to the beneficiation plant. Rainwater is harvested in mining pits and used for beneficiation. This water is then collected in settling ponds and reused. Once the ore is mined, we reclaim the land by covering dumps with geo-textiles to reduce soil erosion and grow plants to increase enrichment.

We are currently in the process of studying the e-waste (Management and Handling) Rules 2011 introduced by the Government of India, and setting up the mechanisms to report on the compliance by 2013.

The following table reports the waste generated during the reporting period. Generated waste gets disposed in a sequential manner, in batches, whenever a substantial quantity of waste is accumulated, ensuring all regulatory requirements are met.

**Table 32: Wastes Generated in Mining Division**

Type of Waste	Unit	2009-10	2010-11	2011-12	Disposal Method
<b>Hazardous Waste</b>					
Used Oil*	kL	417	308	319	Sold to authorised recyclers
Oil Soaked Cotton Waste	MT	NR <sup>^</sup>	NR <sup>^</sup>	8	Incinerated in Met Coke ovens
Paint Tins	Nos.	NR <sup>^</sup>	NR <sup>^</sup>	2550	Sold to authorised vendors
<b>Non Hazardous Solid Waste</b>					
Overburden	Mt	32.4	50.9	47.3	Dump management
Tailings	Mt	3.8	4.3	10.8	Tailing ponds
Rubbish Scrap	MT	29	4607	47	Sold to Vendors
MS Scrap	MT	824	1824	1,473	Sold to Vendors
Canteen Waste	MT	16	51	22	Vermicomposting; generated compost is utilised

<sup>^</sup>Not Reported

\*Used oil for Mining Division is in kL for 09-10 and 10-11 while for 11-12, it is in metric tonnes

**Table 33: Wastes Generated in Met Coke Division**

Type of Waste	Unit	2009-10	2010-11	2011-12	Disposal Method
<b>Hazardous Waste</b>					
Used / Spent Oil*	Litres	840	1,290	1,290	Sold to authorised recyclers
Oil Soaked Cotton Waste	Kg	NR <sup>^</sup>	NR <sup>^</sup>	350	Incinerated in Coke Ovens
Used / Discarded Paint Tins	Nos.	NR <sup>^</sup>	NR <sup>^</sup>	216	Sold to authorised recyclers
<b>Non Hazardous Solid Waste</b>					
Rubbish Scrap	MT	NR <sup>^</sup>	NR <sup>^</sup>	33	Municipal solid waste
Metallic Scrap	MT	211	200	242	Sold to scrap vendors
Canteen Waste	Kg	NR <sup>^</sup>	NR <sup>^</sup>	3,600	Disposed in pits
Wood Scrap	MT	NR <sup>^</sup>	NR <sup>^</sup>	65	Municipal solid waste

<sup>^</sup>Not Reported

\*Used oil for Mining Division is in kL for 09-10 and 10-11 while for 11-12, it is in metric tonnes

**Table 34: Wastes Generated in Pig Iron Division**

Type of Waste	Unit	2009-10	2010-11	2011-12	Disposal Method
<b>Hazardous Waste</b>					
Used / Spent Oil*	Litres	4,991	1,935	2,958	Sold to authorised recyclers
Oil Soaked Cotton Waste	Kg	NR <sup>^</sup>	NR <sup>^</sup>	725	Incinerated in Coke Ovens of MCD
Used / Discarded Paint Tins	Nos.	NR <sup>^</sup>	NR <sup>^</sup>	497	Sold to authorised recyclers
<b>Non Hazardous Solid Waste</b>					
Rubbish Scrap	MT	NR <sup>^</sup>	NR <sup>^</sup>	10	Sold to scrap vendors
Metallic Scrap	MT	91	1017	414	Sold to scrap vendors
Canteen waste	Kg	NR <sup>^</sup>	NR <sup>^</sup>	3,003	Disposed in the vermicomposting unit

<sup>^</sup>Not Reported

\* Used oil for Mining Division is in kL for 09-10 and 10-11 while for 11-12, it is in metric tonnes

## Managing Overflows and Run-Offs

Despite our precautions, last year a bund was breached in Mulgaon village due to incessant rains. The run-off washed into the fields of the farmers in the area. We repaired the damage caused due to the incident by de-silting the entire affected plantation area. A broken pipeline was repaired and drinking water supply was restored. The affected parties were suitably compensated for the damage. While this incident was not a breach of compliance, we implemented several mechanisms to prevent this from recurring and we have been accorded clearance for mining the Mulgaon lease again. Some of the mitigation measures put in place include the construction of a boulder wall around the plantation to prevent the silt from washing into the fields below and de-silting existing settling ponds.

### Spillage

Toxic oil spills can cause grave damage to the environment. To prevent this, Sesa has adopted measures like impervious flooring and dyke walls while constructing storage facilities for hazardous substances. Our environment management team conducts periodic audits to ensure that all precautionary measures are being followed. During the last year, no serious leakages occurred of oil or any other hazardous substance. However, there were 43 spillages of oil, of which 9 were significant instances, i.e., >500 litres of spillage (Category 1 - minor). However, the number of instances has reduced by 64%.

Table 35: Oil Spills

Spillage	2009-10	2010-11	2011-12
Instances – nos.	171	118	43
Oil spilled – litres	8,359	6,120	14,665

## Environmental Investments

The following table indicates the amount of investment made by the Company towards various environmental initiatives during the reporting period. The investments would include prevention and control measures like dust suppression, water / waste water management and dump management.

Table 36: Environmental Expenditure

(In Rs. crores)

Unit	Expenditure
Mining	13.82
MCD	0.35
PID	1.56

## Mitigation Measures for Monsoon

To prevent incidents like the one in Mulgaon from recurring, we have been following mitigation measures. Some of them are new, while some have already been practiced earlier.

### Prevent Erosion of Dumps

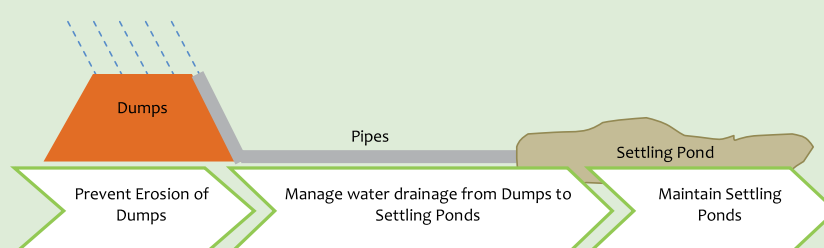
Rainwater can wash away mud from the dumps and cause the silting of settling ponds. To prevent this, in critical areas, dumps are first covered with geotextiles and later on, sown with grass seeds. Dumps that have high clay content are covered with silpaulin, a multi-layered, UV stabilised plastic film-like material, which is waterproof.

### Managing Water Drainage

To limit the amount of soil erosion during the rains, metal ERW pipelines of 600 mm diameter will be laid on the dumps to properly channelise water from the top of dumps to large trenches dug along the perimeter of the dump. These trenches lead to large settling ponds. High quality reinforced concrete pipes (Hume pipes) carry the water across paths. The discharge points will be concretised to form proper drains.

### Maintain Settling Ponds

The settling ponds will be de-silted regularly. Proper overflow arrangement will be done at all the settling ponds by installing metal pipes with pump installation. Laterite pitching along with cementing will be done to strengthen the bund around the settling pond and prevent a total wash-off from the sides. Apart from this, there are plans to install a Pit Water Monitoring System with video analytics that can raise an alarm when the water level in the pits rises beyond a threshold level. Alert messages will be sent to mobiles and an additional pump will be commissioned automatically based on the alert message by the Integrated Command and Control Centre.





## PRODUCT RESPONSIBILITY

For our mining division, materials used are lubricants for heavy earth moving machinery (HEMM) operations, steel for structural fabrication, paints and explosives for breaking hard strata. Our shipbuilding unit uses steel and paint. Our pig iron division uses iron ore, met coke and fluxes as raw materials. This iron ore is supplied partly from the mining division and the balance is purchased from the open market. Sesa's met coke division supplies coke. Fluxes are purchased from outside sources. The Company makes continuous efforts to bring down specific coke consumption. The met coke division uses imported low ash coal as the major raw material.

### Material Stewardship

As a mining company, our products are seldom used as they are, and they usually form the basic raw materials or intermediates for the manufacture of other products. Our principal products are iron ore, pig iron and metallurgical coke. Some of our products form raw materials for other divisions of the Company. All our products are 100% recyclable and reusable. We do not have processes to reuse industrial waste as raw material, but we do have processes in place to use tailings as a source of iron ore in some cases.

**Table 37: Material Consumption and Specific Consumption for Sesa Divisions**

Materials - MT / Year	UoM	2009-10	2010-11	2011-12
<b>Material Consumption – Mining</b>				
Steel	MT	1,236	3,829	51,805
Explosives	MT	202	171	349
Lubricants	MT	1,879	400	2,132
Paint (Mining + SBD)	MT	52.62	68	77
<b>Specific Consumption (per Ton) - Mining</b>				
Steel	MT/Tonnes	0.000074	0.000233	0.003764
Explosives	MT/Tonnes	0.000012	0.00001	0.000025
Lubricants	MT/Tonnes	0.000113	0.000024	0.000155
Paint	MT/Tonnes	0.000032	0.000041	0.000056
<b>Material Consumption – Pig Iron</b>				
Coke	MT	1,73,897	1,72,382	1,59,938
Iron ore + Pellets	MT	4,21,983	4,18,520	3,89,087
Limestone	MT	33,106	33,545	37,625
Dolomite	MT	24,525	24,663	26,361
Fe. Mn.	MT	272	599.66875	206
Coke rate	MT/Tonnes	0.622	0.624	0.643
<b>Specific Consumption (per Ton) – Pig Iron</b>				
Coke	MT	0.62	0.62	0.64
Iron ore + Pellets	MT	1.51	1.51	1.56
Limestone	MT	0.12	0.12	0.15
Dolomite	MT	0.088	0.089	0.106
Fe. Mn.	MT	0.000973	0.002171	0.000828
<b>Material Consumption – Met Coke</b>				
Coal	MT	3,38,352	3,39,683	3,35,555
Coke breeze	MT	9,704	8,056	5,251
Fuel used in oven + CGDP	KL	0	0	0
Coal Tar Pitch	MT	0	0	0
<b>Specific Consumption (per Ton) – Met Coke</b>				
Coal	MT	1.35	1.3	1.31
Coke breeze	MT	0.03861	0.030866	0.020467
Fuel	KL	0	0	0
Coal Tar Pitch	MT	0	0	0

Note: For 2009-10 and 2010-11, data figures of mining division do not include SRL and SMCL, while figures of mining division for 2011-12 include SRL and SMCL.

Since consumers never directly use our products, it is difficult to predict their direct impact on the environment or on customers' health. To better understand the impact of our products on the environment, we have initiated a life cycle assessment (LCA), which is currently underway. The results of the study are expected to be revealed at the end of 2012. Based on the outcome of the assessment, Sesa will embark on a materials stewardship programme to improve the processes and products.

The nature of our products obviates the need for packaging materials. The Test Certificates given to our customers comprise information on physical dimensions and chemical compositions of the products being sold to them. We adhere to all applicable laws for all our exported goods, while catering to our overseas customer base. We have not encountered any copyrights issues. Our products do not require advertising on the scale required by other consumer goods, as we do not manufacture products that would require such levels of marketing or advertising exposure. Our operations are such that we do not need to collect any data from customers that may have privacy considerations.

During the reporting year, Sesa was not subjected to any legal actions for anti-competitive behaviour, anti-trust, or monopoly practices. There have been no instances of non-compliance with laws related to the use of the Company's products and services, and there were no monetary or any other penalties levied upon us during the reporting period.

## Promotion and Marketing Communication

Sesa's products do not require any form of advertising unlike consumer goods. However, the Company follows all applicable laws for exporting its product (iron ore) to external customers. Sesa, through traffic signage, media coverage of our activities and advertisements on important environment days, message boards, etc., maintains brand visibility across our facilities, displaying our CSR activities along with our branding.

## Customer Satisfaction

Periodic customer satisfaction surveys are conducted every year with the focus on Product, Services and Customers. Efforts are made to capture customer perception on what they liked and disliked about our contract performance. Feedback received on a scale of 1 to 10 points is evaluated vis-à-vis the intensity percentage, to calculate the customer satisfaction index. Minimum acceptable percentage to be achieved for any customer satisfaction index is 80%.

**Table 38: Iron Ore Customer Satisfaction (Rating out of 10)**

Parameter	2009-10	2010-11	2011-12
Quality	9.15	9.39	8.85
Performance	9.08	9.21	8.83
Services	8.85	9.16	8.92
Relationship	9.00	9.54	9.15
Overall	8.73	9.26	8.82

**Table 39: Pig Iron Customer Satisfaction (Rating out of 10)**

Parameter	2009-10	2010-11	2011-12
Quality	9.74	9.14	9.36
Delivery	9.26	9.11	9.38
Responsiveness	9.53	9.08	9.24
Professionalism*	NR	NR	9.34
Overall	9.51	9.11	9.34

\*Customer satisfaction survey formats were changed in 11-12 to include the additional parameter of professionalism.

Customer satisfaction surveys are conducted twice in a calendar year, based on supplies from January to June and July to December. If this performance on any parameter comes below the target of 80% or if customers have indicated this personally, then the Marketing Head or Head of Marketing internally investigates the cause for such performance and initiates suitable corrective action. Customer satisfaction and other details are discussed in the monthly operational review meetings and management review meetings.

Analysis of the customer feedback surveys on iron ore pointed to improvement measures, such as improvement in quality control of the final product and removal of contaminants from the final product prepared for our customers. Based on this, the marketing team along with the operations team undertook a TQM project on reducing boulders / contaminants from Sesa cargo which led to improvement in customer satisfaction. In order to compare ourselves with our competitors, we have also asked our customers to rate us vis-à-vis our competitors on all the parameters measured in internal feedback form.

**Table 40: Met Coke Customer Satisfaction (Rating out of 10)**

Parameter	2009-10	2010-11	2011-12
Quality	9.20	8.93	8.87
Delivery	9.60	9.25	9.15
Responsiveness	9.80	9.07	8.96
Professionalism*	NR	NR	9.00
Overall	9.53	9.08	9.15

\*Customer satisfaction survey formats were changed in 11-12 to include the additional parameter of professionalism.

## Transport

Iron ore is transported from the mines to loading points by trucks covered with tarpaulins to ensure there is no spillage or dust generation. In case of pig iron and met coke, by the nature of the product, there is no significant generation of dust from the product during transportation. Transportation emerged as a material issue during our discussions with stakeholders; specifically the dust, noise and congestion caused by the trucks. Increased constraints on transportation have affected our operations as well. To combat these, Sesa is in the process of working with the government on a dedicated transport corridor that bypasses residential locations and eases congestion. Further, the Company has, by its own initiative and in partnership with other like-minded mining companies, conducted a widening and de-bottlenecking exercise of certain routes. This is in addition to the Goa Government's initiative to create a dedicated mining corridor accessible to all mining companies. Dust suppression mechanisms have been employed wherever possible.

The Ministry of Environment and Forests, in association with the Government of Goa, has commissioned the Indian School of Mines, Dhanbad to carry out a carrying capacity study to understand the overall impact of mining on existing infrastructure. This study will also include transportation-related issues. The study is currently in progress. Once the report is submitted, Sesa will strive to implement recommendations relevant to our operations.



Iron ore post Beneficiation process at Codli, Goa

# EMPOWERING COMMUNITIES

Mining by its very nature is an activity that has a limited lifespan. It is also a major source of employment. Reconciling this dichotomy plays a large part of our community efforts. By focusing on improving employability of the youth who live in our local communities as well as by providing educational opportunities for children, we are helping secure their future.

## Highlights

- Paediatric Neuro Rehabilitation Centre providing over 700 patients with highly skilled and specialised services ranging from detection and intervention to management of children suffering from developmental issues
- Manthan & Vedanta Computer Education Programme helps in behavioural development, interest in education and increased knowledge of computers & systems amongst school going children
- Hi-tech commercial farming like gerbera plantation and Systematic Rice Intensification programmes help locals develop alternate means of income & sustainable livelihood
- Distribution of biomass gas stove to over 2,349 families in Chitradurga district, Karnataka; could save cooking time and fuel as well, also reduce indoor air pollution



## REACHING OUT TO COMMUNITY

Sesa believes that corporate social responsibility (CSR) is a long-term involvement of the Company in the socio-economic development of mining areas. The community is one of Sesa's key stakeholders and hence, its participation in the lives of the people who are impacted by its presence and operations is of paramount importance. Most of Sesa's CSR activities are focussed around its operations in Goa and Karnataka.

Sesa's dedicated CSR team plans and budgets its annual activities based on continuous engagement and consultation with community members, socio-economic baseline studies and need-assessments. Sesa has, over the years, partnered with other like-minded agencies, such as government bodies, NGOs, local communities and representative bodies (village panchayats), to implement its community development projects.

**Table 41: Community Investment** (in Rs. crores)

CSR Areas	2009-10	2010-11	2011-12
Sustainable Livelihood	0.8	2.2	3.8
Donation*	4.1	4.0	0.6
Education	0.9	1.7	1.7
Health	1.3	1.7	2.4
Infrastructure	2.7	4.8	8.6
SCDF	3.5	3.3	5.3
MFG	4.1	6.3	5.7
Other socio-economic works	-	0.9	2.8
<b>Total</b>	<b>17.4</b>	<b>24.8</b>	<b>31</b>

\* Does not include donations to political parties

Sesa aspires to see sustainable growth of the community through its initiatives and this is primarily achieved through targeted and need-based interventions. In order to gauge the impact of its CSR activities of the past 5 years, Sesa has conducted an impact assessment study with TNS. The results of the study are currently under review and based on this a course of action will be decided. Key findings of the survey and Sesa's action plan based on it will be reported in the 2013 sustainability report. Sesa's CSR initiatives are implemented through the following three channels:

- Sesa Community Development Foundation (SCDF)
- Need-based interventions
- Mineral Foundation of Goa (MFG)

### Sesa Community Development Foundation

SCDF is a registered body under the Societies Registration Act, established in the year 1998. Its main focus is to empower youth through vocational technical education and sports. Under SCDF, Sesa runs the following two institutes:

#### Sesa Technical Schools (STS)

The Sesa Private Industrial Training Institutes at Viridi, Sanquelim and Digas, Panchwadi, provide vocational technical training to youth residing in and around the operations of the Company, enabling them to earn a living. The campus at Sanquelim, which was started in 1993, is affiliated to the National Council of Vocational Training, New Delhi, through the Directorate General of Employment & Training (DGET), Government of India, in the Ministry of Labour, New Delhi. The campus at Digas was started last year to cater specifically to the aspirations of the local youth around the South Goa operations. Students of the institutes specialise in the vocational trades of Machinist, Fitter, Electrician,

Instrument Mechanic or Diesel Mechanic, and secure placement with various industries. STS conducts campus placements every year, with organisations returning every year to enrol students.



Sesa Technical School, Sanquelim Goa

### Sesa Football Academy (SFA)

SFA is located at Sanquelim and Sirsaim in Goa. It was established with an aim to nurture the talent in Goa's young footballers. The SFA at Sanquelim, established in 1999, currently trains 36 boys. Once in two years, boys in the age group of 14 to 16 years are selected on merit and are provided with professional football training, as well as a formal education. The alumni of this academy play for some of the top teams in our country, with some having gone on to represent the Indian national team in select tournaments.

Over the last two years, SFA's Sirsaim Academy team has been an active participant in the Goa Professional League, besides participating in the 2<sup>nd</sup> division of the I-League, Governor's Cup and various other tournaments.

### Need-Based Interventions

Sesa's various interventions, in the areas of health, education, agriculture, livelihood and infrastructure, are undertaken in a highly structured and process-driven approach. These programmes are evolved based on the community's needs identified through consultative and intense stakeholder engagement and as revealed in baseline studies. In the implementation of these initiatives, Sesa has not received any complaints relating to land use or customary rights of local communities.

### Education

Sesa continues to focus on the overall development of students for their brighter future. In the implementation of education projects, students, teachers and parents are involved. Wherever required, and possible, Parent Teacher Associations (PTA), Village Panchayats, Government Education Departments and NGOs are engaged for effective implementation and ownership.

Activity	Summary of the Activity	Result / Outcome
Department of Mining Engineering at Goa Engineering College, Farmagudi	Sesa partnered with the Government of Goa (GoG) to start a Degree course in Mining Engineering at the existing campus of Goa Engineering College.	Every year, 40 students will be enrolled and will avail an opportunity to graduate in Mining Engineering. This initiative will generate the necessary talent pool to meet the shortfall of mining engineers.
Scholarships	Sesa Dnyanjyoti Shishyavritti is a scholarship scheme intended at encouraging and motivating students of classes 5 to 8 to be competitive, to achieve first class scores and perform well academically.	670 students from 57 schools were awarded scholarships of Rs. 2,500 & Rs. 3,500, for high school and higher secondary school students respectively, along with a memento and certificate.
Vedanta Computer Education Programme (VCEP)	VCEP, collaborating with Sarva Siksha Abhiyaan of Directorate of Education, GoG, aims to provide quality education by incorporating CAL (Computer Aided Learning) in teaching and learning, increasing enrolments, reducing dropouts and improving passing out.	The programme has been implemented in 395 and 2,000 schools in Goa and Karnataka respectively, benefitting approximately 359,250 students. Sesa provided academic e-content, supporting software and computer books to schools.
Manthan	Manthan is a school-based intervention for promotion of adolescent health and education. It is based on WHO's Global School Health Initiative, to increase the number of Health Promoting Schools.	The project covers 15 schools, benefits 4,489 people and is run through NGOs, Sangath and Sai Life Care.
Mid-day Meal Scheme	Mid-day meals are provided at schools to SSC students, who stay for evening classes conducted to improve concentration levels among students. This is to improve attendance and arrest absenteeism in extra classes.	In the last two years, it has benefited 237 students.
Bal Melava	Sesa celebrated Children's Day by organising festival programmes for primary school children. Various talent show competitions and fun games were organised on the occasion.	The winners of competitions were awarded prizes and certificates. Over 1,000 students from 118 schools participated enthusiastically in these competitions.
Evening Study Centres	Evening Study Centres, called Abhyasika, provide students personalised guidance for completing their homework, and a supportive atmosphere for those with learning difficulties or lacking study skills.	14 such evening centres are running at different locations and more than 300 students are benefitting. Initiation of 26 more such centres in 13 villages is in the pipeline.
Child-Friendly Learning	To support primary education and to make learning easy for children, teaching and learning kits have been developed with the help of primary school teachers.	These kits were distributed to 91 primary schools, benefitting more than 4,000 students in Bicholim Taluka.
Nurturing Scientific Temperament	Educational / science exhibition	Over 300 types of science and art models were created and exhibited by, and benefitted, 4,000 students from 49 schools
	Nature club activities which involve educational tours, nature trails, celebration of Energy Conservation Day, Environment Day, Safety Week, Wildlife Conservation Week, etc.	Various competitions, poster making, essay writing, quizzes, were organised, which created awareness among students on global issues and promoted hidden talents.

## Health

Access to basic healthcare is a primary necessity of every human being. Sesa extends its support to address basic health needs of the community by creating healthcare facilities at the doorstep and promoting the overall health status of people across its areas of operation. Healthcare programmes constitute need-driven (requests from stakeholders) and proactive initiatives by the Company towards critical health issues. An important focus is contribution to achievement under the United Nation's Millennium Development Goals (MDGs) of promoting maternal, child health and eradication of diseases.

Short-term objective: To meet day-to-day basic health needs of the community

Long-term objective: To create a facility that is easily accessible to the community

Activity	Summary of the Activity	Result / Outcome
Community Medical Centres & Mobile Health Units	Sesa operates, in association with NGOs, 10 community medical centres and 2 mobile health units, each with a doctor and 2 nurses, offering free consultation and medication to nearby villages.	Under this initiative, benefits extend to 15 villages and in the year 2011-12, 59,370 people availed these facilities.
Primary Health Centre (PHC) on PPP mode	The PHC has a 5-bed in-patient treatment facility and facilities for treating out-patients, conducting institutional deliveries and minor operations, laboratory testing and 24x7 emergency services. Medication and treatment are provided free of cost.	Since inception, 73,698 OPD cases, 1,220 indoor patients, 83 institutional deliveries and 11,291 laboratory tests have been attended to, at the PHC.
Anaemia Detection & Treatment Campaign	Sesa, along with the Directorate of Health Services, GoG, conducted an Anaemia Detection & Treatment Campaign for women (in the reproductive age group), of Kirlapal-Dabal, Amona, Navelim, Sonshi, Soliye, Pissurlem, Cudnem and Advalpal.	This campaign benefited 3,000 women and a similar campaign in Dharbandora village, wherein 3 detection camps were held, covered 811 women.
Eye Check-up & Cataract Treatment	Drishti project created mass awareness and provided free eye check-up and treatment, cataract operations and spectacles, where necessary, to people in nearby villages.	The campaign was held in 14 villages, reaching out to over 3,000 people; 3,053 were provided spectacles and 230 were detected for cataract.
Balwadi Children Nutritional Improvement Programme	Nutritional supplement is provided monthly and regular health checks are conducted to monitor. Based on body weight (BMI), malnourished and under-nourished children are provided protein supplements.	426 children from 40 balwadi centres in 7 panchayats benefitted from this programme.
Blood Donation Camp on World AIDS Day	On World AIDS Day, Sesa organised blood donation camps along with Goa State AIDS Control Society (GSACS). Sesa also conducted an awareness programme on HIV AIDS for migrant labourers and truckers.	175 employees donated blood. Sesa formed a Red Ribbon Club, Mayem, partnering with GSACS and Nehru Yuva Kendra to spread HIV awareness.
Vision for Tomorrow	In collaboration with an NGO, Mukta Optics, who visited all schools around the operational areas, Sesa conducted a programme to screen eyes and provide spectacles to school children.	Those with defects were provided spectacles. This project benefitted approximately 12,000 children from 45 schools.
Tobacco Control Advocacy Programme	Awareness sessions using films, quizzes and posters, were conducted in North Goa schools to discourage and highlight harmful effects of tobacco use.	Programme impact was by pre- and post-training tests, which showed improvement in awareness from 40% to 80%. 10 schools and 984 students benefitted from this.
Dental Health Camps	Sesa partnered with Goa Dental College & Hospital, GoG, in this campaign. A team of 6 doctors and 3 paramedical staff in a mobile dental van visits schools to conduct check-ups and treatment.	The programme is in progress and out of the targeted 45 high schools, 11 were covered in 2011-12. This has benefitted approximately 2000 students.
Paediatric Health Camps	Sesa conducted paediatric health check-up and treatment camps for students at primary schools and Anganwadi centres, providing free medicines and counselling parents on health care measures.	These camps covered 23 primary schools, benefitting 769 children.



Medical Staff at Primary Health Centre, Raisuan, Orissa

## Paediatric Neuro Rehabilitation Centre

The Paediatric Neuro Rehabilitation Centre is a state-of-the-art paediatric treatment centre and the first such centre in Goa. The project envisions going beyond the special needs of children to tap their unlimited potential and enable them to lead successful lives in mainstream society. Sesa started this project, in association with Goa Medical College, Bambolim, and Paediatric Neuro Development Clinic, Mumbai to promote positive changes by developing a highly specific plan of care for a wide variety of children who require skilled care. The project was inaugurated on 23 January 2010.

This is an exclusive paediatric centre, with a team of committed professionals guided by a neurodevelopment (NDT) occupational therapist, providing patients with highly skilled and specialised services ranging from detection and intervention to management of children suffering from developmental issues. The following professional services are provided at this centre:

1. Occupational therapy
2. Physiotherapy
3. Speech and language therapy
4. Psychological services
5. Special education
6. Orthotics

Beyond this, the centre also provides services like developmental intervention in NICU, early detection and intervention (0-3 years), therapeutic intervention (0-15 years), specific remediation for handwriting, fine motor skill remediation, etc. Patients are provided free treatment on two days in a week, Wednesdays and Saturdays. On an average, 55 patients visit the centre on these days and 40 patients on other days. Till date, more than 700 patients have been treated at this centre.

## Sustainable Livelihood

Mining is a major source of income to the local community inhabiting the mining belts. Sesa believes that, as mining activities have a finite life span, it is necessary to create competence in the community to engage in other forms of livelihood, over a period of time. This philosophy also forms the basis of our exit strategy. Sesa has encouraged agriculture, watershed and women enterprise development as alternate options of income generation in the community.

The CSR team has engaged expert agencies to create awareness, mobilise the community and help establish alternate means of livelihood. Sesa works jointly with various farmer associations, watershed bodies, such as Amona Panlot Sangh, Betki Khandola Panlot Sangh and other farmers' clubs. Sesa has also engaged the Centre for Development Planning & Research (CDPR), Pune to conduct income generation programmes for women Self Help Groups (SHGs).

## Back to Farming – Agriculture Rejuvenation Project

The project 'Back to Farming' is an ongoing initiative to revive paddy fields and assist the farming community of Goa. Sesa identified various paddy fields left uncultivated for various reasons, such as low returns, unavailability of manpower or agricultural equipment, or due to the inclination of younger generations towards white collar jobs. The CSR team approached the farming community, directly or through stakeholder meetings, to provide support for revival of the fields. Sesa's aim was to promote traditional means to bring sustainable livelihood to the people around its operational areas.

The first initiative was to bring 9 hectares of land under cultivation involving 70 farmers in Wagona. In subsequent years, many more joined to bring more than 113 Ha of land under rice cultivation in Wagona, Kalsai, Bandol in South Goa and Cudnem, Amona, Maina, Navelim in North Goa. Some farmers also took up vegetable cultivation during the rabi season. The Back to Farming project covers 5 villages and has motivated about 320 farmers to bring barren land into cultivation with supply of seeds, fertilisers, irrigation facilities, power tillers and manure for de-silting, etc.

## Hi-tech Commercial Farming – Gerbera Cultivation

There is a great demand for ornamental flowers like gerberas and orchids in Goa, which is primarily fuelled by the Goan hospitality sector. However, most of these flowers are sourced from nearby states. The CSR team identified an opportunity to encourage local farmers to cultivate gerberas, thereby providing them income generation opportunities. Sesa collaborated with the Department of Agriculture, Government of Goa, for hi-tech commercial farming in gerbera cultivation, also known as the Polyhouse project. Sesa supported four farmers by financing them and setting up four polyhouse units at Wade-Sanguem, Dhulai-Dharbandora, Tisk-Usgaon and Valpoi. Around 500-700 flowers are harvested from each site. The cost of a single flower is Rs. 5, enabling farmers to earn a daily income ranging around Rs. 2,500 – 3,500 or a monthly income of Rs. 90,000 per polyhouse.

## Youth Empowerment

Projects have been launched to promote alternate livelihood and empower youth with skills required for sustenance. Local youth have been provided with training to equip them with skills such as driving, computer operating, etc. In association with Maruti Driving School, Sesa conducted driving courses for 60 youth, who enrolled for the training from Netravali and Rivona villages. Sesa also provides professional computer courses to youth from Sonshi village, such as diploma in computer teaching, financial accounting, computer engineering, etc.

## Women Empowerment

The woman is the pillar of strength in every family and her role in society cannot be undermined. Sesa aspires to empower women in the local community with skill sets that would enable them to expand their horizons and also provide additional income. Based on the requests and needs, various training programmes are organised to encourage women SHGs to build their capacity in catering, paper / leaf plate making, beautician services, tailoring, masala making, etc. The CSR team has engaged CDPR to organise these SHGs, motivate, train and conduct exposure visits to income-generating enterprises. After training, efforts are on to set up enterprises and establish market linkages that will fetch them a sustainable income.



## Systematic Rice Intensification (SRI)

SRI is a technique of rice cultivation originating from Bangladesh. It enables farmers to cultivate rice in high lands and in the non-monsoon season, when or where there is a scarcity of water. It requires less seeds, manure water and labour, but ensures double the yield in normal fields.

Sesa started with the orientation of farmers, providing them technical knowhow by organising a talk by Mr. Mayekar, ZAO (Zonal Agriculture Officer), Sanguem. He described the concept, process and technique of cultivating rice using the SRI method. He guided them on selecting seeds, preparing the nursery, transplantation, weeding and adding manure.

The CSR team then identified interested farmers and helped them prepare the nursery as explained. After preparing it, the land was prepared for final sowing by proper ploughing and tilling. The saplings prepared in the nursery were transplanted to the main field under the guidance of the ZAO and his team. After the transplantation, regular weeding was done and after 90 days, the crop was harvested. The difference in yield was visible, as traditionally-grown crop has 40-70 tillers, while the SRI method crop had 80 – 130 tillers grow from one single sapling.

Ms. Daya Gaonkar is one of the farmers who benefitted from SRI. She is an active SHG member and Secretary of Ekvat Society (SHG Federation). She is a tenant holding a small plot of land, around 500 square metres. She was one of the farmers who agreed to try the SRI method on 10 square metres of her land. Earlier, the

yield from her field was 60 kg of paddy, but now, under the SRI method, the same piece of her land yielded 110 kg of paddy. She has become an ardent advocate of the SRI method and motivates other farmers to adopt SRI, citing her own example.

The SRI method not only increases production; it also increases the productivity of:

- **Water:** Since yield is double or more with only half as much water required in traditional farming, the productivity of water is greatly increased
- **Land:** As the yield is double or more, compared to the traditional method of paddy cultivation

The above project was taken up as a Pilot Project and will be replicated at other locations. The happy farmers, who are motivated to cultivate paddy on their agricultural land using the SRI method, bear testimony to the success of the project. Sesa is committed to extending the initial support required to popularise this method and bring about positive change to farmers' lives by helping them increase their yield and realise the dream of sustainable farming.



### Other Initiatives

- Repaired bund at Bhaile Shet, Amona benefitting 85 farmers under Amona Panlot Sangh
- Repair of side wall of pond at Ankale, Betki under Betki Khandola Panlot Sangh benefitting 40 farmers
- Construction and installation of sluice gate at Gaonkarwada, Khandola benefitting 120 farmers
- Constructed 115 metre irrigation canal at Kalsai, Kirlapal, Dabal village benefitting 40 farmers
- Support provided in the form of power tiller and irrigation facilities to farmers committee of Valshi, Bordem benefitting 82 farmers
- De-silting of fields and construction of bund at Surla, benefitting 75 farmers
- One-day motivational and training workshop on income generation activities was organised through the CDPR at Bicholim, attended by 250 women
- Exposure visits of 36 SHG women to agencies such as Bhagirath Gramvikas Pratishthan, Zarap, Sindudurga, Konkani Nisarg Manch Spurti, Kudal, Shri. Warna Bhagini Mandal, Warnanagar, Kolhapur, 'Swayamsiddha' Dr. V. T. Patil Foundation, Kolhapur in Maharashtra
- Exposure visit of 35 farmers along with Zonal Agriculture Officer to Sirsi, Karnataka, to agencies like Totagarika Cooperative Sales Society (TSS), etc
- Stitching, knitting and embroidery classes conducted for 20 women in Pisurlem and 18 women in Sonshi, and a catering course for 20 SHG ladies in Sonshi

### Social Infrastructure

Infrastructure is the foundation of all progress and development. Sesa believes that infrastructure forms a part of the basic need to build and sustain a community. A few of Sesa's initiatives towards the development of infrastructure in the communities around its operations are listed below. Many of the projects undertaken by Sesa are need-based, stemming out of extensive engagement with stakeholders from the villages and communities around its operations. These projects range from providing primary amenities for community life, sanitation and other basic necessities, supporting interactive communities and networking, providing infrastructure for socio-cultural activities, to providing a holistic environment for children's development. Sesa has participated actively in creating assets and infrastructure to meet long-term needs of the community:

- Constructed school building for Government primary school in Pisurlem
- Laid water pipeline at Bagwada, Pilgaon and Bicholim as a drinking water facility to villagers
- Constructed toilets at Lamgaon, Bicholim, Durgamata Hostel at Netravali in South Goa, Amona
- Distributed tube light fixtures and focus lamps to 20 village panchayats around business areas on the eve of Ganesh Chaturthi festival
- Installed outdoor play equipment (see-saw, swing, slide, and merry-go-round) at Government Primary School, Barazan, Usgaon and three primary schools in Dharbandora area
- Constructed Ganpati Visarjan platform at Daucona Village
- Installed high mast light tower in Usgao village
- Constructed nine houses for underprivileged families in Pisurlem and Navelim
- Developed a children's park in Khandola village and installed outdoor play equipment in Betki village
- Constructed a road culvert in Navelim Village and compound wall for Government High School, Navelim
- Constructed community hall in Navelim Village Panchayat
- Construction of anganwadi at Fanaswadi, Navelim
- Renovated Government Primary School, Maina, Navelim
- Preservation of natural springs by constructing surrounding tanks for water storage

Requirements in schools located in the rural areas are predominantly infrastructural in nature. Lack of adequate school infrastructure impacts student interest, teacher motivation, and therefore, performance of the students. Sesa has always been in the forefront in ensuring and supporting the creation of this grass roots level infrastructure to support the broader objective of education. A few activities undertaken by Sesa are:

- Construction of schools & anganwadi building
- Renovating school libraries, laboratories, developing playgrounds, etc
- Provision of drinking water facilities, toilets, etc
- Providing books, uniforms, educational material like maps, charts, benches, furniture, sports equipment, etc
- Notebooks are provided to 260 schools in 62 villages every year across the operational areas in Goa and Karnataka
- Montessori educational aids and play equipment
- Providing office equipment like LCD projectors, photocopiers, etc



Back to farming initiative

## Biomass Stove in Chitradurga, Karnataka

An estimated 826 million Indians depend on simple cooking stoves that burn solid fuel, mainly fuel wood or coal. When households are filled with smoke from inefficient stoves, the toxic soot can increase the risks of contracting pneumonia, cataracts and tuberculosis. The community around Sesa's Karnataka operations consisted of households depending on these conventional cooking stoves for food. The local CSR team introduced improved cooking stoves, the biomass stoves, which generate less smoke and consume less fuel wood; thereby also reducing the carbon footprint of these households.

As a first step, the CSR team introduced these stoves, developed by Envirofit and IsquareD, two certified agencies, by conducting demonstration programmes in the villages. A majority of the villagers realised the importance of using improved cooking stoves.

Subsequently, in consultation with village development committees to ensure responsibility sharing, a beneficiary

contribution towards the procurement of these stoves was fixed, with the balance to be provided by Sesa. The committee decided to pay 30% per cent of the unit cost with the balance 70% being paid by Sesa. Accordingly, the Company has distributed biomass stoves to 2,349 families under the project till date.

Community women expressed that they could save time and fuel wood by using biomass stoves. As a majority of the women who used these stoves also worked on the farms, the stoves provided the added advantage of being used anywhere, inside or outside the house, due to them being lightweight and small in size.

In comparison to traditional stoves, these women also found an improvement in the taste of the food cooked using biomass stoves, due to the complete boiling of food items. More than 50% of the women reported lesser darkening of the house and vessels. They also stated that the overall cleanliness was higher due to the lower smoke emission from these biomass stoves.

## Contribution To MFG

Mineral Foundation of Goa is an NGO established in the year 2000 by the Goan mining industry, as a corporate non-profit organisation, to address social and environmental issues and improve people's lives in the mining belt of Goa. Sesa is the founding member and a majority stakeholder of the MFG. Every year, Sesa contributes about Rs. 4 per tonne produced to the foundation.

MFG has specific mandate to work in areas around iron ore mines and road transport corridors. Towards this MFG working with partners services in nearly 80 villages distributed in 28 panchayat. MFG projects contribute to one or more of 8 Millennium Development Goals. Over one decade, the foundation has created various assets for the benefits of the general public and educational institutes ranging from bhandharas, bandhs, irrigation channels, crematorium, anganwadi, classrooms, toilets, libraries,

laboratories, etc. These facilities will go a long way in serving the community in the mining belt. Women empowerment programmes have been well received by the community.

As an extensive project for comprehensive development of village, Sesa partnered with MFG and the Goa Government (in a Public Private Partnership initiative) in a Gram Nirman project, that was implemented in two village Panchayats namely Kirlapal-Dabal and Mayem. Gram Nirman aimed at integrated development of the villages. Key project undertaken were watershed development-Bandharas, irrigation facilities, Anganwadi centres, Village resource centres, Drinking water project etc.

# ASSURANCE

## Way Forward

### Strategy & Governance

- Implement Vedanta Sustainability Governance System, aligned with IFC standards
- Ensure compliance with applicable legal requirements and strive for beyond compliance

### Environment

- Aggressively pursue pollution prevention, energy conservation and waste reduction in our business operations
- Benchmark and implement best in class environmental practices

### Community

- Continue partnering with credible NGO's to implement high impact CSR initiatives
- Implement CSR initiatives aligned with MDG's – thrust on health, education, employability, sustainable livelihood etc

### Safety

- Drive safety culture and implement behavioural based safety systems /practices to achieve the goal of “zero harm”

### Health

- Implement new health initiative - Screening of all employees for Diabetes



## GRI G3.1 CONTENT INDEX

Application Level: A+		Assured By DNV		
STANDARD DISCLOSURES PART I: Profile Disclosures				
1. Strategy and Analysis				
Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
1.1	Statement from the most senior decision-maker of the organization.	Fully	7	
1.2	Description of key impacts, risks, and opportunities.	Fully	20,21	
2. Organizational Profile				
2.1	Name of the organization.	Fully	Cover page	
2.2	Primary brands, products, and/or services.	Fully	17,18	
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Fully	4,5,23	
2.4	Location of organization's headquarters.	Fully	76	
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Fully	4,5	
2.6	Nature of ownership and legal form.	Fully	4,5	
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Fully	17,18	
2.8	Scale of the reporting organization.	Fully	4,5	
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Fully	4,5	
2.10	Awards received in the reporting period.	Fully	6	
3. Report Parameters				
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Fully	10	
3.2	Date of most recent previous report (if any).	Fully	10	
3.3	Reporting cycle (annual, biennial, etc.)	Fully	10	
3.4	Contact point for questions regarding the report or its contents.	Fully	76	
3.5	Process for defining report content.	Fully	10	
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Fully	10	
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Fully	10	
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Fully	10	
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Fully	10	
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	Fully	10	
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Fully	10	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
3.12	Table identifying the location of the Standard Disclosures in the report.	Fully	58	
3.13	Policy and current practice with regard to seeking external assurance for the report.	Fully	10	
<b>4. Governance, Commitments, and Engagement</b>				
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Fully	Annual Report: 44-52	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Fully	Annual Report: 44	
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	Fully	Annual Report: 32- 33	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Fully	Annual Report: 50	
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Fully	Annual Report: 48-49	
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Fully	Annual Report: 45	
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Fully	Annual Report: 32- 33	
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Fully	Inside cover page, 22	
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Fully	Annual Report: 47- 48	
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Fully	22,23	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Fully	12	
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Fully	10	
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	Fully	74	
4.14	List of stakeholder groups engaged by the organization.	Fully	13 - 16	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
4.15	Basis for identification and selection of stakeholders with whom to engage.	Fully	13 - 16	
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Fully	13 - 16	
4.17	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.	Fully	13 - 16	
<b>STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMAs)</b>				
DMA EC	Disclosure on Management Approach EC	Fully	17 - 19	
Aspects	Economic performance	Fully	17 - 19	
	Market presence	Fully	17 - 19	
	Indirect economic impacts	Fully	19	
DMA EN	Disclosure on Management Approach EN	Fully	39 - 48	
Aspects	Materials	Fully	47 - 48	
	Energy	Fully	40 - 41	
	Water	Fully	41 - 42	
	Biodiversity	Fully	42 - 43	
	Emissions, effluents and waste	Fully	44 - 46	
	Products and services	Fully	17 - 18	
	Compliance	Fully	40,47,48	
	Transport	Fully	48	
	Overall	Fully	46	
DMA LA	Disclosure on Management Approach LA	Fully	31 - 38	
Aspects	Employment	Fully	32 - 36	
	Labor/management relations	Fully	29	
	Occupational health and safety	Fully	37 - 38	
	Training and education	Fully	34	
	Diversity and equal opportunity	Fully	33 - 34	
	Equal remuneration for women and men	Fully	33 - 34	
DMA HR	Disclosure on Management Approach HR	Fully	28 - 30	
Aspects	Investment and procurement practices	Fully	29 - 30	
	Non-discrimination	Fully	34	
	Freedom of association and collective bargaining	Fully	29	
	Child labor	Fully	29 - 30	
	Prevention of forced and compulsory labor	Fully	29 - 30	
	Security practices	Fully	29	
	Indigenous rights	Fully	29	
	Assessment	Fully	29 - 30	
	Remediation	Fully	29 - 30	
DMA SO	Disclosure on Management Approach SO	Fully	50 - 56	
Aspects	Local communities	Fully	50 - 56	
	Corruption	Fully	28	
	Public policy	Fully	22	
	Anti-competitive behaviour	Fully	47	
	Compliance	Fully	47	
DMA PR	Disclosure on Management Approach PR	Fully	47 - 48	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
Aspects	Customer health and safety	Fully	47 - 48	
	Product and service labelling	Fully	47 - 48	
	Marketing communications	Fully	47 - 48	
	Customer privacy	Fully	47 - 48	
	Compliance	Fully	47 - 48	
<b>STANDARD DISCLOSURES PART III: Performance Indicators</b>				
<b>Economic</b>				
<b>Economic performance</b>				
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Fully	19	
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Fully	21,40	
EC3	Coverage of the organization's defined benefit plan obligations.	Fully	35	
EC4	Significant financial assistance received from government.	Fully	26	
<b>Market Presence</b>				
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	Fully	34	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Fully	30	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	Fully	33	
<b>Indirect economic impacts</b>				
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Fully	50 - 56	
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Fully	18 - 19	
<b>Environmental</b>				
<b>Materials</b>				
EN1	Materials used by weight or volume.	Fully	47	
EN2	Percentage of materials used that are recycled input materials.	Fully	47	
<b>Energy</b>				
EN3	Direct energy consumption by primary energy source.	Fully	40 - 41	
EN4	Indirect energy consumption by primary source.	Fully	40 - 41	
EN5	Energy saved due to conservation and efficiency improvements.	Fully	40 - 41	
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Fully	40 - 41	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Fully	40 - 41	
<b>Water</b>				
EN8	Total water withdrawal by source.	Fully	41 - 42	
EN9	Water sources significantly affected by withdrawal of water.	Fully	41 - 42	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
EN10	Percentage and total volume of water recycled and reused.	Fully	41 - 42	
<b>Biodiversity</b>				
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Fully	42	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Fully	42	
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Fully	42	
EN13	Habitats protected or restored.	Fully	42	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Fully	42	
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Fully	42	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Fully	42	
<b>Emissions, effluents and waste</b>				
EN16	Total direct and indirect greenhouse gas emissions by weight.	Fully	44	
EN17	Other relevant indirect greenhouse gas emissions by weight.	Fully	44	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Fully	44	
EN19	Emissions of ozone-depleting substances by weight.	Partially	44	Pig Iron Division Data will be reported from next year
EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight.	Fully	44	
EN21	Total water discharge by quality and destination.	Fully	42	
EN22	Total weight of waste by type and disposal method.	Fully	44,45	
MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Fully	45,46	
EN23	Total number and volume of significant spills.	Fully	46	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Fully	44	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	Fully	42	
<b>Products and services</b>				
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Partially	47,48	LCA study currently underway
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Fully	47,48	
<b>Compliance</b>				
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Fully	40	



Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
<b>Transport</b>				
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Partially	48	A transport study is currently underway. Data will be reported in 2014
<b>Overall</b>				
EN30	Total environmental protection expenditures and investments by type.	Fully	46	
<b>Social: Labor Practices and Decent Work</b>				
<b>Employment</b>				
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	Fully	32	
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	Partially	33,34	Data Reported now.
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Fully	35,36	
LA15	Return to work and retention rates after parental leave, by gender.	Fully	36	
<b>Labor/management relations</b>				
LA4	Percentage of employees covered by collective bargaining agreements.	Fully	29	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	Fully	29	
MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	Fully	29	
<b>Occupational health and safety</b>				
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Fully	37	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Fully	37	
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Fully	37	
LA9	Health and safety topics covered in formal agreements with trade unions.	Fully	37	
<b>Training and education</b>				
LA10	Average hours of training per year per employee by gender, and by employee category.	Fully	34	
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Fully	34	
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	Fully	35	
<b>Diversity and equal opportunity</b>				
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	Fully	33	
<b>Equal remuneration for women and men</b>				
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	Fully	33	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
<b>Social: Human Rights</b>				
<b>Investment and procurement practices</b>				
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	Partially	29	Human Rights Screening not covered. While our SA8000 Certification covers some of the parameters of Human Rights, we are yet to incorporate human rights screening into our investment process. This will be done by 2013.
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	Partially	30	Human Rights Screening not covered. Supplier Code of Conduct put in place. No monitoring or audit mechanism is in place yet to verify adherence to the code. This will be done by 2013.
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Fully	29	
<b>Non-discrimination</b>				
HR4	Total number of incidents of discrimination and corrective actions taken.	Fully	34	
<b>Freedom of association and collective bargaining</b>				
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	Partially	29,30	
<b>Child labor</b>				
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	Partially	29,30	Suppliers partially covered. Supplier Code of Conduct put in place. No monitoring or audit mechanism is in place yet to verify adherence to the code. This will be done by 2013.
<b>Forced and compulsory labor</b>				
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	Partially	29,30	
<b>Security practices</b>				
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Fully	29	
MM5	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	Fully	29	
<b>Indigenous rights</b>				
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Fully	29	
<b>Assessment</b>				
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	Fully	12	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
<b>Remediation</b>				
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	Fully	29	
<b>Social: Society</b>				
<b>Local communities</b>				
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Fully	50	
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	Fully	50	
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.	Fully	50	
<b>Artisanal and small- scale mining</b>				
MM8	Number (and percentage) or 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.	Fully	5	
<b>Resettlement</b>				
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Fully	42	
<b>Closure planning</b>				
MM10	Number and percentage of operations with closure plans.	Fully	19	
SO9	Operations with significant potential or actual negative impacts on local communities.	Partially	40 - 48	TNS impact assessment survey is currently underway. Will be published by 2012
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	Partially	40 - 48,50- 56	
<b>Corruption</b>				
SO2	Percentage and total number of business units analyzed for risks related to corruption.	Fully	28	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	Fully	28	
SO4	Actions taken in response to incidents of corruption.	Fully	28	
<b>Public policy</b>				
SO5	Public policy positions and participation in public policy development and lobbying.	Fully	22	
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Fully	26	
<b>Anti-competitive behaviour</b>				
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes.	Fully	47 - 48	
<b>Compliance</b>				
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Fully	47 - 48	

Indicator	Description	Reported	Page No.	Explanation: Part not reported, reason and by when it will be reported
<b>Social: Product Responsibility</b>				
<b>Materials Stewardship</b>				
MM11	Programs and progress relating to materials stewardship.	Partially	47 - 48	LCA study currently underway. To be reported in 2013
<b>Customer health and safety</b>				
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Fully	47 - 48	
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Fully	47 - 48	
<b>Product and service labelling</b>				
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Fully	47 - 48	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.	Fully	47 - 48	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Fully	47 - 48	
<b>Marketing communications</b>				
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Fully	47 - 48	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Fully	47 - 48	
<b>Customer privacy</b>				
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Not	Not Applicable	As per the nature of our industry we do not need to handle propriety information/ data of our customers
<b>Compliance</b>				
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Fully	47 - 48	

# UNGC & NVG GUIDELINES

## The Ten Principles - United Nations Global Compact

Principles	Statement	Page No.
<b>Human Rights</b>		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	29,30
Principle 2	Make sure that they are not complicit in human rights abuses.	29,30
<b>Labour</b>		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	29,30
Principle 4	The elimination of all forms of forced and compulsory labour;	29,30
Principle 5	The effective abolition of child labour; and	29,30
Principle 6	The elimination of discrimination in respect of employment and occupation.	34
<b>Environment</b>		
Principle 7	Businesses should support a precautionary approach to environmental challenges;	12
Principle 8	Undertake initiatives to promote greater environmental responsibility; and	40 - 48
Principle 9	Encourage the development and diffusion of environmentally friendly technologies.	40 - 48
<b>Anti-Corruption</b>		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	28

## National Voluntary Guidelines on Social, Environmental, & Economic Responsibilities of Business

Principles	Statement
Principle 1	Businesses should conduct and govern themselves with Ethics, Transparency and Accountability
Principle 2	Businesses should provide goods and services that are safe and contribute to sustainability through their life cycle
Principle 3	Businesses should promote the well being of all employees
Principle 4	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalised
Principle 5	Businesses should respect and promote human rights
Principle 6	Businesses should respect, protect and make efforts to restore the environment
Principle 7	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner
Principle 8	Businesses should support inclusive growth and equitable development
Principle 9	Businesses should engage with and provide value to their customers and consumers in a responsible manner

## NVG REPORT APPLICATION TABLE

NVG Report Application Table				
A	Part A of the report includes basic information and data about the operations of the business entity so that the reading of the report becomes more contextual and comparable with other similarly placed businesses. It may be written in a free format incorporating at least the following:			
Sub Part	Aspects		Page No.	
A-1	Basic information about the business	Name	Cover page	
		Nature of ownership	4,5	
		Details of the people in top management	23	
		Location of its operations - national and international	4,5	
		Products and services offered	17,18	
		Markets served	17,18	
	Economic and Financial Data	Sales	19	
		Net profit	19	
		Tax paid	19	
		Total assets	19	
		Market capitalisation	5	
	Number of employees	32		
A-2	Management's Commitment Statement to the ESG Guidelines		12	
	Priorities in terms of Principle and Core Elements		15,16	
	Reporting Period/Cycle		10	
	Whether the report is based on this framework or any other framework		10	
	Any Significant Risk that the business would like its stakeholders to know		20,21	
	Any Goals and Targets that were set by the top management for improving their performance during the Reporting Period		2,57	
B	Part B of the report incorporates the basic parameters on which the business may report their performance. Efforts have been made to keep the reporting simple keeping in view the fact that this framework is equally applicable to the small businesses as well. The report may be prepared in a free format with the basic performance indicators being included in the same. In case the business entity has chosen not to adopt or report on any of the Principles, the same may be stated along with, if possible, the reasons for not doing so.			
Sub Part	Principle	Core elements	Page No.	
B-1	Principle 1 – Ethics, Transparency and Accountability	Governance structure of the business, including committees under the Board responsible for organizational oversight. In case no committee is constituted, then the details of the individual responsible for the oversight	Annual Report Page 44-52	
		Mandate and composition (including number of independent members and/ or non-executive members) of such committee with the number of oversight review meetings held.	Annual Report Page 32- 33	
		State whether the person/committee head responsible for oversight review is independent from the executive authority or not. If yes, how.	Annual Report Page 44	
		Mechanisms for shareholders and employees to provide recommendations or direction to the Board/ Chief Executive.	Annual Report Page 50	
		Processes in place for the Board/ Chief Executive to ensure conflicts of interest are avoided.	Annual Report Page 45	
		Internally developed statement on Ethics, Codes of Conduct and details of the process followed to ensure that the same are followed	2,22,28	
		Frequency with which the Board/ Chief Executive assess BR performance.	22,23	
		Principle 2 – Products Life Cycle Sustainability	Statement on the use of recyclable raw materials used	47
			Statement on use of energy-efficient technologies, designs and manufacturing/ service-delivery processes	40,41
			Statement on copyrights issues in case of the products that involve use of traditional knowledge and geographical indicators	Not Applicable
Statement on use of sustainable practices used in the value chain	30			

Sub Part	Principle	Core elements	Page No.	
B-1	Principle 3 – Employees' well-being	Total number of employees with percentage of employees that are engaged through contractors	32	
		Statement on non-discriminatory employment policy of the business entity	34	
		Percentage of employees who are women	32	
		Number of persons with disabilities hired	34	
		Amount of the least monthly wage paid to any skilled and unskilled employee	36	
		Number of training and skill up-gradation programmes organized during the reporting period for skilled and unskilled employees	34	
		Number of incidents of delay in payment of wages during the reporting period	36	
		Number of grievances submitted by the employees	29	
		Principle 4 – Stakeholder Engagement	Statement on the process of identification of stakeholders and engaging with them	13 - 16
			Statement on significant issues on which formal dialogue has been undertaken with any of the stakeholder groups	13 - 16
Principle 5 – Human Rights	Statement on the policy of the business entity on observance of human rights in their operation	29		
	Statement on complaints of human rights violations filed during the reporting period	29		
Principle 6 – Environment	Percentage of materials used that are recycled input materials	47		
	Total energy consumed by the business entity for its operations	40,41		
	Statement on use of energy saving processes and the total energy saved due to use of such processes	40,41		
	Use of renewable energy as percentage of total energy consumption	40,41		
	Total water consumed and the percentage of water that is recycled and reused	41,42		
	Statement on quantum of emissions of greenhouse gases and efforts made to reduce the same	44		
	Statement on discharge of water and effluents indicating the treatment done before discharge and the destination of disposal	42		
Principle 7 – Policy Advocacy	Statement on significant policy advocacy efforts undertaken with details of the platforms used	42		
	Details of efforts made for reconstruction of bio-diversity	42		
Principle 8 – Inclusive Growth	Statement on significant policy advocacy efforts undertaken with details of the platforms used	22		
Principle 8 – Inclusive Growth	Details of community investment and development work undertaken indicating the financial resources deployed and the impact of this work with a longer term perspective	50		
	Details of innovative practices, products and services that particularly enhance access and allocation of resources to the poor and the marginalized groups of the society	50 - 56		
Principle 9 – Customer Value	Statement on whether the labelling of their products has adequate information regarding product-related customer health and safety, method of use and disposal, product and process standards observed	47,48		
	Details of the customer complaints on safety, labelling and safe disposal of the products received during the reporting period	47,48		
Sub Part	Aspects		Page No.	
C	Part C of the report incorporates two important aspects on BR reporting. Part C-1 is a disclosure on by the business entity on any negative consequences of its operations on the social, environmental and economic fronts. The objective is to encourage the business to report on this aspect in a transparent manner so that it can channelize its efforts to mitigate the same. Part C-2 is aimed at encouraging the business to continuously improve its performance in the area of BR.			
C-1	• Brief Report on any material/significant negative consequences of the operations of the business entity		40 - 48	
C-2	• Brief on Goals and Targets in the area of social, environmental and economic responsibilities that the business entity has set for itself for the next Reporting Period	Social	2,57	
		Environmental	2,57	
		Economic	2,57	

# ASSURANCE STATEMENT OF DNV



## INDEPENDENT ASSURANCE STATEMENT

### Introduction

Det Norske Veritas AS ('DNV') has been commissioned by the management of Sesa Goa Limited ('Sesa Goa' or 'the Company') to carry out an assurance engagement on the Company's Sustainable Development Report 2012 ('the Report') in its printed and electronic format. This assurance engagement focused on verification of qualitative and quantitative information provided in the Report, and underlying management and reporting processes. The engagement was carried out against DNV Protocol for Verification of Sustainability Reporting (VeriSustain) including verification of application level and adherence to principles of the Global Reporting Initiative 2011 Sustainability Reporting Guidelines Version 3.1 (GRI G3.1).

This assurance statement is aimed at the readers of the Report. The company is responsible for the collection, analysis, aggregation and presentation of information within the Report. DNV's responsibility in performing this work is to the management of Sesa Goa only and in accordance with terms of reference agreed with the Company. The assurance engagement is based on the assumption that the data and information provided to us is complete, sufficient and authentic. DNV disclaims any liability or responsibility to a third party for decisions, whether investment or otherwise, based on this assurance statement.

### Scope of Assurance

The scope of DNV's assurance engagement, as agreed upon with Sesa Goa included the verification of the content, focus and quality of the information presented in the Report, covering the Economic, Environment and Social information over the period 1st April 2011 to 31st March 2012. In particular, this assurance engagement included:

- Review of the policies, initiatives, practices and performance described in the Report as well as references made in the Report to the annual report;
- Review of the Report against the requirements of VeriSustain with a moderate level of assurance;
- Evaluation of the adherence to the principles set out in the GRI G3.1 and confirmation of the Sesa Goa's declared Application Level;
- Review and assessment of the processes and tools for collecting, aggregating and reporting qualitative data inside the Report.
- Verification of the reliability of information and performance data as set forth in GRI G3.1 and presented in the Report;
- Verification of economic indicators in the Report, based on data from audited financial statements;
- Our engagement did not include formal assessment of the adequacy or effectiveness of Company's strategy or management of Sustainability related issues.

The reporting boundary is as set out in the Report and during the assurance we did not come across limitations to the scope of assurance engagement. The Company has mapped its sustainability reporting against the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVG guidelines) developed by Ministry of Corporate Affairs, Government of India and United Nations Global Compact (UNGC) Principles. DNV has not verified the company's compliance to the NVG guidelines and UNGC Principles as it was not part of the scope of the work.

### Verification Methodology

This engagement was carried out during May to October 2012, by a multidisciplinary DNV team of qualified and experienced sustainability report assurance professionals. The Report has been evaluated against the principles of Materiality, Completeness Neutrality, Reliability, Responsiveness and Stakeholder Inclusiveness, as set out in 'VeriSustain', and the GRI G3.1.

As part of our verification we visited the Head office at Panjim, Goa, and Mining operations at Bicholim & Codli Mines at Goa and Pig Iron production plant at Amona, Goa, India.

During the assurance engagement, DNV has taken a risk-based approach, meaning that we concentrated our verification efforts more on the issues of high material relevance to Sesa Goa's business and stakeholders. As part of the engagement we have challenged the sustainability-related statements and assertions made in the Report and assessed the robustness of the underlying data management system, information flow and controls. For example, we have:

- examined and reviewed documents, data and other information made available to DNV by Sesa Goa;
- conducted interaction senior management and other key executives of the Company, including data owners and decision-makers from different functions and site locations of the Company at Goa India;
- performed sample-based checks of the processes for generating, gathering and managing the quantitative and qualitative data included in the Report;
- reviewed the data management processes for completeness and reliability. This including assessments of methods, practices, tools and competence used in collection, aggregation and reporting of data as it is transferred and managed at different levels of the organisation;
- reviewed the process of acquiring information and economic-financial data from the audited Annual report of the company.





## Conclusions

In DNV's opinion, based on the work carried out, the Report is a fair representation of the Company's sustainability-related strategies, management systems and performance. The Report, along with the referenced information in the annual report, meets the general content and quality requirements of the GRI G3.1, and DNV confirms that the GRI requirements for Application Level 'A+' have been met. We have evaluated the Report's adherence to the following principles on a scale of 'Good', 'Acceptable' and 'Needs Improvement':

**Stakeholder Inclusiveness:** Acceptable. The Company demonstrates continual engagement with key stakeholders through various channels and the material issues emerging from the stakeholder engagement are collected and prioritised based on inputs from stakeholders, and the results are fairly reflected in the Report. The company is committed to further improving its stakeholder engagement process to capture the material issues.

**Materiality:** Good. The methodology of materiality determination used for management of sustainability performance management and reporting uses the organisational and stakeholder perspectives to arrive at key material issues.

**Responsiveness:** Good. The Company has responded to the identified key material issues and stakeholder concerns through its policies and management systems, and this is fairly reflected in the Report.

**Completeness:** Acceptable. The Report provides disclosures in response to key GRI G3.1 disclosure requirements including the sector supplement; the partial disclosures are denoted in the GRI content index and the Company acknowledges the need for continuous improvement and is committed to improving the reporting scope and boundary.

**Neutrality:** Good. The information contained in the Report is presented in a neutral tone. Overall the Report is transparent in discussing the challenges faced by the Company and brings out the road map for improved governance and performance.

**Reliability:** Acceptable. The Report contains data that is both measured and estimated, and this is explained to the reader. The manual errors and inaccuracies related to data aggregation of social and environmental indicators identified for various sites visited by DNV have been corrected.

## Opportunities for Improvement

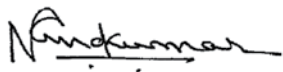

The following is an excerpt from the observations and opportunities reported back to the management of Sesa Goa, however, these do not affect our conclusions on the Report, and they are indeed generally consistent with the management objectives already in place:

- materiality determination process may be validated with specific inputs for each business area to bring out material issues that reflect short, medium and long term impacts and the process needs to identify emerging issues in the mining sector and develop performance metrics for material issues to enable benchmarking with sector peers;
- stakeholder engagement process may be formalised and structured, whereby sustainability inputs from a range of stakeholders are systematically incorporated in developing the long term sustainability strategy of the Company;
- implementation of systematic internal review and auditing of internal data management system will help further improve the reporting process by increasing the reliability of reported data;
- the reporting boundary may be progressively expanded to Sesa Goa's operations outside India.

## DNV's Independence

DNV states its independence and impartiality with regards to this engagement. DNV confirms that throughout the reporting period there were no services provided which could impair our independence and objectivity. DNV also maintained complete impartiality towards people interviewed during the assignment.

For Det Norske Veritas AS,

 Vadakepatth Nandkumar Project Manager National Head-Sustainability & Business Excellence Services Det Norske Veritas AS, India	 Antonio Astone Reviewer Global Manager, Corporate Responsibility Services Det Norske Veritas AS, Italy.
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1<sup>st</sup> November 2012, Bangalore, India.

# GHG VERIFICATION BY DNV



## VERIFICATION STATEMENT

### Introduction

Det Norske Veritas AS ('DNV') has been commissioned by the management of Sesa Goa Limited, India ('Sesa Goa' or 'the Company') to carry out a limited assurance engagement of its Greenhouse Gas Inventory ('the GHG Inventory') covering the period 1st April 2011 to 31st March 2012.

The Company is responsible for the collection, analysis, aggregation and presentation of information within the report. Our responsibility in performing this work is to the management of the Company only and in accordance with terms of reference agreed with the Company. The assurance engagement is based on the assumption that the data and information provided to us is complete, sufficient and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement.

### Scope of Assurance

The scope of work agreed upon with the Company includes the following:

- verification of data and information related to the company's GHG Inventory covering the period 1st April 2011 to 31st March 2012;
- sample site visits to one of the mines and one production facility at Goa, to verify the company's internal protocols, processes, and controls related to the collection and collation of the GHG Inventory data.

The verification was carried out between May and October 2012.

### Independence

DNV did not provide any services to the Company during the reporting period that could conflict with the independence of our work. DNV was not involved in the preparation of any statements or data included in the report except for this verification statement.

### Verification Methodology

The verification was conducted by DNV using the principles of ISO 14064-3 (2006) and the WRI/WBCSD protocol. DNV took a risk-based approach to decide the sites to be visited and the material sources of GHG emissions. We have examined and reviewed documents, data and other information made available to DNV by the Company.

As part of the verification process we:

- obtained an understanding of the systems used to generate, aggregate and report GHG emission data at the site and group level;
- gained an understanding of the GHG data management system and tested the completeness, accuracy and reliability of the data.

### Conclusions

On the basis of our verification methodology, nothing has come to our attention that would cause us not to believe that the GHG assertion as below is not materially correct and is not a fair representation of the GHG data and information:

	Source	GHG Emission (Tons)
Scope 1	Process Emissions and other Direct Emissions	671529
Scope 2	Purchased Electricity	68719
Scope 3	Down Stream Transportation and Employee commute	62337
	<b>Total GHG Emission (tons)</b>	<b>802585</b>



### Opportunities for Improvement

The following is an excerpt from the observations and opportunities reported back to the management of the Company. However, these do not affect our conclusions on the report, and they are indeed generally consistent with the management objectives already in place.

- Reliability of the systems and processes related to data management can be further strengthened through a structured internal review process.
- Completeness of Scope 3 emissions can further be enhanced by including the business travel and inbound and out bound logistics.

For Det Norske Veritas AS

Signed:

A handwritten signature in blue ink that reads 'Nandkumar'.

Vadakepatth Nandkumar  
Lead Verifier,  
National Head – Sustainability & Business Excellence,  
Det Norske Veritas AS, India

Bangalore, India.  
25<sup>th</sup> October, 2012

## MEMBERSHIPS AND ASSOCIATIONS

Sesa Goa is an active member of various trade associations at local and national levels. Below is a list of the various organisations that Sesa Goa has an annual membership with

- Sesa Goa Limited
  1. FICCI
  2. ASSOCHAM (Associate Membership)
  3. Confederation of Indian Industry (WR)
  4. Federation of Indian Mineral Industries
  5. Employers Federation of India
  6. All India Organisation of Employers
  7. Confederation of Exports Units
  8. Computer Society of India
  9. Global Compact Network India
  10. National Safety Council
  11. British Safety Council
  12. The Baltic Exchange Corporate Membership
  13. Goa Chamber of Commerce & Industry
  14. Goa Mineral Ore Exporters Association
  15. Goa Mining Association
  16. Goa Management Association
  17. The International Centre, Goa
  18. Eastern Zone Mining Association
- Sesa Resources Limited
  1. Goa Chamber Of Commerce & Industry
  2. National Safety Council
  3. The Marmagao Stevedores Association
- Sesa Resources Limited Mining Corporation Limited
  1. Goa Chamber Of Commerce & Industry

# GLOSSARY

<b>ABC</b>	Antecedents/Activators, Behaviour & Consequences	<b>kL / t</b>	Kilo Litre Per Tonne
<b>AC</b>	Air Conditioning	<b>kt</b>	Kilo Tonne
<b>ACT UP</b>	Accelerated Competency Tracking & Up-gradation	<b>ktpa</b>	Kilo Tonnes Per Annum
<b>AGM</b>	Annual General Meeting	<b>LCA</b>	Life Cycle Assessment
<b>ANML</b>	A Narrain Mines Limited, Chitradurga	<b>LCD</b>	Liquid Crystal Display
<b>ASSOCHAM</b>	Associated Chambers Of Commerce And Industry Of India	<b>LTIA</b>	Lost Time Injury Accidents
<b>AVP</b>	Associate Vice President	<b>LTIFR</b>	Lost Time Injury Frequency Rate
<b>BSc</b>	Bachelor of Science	<b>LTIP</b>	Long-Term Incentive Plan
<b>BDC</b>	Block Development Council	<b>MSc</b>	Master of Science
<b>BE</b>	Bachelor of Engineering	<b>MAS</b>	Management Assurance Systems
<b>BF</b>	Blast Furnace	<b>MBTI</b>	Myers Briggs Type Indicator
<b>BMI</b>	Body Mass Index	<b>MCD</b>	Met Coke Division
<b>CAL</b>	Computer Aided Learning	<b>MCF</b>	Methyl Chloroform
<b>CB-2</b>	Circuit Breaker – 2	<b>MD</b>	Managing Director
<b>CDLI</b>	Carbon Disclosure Leadership Index	<b>MDG</b>	Millennium Development Goals
<b>CDP</b>	Carbon Disclosure Project	<b>Met Coke</b>	Metallurgical Coke
<b>CDPR</b>	Centre For Development Planning & Research	<b>MFG</b>	Mineral Foundation Of Goa
<b>CEO</b>	Chief Executive Officer	<b>mg / L</b>	Milligram / Litre
<b>CER</b>	Certified Emission Reductions	<b>mm</b>	Millimetre
<b>CFC</b>	ChloroFluoro Carbon	<b>MMDR</b>	Mines and Minerals Development and Regulation
<b>CFO</b>	Chief Financial Officer	<b>mt</b>	Million Tonnes
<b>CIF</b>	Cost Insurance & Freight	<b>MT</b>	Metric Tonne
<b>CII</b>	Confederation Of Indian Industry	<b>mtpa</b>	Million Tonnes Per Annum
<b>CIL</b>	Cairn India Limited	<b>MW</b>	Mega Watt
<b>CMO</b>	Chief Marketing Officer	<b>NDT</b>	Neurodevelopment Treatment
<b>CO2</b>	Carbon Dioxide	<b>NGO</b>	Non-Governmental Organisation
<b>COO</b>	Chief Operating Officer	<b>NICU</b>	Neonatal Intensive Care Unit
<b>CRT</b>	Cathode Ray Tube	<b>NOX</b>	Oxides Of Nitrogen
<b>CSR</b>	Corporate Social Responsibility	<b>NVG</b>	National Voluntary Guidelines
<b>DG</b>	Diesel Generator	<b>OCM</b>	Original Component Manufacturer
<b>DGET</b>	Directorate General of Employment & Training	<b>ODS</b>	Ozone Depleting Substances
<b>DNV</b>	Det Norske Veritas (Auditing & Assurance Agency)	<b>OEM</b>	Original Equipment Manufacturers
<b>Dy.</b>	Deputy	<b>OHSAS</b>	Occupational Health And Safety Assessment Series
<b>EHS</b>	Environment, Health & Safety	<b>OPD</b>	Out Patient Department
<b>EMS</b>	Environment Management System	<b>PAT</b>	Profit After Tax
<b>ERW</b>	Electric Resistance Welded	<b>PF</b>	Provident Fund
<b>ESI</b>	Employees' State Insurance	<b>PHC</b>	Primary Health Centre
<b>Fe</b>	Iron (Ferrous)	<b>PID</b>	Pig Iron Division
<b>FGD</b>	Focus Group Discussion	<b>PPP</b>	Public Private Partnership
<b>FICCI</b>	Federation of Indian Chambers of Commerce and Industry	<b>PTA</b>	Parent Teachers Association
<b>FIMI</b>	Federation of Indian Mineral Industries	<b>R&amp;R</b>	Reserves & Resources
<b>FSI</b>	Frequency Severity Index	<b>RCH</b>	Reproductive & Child Health
<b>FTSE</b>	Financial Times Stock Exchange	<b>RFP</b>	Request for Proposal
<b>FY</b>	Financial Year	<b>RSPM</b>	Respirable Suspended Particulate Matter
<b>GCCI</b>	Goa Chamber of Commerce and Industry	<b>SA 8000</b>	Social Accountability 8000
<b>GEPL</b>	Goa Energy Private Limited	<b>SBD</b>	Shipbuilding Division
<b>GHG</b>	Green House Gas	<b>SCDF</b>	Sesa Community Development Foundation
<b>GJ</b>	Giga Joules	<b>SD</b>	Sustainability Development
<b>GJ / t</b>	Giga Joules Per Tonne	<b>SEBI</b>	Securities and Exchange Board Of India
<b>GMOEA</b>	Goa Mineral Ore Exporters' Association	<b>SFA</b>	Sesa Football Academy
<b>GoG</b>	Government of Goa	<b>SFIO</b>	Serious Fraud Investigation Office
<b>GOLD</b>	Gen-Next Operational Leadership Development	<b>SGL</b>	Sesa Goa Limited
<b>GRI</b>	Global Reporting Initiative	<b>SHEQ</b>	Safety, Health, Environment and Quality
<b>GSACS</b>	Goa State AIDS Control Society	<b>SHG</b>	Self Help Group
<b>GTS</b>	Green Triangle Society	<b>SIL</b>	Sesa Industries Limited
<b>Ha</b>	Hectare	<b>SMCL</b>	Sesa Mining Corporation Limited
<b>HEMM</b>	Heavy Earth Moving Machinery	<b>SPM</b>	Suspended Particulate Matter
<b>HIV/AIDS</b>	Human Immuno-deficiency Virus / Acquired Immuno-deficiency Syndrome	<b>SRI</b>	Systematic Rice Intensification
<b>HR</b>	Human Resources	<b>SRL</b>	Sesa Resources Limited
<b>HRD</b>	Human Resource Development	<b>STS</b>	Sesa Technical School
<b>HSE</b>	Health, Safety & Environment	<b>TFT</b>	Thin Film Transistor
<b>HSEC</b>	Health, Safety, Environment And Corporate Social Responsibility	<b>TSS</b>	Total Suspended Solids
<b>ICMM</b>	International Council on Mining & Metals	<b>UAE</b>	United Arab Emirates
<b>IFC</b>	International Finance Corporation	<b>UN</b>	United Nations
<b>ILO</b>	International Labour Organisation	<b>UNFCCC</b>	United Nations Framework Convention On Climate Change
<b>IMS</b>	Integrated Management Systems	<b>UNGC</b>	United Nations Global Compact
<b>ISO</b>	International Organisation Of Standardization	<b>UV</b>	Ultraviolet
<b>IT</b>	Information Technology	<b>VCEP</b>	Vedanta Computer Education Programme
<b>ITI</b>	Industrial Training Institute	<b>VFD</b>	Variable Frequency Drive
<b>IUCN</b>	International Union for Conservation of Nature and Natural Resources	<b>WHIMS</b>	Wet High Intensity Magnetic Separation
<b>kg</b>	Kilogram	<b>WHO</b>	World Health Organisation
<b>kL</b>	Kilo Litres	<b>WSA</b>	World Steel Association
		<b>YoY</b>	Year-on-Year
		<b>ZAO</b>	Zonal Agriculture Officer

## FEEDBACK

We welcome feedback on any aspect of our performance or sustainability reporting. You can send in your feedback, by way of general comments in an email to [sesa.cc@vedanta.co.in](mailto:sesa.cc@vedanta.co.in), or by post to the address below, or by contacting:

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DNV has checked our reporting and has confirmed it to be Application Level A+.

Report Application Level	C	C+	B	B+	A	A+	
<b>Standard Disclosures</b>	<b>G3 Profile Disclosures</b> OUTPUT	Report on: 1.1 2.1-2.10 3.1-3.8, 3.10-3.12 4.1-4.4, 4.14-4.15	<b>Report Externally Assured</b>	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13, 4.16-4.17	<b>Report Externally Assured</b>	Same as requirement for Level B	✓  ✓  ✓
	<b>G3 Management Approach Disclosures</b> OUTPUT	Not Required.		Management Approach Disclosures for each Indicator Category.		Management Approach Disclosures for each Indicator Category.	
	<b>G3 Performance Indicators &amp; Sector Supplement Performance Indicators</b> OUTPUT	Report on a minimum of 10 performance Indicators, including at least one from each of: Economic, Social and Environmental.	Report on a minimum of 20 performance Indicators, at least one from each of: Economic, Environmental, Human Rights, Labor, Society, Product Responsibility.	Report on each core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission.			

\*Sector supplement in final version



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In our continual efforts to limit the use of paper, we have printed this report in limited number only, and on eco-friendly paper. We continue to publish our report online for the convenience of all stakeholders concerned.

www.sesagoa.com



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