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STATES GEAR UP TO AUCTION 70 MINERAL BLOCKS IN FY18

Mineral rich states are gearing up to auction 70 mineral blocks in 2017-18. Tamil Nadu tops the list with 12 blocks ready to go under the hammer in the next financial year (FY), followed by Maharashtra that has offered to auction 10 mineral blocks.

Odisha, the largest iron ore producer, has three iron ore blocks to be put to auctions in FY18. Together, these three iron ore blocks have a combined reserve exceeding 200 million tonne.

On February 3, the coordination cum empowered committee of the Union mines ministry will review the auction preparedness by the states. Gold, limestone, iron ore, bauxite, graphite, molybdenum, manganese and emerald blocks are poised to be auctioned across states like Tamil Nadu, Maharashtra, Odisha, Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Jharkhand and Rajasthan.

The ministry of mines has already facilitated the auction process by extending support from its offices – Indian Bureau of Mines (IBM), Geological Survey of India (GSI) and PSUs like MSTC, Mecon Ltd, Mineral Exploration Corporation Ltd (MECL) and SBI Caps.

Till now, 21 mineral blocks have been auctioned. States are required to indicate details of the status of such blocks to the Union mines ministry on issue of Letter of Intent (LoI), upfront payment if any, mining plan and preparedness for environment clearance and forest clearance. The ministry has

developed a portal – Transparency, Auction Monitoring and Resource Augmentation (TAMRA) – which is being launched shortly.

According to the estimates of the Union mines ministry, these blocks, after auctions, have already fetched incremental revenue of Rs 47,551 crore. Total revenue from the auctioned blocks is expected to be in upwards of Rs 60,000 crore.



Auctions of mineral blocks have kicked off under the amended Mines & Minerals- Development & Regulation (MMDR) Act, doing away with the practice of discretionary allotments.

A report on achievements of the mining sector by the ministry and the Department of Industrial Policy & Promotion (DIPP) says major policy interventions to promote exploration

and enhance private sector participation has aided in mining sector's growth. Mineral production logged nine per cent growth in FY16, helped by increased production of iron ore (25.85 per cent) and chromite (25.9 per cent). Exports of iron ore and concentrates of copper and chrome also rose significantly last FY.

The amended MMDR Act has established the National Mineral Exploration Trust (NMET) wherein lease holders are needed to contribute a sum equivalent to two per cent of the royalty to the NMET. Under NMET, Rs 201 crore has been deposited at the end of May 2016. The Centre has approved 13 mineral exploration projects in the states of Madhya Pradesh, Odisha, Maharashtra, Chhattisgarh, Karnataka and Jharkhand.

INDIA MULLS REVIVING OLD GOLD MINES

India is planning to revive a cluster of colonial-era gold mines – shut for 15 years but with an estimated \$2.1 billion worth of deposits left – as the world's second-largest importer of the metal looks for ways to cut its trade deficit, officials said.

State-run Mineral Exploration Corp has started exploring the reserves at Kolar Gold Fields, in the southern state of Karnataka, to get a better estimate of the deposits, according to three government officials and a briefing document prepared by the federal Mines Ministry that was seen by Reuters.

The Ministry has also appointed investment bank SBI Capital to assess the finances of the defunct state-run Bharat Gold Mines Ltd, which controls the mines, and the dues the company owes to workers and the authorities, said the officials, who are involved in the process. India, the world's biggest gold importer behind China, spends more than \$30 billion a year buying gold

from abroad, making the metal its second-biggest import item after crude oil.



Gold is a mainstay of Indian culture, serving as the primary vehicle for household savings for hundreds of millions of people in Asia's third-largest economy. Gold jewellery is considered one of the best gifts for gods and humans alike, and the spike in demand during the wedding season that peaks in November and December can move global prices. Balvinder Kumar, the top civil servant at the federal Mines Ministry, said getting the Kolar mines going would help the government bring down its import bill.

Initial Mineral Exploration Corp. estimates show reserves worth \$1.17 billion in the mines, according to the briefing document. Another \$880.28 million in gold-bearing deposits is estimated left over in residual dumps from previous mining operations.

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“These mines have huge potential,” Mr. Kumar said, adding that the initial estimates were conservative. “We feel there is more. The whole belt has a lot of potential in terms of untapped gold.”

The document does not give an estimate of how much it would cost to restart the mines. India imports 900 tonnes to 1,000 tonnes per year, but local gold output is miniscule, at 2 tonnes to 3 tonnes per year.

The Kolar fields, located about 65 km northeast of the technology hub of Bengaluru, are among the world’s deepest gold mines.

Mining was started there by John Taylor and Sons, a British engineering firm, in 1880, when Britain ruled India. The area, now mostly a ghost town, still has the colonial-era clubs, houses and even a golf course that were built for its executives.

India took over Kolar soon after independence in 1947, but struggled to profitably mine the reserves. In 2001, Bharat Gold was

forced to cease operations due to mounting losses, the result of a large, unproductive workforce and dated, economically unviable methods of mining.

Over the next 15 years, successive federal and state governments have tried to revive the mines or to sell them off, often disagreeing on the course of action and taking their disputes to the courts.

The two have to agree because the federal government has the “surface right” over the mines, but Karnataka is responsible for granting the licence to operate there. In 2013, Karnataka let Bharat Gold’s mining lease expire.

Now, both the Central and the state governments want to have another go at reviving the mines, hoping to learn from past mistakes, according to the briefing document and the officials.

The federal government has already sent a request to Karnataka to renew Bharat Gold’s mining lease.

ILLEGAL MINING EATING INTO PANNA, INDIA’S ONLY DIAMOND PRODUCING REGION

Ask anybody in Panna about diamond mining and the response will be: “Number 2 or Number 1?” For locals, the former is illegal and the latter legal.

In the country’s only diamond producing region, situated nearly 400 km from Bhopal in northeastern Madhya Pradesh, illegal mining is rampant, with even Gond tribals, besides other locals, being involved in the trade.

Extending 240 km along the Vindhya ranges in Bundelkhand region, diamond deposits can be found in forests, farms and government land.

While the National Mineral Development Corporation (NMDC) operates India’s only mechanised diamond mine at Majhgawan in Panna, the government or local administration leases 8x8 metre plots of private or revenue land to prospective miners in the rest of the district.

Diamond hunters dig for gravel, wash it in water and look for the sparklers in the gravel. Once a lessee finds a diamond, he or she has to deposit it at the diamond office, where all diamonds are valued and then auctioned quarterly, with state government getting a royalty of 11.5 % on the sale value. The rest goes to the lessee after deduction of taxes.

Last year, 838 carats of diamond from 952 8x8m mines was submitted at the Panna diamond office.

But many claim this is significantly less compared to the overall diamonds unearthed in the whole of Panna. Diamond hunters sell the best quality gems directly to middlemen who send them to traders in Surat, Mumbai, Hyderabad and elsewhere.

People associated with the trade cite the slow auction process, government apathy and huge royalty as reasons for taking to the illegal route.



In Forests

Diamonds found in forests are much sought after as they are generally big in size and found near the surface, according to locals. After the forest department notified the protected areas, mining has been banned in the jungles.

However, HT learnt of illegal mining in Hurra Chowki forest area close to Panna Tiger Reserve. Gond tribals, engaged in the activity, fled the spot on seeing the HT team.

They had hidden their tools like baskets, shovels and sieves under rocks alongside a stream. At many points along the stream there were fresh signs of digging, cleaning and drying of the diamondiferous gravel.

In Babupur forests, on the outskirts of Panna town, pits were scattered across the terrain.

CRACKING THE CODE

Missiles, tanks and contingents that have featured at Republic Day celebrations over the years in the national capital

While NMDC operates India’s only mechanized diamond mine at Majhgawan mine in Panna, in the rest of the district shallow mines are leased to prospective miners on an annual lease by the govt.

Last year, 838 carats of diamonds were unearthed from 952 leased shallow mines and submitted in the office.

The customary practice of shallow mining by local miners in Panna has been carried out here for a long time.

With a view to recognize and regulate the shallow diamond mining, MP government via a circular in May 2004 notified Heera Parichalan Nidhi Rules, 2000.

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According to these rules, the 4 to 5 inch thick diamondiferous gravel layer is found anywhere between 2 feet to 20 feet.

The diamonds are deposited at Panna office and auctioned four times a year.

Majhgawan mine has an incidence of roughly 10 carats per 100 tons of tuff material and a capacity of unearthing 84,000 carats per year.

A Gond tribal in Hurra Chowki, on condition of anonymity, told HT that they targeted the forests as the chances of finding big diamonds close to the surface was more here.

"We are poor people. (In forests) We don't have to pay any money to land owners or the officials. But there is always this danger of getting caught by forest officials. Being poor and with nothing to lose, we go for this gamble," he said.

Field director, Panna Tiger Reserve, Vivek Jain said appropriate action would be taken against violators.

"We make best possible efforts to ensure there is no mining activity in the forest areas or inside the buffer zone," he said.

On government land

At Kamla Bai ka Talab area on the outskirts of Panna town, where shallow mines have been given on lease, some people were engaged in diamond mining despite expiry of leases as on December 31.

The officials at the diamond mining office in the collectorate told HT that they had received around 50 applications for renewal of leases but the same were yet to be granted.

Though leases are granted for 8X8 metre plots, HT found the shapes and sizes varied, with many quite larger than the stipulated size and some as deep as 20 metres.

Though mines have to be filled up, pockmarked terrain of Panna showed it was not the case most of the time.

On farms

Sanat Kumar, a veteran diamond digger in Itwa and Brajpur, told HT that on farm mines, the land owner gets about 25% of the sale value of diamond, if found.

So, the miner, who has already invested Rs 15,000 - 50,000 in

labourers, does not want to lose further money on royalty and taxes. If caught, these miners use the excuse that they are digging a well.

Similar illegal mining was being carried out in Dalhan Chowki village close to Panna Tiger Reserve.

Here, people who got the lease for mining on one plot dug up adjoining areas also.

"People here think it is their land and these are their diamonds. Why should outsiders get lion's share in the profits?" asked an elderly Shyam Lal.

Middlemen

After mining, the sale is done through middlemen, who frequent the area.

"Dalal fix hotey hai (middle men are always in the loop). When they find a good diamond, they inform them on phone and then a deal is struck after on-spot check of the diamond's quality," a 34-year middleman from Itwa told HT wishing anonymity, adding that they get 2% of the cut.

90% diamond sold illegally: minister

Local MLA and minister Kusum Mehadele alleged that roughly 90% of the diamonds unearthed from Panna are smuggled out, especially with regard to big diamonds.

In August last year, a 72-carat diamond, almost the size of a gooseberry, was found by a villager in Panna. And expectantly it was sold illegally. It would have fetched around Rs 40-50 crore, she said, adding that after she wrote to chief minister Shivraj Singh Chouhan, an FIR was registered in the matter.

Staff shortage

Diamond officer, Panna, Ratnesh Dixit told HT that with ten sepoys, they were trying their best to keep a tab on over 950 mines in the district.

"Right now, we don't have a diamond inspector (in the past there were three diamond inspectors). In the last two years, we have taken action against eight people for mining violations," he said.

He refuted allegations of rampant illegal mining, saying only people who had to pay to labourers immediately, did so.

INDIA TO EXPLORE MINING POTENTIAL WITH MASSIVE AERIAL SURVEY

The survey will cover more than 200,000 square kilometres across seven states from Rajasthan in the west to the southeastern state of Andhra Pradesh, India's Mines Secretary Balvinder Kumar told Reuters on Monday.

India will launch its biggest aero geophysical survey of minerals next month to unearth deep-seated resources such as gold and copper, as it seeks to develop its mining industry and reduce its dependence on imports. The survey will cover more than 200,000

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square kilometres across seven states from Rajasthan in the west to the southeastern state of Andhra Pradesh, India's Mines Secretary Balvinder Kumar told Reuters on Monday. The data gathered will be made public later this year for local and foreign companies to consider mining in the country. Only a fraction of areas in India with mineral potential has been explored, which has meant that the country imports everything from asbestos and copper to gold and aluminium. "The survey will go a long way in unearthing the untapped resources lying



underneath," Kumar said. "The kind of exploration advanced countries like Australia do, we are nowhere near that. But in three years, we should reach that level." A group of three surveying companies from Australia, Kazakhstan and India will fly eight aircraft from Singapore and New Zealand starting on Feb. 15 to conduct the project, at an initial cost of USD16 million. As well as Rajasthan and Andhra Pradesh, they will focus on the states of Gujarat, Karnataka, Odisha, Jharkhand and Madhya Pradesh.

'ANDHRA PRADESH HAS HUGE GOLD MINING POTENTIAL'

Andhra Pradesh is literally a gold mine! The state has a huge potential for gold mining and is the only state in India where two exclusive gold mines are being set up by an Australian-Indian organisation.

There are known deposits of gold bearing quartz rocks in the Rayalaseema region of AP, including Anantapur, Chittoor and Kurnool, as per experts. Last year at the Partnership Summit in AP, the state government had signed a memorandum of understanding (MoU) with Australian Indian Resources Ltd to commence mining at Kurnool. With the project already on track, the state has inked another MoU with the same firm for mining gold and processing it at Chittoor district.

M Hanuma Prasad, CEO of Australian Indian Resources Ltd, said, "Each Kurnool and Chittoor mining projects are worth Rs 300 crore investment. Both mining units and processing plants would be set up there by Geomysore Services India Private Limited.

At Kurnool's Jonnagiri Gold Project, a detailed feasibility study by experts is going on.

From August this year, construction of the processing plant will

commence while from the last quarter of 2018, commercial production of gold would start."

"As for the Chittoor project, gold resources can be extracted from mineable granite and quartz rocks that occur in combination in Kuppam mandal. Geomysore is pursuing mining lease clearances.



Besides, these two places, Anantapur too shows promise while gold mining is concerned," added Prasad. In the 1980s, all the three countries – India, China and Australia – used to produce around five tonnes of gold annually. Today, India's production has dropped to two-three tonnes per year while Australia and China produce around 250 and 400 tonnes of gold, respectively, per year, chiefly due to leasing out gold extraction and production to private companies in these

two countries, said Prasad.

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MINING CAN TAKE OFF IN GOA ONLY IF MINE-OWNERS CONTROL THEIR GREED, SAYS PARRIKAR

Patrikar said that now mining in Goa has started in a full-fledged manner but within the restrictions imposed by the Supreme Court.

Days after NCP chief Sharad Pawar accused Manohar Patrikar of being responsible for closing down the mining industry in Goa, the former Chief Minister on Tuesday said mining can be successful in the coastal state only if mine owners control their greed. "Goa was having 50 MT extraction annually when people started mining around all the places in Goa. Mining can be successful in Goa if they (mine owners) control their greed," Patrikar told reporters on Tuesday.

The minister also said that now mining in Goa has started in a full-fledged manner but within the restrictions imposed by the Supreme Court.

"May be another, five to ten million metric tons can be added more to the 20 MT extraction cap imposed by the apex court," he said.

Patrikar said the Centre has got funds worth Rs 300 crore which can be used to construct mining corridor for transportation of the ore. Responding to a question on state government's failure to recover the money allegedly involved the money allegedly

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involved in illegal mining, Parrikar ruled out that the total loss to the state exchequer was Rs 35,000 crore as pointed out by Shah Commission.

“The public accounts committee of Goa Assembly headed by me is clear that the loss due to illegal mining is up to Rs 4,000-5,000 crore. The loss which we are measuring is a royalty loss to the state,” he said.

Parrikar claimed that despite having a ban, the state



government had recovered Rs 1,300 crore from mining firms, which was possible only due to rule of the BJP government.

Pawar in a public meeting at Vasco on Sunday night had slammed the Defence Minister for closing down mining industry in the state after he took over the reins in 2012 as the CM.

“People who were dependent on the mining industry were forced to face a bleak future with one decision of Parrikar,” he had said.

ODISHA GOVERNMENT EXECUTES LEASE DEED IN FAVOUR OF 16 MINES

The State Government has executed lease deed in favour of 16 out of the 60 applications pending before it for a fresh mining lease (ML).

Those applicants who could not make it because of delay in obtaining statutory clearances have moved the Odisha High Court seeking a direction to the State Government for reconsideration of their cases.

Informed sources said that 18 applications for grant of mining lease were taken up for consideration by the Steel and Mines department and all of them were approved. However, two applicants did not turn up before the stipulated date of January 11, 2017.

Prominent firms which executed lease deed include Neelachal Ispat Nigam Limited, Prakash Industries, Sree Metaliks Limited, K C Pradhan, Odisha Mining Corporation (OMC), Pradhan Industries, B K Bansal, Manikeswari Minerals and National Enterprises.

Those who have gone to the High Court have contended that getting statutory clearances from competent authorities are beyond their control. Since they have no faults, the state government should be directed to reconsider their applications.

The amended Mines and Minerals (Development and

Regulation) Act, 2015 which stipulated that all mining licences for major minerals be granted through auctions, had a saving clause under Section 10A(2)(C), giving a reprieve to those mining lease (ML) applications approved by the Centre or in favour of which the state governments concerned had issued letters of intent before the new Act.

The 60 applications for fresh mining lease (ML) were saved under Section 10A(2)(C) of MMDR Act, 2015.

Union Mines Secretary Balvinder Kumar during his November 2016 visit to the state had reviewed the progress of ML approval of the pending applications and had requested the Chief Secretary A P Padhi to expedite the lease deed execution for which either Central government approvals were granted or letter of intent (LoI) was issued by the State government.

As per the amended MMDR Act, applications for grant of mining lease would lapse suo motu if the state government failed to execute lease deed in favour of the project proponents before January 11, 2017.

Operation of new mines are necessary in view of the increasing demands of raw materials from the metal industries. Auction of mines takes more time to operationalise the mines because of the delay in getting clearances from the Ministry of Mines and Ministry of Environment and Forest, the sources said.

HOW INDIA'S LARGEST BEACH SAND MINERAL EXPORTER GOT TO WHERE HE IS

S. Vaikundarajan has been accused of large-scale illegal mining, a charge he denies, though he admits to using all sorts of methods to tackle those who stand in his way.

As S. Vaikundarajan bustled into the office of the Chennai bureau of the Economic Times in January 2015 in response to a request for an interview with this reporter, it was hard not to stare. The 58-year-old founder chairman of VV Mineral, the country's largest miner and exporter of rare earth minerals – garnet, ilmenite and rutile – is a crorepati many times over, yet clad in a thin white cotton shirt and a veshti (dhoti in Tamil). His feet were bare. He is polite to a fault and addresses everyone, young or old, with respect. As he began speaking about himself in his booming voice, his audience was enthralled. It is easy to see why “Annachi” (elder brother as he is called by

those who work with him) is both worshipped and feared in his southern fiefdom of Tirunelveli.

“You can go ahead and record this,” he waved, a picture of non-chalance. “Ask me anything, I am prepared to answer.” Money seems to be second nature to Vaikundarajan. He remembers the exact amounts of deals struck even two decades ago. Ambition burns bright in him as he details how he single-handedly pushed for and changed the Indian government's rare earth mining policy about two decades ago, despite the public sector Indian Rare Earths Limited (IREL) vehemently opposing the move.

“I asked Thiruvattar MLA Appu Nadesan, a friend of mine, to write a letter to the Ministry of Mines asking them to allow private players to enter rare earths mining,” said Vaikundarajan. “The

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ministry directed the Indian Bureau of Mines to study the issue and give them a report. They studied the whole area for nine months and gave a detailed report on how many tonnes of minerals was wastefully going back un-utilised into the sea," he said.

Vaikundarajan and his aide Yesu Selvan then decided to head to Delhi. "Appu Nadesan was a naïve man, he would never lie," smiled Vaikundarajan. "He asked me to join him in the meeting. Both Yesu Selvan and I went in the guise of his PAs and spoke in the meeting. IREL said they are protecting their 700 employees by not allowing [the] private sector into the field. Then we convinced them that our mineral wealth is going

away to Sri Lanka through the sea and we are losing out. The minister understood. He said India's mineral wealth should not go to another country and that private players too should mine. That is how the policy got changed," he explained.

Vaikundarajan's telling of the tale is indicative of the way he handles his chosen profession. Rivals abound but a rustic grit and quick thinking have helped Annachi either crush them or make them join forces with him. So much so that out of a total of 64 licences to mine beach minerals in the country, 45 belong to Vaikundarajan. Most others belong to his brothers. And he said that his rivals have fuelled him and made him who he is.

SUPREME COURT TO HEAR 2007 GOA MINING CASE

The report also stated that illegal mining was being carried out in collusion with the government including the then chief minister Digambar Kamat which pegged the losses to the state at about Rs. 35,000 crore.

The Supreme Court will on Monday hear the 2007 Goa mining case on the Public Interest Litigation (PIL) filed by senior advocate Prashant Bhushan. Earlier in October 2012, the apex court suspended all iron ore mining and transportation in the state following a report submitted by Justice M.B. Shah Commission, which found that millions of tonnes of iron ore was illegally

mined by a dozen mining companies.

The report also stated that illegal mining was being carried out in collusion with the government including the then chief minister Digambar Kamat which pegged the losses to the state at about Rs. 35,000 crore.

The Supreme Court later in May 2013 relaxed its order allowing mining with an annual cap of 20 million tonnes. In 2015, the state government renewed 88 mining leases, all owned by the very same lease-holders who were involved in illegal mining.

ENDING YEARS OF CUTS, MINERS ARE EXPLORING AGAIN: CAUTIOUSLY



After years of cutting budgets and squeezing existing mines, global mining giants are again scouting for new deposits: industry analysts say 2017 will see the first increase in spending on exploration in five years.

Exploration spending came under pressure when commodity prices tumbled and investors pushed miners to be less profligate, especially on large new projects and in untested locations.

Spending last year was down two-thirds from a 2012 peak of \$21.5 billion, according to S&P Global Market Intelligence.

But mining companies say that is now changing as supply concerns return, market prices recover and deals for top-tier, low-

risk mines in key commodities remain elusive.

S&P forecasts more will be spent this year in safe-bet countries such as the United States, Canada and Australia, where operating risks are lower and technology is cutting-edge.

The focus is on commodities like copper, which could slip into deficit, and on technology - to allow mining companies to find more faster, and with fewer people.

"At quiet periods in the cycle, we will typically press out into non-OECD countries," said Stephen McIntosh, group executive for growth and innovation at Rio Tinto (RIO.AX) (RIO.L), referring to

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the 35-member Organization for Economic Cooperation and Development. "But at the moment, we're focusing on the OECD, predominately the Americas, and predominately for copper."

Rio Tinto intends to spend \$180-\$200 million on exploration this year, and BHP Billiton (BLT.L) (BHP.AX) is boosting its exploration spending by about a third after four years in decline, mainly to find more oil and copper.

"We're looking for copper, zinc and nickel. We aren't against making acquisitions, but the assets that we're looking for just aren't there," said Andrew Michelmore, managing director of Hong Kong-listed MMG Ltd (1208.HK). "That leaves exploration."

Overall, exploration spending in Australia alone - the second-highest behind Canada - rose to A\$113.8 million (\$86.2 million) in the third quarter of 2016 from A\$87.1 million in the first three months.

Drilling on new ground, a key indicator of exploration activity, increased 75 percent in last year's third quarter from the second quarter, according to Australia's Association of Mining and Exploration Companies.

CHEAPER, FASTER, DEEPER

Key, however, is the need to improve the hit rate, after spending ballooned during the boom but failed to translate into more discoveries. Rio Tinto reckons a Tier-1 new, or greenfield, copper discovery is made on average every four years.

Innovations such as speedier drilling analysis and on-site testing can reduce costs, and improved detection can help find ever deeper deposits. Rio Tinto has its own technology that identifies which rocks contain metals worth digging for, while others use underground drones, 3D mapping and robots to do much of the grunt

work. Companies that supply exploration equipment - from earth movers and drills to high-tech mapping services - are gearing up for more business.

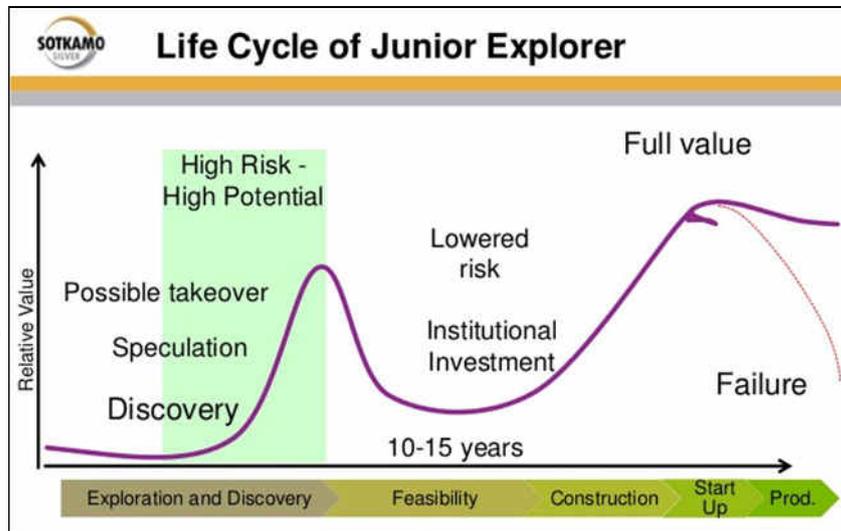
"We've done a lot more training, more hiring, getting prepared for an upturn," said Denis Larocque, President of Canada-based Major Drilling

Inc (MDI.TO), the world's second-biggest minerals drilling company.

UK-based Adrok Ltd, in which Teck Resources Ltd (TECKb.TO) owns a minority stake, expects to book the most orders in years from mining majors and explorers, thanks to its atomic dielectric resonance technology, which uses electromagnetic waves to map layers and types of underground materials.

But the pressure is still on when it comes to costs.

Commodity prices have risen enough to spur greater investment in exploration, but no one is disregarding costs yet, says Adrok Chief Operating Officer Alan Goodwin. "There's more appetite for them to try new things, whereas before they were shelving a lot of projects.



INDIAN STATE LEASES LAND FOR URANIUM EXPLORATION

Meghalaya is inviting companies to bid on 15,000 metres of core drilling

As a uranium miner, India isn't in the same league as the world's top producers, but its status could rise if upcoming exploration programs are successful.

The Indian state of Meghalaya recently invited companies to submit bids for exploration work on lands it has put up for lease. The work amounts to 15,000 metres of core drilling in Nongjri Plateau in South West Khasi Hills district, with boreholes of depth varying from 450 to 550 m. Firms will be allowed to participate in both technical and commercial bids, and have until January 30 to submit tenders.

India is estimated to have around 20,000 tonnes of uranium deposits, scattered throughout a handful of areas

According to INN, India is estimated to have around 20,000 tonnes of uranium deposits, scattered throughout a handful of

areas. In January of last year the department of atomic energy and atomic minerals directorate for exploration and research launched a survey for exploring uranium and other precious atomic mineral deposits in South Rajasthan, notes Times of India.

Back in 2011 a four-year study indicated that the Tummalapalli mine near the Indian state capital Hyderabad, hosts 49,000 tons of uranium, putting it in the big leagues of uranium mines. By comparison, the largest uranium mine in the world, Cameco's McArthur River mine in northern Saskatchewan, was expected to produce 20 million pounds in 2016.

The low-grade uranium deposit would feed into atomic plants sought by India to maintain its breakneck pace of economic growth. The country currently gets only 3% of its power from nuclear.

The Hindu reported in 2014 that uranium from Tummalapalli

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was being used in atomic power stations and defense laboratories across the country.

In 2015, seeking to bolster its supplies of uranium in a push for greater nuclearization, India signed an agreement to buy yellowcake from Australia.

While India faced Western sanctions in 1998 after testing nuclear weapons, the sanctions were lifted after a deal with the United States in 2008 that included safeguards against using the nuclear fuel for weapons production.

According to the World Nuclear Association, India currently has 21 operating reactors with a capacity of 4,780 megawatts,

or 2 percent of India's total power supply. The country plans to increase its nuclear capacity to 63,000 MW by 2032, by adding close to 30 reactors at a cost of \$85 billion, Hindustan Times reported.

India is actively seeking agreements with foreign powers in order to reach that goal, on top of the nuclear agreements it currently has with 11 countries and deals to import uranium from Russia, France, Kazakhstan and Canada.

Concerned about running out of nuclear fuel, in July 2015 India created a strategic uranium reservoir to ensure that its atomic reactors can keep producing electricity without interruption.

COAL INDIA LOSING INTEREST IN UNDERGROUND MINING

Underground mining is increasingly falling off the map of major producer CoalIndia Limited (CIL), despite the company planning to add an estimated 182-million tons a year to its production profile by 2020.

Higher capital costs, the geological parameters of new reserves and the group's inability to stop production from underground mines falling have compelled the miner to plan future incremental production entirely from opencut mines.

Production from CIL's underground mines had been steadily declining from 9% of its total output in 2012 to below 6% in 2016.

According CIL officials, there has been natural depletion of reserves at existing operational underground mines. The absence of contiguous new deposits is said to be a major hurdle to developing new underground mines, as fragmented blocks made the installation of long-wall mining technology unviable in such deposits.

Currently, opencast mines comprise 93% of CIL's total production, although only 42% of the company's 413 operational mines are opencut operations.

However, CIL officials were quick to point out that there was no "official strategic policy" to bury underground mining, despite underground mining losing its prominence in future CIL production plans.

In fact, late last year a business delegation from Poland held preliminary talks with CIL wherein it offered to provide the

latest state-of-the art underground mining technology to India for development of reserves below 300m.

CIL officials said that despite not being in favour of underground mining in the coming years, the method could not be abandoned given the imperatives of country's coal reserve parameters.

It was pointed out that if production of low ash grade coalsuitable for new-generation thermal power plants were to be stepped up, it could be only through underground mining, as 25% of such grades of coal occurred below 300 m and could not be extracted through opencast mining.

However, officials have conceded that several policy thrusts over the past few years to revive underground mining have yielded little positive results.

For example, 18 months ago, the CIL's technical consultancy arm, the Central Mine Planning Development Institute (CMPID), had suggested merging underground mines to achieve more contiguous coal panels. This never materialised, owing to issues with land acquisition and conflicts between various operational subsidiaries of CIL.

The Coal Ministry had also suggested a dual pricing regime for coal, in which coal produced from underground mines would be higher priced to ensure better marginal realisations and higher investment in such mines, but the proposed scheme remains on paper only.

ARCELORMITTAL'S RS 50,000-CRORE MINING PROJECT FAILS TO GET GREEN MINISTRY NOD

Marking a shift from the tone set by the government so far on green clearances for big industry, the environment ministry under Anil Dave has shot down a Rs 50,000-crore proposal from ArcelorMittal for a mining project in the dense Sarandaforest area of Jharkhand.

The move has dealt a blow to ArcelorMittal India's big mining plans for iron and manganese in the state ahead of its lease expiry this month. The Jharkhand government, led by BJP, had given its nod for the project. The company was targeting a 12 million tonnes per annum steel plant in Jharkhand and had

moved Delhi High Court this month to get an early decision on its mining project proposal across 200 acres of forest land.

The forest advisory committee (FAC), the apex clearance body in the environment ministry, called a special consultation to assess the proposal on Monday following orders of the high court to expedite the process.

It refused approval, pointing out that the area under consideration is a reserved forest area and that according to the December

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30 site inspection report, the area was part of the Singhbhum elephant reserve, the first of its kind in the country. The Anil Dave-led ministry's stand on the issue also marks a key change in the position taken by the green ministry under the Narendra Modi regime so far. Critics and activists have continuously alleged that the ministry has accorded far too many forest clearances.

However, it was the previous Congress-led UPA2 regime, with Jayanthi Natarajan as environment minister, that took a controversial decision to permit mining in 500 hectares of forest land in Saranda in 2013. While turning down ArcelorMittal India's proposal, the forest advisory committee said "any decision to allow mining leases or open up new areas in Saranda forest for mining needs to be taken after careful thought, particularly on the likely

adverse effect on the ecology of the area". It pointed out that till a plan for sustainable mining and wildlife management in Saranda is finalised, it was "not desirable for the state government to assign forest land by way of lease in the Saranda forest region". Saranda in West Singhbhum district is one of the densest and pristine forest areas in the country with considerable wild life. FAC had considered the Arcelor-Mittal project in meetings held in January 2014 where it sought a site inspection report before taking any decision.

The company filed a writ petition in the Delhi High Court seeking an order for a decision before the expiry of its lease on January 11. HC order came on January 9 and on the same day, FAC invoked special rules to urgently circulate all relevant documents and decide on ArcelorMittal India's application

TELANGANA GIVES 50-YEAR MINING LEASES WITHOUT ENVIRONMENT CLEARANCE

The Telangana government has granted multiple mining leasepermissions without environmental clearance under the garb of a recent order of Union ministry of mines that makes the rule flexible for a green nod.

A 50-year mining lease for limestone and dolomite was granted to T Satyanarayana for 77.78 acre in Nagepally village, Vemanpally mandal of Macherial (erstwhile Adilabad district).

The same person was granted another 50-year mining lease for limestone and dolomite for 97 acres in Metapally village of Bhimini mandal in Mancherial district. Another lease was granted in the name of T Sharada for 293.82 acre in the hinterland.

A lease was also granted to Ms Anjani Portland Cement Ltd for 37 acre in Chintapalem village, Mellacheru mandal in Nalgonda district (now Suryapet district). This also was again for period of 50 years. All four government orders were issued on January 11 by the industries and commerce department. Earlier, Satyanarayana was granted in-principle lease for 20 years on November 12, 2012, subject to conditions which included submission of approving mining plan within six months along with environmental clearance from the Union government and a consent for establishment (CFE) from state pollution control board. The green signal was also subject to submission of 'pattadar' consent for the area, chemical analysis report and project report for establishing a cement plant and its financial evidence and final prospecting report.

Since the conditions for environmental clearance were not met, director of mines and geology thrice granted six month

extensions on July 5, 2013, March 10, 2014, and July 16, 2014. The government's charity did not stop here. Another extension was granted from November 12, 2014, to May 11, 2015 for submission of approved mining plan along with environmental clearance and consent for establishment. This extension was granted to T Satyanarayana and T Sharada.

While granting lease, the state government relied on an order S.O. No. 27(E), dated January 4, 2017, issued by the Union ministry of mines.

According to the Centre's order, even if environmental clearance (EC) conditions have not been complied with before January 11, 2017, the application can be considered and mining lease granted, if all other specifications are met. However, it has been made clear no mining activity should commence unless the applicant obtains the EC as laid down under Environmental (Protection) Act, 1986. In case of Ms Anjani Portland Cement Limited, the mining lease was granted in principle on October 27, 2011. However, till October 26, 2015, the company could not get the EC and the CFE from State Pollution Control Board, despite availing a six-month extension. This extension expired on October 26, 2015.

Earlier, the applicants, P Satyanarayana, P Sharada and Ms Anjani Portland Cement Limited were granted in-principle lease for 20 years. But in the final permission on January 11, 2017, they got it for 50 years. Speaking to TOI, principal secretary, industries and commerce Jayesh Ranjan said, "It's a fact they have not got environmental clearances. Though we issued the GOs, they cannot begin operations until the party gets the required permission."

VANCOUVER JUNIOR INKS \$1 BILLION A YEAR POTASH DEAL

Encanto Potash Corp. (CVE:EPO) on Wednesday announced the finalization of a blockbuster agreement with India's national farmers co-operative to supply a minimum of 5 million tonnes of potash per year for the next twenty years.

Vancouver-based Encanto's is advancing a \$2.9 billion potash project in the Saskatchewan province of Canada in a joint venture with the Muskowekwan First Nation. Encanto President

Stavros Daskos said the deal is "clearly a defining moment for our company and the industry. India imports 100% of its potash and is susceptible to cartel-like practices from producers that can hurt its national food security." NACOF was established under the Indian ministry of agriculture and represents farmers in 25 out of 29 states across the subcontinent. India is home to some 55 million small scale farmers and NACOF boasts

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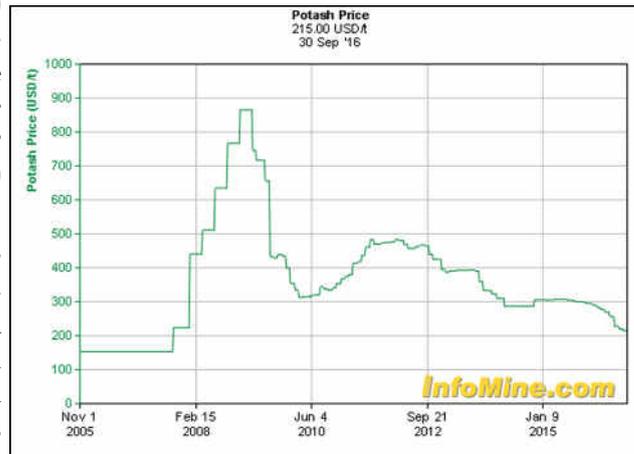
an annual budget of \$7.7 billion according to a statement. The country imports roughly 6 million tonnes of muriate of potash a year, a substantial portion of a global industry for the crop nutrient of roughly 50 million to 60 million tonnes. The potash price has been under pressure since 2011 and fell sharply last year ending 2016 at \$215 a tonne. MOP prices peaked in 2009 shy of \$900 a tonne.

Encanto would be the first junior mining company to bring a potash mine into production in an industry dominated by a handful of global giants based in North America and Russia. Encanto's proposed mine about 100 km northeast of Regina will also be the first potash mine in Saskatchewan on First Nations land.

According to a 2013 pre-feasibility study, the project boasts proven and probable reserves of 162 million tonnes, with plans

for a 2.8 million tonne per year mine with a 50-plus year life.

The proposed mine would employ 1,000 people during construction and 500 permanent jobs when complete.



Encanto also has an agreement with Metal Mineral Trading Co. of India, a state-owned trading agency to supply 2 million metric tonnes of MOP annually. Encanto plans to source potash from existing producers pending the commercialization of its Muskowekwan project.

Last year a \$700 million financing deal between a private Indian fertilizer company in the state of Gujarat and another Saskatchewan junior, Karnalyte Resources, fell apart. BHP Billiton's giant Jansen potash project which at a potential 8 million tonnes per year would be the largest mine of its kind anywhere in the world, has yet to receive board approval even after the world's top mining company spent \$3.8 billion on the project.

DALMIA CEMENT, THRIVENI EARTHMOVERS BAG MINING BLOCKS IN ODISHA

Dalmia Cement (Bharat) Limited and Thriveni Earthmovers Private Limited (TEPL) bagged the Kottameta limestone and Lasarda-Pacheri manganese blocks in Odisha respectively.

The Dalmia Cement submitted the highest final price offer of 12.05 per cent for the limestone block while the TEPL's highest final price offer was 44.65 per cent, said an official notification issued by the state steel and mines department.

Besides TEPL, other firms which took part in the financial bidding process for the manganese block were Feegrade, Ambey Mining, GV Mines Minerals & Metals and National Mineral Development Corporation. The block located in Keonjhar district has an estimated reserve of 11.61 million tonne.

Similarly, Adani Cement and Hira Cement were the other firms besides Dalmia which were in the race for the limestone block. The block in Malkangiri district has an estimated reserve of 98.69 million tonne.

"The state government is yet to ascertain the volume of revenue it is going to receive from the two blocks. It would take around 40 to 50 years for both the firms to complete the entire exploration process," said an officer in the mines department.



He said the Dalmia Cement would directly get mining lease as the Kottameta block was auctioned at G-2 level while TEPL would have to initially apply for prospecting license followed by mining lease.

The state government issued notification for auction of four blocks including Kottameta and Lasarda-Pacheri blocks on October 26, last year. It, however, cancelled auction process of Garamura and Uskalvagu blocks since

no bidders applied for these two blocks during the auction process.

"We are examining the possible reasons as to why bidders are not showing interest in these two blocks. Both the blocks would be put on auction in next phases," the officer said. With these limestone and manganese blocks—the total number of auctioned block in Odisha are now three. Earlier, Essar Steel had bagged the Ghorhaburhani-Sagasahi iron ore block in Sundargarh district from which the state government expects revenue of nearly Rs 11,000 crore in 50 years.

Meanwhile, the differential global positioning system of three more iron ore block in Sundargarh district has already been completed and these blocks would be put on auction within next one

INDIA TO PUT OFFSHORE MINERAL BLOCKS ON AUCTION

Indian government is planning to extend the auctioning of mineral blocks to offshore areas and will start preparing a legislative framework to auction mineral resources within its territorial waters.

An official in the Mines Ministry said that work on redrafting

legislation would start in the next two months. The ministry is targeting the auction of at least 60 offshore mineral blocks during the 2017/18 financial year.

The Mines and Minerals (Development and Regulation) Act

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(MMDRA) 2015 had been promulgated to provide for mandatory auction of onshore mineral blocks. However, the Offshore Areas Minerals (Development and Regulation) Act 2002 does not have any provisions for auctioning of mineral resources in territorial waters and, hence, would need to be amended along lines of MMDRA, the official added.

The Mines Ministry was aiming to replicate the success achieved in the auctioning of noncoal mineral blocks since the MMDRA was put into effect. In the 21 rounds of auctions held so far, the noncoal mineral blocks had fetched mineral-bearing provinces an estimated \$1.07-billion in revenue. A preliminary assessment of the country's mineral resources available in territorial waters by Geological Survey of India (GSI) identified zirconium, titanium, thorium, tungsten and rare-earth elements.

The opening up of offshore mineral blocks with rare earth resources will also be in line with government's efforts to push traditional mining and metal processing companies to enter exploration and development of rare earth resources.

It has been estimated that India is sitting on rare earth resources with a business potential of about \$13-billion a year. Government mining companies like the National Aluminium Company, Hindustan Copper and Steel Authority of India will be allowed to enter into offshore mining.

Once the legislative environment is in place, these mineral companies will also be supported by government organisations like the Indian Space Research Organisation, the Council for Scientific and Industrial Research, the Defence Research and Development Organisation, the Atomic Minerals Directorate and the GSI.



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