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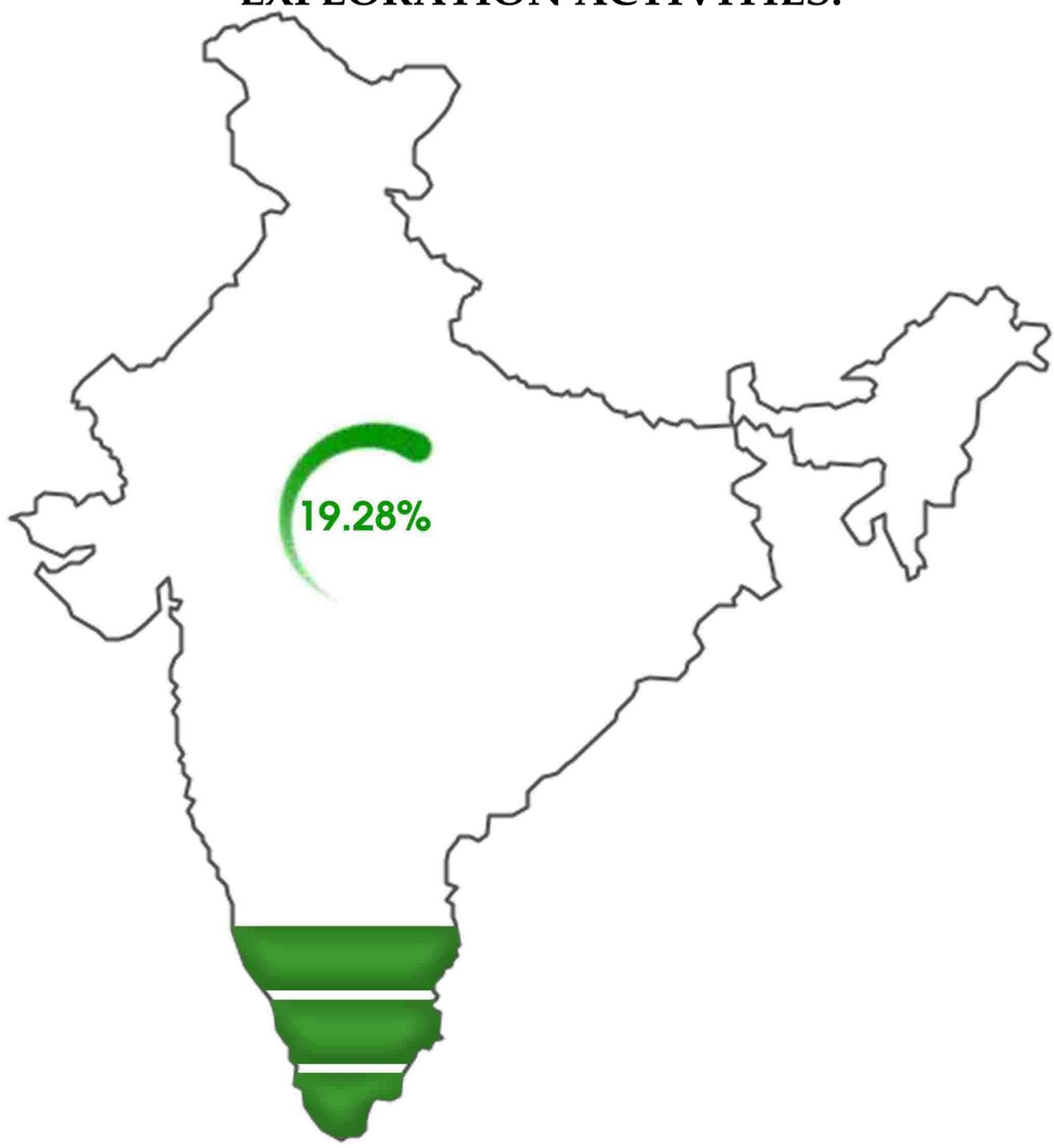
Indian Mining & Exploration Updates

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EXPLORING INDIA

19.28% OF TOTAL LAND AREA IDENTIFIED FOR EXPLORATION ACTIVITIES.



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'5.71 L SQKM WITH MINING POTENTIAL IDENTIFIED': M RAJU, GSI DIRECTOR-GENERAL 19.28%

THE Geological Survey of India (GSI) has identified 5.71 lakh sq km area with the obvious geological potential (OGP) for mineral search, M Raju, GSI director-general, said here on Saturday.

Delivering a lecture on 'Mineral investigations by the GSI' at Platinum Jubilee guest house, Andhra University, Raju said that majority of the identified sites were in the Peninsular India.

"The programme will help students understand the significance of the geo-science data. The need of the hour is to enrich



mineral resources of the country by tapping it with the right technology and hence the students pursuing their career in geo-science must be trained accordingly," said G Nageswara Rao, vice-chancellor, Andhra University, who was the chief guest of the programme.

Interested students can also apply for training and capacity building courses offered by the GSI, Hyderabad, he added. AU registrar V Uma Maheswara Rao, College of Science and Technology principal

and director of AU Delta Studies Institute CV Raman and others were present.

MINES MINISTRY TO SEEK CABINET'S APPROVAL FOR IBM'S RESTRUCTURING; M. RAJU TO HEAD GSI

In an attempt to make the Indian Bureau of Mines (IBM) come up to speed and become technically proficient in the backdrop of the Mines and Minerals (Development and Regulation) Act (MMDR), the National Democratic Alliance (NDA) government is mulling to restructure the Bureau.

IBM, set up in 1948, is tasked with the conservation and rational use of mineral resources and works under the ministry of mines. The mines ministry may shortly seek the Cabinet's approval for the restructuring.

The NDA amended the January 2015 concessions to bring and remove However, the tioning mines



IBM's restructuring government MMDR Act in to grant miner-through auc- transparency discretion. process of auc- has been slow.

"With the new Act coming in place, the role of IBM also needs to be strengthened. Currently, the organisation is focused towards administration, but it needs to be made technically sound and competitive. We need to increase more technical posts in the IBM to handle several works related to aerial survey, remote sensing, star-rating of mines and other related works," said a senior government official requesting anonymity.

This comes in the backdrop of India's mines minister Piyush Goyal stating if the country's mineral production can increase by 30-35% per year, it will contribute an additional one

percentage point to the country's gross domestic product in the next two to three years from the existing share of 2-2.5%.

The official quoted above added the mines ministry is currently in the process of preparing a draft Cabinet note for the restructuring which will be soon be circulated for inter-ministerial discussions.

In another development, the mines ministry will also seek the Cabinet's approval for Raju, additional director general, Geological Survey of India (GSI), as the head of the organisation which is expected to play an important role in helping India achieve resource security.

After Harbans Singh, former director general of GSI, perannuated on 31 May, Raju has been holding the



ment, the mines seek the Cabinet's appointing M. Raju, as an important organisation which achieve resource

Singh, former (DG) of GSI, May, Raju has charge of DG.

GSI is engaged in baseline exploration work and data collection. It is also involved in natural resource assessment and is planning an aero-physical survey, which is aimed at bringing deep-seated minerals into production.

IBM on its part will have to play a crucial role to increase India's mineral production. It is currently engaged in preparing mineral maps and a national mineral inventory. IBM is also entrusted with the scrutiny and approval of mining plans, evolving technologies for upgradation of low grade ores and their utilisation. InfraCircle on 26 July reported about IBM issuing instructions for quick and transparent disposal of mining plans and schemes within 45 days.

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"IBM is planning to set up few remote sensing laboratories via which it can monitor the ongoing activities taking place in a mine. It is tough to do it physically. The organisation needs technically qualified people who can handle new technologies so that any violation in the mine area can be reported to the states for necessary action to be taken," said a second government official who also didn't want to be identified.

India's mineral production for financial year 2015-16 increased by 9% to 495 million tonne. However, the overall growth in terms of value decelerated by 11% to Rs.39,767.3 crore during the same period. Experts believe that IBM's restructuring is the need of the hour.

"With mineral production going up, we need to have in place a better information technology system, drones, remote sensing and global positioning system. And for all this, competent technical manpower will be required by IBM in the days to come," said Dipesh Dipu, partner at Jenissi Management Consultants, a Hyderabad-based energy and resources sector consulting firm.

Queries emailed to the spokespersons of the mines ministry, IBM and GSI on 12 August remained unanswered.

During the last two years, the Bharatiya Janata Party-led government has taken various measures to boost mining including allowing 100% foreign direct investment in the mineral sector.

ODISHA STATE GOVT TO PROMOTE MINING SECTOR

Resolute to promote the mining sector in a big way and deepen linkages with industry for a strong and sustained growth of the sector, the Odisha Government made a strong pitch for investments in the downstream sector. The state government has already initiated some key reforms to ensure "Ease of Mining" in the state, said steel and mines minister Prafulla Kumar Mallick while addressing industry leaders at a conference on Increasing Mining Sector: Contribution to GDP organised by CII here on Wednesday.

A robust mining sector and downstream industry will shape the economic growth of Odisha -- a state which is being seen as one of the

most lucrative investment destinations in India and South East Asia, Mallick said.

TV Narendran, MD, Tata Steel and chairman, CII eastern region, said growth of the mining sector has a positive impact on downstream industries such as power generation, steel making, aluminium, auto, chemicals, cement and infrastructure.

He also underscored the need for strong logistics infrastructure, including key rail links and coastal shipping on eastern India's seaboard to ensure appropriate evacuation and cost effective mineral transportation.



"Expanding capacity at major ports such as Paradip and Vizag will ease sea route transport of coal and iron ore from eastern ports in India to other costal demand areas," Narendran said. Sanjay Pattanaik, chairman, CII Odisha, said mining remains the biggest strength of eastern India. With India having seen a significant increase in demand for commodities on the

back of steady economic growth and urbanisation, rapid development of the mining and metals sector will define how the Indian economy will grow, Pattanaik said.

Manikanta Naik felt with the enabling policies in place, the mining sector is all set to achieve excellent

growth in the coming years. The conference also discussed on viable business models, reporting standards, sustainable mining practices, regulatory reforms and operational sustainability in the mining sector besides others.

RK Sharma, principal secretary, department of steel & mines, said "Odisha is home to 33 per cent of country's iron ore reserves and 25 per cent coal and has traditionally been a mining hub."

Mines need to be explored to the optimum level for which there must be in place an easy and efficient clearance system, Sharma said.

NEW MINING LAW: NO PRIOR CLEARANCE FOR STUCK MINING PROPOSALS, SAYS ENVIRONMENT MINISTRY

The central government is likely to auction the 288 mines, in case they are not granted to the companies by respective state governments by January, 2017

Before January, 2015, while signing the letter of intent (LOI) with any company, a number of state governments -- such as Rajasthan and Madhya Pradesh -- had promised them an

environment or forest clearance before the grant of mining licence. However, the environment ministry has now told the Union mines ministry that there is no provision in the law which obliges it to give a prior clearance for any such proposal.

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As per government data, around 65 and 45 such proposals are stuck for the want of the environment and forest clearance respectively, either with the state or the Centre. In total, around 288 non-coal mining proposals are stuck at various levels. With the January 11, 2017, deadline looming large, the Centre is learnt to be working overtime to clear them as soon as possible.



“Gyanesh Bharti, joint secretary, Ministry of Environment, Forest and Climate Change, ruled out the prospect of granting any sort of general or conditional or provisional environment clearance by the environment division, for facilitating lease execution in such cases, under the provision of Environment Protection Act (EPA) and rules there off,” the minutes of the meeting, which took place on September 20, between environment ministry and mines ministry, noted.

NEW MOBILE APP AND A WEB INTERFACE FOR THE MINING SECTOR: PIYUSH GOYAL

In a bid to facilitate interaction between the mine owners and the central and state governments, union minister Piyush Goyal said on Monday that a new online platform will be set up in a month’s time.

“As transparency drives all of us to deliver better, we in the next 30 days will work out an interface between the mine owners and the central and state governments... All queries, their responses and timelines will be put up in public domain,” said Goyal, who has recently assumed the charge of mines ministry in addition to the three independent portfolios he already holds for power, coal and renewable energy.

“I have asked my officials in the ministry of mines to create the entire infrastructure for the interface, software etc. in the next one month,” he said.

“This is in the interest of transparency, so that nobody can



delay approvals for extraneous reasons,” Goyal, who is credited for the earlier successful auction of coal mines, added.

The minister said two new mobile apps on the coal and mining sectors will also be looked at to provide information in a transparent manner as also to impart accountability to the system comprising of companies and the central and state governments.

“The mobile app will give an complete account of sale of coal from every mine... it will also give the e-auction data on coal as also the carry details of coal linkages.”

While praising his predecessor Narendra Singh Tomar for a “painstaking analysis” of the ills plaguing the mines sector for the last seven years, Goyal said his job will be to provide further thrust to the sector and exploit the potential that the mining sector holds in India. fast track implementation of projects will be my other priority.”

CIL MAY SOON SIGN PACT WITH SOUTH AFRICAN CO FOR MINES

Coal India Ltd may soon enter into a pact with a South African government-owned company for acquisition of mines in that country. "We are in touch with the South African Government. We have framework issue...We are sorting out the framework issue," Coal India Chairman-cum-Managing-Director S Bhattacharya told reporters here. When asked about signing of the MoU, Bhattacharya said, "It depends upon (South) African government. Indian embassy is at it. It should happen quickly." He said that the recent strike on September 2 has some impact on its subsidiary Mahanadi Coalfields Ltd.

But some of the arms of CIL such as Central Coalfields Ltd (CCL) produced very well during the nation-wide stir. "Strike had some impact in Mahanadi Coalfields. In WCL it was a holiday. In West Bengal there was no impact. In some areas in Jharkhand there was strike....But CCL produced very well...and primarily you know no power plant today is either critical or supercritical," he said. On e-auction of fossil fuel by Coal India, he said, "I would not give you the price information at this hour because the price is discovered through a process...Now we are planning to do

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beyond 80-90 million tonne but depending upon the offtake..." When asked if CIL is in talks with Bangladesh for coal exports, he said, "that depends upon the demand. We are in touch to promote our market, that much I would say." He further said, "We do have capex target which we are trying to maintain. Will be above Rs 7,000 crore certainly compared to last year. But we are also trying to see whether we can go for very meaningful kind of technologies..." CIL in its annual report said that it has



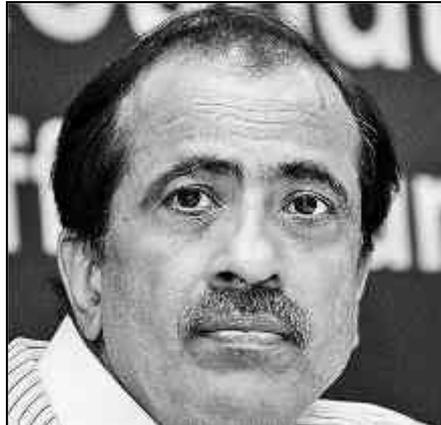
approved signing of a pact with African Exploration Mining & Finance Corporation SOC Ltd (AEMFC), owned by the South African government, for acquisition of coal mines in that country. The decision of the CIL board, it had said, has been communicated to AEMFC requesting them to finalise the date and venue of signing of the agreement. Coal and Power Minister Piyush Goyal had earlier informed Parliament that CIL is looking at entering into a pact with a South African government miner to jointly acquire coal mines in that country.

STAR RATING OF MINES: MINES MINISTRY TO FACILITATE HIGHER RATINGS FOR ALL MINES ACROSS INDIA : MINES SECY

The NDA government after having initiated measures to boost mining including allowing 100% foreign direct investment in the mineral sector has recently announced another initiative of Star Rating of Mines in India. The concept is aimed at bringing higher accountability and transparency amongst the mining companies through a system of self evaluation and one that is based on a host of essential indicators including social, economic and environmental parameters. Power, coal, renewable energy and mines minister, Piyush Goyal is of the view that all mines in India should necessarily have a four-star rating and the government as a facilitator would help them reach the desired level. Going forward star-ratings will also help companies get faster environmental clearances.

Being viewed as a game changer for the Indian mining industry, EnergyInfraPost.com spoke at length with the union mines secretary, Balvinder Kumar on this powerful tool designed by the ministry in mines through Indian Bureau of Mines (IBM) and for implementation of the Sustainable Development Framework (SDF) in the mining sector.

Excerpts of the Interview with Union Secretary of Mines, Balvinder Kumar



How challenging is to engage the private sector players in exploration of minerals?

The New Mineral Exploration Policy 2016 will help overcome this challenge. The new policy that will give 100 mining acreages to explorers proposes specific incentive structure for participation of all companies. Both PSUs and the private sector are important pillars in mineral exploration and their participation is vital for technology infusion and investment inflow for accelerating exploration in India.

So how are you going about it?

Like I said, we have identified 100 exploration blocks to take up regional and detailed exploration (30 for surficial minerals, 70 for deep seated minerals) with participation of public and private sector. SBICAP has been engaged for developing bidding process and model documents. Under the NMEP 2016, the

geoscientific data is being made freely accessible. GSI will develop an "Online Core Business Integrated System" to integrate and share available data, information and products through a geo-spatial platform to all stakeholders. Then a National Geo-science Data Repository (NGDR) will be set up by GSI. Then we have recently unveiled a web portal for the easy access to information regarding the mining sector in India including rating of mines.

Tell us more about the rating of mines?

The star rating system, that rates mines out of five stars, is a two-layered system based on a self-evaluation by the mine operator. The rating is based on various indicators including social, economic and environmental parameters and under the template developed by IBM, all these parameters carry certain weightage.

Based on self evaluation, points are awarded to the party. Those getting above 90 marks on a scale of 100 will get 5-stars and those getting between 80-90 points get a 4-star rating. This system is aimed at creating a healthy competitive environment amongst mining companies as this system recognises good performers while encouraging others to compete and strive further for excellence.

The main objective of this system is to bring all mines to minimum 4- or 5-star rating in the shortest possible time. Everything is transparent and can be accessed in public domain. Our minister (Piyush Goyal) has publically said that all mines in India should necessarily have a four-star rating and the government as a facilitator would help them reach the desired level.

But how reliable is the self-evaluation system for mine operators?

Like I said it will be a two layered process. In addition, the ministry will also have random third-party checks to see whether the information provided by the operators is correct. In case of an anomaly, there will be penalties for those operators providing false information.

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States like Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha and many other states are rich in minerals. How are you engaging with states so as to ensure a conducive environment for mining?

States are the biggest beneficiaries and we are holding continuous dialogue with state governments. We are assisting states in the best possible manner and most states have assured to extend the required support for implementation of NMEP. Then MoUs are being signed with minerals bearing states, where fixed timelines for completing exploration activities.

Could you elaborate a bit on the process for these 100 blocks that have been identified?

Out of these 100 blocks, the mines ministry has allotted 30 for exploration to Mineral Exploration Corporation Ltd (MECL). Funds will be given out of the National Mineral Exploration Trust (NMET) set up to boost exploration in the country. We are expecting to collect Rs 500 crore annually by imposing 2% royalty on miners for NMET. Now if minerals are found following exploration by MECL, the blocks will be handed over to states for auction. The money received after auction will be used to re-fund NMET.

JSW ENERGY: THE MAKING OF A POWERHOUSE

When rivals went on a debt-fuelled expansion spree, JSW Energy chose prudence. The gamble has paid off and the firm has snapped up assets to become India's No. 4 private power producer. Six years doesn't seem like a long time. Yet, 2010 was a time of hope when businesses fuelled by debt and optimism went on an expansion spree, confident the economy had indeed rebounded from the pits of a global financial crisis. How it all unravelled is now well-documented. The economy stalled and factories idled, and companies unable to repay debt put up their assets for sale. And those who remained prudent during the go-go years emerged from the sidelines, snapping up assets and setting their eyes on the long term.

One of them was JSW Energy Ltd, which found the time was ripe to make its move. Within a span of two years, the company snapped up three power plants with a combined capacity of 2,891 megawatts (MW) for nearly Rs16,000 crore. It also walked away from a deal where lenders refused a haircut, and managed to beat down the valuation of one deal that it concluded. "We have made no secret of it," JSW Energy joint managing director and chief executive Sanjay Sagar said. "Given the stress in the sector, we have got this window of opportunity. We are fortunately one of the few companies who have the balance sheet to look at inorganic growth, and we intend to capitalize on this," he said at the group headquarters in Mumbai's Bandra Kurla Complex.

The company has evaluated 25-30 proposals of thermal power assets in the past year and continues to look at more assets which have long-term purchase agreements, fuel supply and an assurance of at least a 15% return on equity (RoE), Sagar said. However, if JSW executives are to be believed, acquisitions are not an end in itself. In the past six years, India's energy market has undergone a sea change, and the rules of the game have changed.

Old rules

Like many other power producers, JSW Energy in the past focused on merchant power, or the power that's sold in the

spot market without a long-term power purchase agreement or PPA. At a time of power shortage—as was the case in 2009-10—a single unit of power fetched up to Rs8, prompting many private producers to set up merchant power capacities.

But six years have indeed been a long time. Power production has soared, pushing down price of merchant power below Rs3 in 2015-16. Alongside, a policy change that permitted merchant power producers to use only expensive e-auction coal altered the economics for these companies. It was time to change tack. PPAs, where power producers agree to supply power to state level utilities for a long period were back in fashion. And JSW Energy, which had half of its capacity linked to the short-term merchant market, is now planning to get 60% of its capacity linked to long-term PPAs, with a target of 90% in the medium term. "That is something I was very clear in my mind as the CEO of the company. We have been making a conscious effort to switch over to acquire assets, so that this ratio of short to long changes," Sagar said. So, even as the company goes ahead with its plans to snap up more assets, the focus is clear: One, the asset should have enough fuel supply; two, it should come with PPAs.

"One golden rule for the plant we acquire is that it should in the long run give us the normative rate of return. The idea is not to compromise on the profitability of the company. It should have fuel, and a sale agreement for the power," Sagar said. JSW Group joint managing director and chief financial officer (CFO) Seshagiri Rao backs Sagar: "Strategy cannot be static. Earlier strategy of JSW Energy used to be not to enter into long-term PPAs which are at a fixed price. They had a larger portion of power produced in the form of short-term PPAs and they made a lot of money because of this. But do they continue with this strategy? No," said Rao.

Deals, made and unmade

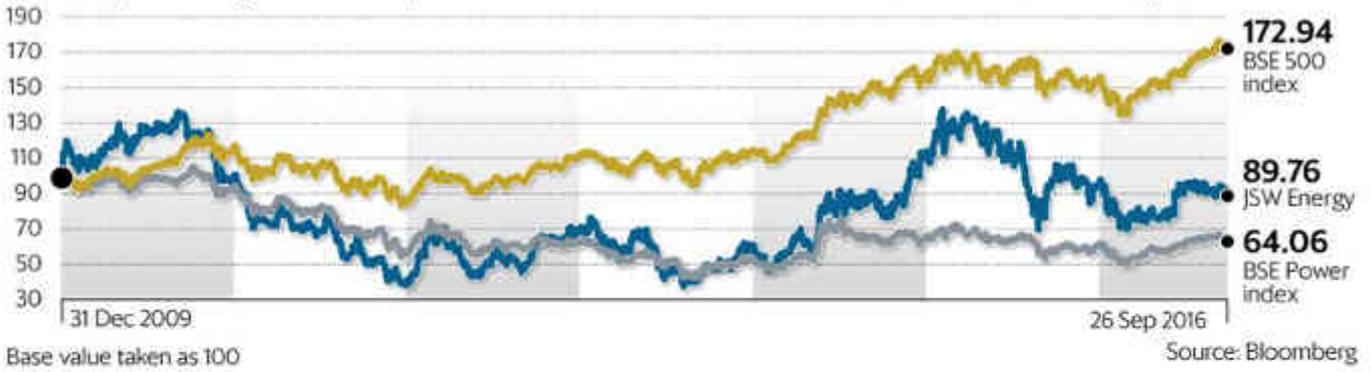
At a time when India's power sector is grappling with high debt, an investment drought and weak demand, JSW Energy has set out on a capacity buying spree. In September 2015, JSW Energy bought two hydropower

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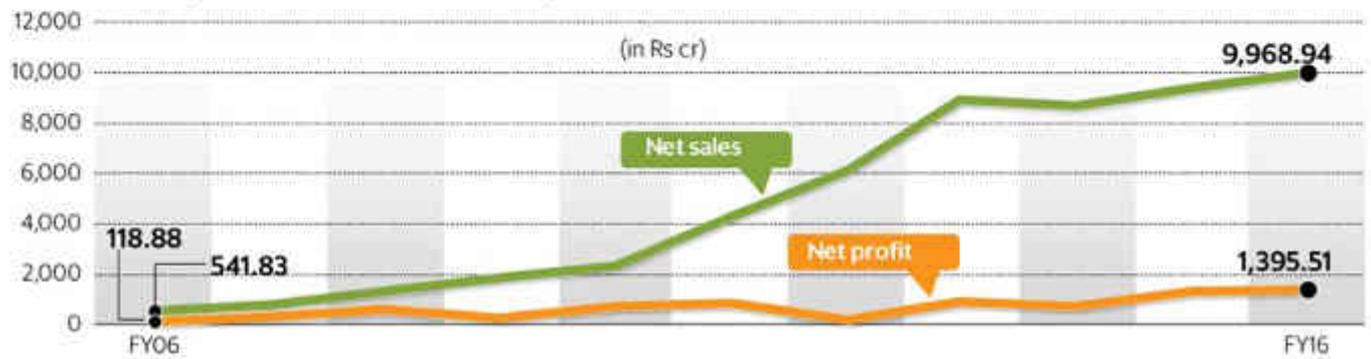


Key financials

Shares of JSW Energy have underperformed the broader market but have done better than peers



How sales and profit have moved over the past decade



projects—Baspa II and Karcham Wangtoo—from Jaiprakash Power Ventures Ltd for Rs9,275 crore—lower than the originally agreed value of Rs9,700 crore. It also acquired the Bina thermal plant from Jaiprakash Power at an enterprise value of Rs2,700 crore—lower than the Rs3,000-3,500 crore it cost to build the plant.

Earlier in May, JSW Energy agreed to buy a 1,000MW thermal power plant in Chhattisgarh from Jindal Steel and Power Ltd (JSPL) for Rs4,000 crore, valuing it at Rs4 crore per MW. Setting up a new project of similar size costs about Rs6.5 crore per MW. The deal size would rise to Rs6,500 crore if JSPL manages to secure fuel supplies and find a long-term PPA by June 2018.

JSW Energy and JSPL are led by brothers Sajjan Jindal and Naveen Jindal, respectively.

The deal was struck with a two-year window on the belief that by 2018, a revival in the sector will bring in PPAs. In the interim, JSPL received Rs500 crore as advance payment to help it meet immediate cash needs.

“They are a very stressed company (JSPL) and that was the reason why in the very first place they went in for a sale... I bring the money to the table for JSPL, I write a cheque for a very large amount of money,” Sagar said on the rationale for the deal.

“In the JSPL deal, they don’t have PPA and they don’t have fuel supply. However, that deal will fructify in two years from now, and our belief is that in two years from now, there will be enough demand in the market,” Sagar said.

Rahul Modi, an analyst at Antique Stock Broking Ltd, said the acquisitions are positive in the long run as most of the capacity acquired will have long-term power sale tie-ups and assured return on equity. “As a business strategy, from a merchant player, they are now having a domination of PPA-based sales so the surety of income and stability of earnings is there.”

Every attempt at expansion has not been successful either. In July, a year after it had signed a non-binding agreement with Monnet Ispat and Energy to acquire Monnet Power Co. Ltd, JSW Energy dropped the plan, after the lenders rejected its demand that they take a haircut. JSW Energy received a thumbs up from its investors for calling off the deal, given Monnet Power’s projects have seen severe cost overruns because of a five-year delay.

Several analysts had cautioned that the deal would be a negative for JSW Energy.

“We received thumbs up because we did not compromise on the proposal that we had made to the lenders (of Monnet). So, we did not go in for a desperate acquisition,” Sagar said.




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More to come

JSW Energy, which is currently India's fourth largest private power producer with 4,531MW capacity, has a medium-term target of achieving 10,000MW of operational capacity. After accounting for its acquisitions, it will have about 6,000MW of capacity by 2018. Rival Adani Power Ltd wants to reach 20,000MW of capacity by 2020. Much older rival Tata Power Co. Ltd already operates above 9,000MW capacity.

"One can count with one hand and not two the number of companies that are profitable in the power sector. This is a company (JSW Energy) which followed a completely different strategy, of not taking the risk with assets that lacked PPAs and fuel. That made us withstand the problems in the power sector. Ability to raise further equity in JSW Energy is much higher compared to other companies," group CFO Rao said.

There is headroom for more acquisitions of power assets in India and for coal mines overseas, Sagar said. "We are today sitting on a debt-to-equity ratio of 1:1.77 and we would be comfortable with 1:2.5. Having said that if after touching 2.5, if we come across a must-have asset, then we would think of breaching the 2.5 also," he added.

The management also believes luck played a part – that JSW Energy happened to be at the right place at the right time. The fact that there are not many buyers of power assets in the market has also helped the company negotiate deals better, according to Pramod Menon, director of finance at JSW Energy.

"So far in all our deals, lenders have not taken even a Re1 hit. But those were low-hanging fruits. As we proceed, most projects are those where we would want some pain-sharing. Lenders need to make it a viable proposition," he said.

Menon claims what has worked for JSW Energy and differentiated it from its peers is its financial prudence: Efficient allocation of capital, the ability to keep its costs per megawatt and overall built-up costs low, timely refinancing of completed projects to keep interest rates low, and a conscious effort to not leverage its balance sheet.

JSW Energy pursues an acquisition if there is a guarantee of at least a 15% RoE and if the target company lacks fuel supply or a PPA, it bargains hard, Menon said.

The company also does not believe in putting all its eggs in one basket, spreading its capacity across states. For example, the Bina plant is in Madhya Pradesh, a state JSW Energy did not earlier have exposure to. The JSPL plant, when acquired, will give it presence in Chhattisgarh and neighbouring states. The company, which already has plants near Rajasthan, Ratnagiri in Maharashtra, and Vijaynagar in Karnataka, also expanded its presence to Uttar Pradesh, Punjab and Haryana helped by its acquisition of the two Jaiprakash Power's hydro-power assets in Himachal Pradesh.

"When the environment was not conducive to organic growth, we pulled back investments. There was a period of three to four years between 2010-2014, when we decided to not make

any investments and rather focus on consolidation. We worked on creating a stronger balance sheet during those years before we took a leap of faith by investing in the sector," Menon said. "Like other projects in the sector, we also had our own share of pains, but since we had kept liquidity on the balance sheet and the lower leverage, we were able to sustain. You need to have the ability to sustain initial period of hiccups."

Of the analysts covering the stock, 12 have a "buy" rating, 13 a "hold" rating and 4 a "sell" rating, shows Bloomberg data.

The company kept out of bidding for coal blocks on premium since it believed the process was flawed, Sagar said.

Many power assets in the market today are up for sale due to stress at their group level. Many of them set up plants at a time when the tariff expectations were high, attracting many companies which were traditionally not in the power sector. By the time they started generating power, there was a coal shortage, causing delays and cost overruns. "And a lot of people got disappointed by the power sector, people who were not primarily in the sector, but got in the sector looking at the merchant rates of Rs7-8 (per unit). They got disappointed that it was not meeting with their expectations of profitability," Sagar said.

Potential

At a time when there are no new investments or capacity expansion in coal-fired power and the industry is looking to renewable energy, Sagar is a staunch believer in the opportunity of the thermal power sector.

Given India's low per capita consumption of power—at 1,000 units a year compared to the world average of 3,000 units and the developed nation average of 8,000 units, he believes there is scope for adding at least 300,000MW in thermal power.

"The Western world, which is today suddenly so conscious about the ills of thermal coal, each of those countries has developed on the basis of thermal power," Sagar said.

JSW Energy is also exploring if it can buy a coal mine overseas, purely for backward integration. It has signed an agreement for a so-called prospecting concession in a southern African nation and is hoping to find sufficient quantities of coal there to de-risk its fuel supply.

"It's not like going and buying a shirt off the shelf. Good deals are not available internationally because it's not just the coal, it's also the logistics which is important. I might find a mine in Australia but it may take me a lot of money to ship it. We will buy a mine only for backward integration and securing our demand, and not for getting into coal mining business," Sagar said.

PPA perils

Getting reliable long-term PPAs is easier said than done. For JSW Energy, about 30% of the acquired Bina power plant's capacity still lacks long-term PPAs. Its Vijaynagar plant in Karnataka is waiting for the state to sign a purchase agreement. "There are no PPAs in the market for JSW Energy," said Anubhav Gupta, an analyst at Maybank Kim Eng Securities India Pvt. Ltd.

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“Within the current grids, power deficit is less than 2%. So, there is no urgent need for state electricity boards to sign new PPAs.”

“Karnataka has not finalized (the PPA) for the simple reason that there was good monsoon and demand for power was down. Demand of power in last week of July in Karnataka, which was about 130 million units a day, has already touched 200 million units in August. So, we are now hoping that they should do it sooner than later,” Sagar said.

According to an Edelweiss Securities Ltd report by analysts Manish Saxena and Santosh Hireesai dated 26 August, power offtake across the country fell in the previous 45 days, with average short-term prices touching Rs2.16 per unit, the lowest in the past five years. “State discoms (distribution companies) have been using this opportunity to buy cheaper power and back down the expensive medium/long term power,” the analysts said.

“While JSW Energy’s plants await finalisation of PPAs to commence power supplies, delay in signing of the medium-term PPA coupled with rising coal prices could imply that current quarter earnings may be at risk,” the analysts wrote.

The surplus power situation will result in a net loss of around Rs8,000 crore this fiscal year for state power distribution companies, India Ratings and Research Pvt. Ltd said in an August report.

About 18 out of 35 states and Union territories are expected to be power surplus in FY17, as per the Central Electricity Authority’s Load Generation Balance Report 2016-17. “These discoms are likely to surrender some of the excess power they have tied up in past five to seven years, at a loss, thereby further weakening their financial position... Ind-Ra believes that there will be few invitations for bidding of long term power purchase, over the medium term,” India Ratings said.

In the past few years, power companies have been squeezed between inadequate coal supply and debt-laden utilities unwilling to buy expensive power.

Most power companies are weighed down by debt, forcing some of them to sell assets. However, distribution companies have become more financially disciplined, procuring enough power for which they can pay rather than keeping dues with producers, said Menon.

Few good deals

There are enough acquisition opportunities, but deals are not translating on the ground due to gap in valuation expectations of various parties, according to Rao. “All the various stakeholders need to be aligned on the price they could get for an asset, and a sustainable price for a buyer to be interested.”

Tata Power in June agreed to acquire Welspun Renewables Energy Pvt. Ltd in a Rs9,249 crore deal. While Tata Power has maintained it continues to explore buyouts of stressed power assets, there has been no deal yet. Adani Power in 2014 acquired Lanco Infratech Ltd’s 1,200MW Udupi power plant in Karnataka in a Rs6,000 crore deal and the Korba power plant from Aantha Power and Infrastructure Ltd for Rs4,200 crore.

JSW Energy had a market capitalization of Rs12,718.63 crore as on Monday’s (26 September) close. This compares to Rs 20,501.09 crore of Tata Power and Rs9,185.01 crore of Adani Power.

Analysts do not expect either Tata Power or Adani Power to make any big-ticket acquisitions soon, given their high debt levels. As on 31 March, Tata Power had consolidated debt of Rs40,120.86 crore while Adani Power’s consolidated debt was at Rs 53,051.66 crore.

According to Gupta of Maybank, JSW Energy too, which had consolidated debt of Rs15,523.14 crore as on 31 March, is unlikely to make further acquisitions at least for the next two years as its focus would likely be on integrating the acquisitions. “JSW Energy has announced acquisitions worth around Rs100 billion already. It is critical for them to sustain PLFs (plant load factors) at existing plants even as demand for power is subdued. If demand continues to be subdued and if coal prices begin to rise, that could pressurize RoE for JSW Energy,” he said.

INDIA HAS MINED MINERALS WORTH RS 17,339 CRORE IN JULY

The contribution of coal was highest at Rs 6,238 crore (36 per cent), said the Mines Ministry.

The total value of India’s mineral production, which excludes atomic as well as minor, was Rs 17,339 crore in July. Of this, the contribution from coal was the highest at Rs 6,238 crore (36 per cent), the Mines Ministry said. That was followed by petroleum (crude) at Rs 5,593 crore, natural gas (utilised) at Rs 2,165 crore, iron ore at Rs 1,347 crore, limestone at Rs 554 crore and Lignite



at Rs 535 crore, it added.

“These six minerals together contributed about 95 per cent of the total value of mineral production in July 2016,” the ministry said.

The index of mineral production of mining and quarrying sector for July 2016 (based on the new Series 2004-05 =100) stood at 118.7, which was 0.8 per cent high-

er as compared to July 2015.

(Continued on page 9)..

The country produced 442 lakh tonnes of coal, lignite (30 lakh tonnes), natural gas (utilised) (2,618 million cu m), petroleum (crude) (31 lakh tonnes), bauxite (1,972 thousand tonnes), chromite (177 thousand tonnes), copper (11 thousand tonnes), gold (172 kg), iron ore (115 lakh tonnes).

Lead production stood at 22,000 tonnes, while that of manganese ore was 150,000 tonnes, zinc was 89,000 tonnes, limestone 253 lakh tonnes, and that of diamond was 3,100 carat.

The 288 cases – including the 65 and 45 cases stuck for the want of environment and forest clearance respectively – are unique as the proposals were under process either with the state government or the Centre even before January 2015, when the new mining law came into effect. Under the old law, the firms were granted mining licences by the states on a discretionary basis. The new law introduced a new way of granting mining licences – through auction.

While the new law stipulated that all licences henceforth would be granted only via auctions by the respective state governments, it also said that if any firm was issued a LOI by the state under the old law, the license for that block should be directly granted by January 2017. Moreover, if any proposal has been approved by a state government under the earlier

law, but got stuck with the Centre, the licence for that too was required to be issued by January 2017. With environment ministry showing the red flag, the mines ministry is likely to take the opinion of law ministry regarding this issue. It is checking if the mining licence could be granted by the state governments by imposing a condition that all legal requirements of the EPA (including getting an environment clearance) would have to be fully met by the company itself before the mining operations commence.

About forest clearance, the Union environment ministry has given a similar opinion as that for environment clearance. During the meeting, it told the mines ministry that in case a conditional clearance is given, the company would be free to mutate the forest land in its favour and would use it for non-forest activities and the very purpose of the need for ‘forest clearance’ would be defeated. Therefore, no prior or conditional or provisional forest clearances can be given for quicker grant of mining licences. The central government is likely to auction the 288 mines, in case they are not granted to the companies – by respective state governments – by January, 2017. However, the companies may then take the cases to court as the new mining law clearly stipulates that they should get the licences for these mines on discretionary basis by the state governments as mentioned in the LOI.

COAL INDIA PLANS TO RE-ENTER MOZAMBIQUE

Less than a month after formalising its exit from developing coal blocks in the Tete province of Mozambique, Coal India Limited (CIL) is planning to re-enter the African country in search of a new project. According to a CIL official, the Indian miner will approach the Mozambique government for the allotment of a new coalblock, but it will seek an assurance on coal grades, after the previous coal block was found to have negligible coal content. CIL is preferring a coking coal block.

Last month, the CIL board formally approved surrendering prospecting licence numbers 345L and 3451L to the government of Mozambique. In 2009, CIL subsidiary Coal India Africa Limitada was granted a six-year exploratory licence for A1 and A2 blocks in Tete and after spending an estimated \$80-million on exploration, the Indian miner claimed that there was no coal in the block and hence no commercially viable mining operations could be pursued.

However, in its re-entry bid, it has been decided that application for a new coal block will be sweetened to woo the Mozambique government into allotting a more viable high-grade coal block including coking coal, the current focus in the foreign acquisitions of CIL. Although the details of the “deal sweetener” are yet to be finalised, the indication is that the bid for a coal block will be expanded to include the development of allied infrastructure near the allotted block, including a railway link to evacuate coal and potentially a port with coal handing terminals.



While no official confirmation was available, indications are that CIL will bid for a new coal block in Mozambique as a consortium and the miner will approach partners such as IRCON, the subsidiary of government owned Indian Railways, specialising in consultation on and construction of railway links, roads and highways, and government or private sector port operators, to be part of the consortium.

CIL’s persistent interest in Mozambique, despite the earlier aborted project, stems from the Coal Ministry’s view that India’s domestic coking coal production can not be ramped up in the short term and can at best be pushed up to 71-million tons a year by 2020 against 54-million tons a year at present. According to the Steel Ministry, coal imports are forecast to touch 50-million tons in the current financial year, from 43-million tons shipped during 2015/16. Coal imports are expected to rise to 180-million tons by 2025, if India is to achieve total steel production of 300-million tons a year.

Hence, despite facing a glut of thermal grade coal at home, CIL will have to persist with efforts to secure high-grade coal assets overseas. Last month, CIL approved the signing of an agreement with South Africa government-owned African Exploration Mining and Finance Corporation aiming to acquire coal mines in that country. With the same strategy, CIL earlier this week announced that Coal Videsh, the overseas arm of CIL, was in touch with an Indonesian government-owned coal miner seeking to acquire coal assets in that country.

URANIUM MINING: WILL INDIA'S ATOMIC NEEDS SPARE THOSE IN MEGHALAYA'S DOMIASIAT?

Domiasiat is at the centre of the Uranium mining debate in Meghalaya again. A debate that many wrongly assumed the side of environmentalists, non-governmental organisations and the local communities had won when in the later half of the last decade they'd managed to halt mining activities.

But lo and behold, an ugly head has risen. Again.

There is a sense of helplessness and angst among the thousands of Khasis who are fighting helplessly against what they perceive to be complete injustice at the hands of the government. The Uranium Corporation Of India Ltd, a public sector enterprise under the Department of Atomic Energy, has been vigorously pushing for the mining of uranium.

While the objective of the government is to procure all of the uranium for its nuclear activities, the goal of the people of Domiasiat, Wakhaji and Thyrnai in the West Khasi Hills District of Meghalaya is a much simpler one. All they are hoping for is that road and that school and that health centre and those inconsequential jobs and that minuscule amount of money. What they do not want is the radioactive gas to spread through the air, the vegetation and water to be contaminated in the process and no sooner than it begins than the whole population of the area are going to be affected. In its pure form uranium is very dense and weighs about 19 grams per cubic centimeter. A 1,000 kg of ore would have to be processed to produce 1 kg of the element.

What this means is that a huge quantity becomes waste and because of their chemical composition the reality of pollution is that much more pronounced. The mill tailings, which are the discarded wastes, are contaminated with some of the most toxic heavy metals and radioactive elements. One of these radioactive materials happens to be radium-226 and it decays into radioactive gas.



Is this a classic example of the government flexing its muscle against a community too poor to know the difference between superficial talk and harsh realistic consequences? The sheer disregard for human lives means that officials who would have otherwise been too lazy and too ignorant to lift a finger are now going out of their way to pave the way for the mining of uranium and leaving no stone unturned at that.

On 24 December, 2006 in Jaduguda, Jharkhand, an accident occurred when one of the pipes carrying radioactive wastes from the uranium mill to a tailing pond burst, and thousands of liters of radioactive waste spilled into a nearby creek for nine hours before the flow of the radioactive waste was shut off.

The proceedings of an International Workshop in Lisbon, Portugal in 2004, on a study of Environmental Contamination From Uranium Production Facilities And Their Redemption by the International Atomic Energy Agency produced rather alarming results. A study of miners who worked in poorly ventilated mines at a time when the hazards of radon were not known and thus had been exposed to high levels of radon, demonstrated that this group had an excess of lung cancers and that the risk of cancer increased with increasing exposure to radon gas.

There is also the added fear of not knowing what to actually look out for and be careful of. The fight against the mining of uranium in Meghalaya has non-governmental organisations at loggerheads with the state and opportunistic associations of people who cannot see beyond the promise of money. While the objective of the fight is to protect people and the environment, more often than not it does get clouded and eventually the focus shifts away.

IRON ORE MINING RESUMES IN INDIA'S GOA AMID ENVIRONMENTAL CONCERNS

Mining in the western Indian state of Goa has restarted after a ban was lifted by the government. The tussle between the mining lobbies and environmental groups has also resumed. Murali Krishnan reports.

The western India state of Goa is famous for its stunning beaches. It is also India's third-largest iron ore producer. Mining plays a vital role in contributing to the state's economy. In fact, it is as important to Goa as its tourism industry. But years

of unbridled development have led to massive land grabbing by the real estate lobbies and illegal miners.

Until the 2000s, Goa's mining industry had been controlled by a few families. After that, the infrastructure boom in China triggered an unprecedented mining in the state. The mining mafia, in collusion with political groups, committed large-scale environmental and legal violations. The environmentalists estimate

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that the loss to the public exchequer owing to illegal mining amounted to a staggering 4.6 billion euros.

The devastation wrought by illegal mining has been documented in a recently released book, "Eat and Dust: Mining and Greed in Goa" by Hartman De Souza.

"My book is about a personal anguish at the devastation of the state's forests and springs," De Souza told DW.

It was only after the public protests and the subsequent setting up of a judicial commission that the government suspended all mining in Goa in September 2012.

Mining reopens

But now the mining has been reopened in the state, aiming to increase exports amid a slump in raw materials.

"It is going to take some time before the mining activities pick up. The clearances of mining contracts will be extremely strict this time around," Ravi Naik, an industrialist in Majorda, told DW.

The Indian Supreme Court has imposed an annual cap of 20 million tonnes of iron ore extraction. Furthermore, it ruled that no lease would be granted for mining within the radius of one kilometer around national parks and wildlife sanctuaries. The apex court also directed the Ministry of Environment and Forests to identify eco-sensitive areas around the national parks.

The mining industry is now lobbying to raise the cap on extraction and exports, suggesting that its operations may be economically unviable otherwise.



Politics and mining

With state elections due early next year, the mining issue is dominating the public sphere, with political parties trying to balance the concerns of the civil society and the mining firms.

The Aam Aadmi Party (AAP), one of the frontrunners in the forthcoming election, has promised an "environment-friendly mining." At the same time the AAP said it would request the Supreme Court to raise the mining cap from the existing 20 million tonnes to 40 million.

Delhi Chief Minister and the AAP's national convener Arvind Kejriwal believes that Goa can show the way to the entire nation with regards to sustainable mining. "The AAP is not against the mining industry. In Goa, we can develop a world class model for sustainable mining. We can show to the world how mining can be done. It is an undeniable fact that mining is an important economic component for the state," Kejriwal said.

But Kejriwal's promises do not seem to satisfy the concerns of the environmentalists. The Goa Foundation, an environmental group whose public interest litigation eventually led to a ban on illegal mining in 2012, demands even stricter regulations.

"It is a very sensitive issue. The caps on mining are proposed to ensure that the minerals are available to the future generations and that there is no irreversible damage to environment and society," Claude Alvares, the foundation's director, told DW.

Goa's mining belt covers approximately 700-square kilometers and is mostly concentrated in four areas - Bicholim in the north; and Salcete, Sanguem and Quepem of the state's south. Only around 20 percent of the existing mining leases are currently operational.

COAL INDUSTRY'S 1.5-BILLION TONNE CHALLENGE

The big question that several participants in the programme on project evaluation and geo-statistics at the newly rechristened Indian Institute of Technology, Dhanbad wanted answered was if coal exploration's future is bright. The younger professionals in attendance wondered about the disruptive effect of renewable energy sources, commitments that India is making towards climate change initiatives, and if those could have a telling effect on the coal industry in India. While the haze is likely to get clearer as we walk into the future, but more pressing question in a similar line is with regard to the 1.5 billion tonne coal mining capacity planned by 2020. This is immediate in future and India looks well placed to achieve the target (except that product growth from captive mining may not add up to expected 400 million tonne). How does a doubtful long-term future sit comfortably with a high target for short-term one? Is this high target justified?

From the coal demand and supply perspective, the recent statistics give indication that there is oversupply in the market. The reasons are being attributed to lower than expected growth in electricity demand, which in turn are likely due to lower than expected industrial growth. There is a strong correlation between gross domestic product growth numbers and electricity demand growth, a relationship which has been used in the past to forecast capacity addition targets in the power sector. However, there appears an unexplained departure from the correlation now when economic growth numbers are high while electricity demand growth has been little subdued. This has had an effect on demand for coal, and Coal India Ltd and several power plants have witnessed rise in levels of inventories. Even if the growth in demand for coal were to return, due to Ujwal Discom Assurance Yojana scheme kicking in or economy turning around, it would

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now grow from a lower base and hence, from demand perspective, the plan for large mining capacity addition may need a re-look.

The other often cited reason for high growth in domestic coal mining capacity addition plan is based on the premise of import substitution. While in view of fiscal current account deficits, it may make sense to target import reduction, or elimination, but for that to become a reality, a closer look at coal logistics and economics of power generation from domestic versus imported coal is required. The coastal power plants in Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra and Gujarat and some parts

in their hinterland may find importing coal from Indonesia and South Africa preferable, particularly when global coal prices are lower. The location of supply growth centres are Talcher and IB Valley coalfields in Odisha, and Korba and Mand-Raigadh coalfields in Chhattisgarh which provide imported coal competitive advantage in terms of ease of logistics. This is also assisted by factors such as quality and quantity assurance, adherence to delivery schedule, fairness of fuel supply agreements and international jurisdiction for any dispute resolution. From the consumer point of view as well, cost of electricity being a decision parameter, imports may not, therefore, be replaceable. And given that the domestic coal mining industry does not seek protection from aggressive foreign sector, dumping of coal has not even been alleged so far, consumer perspective should be considered for government policy direction, including the coal production targets.

Simultaneously, it is the domestic coal that has remained under-priced compared with international prices. This pricing policy of coal producers in India is likely to have distorted the market demand and supply and may have distorted the economic prudence of entire supply chain of electricity generation.

Government's move towards e-auctioning of coal linkages is a step in the right direction to address that distortion, and when applied to power generation sector as well, which is the largest consumer of domestic coal in India, it may well be revealed that demand for coal may be lower than projected.

Additionally, the large-scale development of mining projects in India has had to face questions of sustainability. Coal mining has become conflict prone as can be observed in the number of projects delayed by issues pertaining to land acquisition, rehabilitation and resettlement. Environmental clearances have become procedurally easier to procure but the environmental risk mitigation does remain a critical challenge. These two, land and environment related aspects, in themselves warrant extreme cau-

tion in setting targets that may lead to large number of new projects and hence cause human displacements, social conflicts, environmental degradations and several other risks. Each of these has political costs as well, even though stakeholders' voices may appear meek and feeble. Hence, political repercussions of admittedly economic decision cannot be ignored.

It is generally agreed that coal will remain the backbone of electricity generation in India but signs of changing times are beginning to appear. Technological innovation will play an important role in disrupting the normal. For now, the bigger question appears how much of coal does India need in the next four-five years, and the ways to ensure availability of that quantum while ensuring a balance between seemingly conflicting objectives of preserving foreign exchange reserves and conserving land, environmental and other resources, and affecting least number of people through displacements. A balanced view needs to be taken considering effect on various stakeholders and then revision of the mammoth 1.5 billion tonne per annum target by 2020 may be considered. Sooner the revision is done the better it is for all stakeholders. The proverb 'a stitch in time saves nine' is quite apt for India's coal industry in 2016.



SC SEEKS DETAILS OF IRON ORE SHARING CONTRACT BETWEEN JINDAL STEEL AND SARDA MINES

Odisha government moves the Supreme Court against an order that allowed Jindal Steel and Power to lift iron ore from Thakurani mine of its supplier Sarda Mines.

Odisha government on Wednesday moved the Supreme Court against an order that allowed Jindal Steel and Power Ltd (JSPL) to lift iron ore from Thakurani mine of its long-term supplier,

Sarda Mines Pvt. Ltd.

JSPL has been sourcing iron ore from Sarda Mines for its Barbil and Raigarh factories. The mine is currently non-operational for requirement of clearances.

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A bench headed by Justice Dipak Misra sought details of the contract between Sarda Mines and JSPL regarding iron ore sharing and asked the Odisha government to produce relevant files in court.

The Odisha government had challenged an order passed by the Odisha high court giving JSPL access to 12 million tonne of iron ore from Sarda Mines. They claimed that this could not be allowed without an environmental clearance under the Mines and Minerals (Development and Regulation) Act, 1957.

Advocate Prashant Bhushan, whose NGO, Common Cause had initiated several of these cases against the mining companies and government, contended that when the Odisha high



court was hearing the case, it was not brought to its notice that the apex court was also hearing cases related to mining in Odisha.

The iron ore in question was extracted when the mine was operating, but when apex court restrained 102 mining leaseholders from carrying on any operations in Odisha in May, it also banned all mining related activities.

The apex court is currently hearing a batch of cases dealing with illegal mining in Odisha and is also overseeing the process of reopening of the mines it had closed down in 2014.

INDIA SECURES SEABED MINING RIGHTS

The International Seabed Authority and the Government of India have signed a 15-year exploration contract for polymetallic sulfides.

The contract was signed on Monday in New Delhi, India by the Secretary-General of the International Seabed Authority, Nii Allotey Odunton and Dr M Rajeevan, Secretary of India's Ministry of Earth Sciences.

The contract signing formalizes India's exclusive rights for exploration of polymetallic sulfides in the allotted area in the Central Indian Ridge and South West Indian Ridge in the Indian Ocean.

The application area, located in the central Indian Ocean, covers 10,000 square kilometers (3,800 square miles) and

is grouped into five clusters, each containing 15 to 30 blocks. The application area is confined within a rectangular area not exceeding 300,000 square kilometers in size and where the longest side does not exceed 1,000 kilometers in length.

The Ministry says it will enhance India's presence in the Indian Ocean where other players like China, Korea and Germany are active.

Sulfides containing iron, copper, zinc, silver, gold and platinum are precipitates of hot fluids from upwelling hot magma from deep interior of the oceanic crust discharged through mineralized chimneys. They have attracted worldwide attention for their long term commercial as well as strategic values.

The International Seabed Authority, which has its headquarters in Kingston, Jamaica, was founded in November 1994. It is an autonomous international organization established under

the 1982 United Nations Convention on the Law of the Sea, and the Authority has been entrusted with the implementation of the "common heritage of mankind" which applies to mineral resources beyond the limits of national jurisdiction. This upholds a vision of sustainable development of mineral resources in the international seabed area and the sharing of benefits and responsibilities for all States, including the land-locked and geographically disadvantaged States.

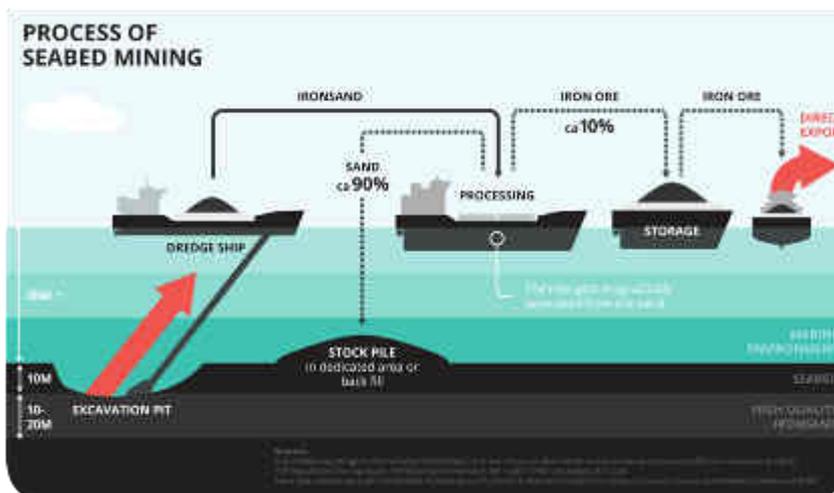
Ready for Commercialization

The commercialization of marine minerals in areas beyond national jurisdictions is well within reach, said Odunton earlier this year. He said the Authority was embarking on the road to commercialization of marine minerals, and though

there were still major obstacles to be overcome, the goals "are well within reach and are attainable in the foreseeable future". One of the challenges is proving that deep-seabed mining was feasible and could be achieved in an environmentally sustainable manner. Another challenge is the adoption of an exploitation code that is transparent and flexible enough to allow for adjustments to its environmental provisions for new information and advances in technology to be incorporated into it.

In November 2015, a contract for exploration for cobalt-rich ferromanganese crusts with the Companhia de Pesquisa de Recursos Minerais was signed in Brasil, and in March 2016, a second contract for exploration for polymetallic nodules was signed in New York with U.K. Seabed Resources. Also this year, a contract was signed for exploration for polymetallic nodules with the Cook Islands Investment Corporation. It is anticipated that a pending

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contract with China Minmetals Corporation will also be signed during 2016.

Mineral Formation

The first discovery of polymetallic nodules occurred in 1873 during a voyage by HMS Challenger. The vessel dredged up "several peculiar black oval bodies which were composed of almost pure manganese oxide." In 1965, J. L. Mero studied the economic possibilities of manganese nodules mining and predicted that the manganese nodule mining should be a sound business proposition in about 20 years.

Subsequently, it was discovered that the nodules cover vast areas of the ocean floor but are more abundant in areas off the west coast of Mexico, the Clarion-Clipperton Fracture Zone, in the Central Indian Ocean Basin and in the Peru basin.

The nodules are composed mainly of manganese, iron, silicates and hydroxides. However, it is the trace metal contents such as

nickel, copper, cobalt, molybdenum and rare earth elements that are attracting most interest.

The nodules vary in size from micro-nodules to about 20 centimeters (eight inches), the most common size being two to eight centimeters (one to three inches). They occur abundantly as two dimensional deposits at the unconsolidated sediment-water interface and sometime as scantily buried in sediments.

The deposits of economic importance occur mostly at four to six thousand meters depths in areas of extremely low sedimentation rate. Sediment accumulates at the rate of a couple of centimeters every 1,000 years, and the modules can take a million years to grow by a few millimeters.

The nodules require a nucleus to start forming. This nucleus could be anything, varying from a piece of pumice, a shark tooth, old nodule piece, basalt debris or even microfossils like radiolaria and foraminifera.

HCL AND CMDC TO CONDUCT MINING OPERATIONS IN CHHATTISGARH, INDIA

"HCL will have a 74% equity stake in the new company."

Hindustan Copper (HCL) has signed a joint venture (JV) agreement with Chhattisgarh Mineral Development (CMDC) and PSE of State Government of Chhattisgarh to conduct mining operations in the Indian state.

HCL is a Miniratna Category-I company under the administrative control of the Ministry of Mines, Government of India.

The newly formed JV company will carry out exploration and



mining of copper ore in Chhattisgarh state. HCL will have a 74% equity stake in the new company and the remaining 26% would be held by CMDC.

HCL is involved in exploration and production of copper ore, as well as refining, smelting, production of copper cathode and saleable products.

The collaboration will help boost copper exploration results in the state. It will also bolster India's raw material security.

IRON ORE HAS SURGED YET TOP MINER IN INDIA IS CUTTING PRICES

India's top iron ore miner is feeling the squeeze despite a global rally in the price of the steel-making material.

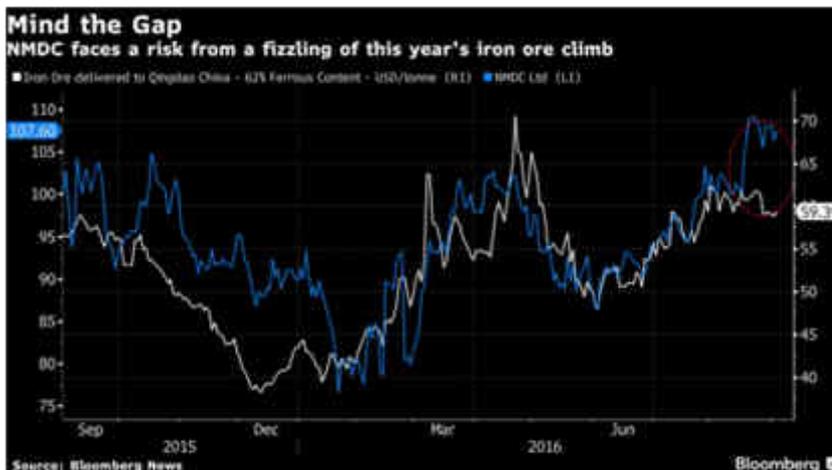
NMDC Ltd. has cut prices about 6 percent in 2016 even as iron ore climbed 36 percent internationally. Challenges include record domestic supplies, moderating local steel demand and transport costs on India's clogged railway.

"Transport costs are prohibitive," T. R. K. Rao, the commercial director at NMDC, said in an interview on Aug. 31. "The answer to this is to have discussions with Indian railways to rationalize freight."

NMDC has 6 million tons of iron ore lying around, Rao said. That's part of a record overall stockpile in the industry in Asia's

third-biggest economy. Worse yet for Indian miners, global prices may weaken as demand for steel eases in China, the biggest producer of the alloy. Rao said he's trying to see how to reduce NMDC's logistics costs to help cope with the current outlook. The company faces risks from state governments' plans to auction iron ore mines in Odisha and Karnataka. India's second-biggest steelmaker, JSW Steel Ltd.,

which buys a major chunk of its ore from NMDC, plans to bid for mines in both states. (Continued on Page 15)...



"The new incremental domestic supplies will compete with NMDC's iron ore and weigh on pricing," Chintan Mehta, an analyst at Sunidhi Securities & Finance Ltd., wrote in an Aug. 16 note.

NMDC's net income dropped 30 percent to 27.1 billion rupees in the three months through June, according to data compiled by Bloomberg News.

The stock has declined about 12 percent in the past three years, compared with a 50 percent advance in the benchmark S&P BSE Sensex Index. NMDC fell 0.6 percent in Mumbai on Tuesday, bucking the Sensex's 1.6 percent climb.

India's government is aware that there are "piles of iron ore" lying unused in states such as Jharkhand and Odisha, Mines Secretary Balvinder Kumar said in an interview on Aug. 19 in New Delhi.

The Federation of Indian Mineral Industries pegged total surplus stockpiles in the biggest producing states of Odisha, Karnataka, Jharkhand and Goa at roughly 196.20 million tons at the start of the current financial year on April 1. That's up 35 percent from a year earlier, according to the data.

The federation estimates India extracted 139.73 million tons in 2015-16 and consumed 101.82 million tons.

Supply is rising partly because merchant miners have until 2020 before their leases expire under India's new mines policy, prompting them to extract to "the full potential," according to Ashish Kejriwal, an analyst at Elara Securities (India) Pvt.

One solution may be exports: India is looking at whether to scrap a 30 percent export tax on higher grade ore after lobbying by the mining industry.

INDIA'S FIRST COPPER MINE AUCTION IN RAJASTHAN HIT THE SKIDS

India's first copper mine auction has hit the skids with few takers for the mine licence in Ajmer district offered by the Rajasthan state government.

The state government had issued a notice inviting tender (NIT) for awarding composite copper mine licence in Ajmer district. A composite licence holder conducts the geophysical exploration of the area to find out the exact reserve of the mineral and starts mining later on.

"Technical bids for four limestone blocks and a copper block called Srinagar-Mohanpura-Pharkiya in Rajasthan were opened on 26 August. Except for one limestone block, in rest of the blocks less than three bids have been received," a senior Union government official said on condition of anonymity.

Along with the copper block, Rajasthan had also floated NITs for grant of mining leases for four limestone mines in the districts of Chittaurgarh and Nagaur with total reserves of 613.58 million tonne (MT).

According to the model tender document issued by the Rajasthan government, there is a provision which states that in the event of technically qualified bidders being less than three, no one shall be considered to be a qualified bidder and the auction process shall be annulled.

This comes at a time when India's first diamond mine auction in Madhya Pradesh was also declared void on account of only two companies clearing the technical qualification round, as reported by InfraCircle on 29 July.

The Rajasthan government had issued a notice inviting tender (NIT) on 19 July for awarding composite copper mine licence in Ajmer district.

Confirming the development, a state government official, who also did not want to be named, said the state government may float fresh NITs to bid for the deposits.

The Mines and Minerals (Development and Regulation) Amendment Act, 2015 (MMDR) allows auction of mines

bearing minerals excluding coal and lignite by states. A total of seven mines have been auctioned in Jharkhand, Odisha, Chhattisgarh and Andhra Pradesh under MMDR.

The copper mine auction cancellation may also impact the government's plan to increase mineral production by 30-35% every year to contribute an additional percentage point to the country gross domestic product (GDP) over the next two-three years.

At present, mineral production contributes 2-2.5% to India's GDP.

While the country's GDP grew at 7.1% in the June quarter, the Reserve Bank of India expects it to expand at 7.6% in 2016-17.

The above-mentioned copper block in Rajasthan is spread over an area of 484.59 hectares and has geological reserves of 1.12 MT of copper ore.

Queries emailed to the spokespersons of the ministry of mines, and department of mines and geology of Rajasthan government on 5 September remained unanswered.

Experts believe that low deposit in the mines and depressed prices is a matter of concern for miners.

"The first and foremost reason for less interest in these mines is that deposits are small as well as copper prices have been depressed during the last six months," said Naresh Chandra Pant, professor at department of geology, University of Delhi.

As on 3 September, copper price on the London Metal Exchange (LME) was \$4,600 per tonne.

Comparatively, the average LME copper price during financial year 2015-16 was \$5,215 per tonne.

India's total copper ore resources are estimated at around 1,558.46 MT.

The size of the Indian copper industry is around 500,000 tonnes, which as a percentage of the world copper market is only 3%.

AUSTRALIA BUSINESS SPENDING SHOWS SIGNS OF LIFE OUTSIDE MINING

The Australian economy is also likely to get some support from planned infrastructure investments by Australia's state governments, helping fill the chasm left by the mining sector.

Australian business investment tumbled again last quarter as miners continued to cut back following their decade-long boom, but an upgrade in spending plans for this year provided early signs of a long-awaited recovery elsewhere. The lift in planned investment will give some comfort to the Reserve Bank of Australia (RBA) which is counting on a stronger pick up in the broader economy after cutting its cash rates twice this year to a record low 1.5 per cent.

Thursday's data from the Australian Bureau of Statistics (ABS) reported investment fell 5.4 per cent to A\$28.71 billion (\$21.59 billion) in the second quarter. Yet spending on equipment, plant and machinery rose 2.8 per cent, with the non-mining sector driving the growth. New investment in manufacturing climbed 13 per cent even as mining dived 16 per cent. "There are gradual signs of the rotation that the RBA is looking for," said JP Morgan economist Ben Jarman.

"I think particularly today's capex data will give the RBA a little bit of heart that there's still some transmission from what they've done already.

That's supporting the non-mining economy to some extent." Spending plans for 2015/16 came in at A\$105.17 billion, 15.2 per cent higher than the previous estimate for the year and above the A\$97 billion analysts had looked for.

Resource-rich Australia has been struggling with a global slump in commodity prices which has kept economic growth to below-par levels for going on four years. A slump in business investment subtracted no less than 1.9 percentage points from gross domestic product (GDP) in the year to March. Without that drag,

Australia's A\$1.6 trillion economy would have expanded at a breakneck pace of 5 per cent. Figures due next week are generally expected to show the economy grew around 0.4 per cent last quarter, from the first quarter when it rose a surprisingly brisk 1.1 per cent.

The economy is also likely to get some support from planned infrastructure investments by Australia's state gov-

ernments, helping fill the chasm left by the mining sector. A recovery in investment would be welcome, given continued weakness in the country's retail sector. Data out on Thursday showed retail sales were flat in July although analysts had hoped for a rise of around 0.3 per cent. The main culprit was department stores where sales dived an unusually steep 6.2 per cent.



JSW STEEL BAGS 31.5MT IRON ORE MINE IN KARNATAKA

JSW Steel has won the Rama Rao Paol mine among the 15-odd mines in the ongoing iron ore auctions in Karnataka .

JSW Steel has won the Rama Rao Paol mine among the 15-odd mines in the ongoing iron ore auctions in Karnataka, reports CNBC-TV18's Nigel D'souza.

The mine has reserves of 31.5 MT approximately. Other bidders for the mine include BMM Ispat, Kalyani Kirloskar, Vedanta and MSPL. Nitty-gritties like the bidding price which helped JSW Steel are unknown as yet. The mine has reserves of 31.5 MT .



JSW STEEL, VEDANTA, NMDC AMONG 9 FIRMS TO QUALIFY FOR KARNATAKA IRON ORE MINES AUCTION

India's largest iron ore producer National Mineral Development Corp. Ltd (NMDC), JSW Steel Ltd and Anil Agarwal-controlled

Vedanta Ltd, among others, have technically qualified to take

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part in Karnataka's iron ore mine auctions.

Others who have technically qualified include MSPL Ltd, Kalyani Steels Ltd, Kirloskar Ferrous Industries Ltd, BMM Ispat Ltd, state-owned Kudremukh Iron Ore Co. Ltd (KIOCL) and SLR Metaliks Ltd.

These 14 deposits have an estimated 127 million tonne (MT) of iron ore reserves. India's iron ore production for financial year 2015-16 rose to an estimated 135 MT compared with 129 MT the previous year.

According to information available on the website of Karnataka government's mines and geology department, the technical bids for 14 'C' category iron ore mines were opened on 15 September. However, technically qualified bidders have been announced only for seven iron ore deposits, with the remaining seven blocks finding no takers.

These mines, referred to as category C mines, are primarily located in Bellary and Chitradurga districts.

The Supreme Court had cancelled the leases of 51 iron ore mines in the state in April 2013 wherein it found massive irregularities in terms of environment degradation. These mines were then classified as category C mines by the Supreme court-appointed Central Empowered Committee. Those with few irregularities have been classified as category A mines.

"It is informed that the training and mock auctions for the technically qualified bidders on e-auction platform by MSTC will be held on 26 September," Karnataka government's mines and geology department said in a 22 September notification.

MSTC Ltd, a central government undertaking which provides

electronic platform for mineral auctions.

The Mines and Minerals (Development and Regulation) Amendment Act, 2015 (MMDR), which was notified in March 2015, allows states to auction mines bearing minerals excluding coal and lignite. However, mineral auctions have not picked up speed.

Queries emailed to the spokespersons of Karnataka government's mines and geology department, NMDC, JSW Steel Ltd, Vedanta Ltd, MSPL Ltd, Kalyani Steels Ltd, Kirloskar Ferrous Industries Ltd, BMM Ispat Ltd, KIOCL and SLR Metaliks Ltd. on 25 September remained unanswered.

The state government had earlier postponed the auction of these iron ore deposits after potential bidders raised concerns regarding high stamp duty and registration tax.

Experts believe that big firms have evinced interest due to high iron ore grades in these mines.

"Initial results clearly show that companies have shown interest in bigger deposits, rather than smaller ones. These mines will be profitable as it has higher grades of ore. Also, smaller deposits will be taken up by smaller players in next tranche," said Naresh Chandra Pant, professor at department of geology, University of Delhi.

India's iron ore production during the first quarter this financial year went up 43% to 48.23 MT compared with 33.71 MT during the first quarter of the last financial year.

India, which accounts for about 4% of the global iron ore production, has recently seen a boost in output with the government taking a slew of measures, including waiver of export duties and pruning of railway freight charges.

SAIL FAILS TO GET MINE DEVELOPER FOR ROWGHAT

Steel Authority of India Limited (SAIL) has called for a re-tender for developing and operating Rowghat iron ore in Chhattisgarh.

The move was necessitated after failing to get Mine Developer and Operator (MDO) for the Rowghat project in the tender floated earlier last year. The state-run steel maker had called for a re-tender early this month inviting proposals from miners across the globe till October 27. The SAIL board in 2015 had given in-principle approval for engaging MDO for developing and operating open cast Rowghat iron ore mine with a capacity of 14 million tonnes per annum (mtpa). The company would sign a mining service agreement with the miner for a period of 30 years; of which 5 years would be for construction and 25 years for mining. A few firms participated in the tender earlier and attended the pre-bid conference. Senior SAIL officials who were part of the process told Business Standard that the bidders raised a few issues; prominent include the Naxalites movement in the area.



The pocket had been endowed with high grade of iron-ore. The SAIL was allotted deposit-F spread over 2028.79 hectares in the Naxal-infested pocket straddling between Kanker and Narayanpur districts. The deposit has an estimated iron-ore reserve of 511 million tonnes.

Since reserve in SAIL's Dalli Rajhara mines feeding its flagship unit Bhilai Steel Plant (SAIL) had been fast depleting, Rowghat project had been crucial for the company. The delay in the commissioning of Rowghat mine would affect the expansion plan of SAIL in general and BSP that plans to enhance capacity to 7.5 mtpa from current 4.6 mtpa.

The earlier bidders however quit despite the security guarantee. The para-military forces have been deployed in the area where road and rail construction work is going on at war-foot. The SAIL officials allegedly failed to convince the bidders.



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