



**SESA GOA LIMITED**

**ANNUAL REPORT 2013**



Empowering **Vision**  
Enduring **Value**



## 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 pre-eminent position in safety, environment and quality control management in the respective industry sectors
- To contribute to the development of the communities that, 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 be 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 achieving 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 stakeholder 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 to make a net positive impact on the environment wherever we work.

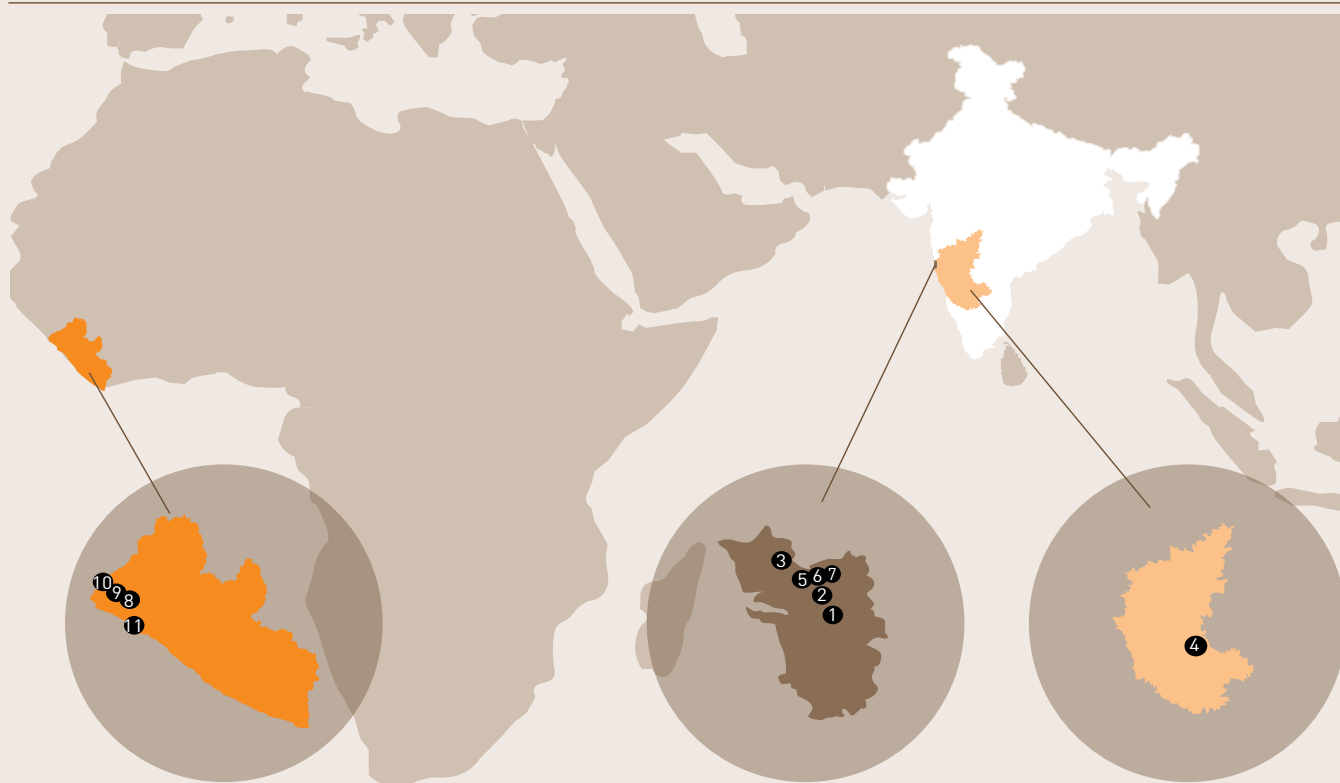
## Our Operations

### Who We Are

Sesa Goa Limited is India's largest producer and exporter of iron ore in the private sector (except in FY2013) and a subsidiary of Vedanta Resources Plc., the London listed FTSE 100 diversified metals and mining major. Sesa also produces pig iron and metallurgical coke and provides proprietary technology in met coke manufacturing. Sesa is also developing the Western Cluster iron ore project in Liberia. Sesa holds 20% interest in Cairn India Limited, India's second largest private sector upstream oil company (by reserves).

With a commitment to create a world-class enterprise through high quality assets and competitive costs of production, we pursue our consistent strategy of owning and operating low-cost, expandable, upstream assets and delivering more predictable business performance over time which, in turn, underpins the creation of value for our shareholders, customers, employees and, importantly, the communities in which we operate.

### Where We Operate



Our operations are located in India and Liberia.

#### India

##### Iron Ore Operations

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

##### Pig Iron & Met Coke Operations

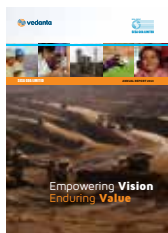
5. Pig Iron Plant, Goa
6. Met Coke Plant, Goa
7. Power Plant, Goa

#### Liberia

##### Iron Ore Project

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

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Our vision empowers us to attain higher levels of performance in operations, employee safety and community initiatives to create enduring stakeholder value.



For more information visit us at [www.sesagoa.com](http://www.sesagoa.com)

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# Highlights

## Financials

- Revenue ₹ 2,554 crore
- PBDT of ₹ 23 crore
- PAT of ₹ 2,280 crore, incl. share of profit from Associate
- Basic EPS of ₹ 26.24
- Acquired balance 49% equity in WCL for \$ 33.5 mn

## Business

- Exploration success – net addition of 59 mt of R&R in India taking the total R&R to 433 mt, equivalent to a mine life of +20 years
- Large initial JORC resources for Liberia announced – 966 mt; significant upside anticipated

## Consolidated Financial Summary

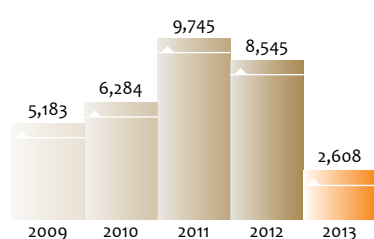
in ₹ crore, except as stated

	2013	2012
Net Income from operations	2,554	8,310
Cash Profit (PBDT)	23	3,235
Net Profit (PAT)	(131)	2,108
Net Profit (PAT) Incl. Associate Income*	2,280	2,696
Earnings Per Share (₹)		
Basic	26.24	31.01
Diluted	26.24	31.01

## Key Performance Indicators

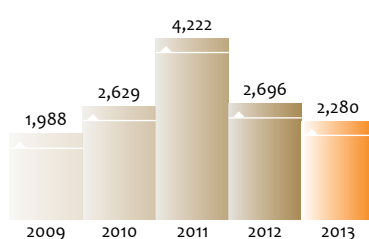
### Total Revenue

₹ in cr



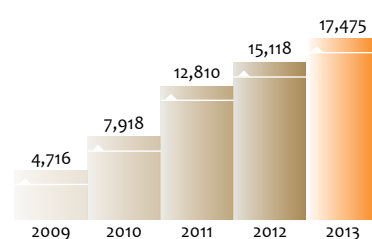
### Profit After Tax

₹ in cr



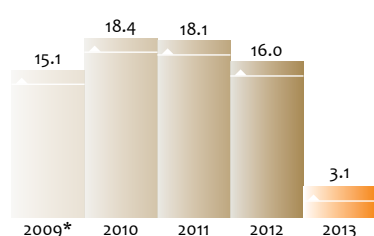
### Net Worth

₹ in cr



### Iron Ore Sales

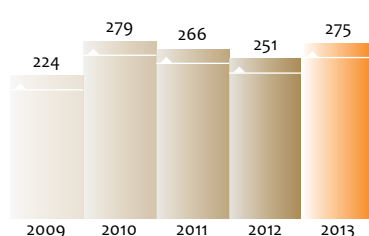
(mt)



\*2009 sales volume of iron ore is in wmt

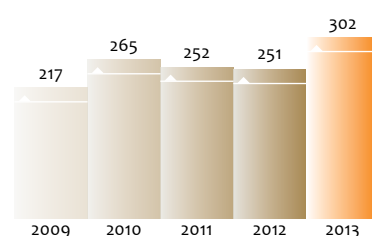
### Pig Iron Sales

(kt)



### Met Coke Sales

(kt)



# Year in Review

## Expansion

Sesa successfully commissioned its expansion project for the pig iron and met coke manufacturing facilities. With the commissioning of the 450m<sup>3</sup> blast furnace and 2 batteries of 36 coke ovens each, its pig iron production capacity has increased to 625 ktpa and met coke production to 560 ktpa. It has also successfully commissioned the associated 0.8 mtpa Sinter Plant and 30 MW waste gas based Power Plant.

## Western Cluster

Sesa Goa Limited acquired the balance 49% stake in Western Cluster Limited in Liberia, taking its interest in the project to 100%. WCL currently has JORC compliant Reserves and

Resources (R&R) of about a billion tonnes. With only a fraction of the lease area currently explored, a significant upside is expected for the project.

## Sesa Sterlite

In February 2012, the intended merger of Sterlite Industries (India) Limited, and other associated companies, with Sesa Goa Limited was announced. This merger, which will foster the creation of one of the world's largest diversified natural resources companies, has received shareholder and other regulatory approvals during the year. The merger has also secured the approval from the High Court of Mumbai in Goa and is awaiting the approval from the High Court of Madras where the hearings have been completed.

# Chief Executive's Statement

## Dear Shareholders,

2012-13 was a year of unprecedented challenges for your Company. As I had said earlier, in 2011-12, the Indian iron ore mining industry was adversely affected by regulatory and environmental concerns. Debate on illegal mining practices occupied centre stage with heightened activism driving government action and judicial intervention leading to a complete halt in mining. The business environment for the industry deteriorated during 2012-13. Sesa's Karnataka mining operations were suspended due to ban on mining since 2011. In September / October 2012, the Goa mining operations came to a complete halt by an abrupt imposition of ban on mineral extraction and transportation by the State Government and subsequently by the Supreme Court. With both Karnataka and Goa operations suspended, Sesa's entire iron ore mining business was at a standstill.

Sesa and its teams are working tirelessly to mitigate impact, to ensure an early resolution of the impasse while continuing to respond proactively to all agencies. Sesa enhanced its engagement with stakeholders during the year to dispel myths and to reinforce and reiterate its responsible mining practices. Notwithstanding these challenges, Sesa made significant progress in its journey towards becoming a diversified global resource champion.

Sesa increased its equity in WCL to 100%, acquiring the remaining 49% in December 2012. This consolidates our presence in Liberia and reaffirms our faith in the significant potential for the Western Cluster Project. With a large resource potential and its proximity to the port, it is one of the most exciting upcoming iron ore projects. Both the people of Liberia and our team are looking forward to the start of Phase I in the next financial year, which will be the first step in building a global iron ore mining giant.

The merger of Sterlite Industries (India) Limited (and other associated companies), announced last year through two schemes, has received approval of the companies' shareholders, Stock Exchanges in India, Competition Commission of India, Foreign Investment Promotion Board and Supreme Court of Mauritius. While the Goa Bench of the High Court of Bombay has accorded its approval, the scheme awaits approval of the High Court of Madras, where hearings are over and the order is awaited.

The Value Addition Business achieved a new landmark in August 2012 when the new 450m<sup>3</sup> blast furnace was commissioned, enhancing pig iron production from 0.25 to 0.625 mtpa, making us the largest low phosphorous pig iron facility in India. A 0.28 mtpa metallurgical coke plant, a 0.8 mtpa sinter plant and a 30 MW power plant were also commissioned as part of the project.

Despite adverse events, Sesa looks ahead to a hopeful early resolution of challenges. We continue to further our systemic robustness and strengthen our processes to handle future challenges. In 2012, Sesa became the 1<sup>st</sup> Indian mining company to implement automation using RFID technology, wherein RFID tags on trucks register movement across operations in Goa and Karnataka and link truck information with forest passes and Dept. of Mining & Geology permits (in Karnataka), providing assurance and control. Sesa received the Supply Chain Technology Advancement award at the 2<sup>nd</sup> Asia Manufacturing Supply Chain Summit for this implementation.

## Business Environment

Global GDP growth rate is estimated to be 3.2% in 2012 (3.9% in 2011). China and India exhibited slower growth in 2012, than previous years, of about 7.9% and 4.5% respectively. World crude steel production reached a record 1,548 mt in 2012, up by 1.2%, driven by growth in Asia and North America. World trade in iron ore increased in 2012 by 3.7% to 1.12 billion tonnes, despite decrease from India.

As indicated last year, albeit temporary glitches, the emerging market super cycle theme remains unchanged. Despite emerging markets exhibiting slower growth, and a decade of trying to catch up with developed economies, with both China and India continuing in their commodity-intensive urbanisation, the gap is expected to continue for at least two more decades. Temporary slowdowns in growth and dips in infrastructure investment will only extend the investment horizon. The scale of urbanisation in China, urbanisation potential of India, and potential of other developing countries, with significant populations, makes the manifold increase in metal demand and absolute metal consumption inevitable.

Given this long-term robustness of demand, in the iron ore demand-supply equation, the risk emanates on the supply side. Supply forecasts continue to remain complex owing to disruptions due to regulatory concerns as in India, weather as in Australian ports, cost inflations, grade depletion and large uncertainty of project timelines.

Due to recent dip in iron ore prices and project cost blowouts, many new projects either failed to meet original forecasts or continue to remain on the drawing board. However, the big four iron ore players, have enhanced, or are in the process of expanding, their production levels in the light of favourable market conditions and, as per forecasts, are expected to lead to a surplus market in the long term.

## Performance

Faced with extraordinary challenges, volumes have significantly declined during the year. Iron ore production and sales were 3.7 and 3.1 mt in 2012-13 compared to 13.8 and 16.0 mt in the previous year. Gross sales revenue from iron ore decreased by 77%, from ₹ 7,516 crore in 2011-12 to ₹ 1,697 crore in 2012-13

Pig iron and met coke production increased by 24% and 29% to 307,775 and 331,000 tonnes respectively due to new capacities commissioned in Q2 of FY2013. The pig iron business' sales volume increased by 10% from 250,571 tonnes in 2011-12 to 275,119 tonnes in 2012-13, while sales revenue grew by 7% to ₹ 784 crore in 2012-13 from 730 crore in 2011-12. Sales volume of met coke increased by 20% to 301,889 tonnes in 2012-13 from 251,264 tonnes in 2011-12. Gross sales revenue remained even at ₹ 558 crore in 2012-13 as against ₹ 551 crore in 2011-12.

Sesa's net income from operations fell by 69% from ₹ 8,310 crore in 2011-12 to ₹ 2,554 crore in 2012-13. Operating cash profit (PBDT) declined by 99% to ₹ 23 crore from ₹ 3,235 crore in 2011-12. PAT (including associate income) decreased 15% from ₹ 2,696 crore in 2011-12 to ₹ 2,280 crore in 2012-13, and diluted earnings per share were ₹ 26.24 in 2012-13.



## Growth

Despite the tough climate, we begin 2013-14 with renewed hope and a fresh outlook. The expansion projects in the value added business are commissioned and we have acquired the balance equity in WCL. More importantly, our drive for growth continues to be underscored by our strong performance on resource addition.

True sustainable development in the mining industry is in the continued discovery of new resources through scientific exploration and Sesa continues to be at the forefront of investment into mineral exploration. Though mining operations were restricted for a significant part of the year, consequent to which exploratory drilling too was halted, the Exploration team added 59 mt of additional resources in India during the year.

The Liberia Project progressed well during the year culminating in a JORC-compliant resource estimate of over 966 mt. Exploration is expected to continue aggressively for years to come and the indications, so far, point to a significant resource potential. The Liberia project is a very exciting growth opportunity for Sesa and we hope to commence mining at Liberia during FY2014 with the first shipment by end of FY2014. The project will be expanded in a phased manner in due course.

## Sustainability

Sesa remains committed to sustainable development, which focuses on maintaining a pre-eminent position in health, safety and environment practices, and contributing to the development of communities where it operates.

Health and safety are always a priority for Sesa, and we continue to play a proactive role in providing employees a safe working environment through responsibility, training, monitoring and implementing the best safety practices across all locations.

In 2012-13, Sesa's overall Lost Time Injury Frequency Rate (LTIFR) reduced from 0.81 in 2011-12 to 0.54 per million manhours worked. I am also happy to report that, during the year, the shipbuilding, met coke, pig iron and energy divisions achieved a zero-accident record.

During the year, two unfortunate incidents of soot emissions, due to misfiring by two high capacity burners, occurred during the commissioning of the second battery of met coke expansion project. The root cause of the soot emissions was immediately addressed and corrective actions were taken in earnest. The unit's activities were suspended for about 2 months as a result of this incident.

Sesa has an integrated approach to the management of health, safety and environment systems in all its units, which are certified for ISO 9001:2008, ISO 14001: 2004 and OHSAS 18001:2007. Sesa has been certified for SA 8000 for all its units on a standalone basis.

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. Further details, on health, safety and environment and corporate social responsibility, are outlined in the ensuing relevant chapters.

## Outlook

The longer-term business environment of the iron ore market remains stable with a gradual move towards equilibrium. Notwithstanding multiple cost and regulatory pressures, Sesa's strategic positioning as a low-cost producer, coupled with accessibility to ports and strong customer relations, remains key to mitigating downside risks and exploiting opportunities. On the cost front, royalty rates, railway and road freight and export duties are expected to continue to put pressure on the Company, while volumes would continue to be challenged by regulatory actions and hurdles in logistics. We remain confident that the industry will emerge stronger out of the current turmoil with a strict, robust and stable regulatory environment and we continue to remain optimistic of overcoming the current and any future obstacles.

The following will continue to be our strategic thrust areas for the year 2012-13.

- To be alert and ensure a state of readiness to restart efficient operations in Karnataka and Goa, whenever we are permitted to resume operations
- To identify opportunities to leverage and introduce technology to improve our performance, be it in operations, people management, knowledge management or CSR
- To better our safety record and performance and achieve / maintain standards of zero-accidents in all operations
- To strengthen proactive stakeholder relations

## Corporate Governance

In 2009-10, Sesa was subjected to an investigation by the Serious Fraud Investigation Office (SFIO) of the Ministry of Corporate Affairs. In 2011, Sesa received a copy of the SFIO report, wherein certain allegations were made relating to violations under the Indian Companies Act, during 2001 to 2008. The report had recommended, inter alia, that action be taken against the directors of Sesa Goa Limited during the aforementioned period. Sesa filed representations to all concerned explaining in detail its position on the allegations and denying the allegations made in the SFIO report. Subsequently, the Union of India through the Ministry of Corporate Affairs filed three cases against Sesa Goa Limited, its erstwhile subsidiary, Sesa Industries Limited, and some of their officials. The Company is defending itself and its directors / officials against these cases. However, the Ministry has dropped all allegations of under / over invoicing of iron ore / coal and excess payment of commission.

## Acknowledgement

I would like to take this opportunity to thank all our employees, my colleagues on the executive team of Sesa, the Group Management and the Board of Directors for their unwavering support. I thank our shareholders for reposing faith in our business in increasingly adverse times. Let me reassure our shareholders that we will not get bogged down by the tough environment that surrounds us today, that we are geared up to face challenges as they arise and, through our tireless collective efforts, we will continue to propel our Company forward on its path of growth.

**P K Mukherjee**

Managing Director

# Enduring Value Creation

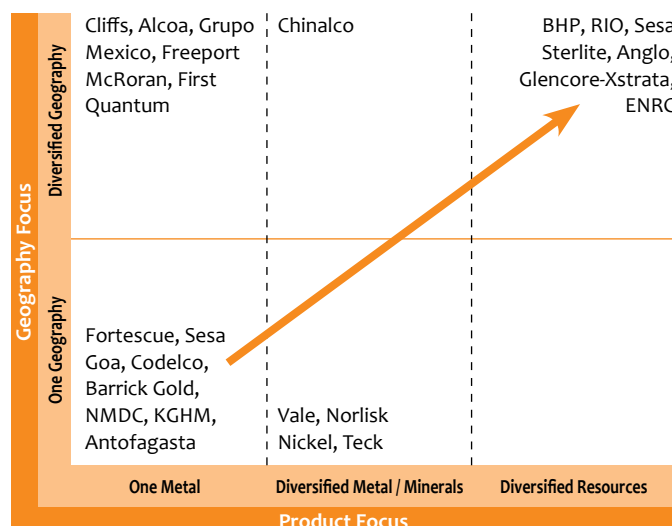
The cessation of mining operations in Goa and Karnataka, while having impacted contemporary operations, has accorded the opportunity to further strengthen the Company's plans and strategies for future growth.

**3-Dimensional Growth:** Growth, in holistic terms for any organisation, involves growth in scale, diversity and operational efficiency. Over the past few years, Sesa has taken strides towards becoming a global diversified resource major. During the past year, Sesa made significant progress in its growth plans.

In terms of scale of operations, with the acquisition of the remaining stake in WCL, the exploration success at Liberia and expansion of the value added business. In terms of diversity of commodities, with the proposed merger of Sterlite and associated companies with Sesa. In terms of operational efficiency, with further improvements in internal processes and systemic robustness, brought about with technology.

While exploration has augmented reserves & resources in

## Diversity



India and Liberia, ensuring long mine-life and sustainability of operations, the merger, which is in the last stages of fruition, will bring about much desired diversity in commodities and geographies. Further improvements in internal processes, with the application of technology, ensure that the Company can resume operations, whenever the current impasse is resolved, in the shortest of turnarounds, with improved operational efficiency parameters.

Large diversified mining companies at one end of the spectrum dominate the global mining landscape, with exposure to diverse commodities and diverse geographies, while at the other end are companies focused in one commodity or one geography. In an environment of increasing risk of resource nationalism, volatile commodity prices, varied supply-demand equation amongst various commodities, diversification provides for a significant reduction in risks for mining companies. Scale enables infusion of resources to employ modern technology and invest in necessary environmental initiatives thus participating in inclusive growth.

On February 25, 2012, the proposed merger of Sterlite Industries (India) Limited with Sesa Goa Limited, along with The Madras Aluminium Company Limited, Sterlite Energy Limited and Vedanta Aluminium Limited, was announced with the Company's name proposed to be changed to Sesa Sterlite Limited, to create one of the world's largest diversified natural resources company with a world-class, low-cost asset base in close proximity to high growth markets. 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.

Increased diversification is expected to reduce volatility of earnings through commodity cycles, lower cost of capital and enhance value. This will lead to significant operational, financial and corporate synergies, including economies of scale, leveraging of technical expertise, improved allocation of capital and corporate cost savings including tax efficiencies.

The merger has received approvals of the respective companies' shareholders, the Stock Exchanges in India, CCI, FIPB, Supreme Court of Mauritius and the Goa Bench of the High Court of Bombay. Hearings at the High Court of Madras have been completed and the order is awaited.

## Scale

Sesa's Indian iron ore operations continue to be curtailed by regulatory restrictions. While the Karnataka operations have been stopped since August 2011, the Goa mining operations were stopped in September 2012, by the orders of the Supreme Court of India. While this has led to curtailment in exploratory drilling in India, the Company's strong focus on exploration, and its activities in Goa during the period prior to September 2012 and those at the Liberia project, has yielded significant positive results.

## India

Sesa's focus on exploration has yielded another year of significant reserves and resources accretion in Goa and Karnataka, with a net addition of 59 mt of reserves and resources during the year. Driven by the strong focus on resource addition over the last 5 years, the total reserves and resources in Goa (including mines of erstwhile Dempo) and Karnataka have been increased by 3.6 times, net of depletion. Total reserves and resources in India as on March 31, 2013 stands at 433 mt as compared to 374 mt as on March 31, 2012, implying +20 years of mine life.

## Liberia

During the year, Sesa acquired the balance 49% shares of Western Cluster Limited, taking its interest to 100%. Western Cluster Limited, given its strategically advantageous distance to sea, coupled with the significant upside potential in future, as shown with the declaration of the initial JORC estimate of reserves & resources, presents an opportunity to establish a large-scale seaborne iron ore exporting asset taking Sesa's iron ore business truly global.

At the Liberia iron ore project, exploration activities are progressing well with about 69,000 meters of drilling completed till March 31, 2013 including 54,000 meters in Bomi. The maiden reserves and resources at Liberia stand at 966 mt as on



March 31, 2013. The resources pertain to only a part of the exploration license areas in Liberia, and a significant upside is anticipated to these reserves & resources. As drilling continues, the preliminary indications continue to be positive.

## Efficiency

In August 2011, the Supreme Court ordered a ban on mining and exports from, Karnataka, which impacted Sesa's operations there. In September 2012, the State Government of Goa placed a ban on mining operations in Goa, followed by a Supreme Court order, which brought Sesa's India operations to a grinding halt. These challenges were unprecedented and unforeseen in the six decades of its operations. Despite the long-term irreversible impact on current operations, future markets and the Indian iron industry's global presence, Sesa continued to invest in various measures aimed at improving operational efficiencies. Keen to utilise such an opportunity, various teams have worked towards strengthening internal systems, as one more step towards overall business excellence.

In its endeavour to streamline logistics value chain, Sesa completed the rollout of its unique RFID based logistics tracking

system, which seamlessly integrates vehicle movement across its operations, reconciles transactions, interfaces with the enterprise databases, but also interfaces with regulatory and government systems, which are essential. Sesa is the first mining company in India to implement automation using RFID technology to streamline its supply chain.

The system, which improves productivity by reducing transaction time and human errors, identifies the vehicle through RFID; links all touch points (security gates and weighbridges) across the Goa and Karnataka operations, consolidates information, reconciles large transaction volumes and interfaces with SAP. Further, interface with the National Informatics Centre (NIC) and (n)-code websites ensures linking to forest passes and department of mines and geology. Sesa also customised existing SAP modules to incorporate unique procurement practices in iron ore mining, enabling handling of large number of trucks and trips.

This is one such initiative among many take by the Company during this period to strengthen its internal systems and processes, which will enable it to resume its operations with greater efficiency and effectiveness.

## Innovation & Operations Transformation

During 2012-13, Sesa rolled out the Command & Control Centre (C&CC) and the Barge Monitoring System. This year, with the roll out of the RFID system, Sesa has been able to integrate the entire operational value chain using innovation to bring about operational transformation.

Sesa's operations strategy is focused on asset optimisation and continuous improvement with the introduction of the best practices and the latest technology. It has introduced a slew of modern technology-based solutions over the last two years. Adding to the successful implementations of the ubiquitous and proven SCADA systems at the plants, which enable engineers to monitor and control mining operations, the introduction of RFID tracking for tracking trucks carrying ore within and outside the mining areas and online real-time barge monitoring system enable logistics managers to optimise and track movement of iron ore being shipped by the Company. C&CC modernises the entire mining operations and integrates the entire value chain from mine pit to the port for effective monitoring and better control over key business processes.

### Future Benefits Envisaged

#### Benefits of RFID

- Reduction in handling Loss
- Reduced cycle time of trucks
- Auto trip capture
- Non compliance evidence recorded
- Reduction of manpower destination
- Cost saving of 2.4 crore achieved in 2011-12

#### Benefits of C & C centre

- Enable real time monitoring of mining, processing and logistics KPI's. Immediate decision can be taken making the value chain more responsive

- Improve operations performance reporting by improving granularity of data and providing an integrated view of value chain
- Maintains discipline in day to day operations by real-time reporting of alarms and exception. Centralised monitoring shall improve the productivity of operators

#### Objective / Benefits of GPS

- Authorisation of vehicle at loading point
- Follow right path as assigned
- Zero data entry on weighbridge
- Control unauthorised entry of vehicle
- Monitor real – time stock quantity
- Monitor unloading of truck at destination
- Improved visibility of supply chain

#### Benefits of GPS based Barge Management System

- Optimisation of river logistics
- Reduced trip cycle time for barges
- Improved advance Planning
- Real time barge performance monitoring
- Investigation and audit Tool
- SMS and voice calling automatically

### Way Forward

The C&CC was first implemented in the Bicholim mines and its processing plants and the results indicated that there is an incremental benefit of availability and utilisation of HEMM and plants by 8-10%, while there was a drop in diesel consumption. With this successful implementation, Sesa is now executing this to include other critical mining and processing units as well. Very few mining companies in the world have integrated command and control centres for managing their iron ore supplies to customers.

# Market Review

Sesa Goa Limited drives the ferrous mineral business of the Vedanta Group. The Company's primary business is iron ore mining and it is the largest private sector producer and exporter of iron ore in the country (except in FY2013). The Company also produces pig iron, metallurgical coke and is a technology provider for eco-friendly non-recovery coke making technology. While each of these business segments has its own focussed market, and thereby unique demand supply situations, the economic and environmental variables affecting the iron and steel industry have a strong impact on all the businesses. During the past year, apart from the soft and uncertain global economic situation, the developments in the domestic iron ore industry had significant impact on the pig iron and, consequently, on the met coke sector.

## Macro-Economic Developments

The global economic activity continued to remain soft in 2012. Fiscal consolidation and a still-weak financial system continue to weigh on the growth prospects in the advanced economies, balanced to some extent by an accommodative monetary policy. Low growth and uncertainty in advanced economies are percolating to the emerging market and developing economies, through both trade and financial channels, adding to home grown weaknesses. IMF projects global growth to increase during 2013, as the factors underlying the soft global activity are expected to subside. As per IMF estimates, the global economy is expected to grow at 3.5% in 2012 primarily driven by growth in the emerging market economies, mainly China. The economic recovery however remains fragile.

Table 1: IMF Projections

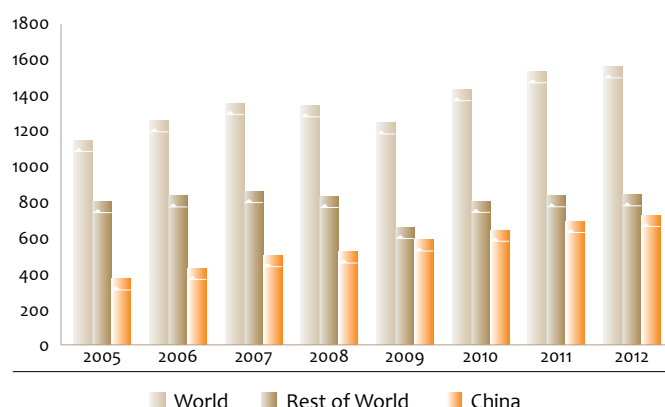
	2011	2012 (e)	2013 (f)	2014 (f)
World	3.9	3.2	3.5	4.1
Advanced Economies	1.6	1.3	1.4	2.2
Emerging Economies	6.3	5.1	5.5	5.9
China	9.3	7.8	8.2	8.5
India	7.9	4.5	5.9	6.4

(e) estimate, (f) forecast

## Global Steel

World crude steel production reached 1,548 mt in the year 2012, up by 1.2% compared to 2011. This is another record for global crude steel production. The growth came mainly from Asia and North America while crude steel production in the EU (27) and South America decreased in 2012 compared to 2011.

Figure 1: Annual crude steel production

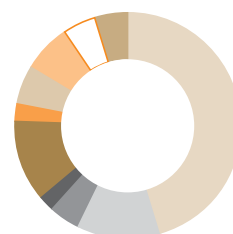


Asia's annual crude steel production was 1,012.7 mt in 2012, an increase of 2.6% over 2011. China's crude steel production in 2012 reached 716.5 mt, an increase of 3.1% on 2011. China's share of world crude steel production increased from 45.4% in 2011 to 46.3% in 2012. Japan produced 107.2 mt in 2012, a -0.3% decrease from 2011. In 2012, South Korea's crude steel production was 69.3 mt, a 1.2% increase compared to 2011.

Figure 2: Share of world crude steel production 2012, 2011

2011

%



2012

%

