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Indian Mining & Exploration Updates

VOLUME 3, ISSUE 5 AUGUST 2016

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volume 3 issue 5 - august 2016

GOVT HAS BROUGHT REFORMATIVE CHANGES IN MINING AND MINERALS SECTOR: BALVINDER KUMAR

The Council on Energy, Environment and Water (CEEW) and the Department of Science and Technology (DST) organised a National Dialogue on 'Critical Mineral Resources for India's Manufacturing Needs' in New Delhi. Balvinder Kumar, Secretary Mines delivered the keynote address and released a DST report 'Critical Non-Fuel Mineral Resources for India's Manufacturing Sector: A Vision for 2030', during the dialogue. Over the past year, Government of India has made significant efforts to accelerate the growth of the mining industry through speedy clearances, transparent auctions and creating an exploration fund. A diverse set of mineral resources (especially non-fuel minerals) is essential raw material to power the growth of the manufacturing sector in the years ahead and is likely to be a significant determinant of the success of the 'Make in India' initiative. The dialogue focused on the recommendations of the study and would outline an action plan that identifies critical mineral resources for India and ways to reduce the associated supply risks.

In his address Balvinder Kumar, Secretary, Ministry of Mines, said, "I congratulate the CEEW team for publishing this study identifying critical minerals for India. India is endowed with vast mineral resources and has large untapped potential. Since March 2015, we have introduced several key reforms including allocating mines through fair and transparent auctions, allocating mines for 50 years instead of 30 years, setting up District Mineral Foundations for socio economic development of the mining affected people across the country, and setting up the National Mineral Exploration Trust NMET for thrust on exploration. This study from CEEW will be extremely useful for framing policies that deal with national security and high-tech manufacturing." The Mines Ministry has already notified the Atomic Minerals Concession Rules, 2016 and is working to bring out the Exclusive Economic Zone Offshore Concession Rules, he said.Twelve critical minerals could play an important role in the success of the Make in India programme and the sustainable growth of the Indian economy, according to the study conducted by the Council on Energy, Environment and Water (CEEW), a leading policy research organisation. The study, supported by the Department of Science and Technology (DST), Government of India, provides a first-of-its-kind framework for India to assess the impact of critical minerals on the manufacturing sector, considering both economic importance and associated supply risks. The critical minerals including beryllium, germanium, rare earths (heavy and light), rhenium, tantalum, etc. find specialised use in a range of industries and modern applications, such as aerospace, automobiles, cameras, defense, entertainment systems, laptops, medical imaging, nuclear energy, and smartphones. These critical minerals would also play a role in nurturing the domestic manufacturing capacity to support the government's low-carbon plans, such as the 100GW solar target, faster adoption and manufacturing of hybrid and electric vehicles, and the national domestic efficient lighting programme.

Over the coming years, India will need to strategically develop joint partnerships with existing global players to secure assured supply of critical minerals. Professor Ashutosh Sharma, Secretary, DST in his message on the occasion said, "The study, supported and catalysed by the National Science and Technology Management Information System (NSTMIS) division of DST, identifies 12 critical minerals from a total of 49 non-fuel minerals estimated to find use in Indian manufacturing in 2030. This study will open new vistas for R&D and collaborations for securing assured supplies of critical minerals. Further, the study will assist policymakers and captains of industry to draw up plans to secure India's needs of identified critical minerals in pursuit of sustainable industrial growth." The CEEW study comes on the heels of the National Mineral Exploration Policy, 2016 (NMEP) unveiled earlier this month, which focuses on prioritisation of regional and detailed exploration critical minerals of importance to industry and national security.

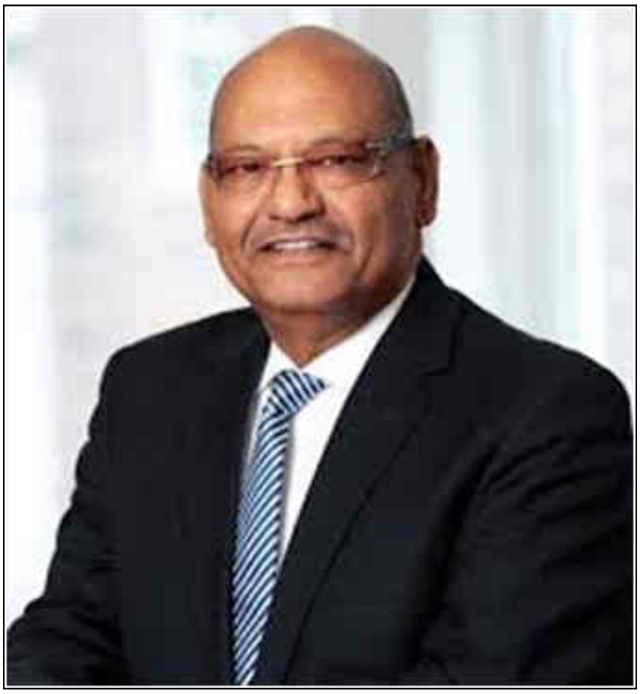
NMEP 2016 also includes a proposal to establish the autonomous NCMT to address mineral exploration challenges in the country through collaborative research and capacity building programmes. The mining sector currently contributes 2.4% to India's GDP and the new Minister of Mines, Piyush Goyal, aims to increase its contribution to GDP by another 1% in the next 2-3 years. Dr Arunabha Ghosh, CEO, CEEW, said, "To meet our economic and developmental goals, India will need to first focus on domestic exploration of critical minerals. We would also need to secure our critical mineral resources through strategic acquisition of overseas mines and signing diplomatic and trade agreements, promoting research and development to find better substitutes for priority minerals, and promoting scale and innovation in the recycling and material recovery sector." Vaibhav Gupta, Programme Lead, CEEW and lead author of the report, said, "India is 100% import dependent for 7 out of the 12 identified critical minerals. India doesn't have any declared resources for them, except light rare-earths (found along with monazite sands) and beryllium. I hope that the CEEW analysis will trigger discussions on innovative financing for mineral resource development, supply agreements, and the global governance of critical mineral resources."

WE BELIEVE, WHILE 'ONE ARM' IS IN INDIA, WE SHOULD'VE 'ANOTHER ARM' IN AFRICA: ANIL AGARWAL, VEDANTA

"We believe, while 'one arm' is in India, we should have 'another arm' in Africa," Agarwal said in an interview to ET over phone on Tuesday evening.

WHY AFRICA? "There are three regions in the world with 1.3 billion people and more. China, India and Africa. What else is left for big business to enter," Agarwal said. Agarwal is betting on the popular estimate that Africa will double its GDP. "In every respect, Africa will grow," he said. The Vedanta group has invested more than $4 billion in Africa so far, with investments in a copper mine in Zambia and zinc mines in Namibia, South Africa and Liberia.

The going has been tough in recent years for Vedanta with oil and base metal prices declining and several decisions that would impact the group pending in the courts. However, Agarwal is much better placed than his peers operating in the resources space in India and abroad. One of the early bets has been Hindustan Zinc, which recently delivered Rs 12,000 crore as dividend, infusing much needed funds for the group and the government.



Vedanta, by virtue of its 62.9% shareholding, garnered Rs 6,580 crore from the windfall dividend, giving the group enough muscle to deal with large debt maturities coming up in FY17. Agarwal is again on an expansion spree in Africa. "We have this (Zinc) mine in Gamsburg in Namibia and Black Mountain Mining in South Africa, which is in existence for last 42 years, which many tried to open in the last 25 years," Agarwal said. He credited the Modi government for its strong ties with African nations, which helped the Indian group make progress in developing them. "I believe we can create another Hindustan Zinc in Africa," he said. The group will invest a billion dollars in two tranches of $500 million each in a few years. In Gamsberg, touted as one of the largest undeveloped zinc sulphide deposits, he expects first ore production to commence in 2018.

Vedanta is bullish at a time when its global peers —Rio Tinto, BHP, Glencore — have been divesting assets to stay afloat as commodity prices stay depressed on fears of subdued global economic growth with demand from big consumer China's waning. Agarwal reasons that these mining majors are selling assets because of bank pressure and to reduce the debt. "These companies are still healthy." Unlike them, Vedanta has been more focused on base metals and staying away from coal, magnesium etc.

COMMODITY PRICES TO REMAIN BEARISH "I think we have to live with this price," Agarwal said of oil and gas at $50, copper in the region of $500, aluminium at $1600 and iron ore at $50 per tonne. Vedanta, he says, will still make money as it is in the lowest quartile.

"My outlook is neither bullish nor bearish. We are a niche player and we are in businesses where demand still exists," he reasons. According to Agarwal, what works for Vedanta is that its main businesses are located in India, where certain sectors are growing in double digits.

"India gives us an advantage. We are in the 3rd quartile in costs and very competitive and that helps us," Agarwal explained. That no new mines are coming up also helps Vedanta.

ON ALUMINIUM, INDIA NEEDS TO DO MORE Agarwal, who has invested in an aluminium smelter in India, feels that the government should give the same duty protection to aluminium makers in India that steel makers have secured to escape dumping from Chinese aluminium makers. "Steel and aluminium industry go hand in hand.," he said.

"We have the best bauxite mines in the world. India should be producing at least 20 million tonnes of aluminium, but we (India) currently make only three to four million tonnes, with two million imported from China. They dump their material in India so it is very important for us to encourage our aluminium industry, and bring it to the level of 20 million tonnes. This will spawn many small and medium enterprises, to get into processing the metal.

" MODI GOVERNMENT "If you ask me, the prime minister's office must monitor 20-25 industries, which will account for 2% of India's GDP. If the government gives support from A-to-Z for these industries, it will encourage several small and medium enterprises to come up, he reasons. On the new mineral exploration policy, Agarwal said while it was in the right direction, the government could do more.

Agarwal believes that the government should consolidate all resources under one ministry. Whether it is oil and gas or coal, it is the same approach and same policy.

The mood of the government is to bring transparency and encourage participation. I think it will take some time, but foreign investment will come in the resources sector, he said.

MINING, FARMING ARE THE ANSWER TO INDIA'S POVERTY: ANIL AGARWAL

The mining sector has the potential to create hundreds of thousands of jobs in the country's poorest and remotest areas, says Anil Agarwal, chairman of Vedanta Resources, the London-headquartered mining and metals conglomerate. The sector will grow swiftly, he tells Kunal Bose, if all resources are brought under one ministry. Edited excerpts:

India's geological formation is among the richest in the world. However, unlike Australia, India has not been able to expand its minerals resource and reserve (R&R) base fast enough. And, minerals production in general remains flat. What is needed to give a push to the sector?

What disappoints is that the share of mining in the country's gross domestic product (GDP) is a little over one per cent. In fact, the sector's contribution to GDP has fallen in the past decade, in the face of growing domestic demand for minerals. A McKinsey report says mining has the potential to create six million new jobs and contribute an additional $47 billion to GDP by 2025. Remember, mining jobs get created in the most backward districts of India's poorest states. I strongly believe that in mining and farming are to be found the answer to the country's poverty. Scientific prospecting and exploration will let us know the resources beneath the earth.

Are you seeing signs of a breakthrough in minerals exploration?

I think the new national mineral exploration policy allowing domestic and foreign private participation in exploration and production through competitive bids will be a game changer. The McKinsey report is an eye-opener to how poorly India stands in comparison with leading mining countries in baseline geophysical and geochemical data generation and investment per sq km of exploration. Remember, the life cycle of mining and oil & gas production begins with exploration, where Delhi has now opened a window of opportunities to the world's leading agencies.

I don't see a logic as to why our production of iron ore should be only 155 million tonnes (mt, in a year) against Australia's 700 mt. Similarly, even while China mostly relied on bauxite imports, it managed to produce over 31 mt of primary aluminium in 2015; our production, in spite of our owning high quality bauxite deposits in large quantities, was only about 2.4 mt. It's unedifying that imports account for half our country's aluminium consumption when much of our nearly 4.2 mt smelting capacity is idle. In steel, too, India managed to produce only 90 mt in 2015, compared to China's 804 mt. To make half the global production of 1.6 billion tonnes, China had to import 952 mt of iron ore last year, accounting for over two-thirds of the global seaborne trade in the mineral. Unlike China, we have the advantage of a plentiful reserve of good to medium grades of ore. Who says we are overambitious in targeting steel capacity of 300 mt and aluminium smelting capacity of 20 mt? India will need every ounce of that aluminium and steel to support growth and infrastructure development.

What are now the principal challenges before our mining groups?

The world now has technology which makes the whole chain from exploration to mining of minerals much more environment-friendly,sustainable and predictable than ever in the past. But, that technology, such as underground mining, is expensive and has to be imported. At Hindustan Zinc (HZL), we are getting ready to do underground shaft mining at the Sindesar Khurd and Rampura Agucha reserves in Rajasthan. We are getting the technology from South Africa. Once the projects are commissioned, our mines' productivity will significantly improve and costs will be down. The Indian mining sector is not seen as particularly community-friendly and environment-friendly. Resistance from locals and non-government bodies leads to indefinite postponement or abandonment of mining projects.

A mining group must remain conscious about its social obligation. That includes taking care of resettlement and rehabilitation of the locals required to vacate sites, and of the environment. I want Vedanta to be in the forefront of environmental research and development, leading to satisfying the local community in terms of water, air and soil. The issues relating to land, culture, religion and social expectations of tribal and indigenous communities are complex and unique to these places. They are to be addressed carefully for us to be able to create an ideal environment for mining. Policy support from the government will be more readily available if the prime minister brings all the resources under one ministry.

Vedanta's growth here has been by way of acquisitions.

Yes, we acquired Bharat Aluminium Company (Balco) and HZL in the early 2000s. More recently, we bought majority stakes in Sesa Goa and Cairn India. But, Vedanta has also invested over Rs 50,000 crore in Odisha to build the country's largest single- site aluminium smelter and a very large, coal-fired power complex. Our acquisition of Balco and HZL has been followed by big smelting, mining and power capacity expansion. You have to concede that we are good in both building new projects and expanding existing ones.

CENTRE PUTS TIGERS BEFORE DIAMONDS, SAYS NO TO RS 2,200 CR MINING PROJECT

Raising concerns about possible damage to the tiger landscape by mining giant Rio Tinto's Rs 2200 crore diamond mining project in Madhya Pradesh, an environment ministry panel has deferred forest clearance for the project, saying it would lead to permanent loss of high-quality forest area.

The project has been awaiting forest clearance since 2014. It was discussed in the Forest Advisory Committee of the Ministry of Environment and Forests on July 12 and it was decided to put it on hold. The proposed area falls in the Tiger Corridor between the Panna Tiger Reserve and Nauradehi Wildlife Sanctuary.

It was deferred in a March 2016 meeting also as it was falling in a dense forest area. It requires clearing of 971 hectares of forest area in Chhatarpur region of Madhya Pradesh. "As per NTCA report, the project can potentially disrupt the landscape character vis a vis tiger dispersal around the Panna landscape. As such this may be taken only when the Ken-Betwa (river) interlink is finalised as well as a detailed study is done to assess other alternatives," observed the committee.

- An environment ministry panel has deferred forest clearance to the Rs 2200 crore project saying it would lead to permanent loss of the high quality forest areas.
- The project has been pending for forest clearance since 2014.
- Rio Tinto said that nearly half a million trees would have to be cut down to make way for the diamond mine.

Asking the company to explore the possibility of underground mining, the advisory committee further said that the revised proposal submitted by the company is highly dependent on surface extraction which would entail greater extent of forest land use leading to permanent loss of the high quality forest areas.

Rio Tinto said that there are diamonds worth Rs 20,520 crore in Bunder and nearly half a million trees would have to be cut down to make way for the diamond mine.

An agreement was signed in 2010 between the Madhya Pradesh government and Rio Tinto Exploration India Pvt. Ltd (RTEIPL) for diamond mining.

As per the agreement, the company is expected to evaluate, develop, construct, finance, operate and manage integrated diamond mining and processing operation at Bunder diamond deposit and carry out all related operations, infrastructure and facilities required to support and implement the operations.

COAL MINE AUCTION SYSTEM RESTRICTS COMPETITION

One of the most touted success stories of the National Democratic Alliance (NDA) government at the Centre came in for criticism on Tuesday, with the Comptroller and Auditor General (CAG) pointing out loopholes in the bidding mechanism that restricted competition and allowed companies to put in multiple bids for coal blocks.

Besides, the CAG said there was under-determination to the tune of Rs 382 crore in the upfront amount that the government received upon allocation of mines.

The CAG said the loss was because of under-determination of floor prices in the case of six mines allotted to the non-power sector, lower upfront payment for 15 mines, and revision in fixed rates for all nine coal mines meant for the power sector.

In its report presented in Parliament on Tuesday, the CAG lauded the new mechanism for e-auction of coal mines and said it was "an improvement over the earlier system and attempted to incorporate the principles of objectivity, transparency and fairness in allocation of natural resources to private sector companies".

Some systemic and procedural issues, however, needed to be addressed.

The statutory auditor pointed out that in 11 out of 29 coal mines successfully e-auctioned in the first and second tranches, the number of qualified bidders were from the same company.

"In a scenario, where the standard tender document allowed participation of joint ventures and simultaneously limited the number of qualified bidders which could participate in the e-auction, audit could not draw an assurance that the potential level of competition was achieved in the stage-II bidding," the report said.

A senior government officer, however, said as only 6 per cent of the qualified bidders were joint ventures companies and only one successful bidder was a JV. It was clear that this provision did not restrict competition. In the third tranche, the Ministry of Coal amended the clause of joint venture participation with the objective of increasing participation, it added.

The government itself had rejected bids for three blocks since they were not in sync with bids for other blocks. Of the 34 coal blocks auctioned in two phases, the letters of allocation for three blocks — two of Naveen Jindal-promoted Jindal Steel & Power and one of Anil Agarwal-promotedBalco — were not signed, after review of eight low bids, on March 20, 2015.

JSPL has bid the lowest in both the phases for end-use power. Balco, on the other hand, was the lowest bidder in the unregulated category. The next day, JSPL moved the Delhi Court, challenging the government decision.

Officials said the Delhi High Court vie its order of February 2015 in Sharda Energy and Minerals Ltd versus Union of India case upheld the auction methodology. The ministry of coal subsequently sought the audit opinion on the issue of multiple bids. Since the opinion did not come, the ministry of coal referred the matter to attorney general which said since there was no appeal made in the case, the High Court order had finality to it.

The statutory auditor said there was a need for framing of broad guidelines including various parameters considered relevant by the ministry of coal for evaluation of final bids prices to enhance transparency of the bidding process. Besides, it said there was inadequate audit trail and non-linking of specified end-use plants with the registration IDs though officials maintained there was no case of multiple bids being placed from a single end use plan in contravention of the tender documents.

CAG also pointed out inconsistencies and inaccuracies in computing of intrinsic values. The Cabinet Committee on Economic Affairs had said the notified price at which Coal India's subsidiaries sell coal should be considered for calculation of intrinsic value of the mine. In the case of Moitra coal mine contained washery grade coking coal, which was to be washed out before utilisation in the specified end use plant (SEUP). The approved mining plan for the mine contained provision for installation of washery for coking coal produced. However, this aspect was not considered for calculation of intrinsic value. This resulted in under-determination of upfront amount and floor price of the mine, the report said.

Disqualification of West Bengal Power Development Corporation Ltd (WBPDCL) from participating in the auction of Sarisatolli and Trans Damodar coal mines, on the basis of it being a prior allottee and not depositing the additional levy within the prescribed time, was not as per the existing provisions, it said.

Power sector coal mines were auctioned with the objective of providing cheaper coal and augmenting electricity production to benefit the consumers. However, the report said the risk of non-compliance with contractual obligations was high due to the vulnerabilities such as stipulation regarding non-recovery of various charges from power consumers, weaknesses in the monitoring system and limited period of bank guarantee. This could adversely affect the sustainability of the model in the long run.

Exclusion of payment of additional premium for coal used for generation of merchant power, where the tariff is not regulated, resulted in a scenario where the power producers would be paying lesser amount to the government for merchant sale of power as compared to power sold under regulated rates under various power purchase agreements, CAG said

ANGLO AMERICAN REBUFFS MERGER INTEREST FROM INDIA'S MINING AND METALS TYCOON

Anglo American Plc has rebuffed informal approaches by Indian mining and metals tycoon Anil Agarwal, Bloomberg reported, citing people familiar with the matter.

Agarwal, who has majority control of Hindustan Zinc Ltd through Vedanta Ltd, contacted Anglo to discuss potential ideas including a combination with the Indian zinc miner, Bloomberg reported.

Vedanta sweetened its offer to take over subsidiary Cairn India Ltd last week, after an initial bid had been stymied for a year. Vedanta Ltd and Hindustan Zinc were not immediately available for comment.

Anglo American declined to comment Meanwhile Anglo American cut its net debt to $11.7 billion by the end of June from $12.9 billion at the end of December, it said on Thursday.

The miner has previously said it is seeking to sell $3 billion to $4 billion of assets in 2016, including its iron ore, coal and nickel units. So far it has agreed asset sales worth $1.5 billion.

"The decisive actions we have taken to strengthen the balance sheet put us well on track to achieve our net debt target of less than $10 billion at the end of 2016," Chief Executive Mark Cutifani said in an interim results statement.

DOWNER SECURES ADANI INDIA CONTRACT

Mining services contractor Downer EDI is pinning its hopes on Adani Energy expanding its coal mining capacity in India after signing a technical services agreement with the company.

The agreement is for the provision of mine planning, design and project execution services for the AEL coal mines in India.

The TSA has an initial value of A$2 million, takes effect in July 2016 and has an initial term of 12 months. Services include technical and operational support for existing AEL coal mines and technical review of the bids for the Indian coal block auction.

Downer CEO Grant Fenn said the signing of the TSA opened an opportunity in a new market for the group.

Downer has also signed a two-year extension to its contract to provide mining services at Stanwell Corporation's Meandu mine in south-east Queensland. Meandu delivers about 5.5 million tonnes of product coal per year to the adjacent Tarong and Tarong North power stations.

Downer has been providing mining services at Meandu since January 2013 and the completion date for the original contract was June 2018. The contract extension, valued at A$250 million, takes its tenure through to June, 2020.

Fenn said the contract extension reflected Downer's strong performance and its ongoing commitment to deliver cost savings and operational improvements at the mine

INDIAN GOVERNMENT HAS ALLOCATED 75 COAL MINES

The Indian government has so far allocated 75 coal mines for specified end uses, according to Piyush Goyal, Minister for Power, Coal, New & Renewable Energy and Mines. Of these, 31 were allocated through e-auction and 44 through allotment.

The allocation of the mines took place under the provisions of the Coal Mines (Special Provisions) Act of 2015, which was passed in the wake of the Indian Supreme Court decision that nullified the allocation of 214 coal blocks to end users.

The act aimed to ensure continuity of coal mining operations and promote the optimum utilisation of coal resources.

Goyal provided the information in response to a question from the Rajya Sabha, the upper house of the Indian Parliament.

ONLY INDIA, SOUTH KOREA HAVE ACTIVE TECHNOLOGY FOR DEEP SEA MINING

The ruling by the Permanent Court of Arbitration (PCA) in The Hague on the South China Sea dispute in favour of the Philippines may have come as a setback for China but it will not stop Beijing from continuing with its quest for maritime hegemony in the region.

"The reaction of China on the court's ruling was on expected lines," Prashant Kumar Singh, Associate Fellow in the East Asia Centre of the Institute for Defence Studies and Analyses (IDSA), told IANS.

"In the immediate term, it might adopt aggressive posturing and show a defiant face to other claimants to the dispute and also to the US which is a security provider for many of the claimants, including the Philippines," he said.

But in the medium term, he said, how things would play out would depend a lot on domestic, international and regional responses to the situation.

An international arbitration tribunal in the PCA ruled on July 12 that China violated the Philippines' rights in the South China Sea, one of the busiest commercial shipping routes in the world.

The court accused China of interfering with the Philippines' fishing and petroleum exploration, building artificial islands in the waters and failing to prevent Chinese fishermen from fishing in the zone.

The tribunal held that fishermen from the Philippines had traditional fishing rights in Scarborough Shoal in the South China Sea and that China had interfered with these rights by restricting their access.

The court held that Chinese law enforcement vessels unlawfully created a serious risk of collision when they physically obstructed Philippine vessels in the region.

China is locked in disputes over the Spratly and Paracel groups of islands in the South China Sea with other countries of the region.

While the other claimants over the Spratly islands are Brunei, Malaysia, the Philippines, Taiwan and Vietnam, the Paracel islands are also claimed by Vietnam and Taiwan. The most heavily contested are the Spratlys, a group of 14 islands, islets and cays and more than 100 reefs that are strategically located.

Abhijit Singh, head of the Marine Security Initiative at the Observer Research Foundation, pointed out that the tribunal has ruled that areas where China claimed for setting up exclusive economic zones (EEZs) could not be called islands as these were

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rocks and could not sustain life.

"China has made territorial and historical claims," Abhijit Singh said. "But the most important claim is that of sovereignty."

He said that China already has a territorial dispute with Japan over the Senkaku islands in the East China Sea west of Okinawa.

"China regularly keeps sending naval ships in the vicinity of the Senkaku islands," Abhijit Singh said.

China is also jittery about what former President Hu Jintao described as the "Malacca Dilemma".

The Malacca Strait is a narrow stretch of water between Malaysia and the Indonesian island of Sumatra and serves as a crucial link to the South China Sea.

The Chinese are worried that the strait, which is effectively under the US control, can be choked any time if trouble arises, cutting down energy supplies from the Middle East and Africa.

"To overcome this, they are taking steps like building the Gwadar port in Pakistan," Prashant Singh said, adding that China was building ports at Hambantota in Sri Lanka and Djibouti as well.

That China was seeking to increase its dominance in the Indian Ocean region became evident when the Maldives parliament passed a land lease act in undue haste last year.

"It was perceived to be a move to clear legal hurdles for release of land to China," Prashant Singh said.

In fact, the process of shifting China's military strategy from land to the seas and oceans has been underway for some years.

But, the big official endorsement came in the form of the 2015 military strategy paper, according to Prashant Singh.

"The purpose is to protect China's sea lanes and energy supplies from the Middle East, Latin America and other parts of the world," he said.

The second goal, he said, was to protect China's overseas interests like in Africa.

"They cannot protect their overseas interests without having a robust naval strength and presence.

According to foreign policy expert Dhrubajyoti Bhattacharjee, China is trying to further its maritime ambitions under the guise of exploring for rare earth minerals, gold and natural gas through its deep sea submersibles Dayang 1, Jialong, Qianlong and Hailong.

"But the fact of the matter is China only has passive technology for deep sea mining (meaning it has the equipment but it has only been tested overground and not the under the sea)," Bhattacharjee said.

While China virtually holds the monopoly in exports of rare earth minerals, it has reported finds of gold deposits off the east China coast and in southwest Indian Ocean, the exploration contract for which it has got from the International Seabed Authority.

"Only India and South Korea have the active technology for deep sea mining," Bhattacharjee said.

INDIA'S IBM LAYS DOWN MICRO MANAGEMENT SYSTEMS FOR MINES

India's multidisciplinary mining industry body, Indian Bureau of Mines (IBM), has ordered dedicated sustainable development units (SDUs) at each mine or leasehold area to implement the government's SustainableDevelopment Framework (SDF) though the newly instituted 'star rating of mines'.

Setting down the goals of SDUs in a background paper on the implementation of the 'star rating of mines', IBM said that each SDU would be responsible for periodic reviews of mineoperations, setting up conflict management mechanisms,training and sensitisation of miners and local stakeholders

IBM had also advocated for one or more regional coordination committee to be established at every mineral zone or cluster. The committee should be headed by the designated principal secretary of provincial mines departments, along with domain experts.

These committees would be mandated to advise oninfrastructure and logistics for local area economic development, conduct social-impact assessments, and define carrying capacity, the extent of mining at each project, production levels and pollution impacts, the backgroundpaper stated. Last month, the Mines Ministry announced the implementation of a Web-enabled 'star rating of mines'system for evaluation of sustainable mining by each operator.

The system entailed a two-tiered self-evaluation template, which the Mines Ministry would provide to mine operators to complete. IBM would validate the document, based on which each mine would be accorded a star rating, with five stars being the highest rating.

IBM, which the Mines Ministry mandated to implement the SDF at every mine, had also laid down audit mechanisms, along with multilevel reporting of mine operations.

(Continued on page 8)...

Towards this goal, along with implementing the star ratingsystem, IBM had proposed setting up State SDF centres at the provincial level reporting to a national SDF centre under the Mines Ministry, the IBM paper stated.

INDIA'S SCCL TO APPOINT MDOS FOR ALL FUTURE COAL BLOCK DEVELOPMENT PROJECTS

In a shift from the 'do-it-yourself' method, southern India-based Singareni Collieries Company Limited (SCCL) will appoint mine developers and operators (MDOs) for coal projects outside its present operational hinterland.

The 127-year-old company, which operates 47 mines – 16opencast and 31 underground, produces about 60-million tons a year of coal, predominantly from coal blocks in the southern Indian province of Telengana.

SCCL planned to expand production to 85-million tons a year by 2020 by opening ten new mines, most of them outsidesouthern India. The Coal Ministry had, however, directed SCCL to further increase its production to 100-million tons a year by 2020, in line with government's plan to increaseIndia's domestic coal production to one-billion tons a year by 2020.

To gain a toehold in coal mining outside its traditional operational geography of Telengana, the Telenganaprovincial government, which holds a 51% equity stake in SCCL, had formally requested the Coal Ministry to allow it to seek coal assets in the provinces of Chhattisgarh, Madhya Pradesh and Maharashtra.

Any expansion would require SCCL to appoint MDOs to ensure the projects are bought into production in the shortest time possible, a company official said.

He added that at least 14 domestic and international MDOs had shown an interest in implementing projects on behalf of SCCL across the country.

The first appointment of an MDO would be for the Naini coalblock in the eastern Indian province of Odisha, which had an estimated reserve of 450-million tons. The operator would have 36 months to complete development of the block.

Officials pointed out that the development of new blocks through MDOs was also necessary as SCCL aimed to implement new technologies in all future projects. All new mines would adopt continuous miners and longwall technology, wherever possible.

SCCL was among the very few miners in India to have successfully implemented longwall technology. Few miners in India had the experience to implement such technologies, which also required a large capital outlay.

Officials cited the $157-million investment in the Adriyala Longwall mine to produce 2.2-million tons a year of coal inTelengana province. Although this was one of the largest investments in a mining project, the mine also has one of the highest production capacities of all underground mines in the country.

Further, SCCL had also asked the Coal Ministry to allow it to raise $150-million to build new mines, compared with the currently allowed $75-million.

MEGHALAYA LIKELY TO WITHDRAW NOC TO UCIL TO MINE URANIUM

With protests against uranium mining in the state growing louder in the past few weeks, the Congress government in Meghalaya is likely to withdraw the permission it had given to Uranium Corporation of India Ltd (UCIL) way back in 2009.

While CM Mukul Sangma has called a crucial state cabinet meeting on Monday, reports from Shillong said the government will review the decision of 2009 and "most likely" revoke it in the wake of mounting pressure on it from various quarters including traditional tribal bodies.

"The government is seized of the situation and a cabinet meeting has been convened on Monday to discuss the issue to arrive at a positive conclusion," reports quoting chief minister Sangma said on Sunday. It also quoted Sangma as saying that any decision to let UCIL begin uranium mining would be taken only after taking all sections of people on board.

The decision to permit UCIL to start uranium mining in the West Khasi Hills district was earlier taken by a previous Congress-led government headed by DD Lapang in August 2008, in which present chief minister Mukul Sangma was a deputy chief minister. The then government, which issued permission to UCIL to start pre-development works like roads to the mining site, setting up health centres and schools for the local people, had also agreed to lease out 422 acres of land for 30 years to UCIL to carry out mining. In November 2009 however, the same government had shelved the UCIL's pre-mining development activities and instead

(Continued on page 9)...

constituted a 33-member Joint Committee on Uranium Mining in Meghalaya (JCUMM) to examine various issues related to the likely impact of the mining.

The issue suddenly came up again when UCIL, on July 2 floated a tender notice seeking EOI from Indian companies, JVCs and/or consortiums for providing consultancy services for obtaining some pending statutory clearances apart from obtaining permission for several related activities "leading to successful opening" and subsequent "uninterrupted operation" of the project. It has also sought services for conducting public consultation and forest land diversion apart from setting up roads and other infrastructure for the project.

As student groups, opposition political parties and tribal organisations strongly reacted to UCIL's attempt to resume uranium mining, chief minister Sangma went on record indicating that the PSU would be held responsible for any law and order problem emanating from it..

ORES DUMPED CAN'T BE TOUCHED TILL SC ORDERS: GOA MINES DEPT

Director of Mines and Geology Prasanna Acharya, in a public notice issued last week, said the six-member committee constituted by the apex court is yet to decide on how to deal with the minerals lying as dump.

Goa Mines and Geology department has told the mine owners that the iron ore rejects dumped across the state in the leases and outside it cannot be put to use pending order of the Supreme Court.

Director of Mines and Geology Prasanna Acharya, in a public notice issued last week, said the six-member committee constituted by the apex court is yet to decide on how to deal with the minerals lying as dumps.

"As such the dump material cannot be touched till such issue is finally decided by the Supreme Court," Acharya said. He said the notice was issued after the department came across complaints pertaining to people who fraudulently claim to be owners of the ore dumps and collect money on assurance of sale of such ore to mining firms or exporters.

He clarified that the ownership of dumps always vests with the government.

"Such ownership of minerals can only be transferred to lessee upon payment of royalty and other dues payable to the government for legally extracted minerals and ownership of minerals extracted otherwise than legal means always vests with the state," according to the notice.

NMDC, AUSTRALIA'S CSIRO TO SIGN DEAL TO IMPROVE INDIA'S LOW-GRADE IRON ORE QUALITY

Australia will help India in improving the quality of its low-grade iron ore.

To operationalise this arrangement, state-run iron ore miner National Mineral Development Corp. Ltd (NMDC) will sign a co-operation agreement with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) shortly.

Indian steel mills have preferred the beneficiation process through which impurities or the gangue materials are removed from ore and ferrous content is improved as much as possible—up to a maximum level of 70%.

According to a paper titled Iron and Steel Vision 2020, posted on the website of the ministry of steel, various issues such as beneficiation of low-grade ore need to be addressed in order to conserve limited high-grade iron ore lumps for the future.

"The NMDC board has recently approved a co-operation agreement with Australia-based CSIRO for collaborative research and development that will help upgrade India's low-grade iron ore," said a senior steel ministry official requesting anonymity.

Iron ore is typically classified as high grade (over 58% of ferrous content) and low grade (up to 58% ferrous content). India's integrated steel plants use better grades of ore, mostly from Karnataka, Odisha, Jharkhand and Chhattisgarh. The ore from Goa's mines is of low grade.

Another steel ministry official, who also didn't want to be identified, said NMDC and CSIRO will sign the agreement during the first half of August.

Mining is picking up after the Supreme Court, in April 2014, lifted an 18-month ban on iron ore mining in Goa, though it capped the annual production from these mines at 20 million tonnes (MT) per annum. Before the ban, Goa was one of the top producers in the country mining around 45 MT iron ore per year. India's iron ore production for financial year 2015-16 rose to an estimated 135 MT compared with 129 MT the previous year due to a slew of measures taken by the National Democratic Alliance government to revive domestic production.

(Continued on page 10)...

Queries mailed to the ministry of steel, NMDC and CSIRO on 29 July remained unanswered.

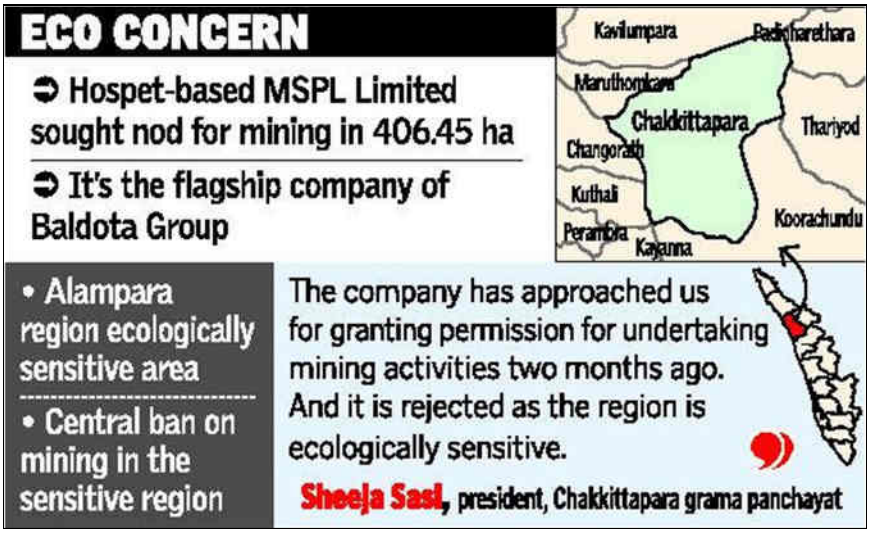
India, which was the world's third-largest exporter of iron ore at the beginning of this decade, has become a net importer of the mineral because of falling global prices and large-scale production stoppage due to regulatory and environmental non-compliance.

In the Union budget 2016-17, the government dropped the 10% export duty on low-grade iron ore fines and scrapped the 30% export tax on low-grade lumps in an attempt to make Indian products' prices competitive in the global market. The agreement comes at a time when the global mining industry is undergoing a transformation, moving from the age-old 'ripping rock' techniques to sustainable and efficient technologies.

CHAKKITTAPARA PANCHAYAT DENIES NOD FOR MINING

Anticipating a hostile response from local people and environmentalists, the Chakkittappara grama panchayat has rejected an application of the Karnataka-based MSPL seeking local clearance for iron ore mining at Alampara village in Kozhikode.

This is the second time the Hospet-based MSPL Limited, the flagship company of Baldota Group, is applying for mining in 406.45 hectares in the ecologically sensitive region.



"The company approached us for granting permission for undertaking mining activities two months ago. The application was placed before the grama panchayat and it had been rejected as the region was ecologically sensitive," Sheeja Sasi, president of the CPI(M)-controlled Chakkittappara panchayat, said on Tuesday.

Ecologically sensitive

The Alampara region is demarcated as ecologically sensitive in the K. Kasturirangan report on the Western Ghats. Already an order by the Central government exists on banning mining in these sensitive regions. Besides, the grama panchayat did not want to earn the wrath of the local people, party sources said.

MSPL had approached the Union Ministry of Environment and Forests for granting terms of reference as part of environmental clearance for the Alampara iron ore mining project in 2014.

Earlier, it had secured an in-principle permission for mining in 53.9303 hectares in Mavoor village and 282.22503 hectares in Kakkoor village, both in Kozhikode district, for 30 years.

However, the company had not been able to get the required clearances under the Forest Conservation Act and the Environmental Protection Act and approval for its mining plan from the Indian Bureau of Mining before in the allocated areas.

In 2013, the then Congress-led United Democratic Front (UDF) government cancelled the permission given to the company considering the allegations over the decision of the earlier LDF government and the Central government's order banning mining activities. Now the company had given a fresh proposal for the mining project.

Vigilance probe

Significantly, the UDF government, following a recommendation from the Industries Department, had also ordered a Vigilance probe into the allegations that former Industries Minister and CPI(M) leader Elamaram Karim had granted sanction for the project.

However, the Vigilance had decided to drop the case citing inconsistencies in the statements of the complainant and difficulties in obtaining evidence. But the file is pending with government.

STATE MAKES FRESH BID FOR COAL BLOCK ALLOCATION

Four years after it lost a claim on the Baitarani West coal block in Orissa, the state is making a fresh bid for coal block allocation. The State Government has requested the Centre to allocate it a new coal block for power generation.

Electricity Minister Kadakampally Surendran formally made the request during a meeting with Union Power Minister Piyush Goyal at a recent meeting in New Delhi. A tentative plan is to use the coal to fuel a power plant that would be established jointly by Kerala and Odisha in Odisha. Talks are on in this direction between top officials of both states, Surendran said.

"The Union Power Minister said the state's request would be considered when it submits concrete plans for a (power) project," Surendran said. According to top officials, the state is gunning for a coal block with reserves of 200 million tonnes.

In July 2007, the Kerala State Electricity Board, along with Odisha Hydro Power Corporation and the Gujarat Power Corporation Ltd, was allocated the 602 million tonne Baitarani West coal block in Talcher, Odisha. The next year, they floated an SPV - Baitarani West Coal Company Ltd - to mine the block. Back then,

(Continued on page 11)...

Kerala had toyed with various plans; either use its share to fuel a 2,400 MW power plant envisaged in Cheemeni, Kasargod, or jointly set up a plant in Odisha with the Odisha government.

But in 2012 the Coal Ministry withdrew the claim of the states after they made scant progress in mining and establishing a power plant. Although the states approached the court to get the de-allocation cancelled, the case is still pending in the Odisha HC. During the tenure of the Oommen Chandy Government, the state had made yet another bid to bag coal blocks, but it had not borne fruit.

GOVERNMENT LOOKING AT GIVING LAND FOR RARE EARTH SANDS MINING

The matter of handing over land for sand mining by state-run Indian Rare Earths Limited (IREL) is under consideration of the central government, parliament was told on Wednesday.

"The government has received representation for handing over the land as per the agreed terms and conditions required for mining of sand by IREL, Chavara, Kollam (Kerala)," Minister of State for Atomic Energy Jitendra Singh told the Lok Sabha in a written reply.

"The matter is under consideration of the government," he said. IREL, engaged in mining and processing of mineral sand containing radioactive elements, has two plants - a monazite processing plant at Orissa Sands Complex Chatrapur, Odisha, which extracts strategic compounds from monazite, and the Rare Earths Division (RED), Aluva, Kerala, which produces high grade rare earths.

RED is its first unit that started commercial scale processing of monazite for the recovery of thorium, and produces six heavy minerals - ilmenite, rutile, zircon, monazite, sillimanite, and garnet.

Meanwhile, earlier this month, private producers under the banner of the Beach Minerals Producers Association appealed to Prime Minister Narendra Modi against the new Atomic Minerals Concession Rules (AMCR), 2016, that mandates deposites containing more than 0.75 per cent monazite content in the Total Heavy Minerals (THM) will be reserved for the public sector.

In a letter to Modi, the association said: "If the AMCR is implemented in its present form, almost all existing private players will be forced to close operations, resulting in huge losses and loss of employment to about 50,000 in backward areas of Tamil Nadu and Andhra Pradesh."

VEDANTA SIGNS AGREEMENTS WITH SOUTH AFRICAN COMPANIES FOR UNDERGROUND MINING TECHNOLOGY

Vedanta Limited, India's leading diversified natural resources company, today announced that it has signed two memoranda of understanding (MoUs) with South African companies for the development and supply of equipment, and the transfer of technology, with the aim of improving safety and productivity at the mechanised underground mines of Vedanta's subsidiary, Hindustan Zinc Limited (HZL). The first MoU relates to development of ground support systems that are critical for operational safety in underground mines. It is envisaged that these systems will be manufactured in India. The second MoU covers the manufacture of underground utility equipment and specifically the development of local skills in India to maintain this equipment. "India's partnerships with South Africa over one and a half centuries have contributed to the bedrock of global economic growth," said Anil Agarwal, Chairman of Vedanta. "South Africa's economy continues to benefit from India's highly skilled and sophisticated services sector while India is securing its growing need for natural resources through ever-deepening bilateral trade ties. These two emerging powers give rise to countless opportunities and Vedanta is perfectly poised to facilitate development and prosperity in both nations." Mr. Agarwal welcomed the Honourable Prime Minister, NarendraModi, to South Africa on this occasion, and commended him for his social vision, including campaigns on child welfare, female empowerment, skills development, and clean water and sanitation. "South Africa offers a unique opportunity for Indian companies with an environment conducive to engagement with local stakeholders. Vedanta is investing significantly in a greenfield project at Gamsberg in South Africa's Northern Cape with a view to forming partnerships with companies in South Africa in future," said Deshnee Naidoo, Chief Executive Officer of Vedanta Zinc International. "Vedanta has a global footprint with operations across four continents. We take our responsibilities as a corporate citizen very seriously by making every effort to understand the local social, environmental and economic implications of our operations." Vedanta has invested over US$4 billion in Africa since establishing a presence on the continent in 2004. Currently, the company mines copper in Zambia, produces zinc and lead concentrate at Black Mountain Mining (BMM) in South Africa, and zinc metal at Skorpion Zinc in Namibia. Recently, Vedanta commenced its Gamsberg zinc project at BMM with a capital investment of US$400 million. Gamsberg holds one of the world's largest undeveloped zinc sulphide deposits with approximately 130Mt of defined ore resources at Gamsberg North. BMM continues to be an efficient producer of zinc, lead, copper and silver. BMM is the largest private employer in the Bushmanland and Namaqua region, providing employment for 1 300 people. It has been a stable employer in the region for the past 30 years and, with the development of Gamsberg, has potential to remain so for at least the next two decades. In order to balance the social and economic benefits of developing the Gamsberg project with the need to protect and preserve the unique biodiversity of the region, Vedanta has developed a clearly defined biodiversity action

(Continued on Page 12)...

plan, which outlines how the project will avoid, minimise and remedy the impact of mining activity on the environment. This has involved robust public consultations with various stakeholders. In order to deliver best possible biodiversity management, Vedanta has also partnered with a global non-governmental organisation (NGO), the International Union for Conservation of Nature (IUCN), in compliance with the zero offset agreement. Vedanta has also invested in health, education, livelihoods, and environmental projects and other sustainable development activities in its South African host communities. The key initiatives in the Northern Cape include the treatment of more than 1 000 cataract cases, a full brick-making plant run by the local community, and numerous school support and sustainable livelihood programmes. Vedanta is committed to ensuring that it leaves a positive legacy when its operations reach the natural end of their economic lives. As such, the company has committed to all closure processes reflecting best practice in terms of sustainability and environmental rehabilitation. "The Gamsberg Project represents a significant opportunity to grow the local economy and create jobs while remaining committed to a long-term plan to rehabilitate a region rich in biodiversity," says

ESSAR STEEL TO START OPS AT ODISHA CAPTIVE MINE IN FY18

Essar Steel said it hopes to commence mining from its captive iron ore block in Odisha in the first quarter of 2017-18.

The steel maker recently bagged the Ghoraburhani-Sagasahi block in Odisha through auctions, quoting a premium of 44.35 per cent above the reserve price and outbidding strong contenders like Tata Steel and Jindal Steel & Power Ltd.

"The Essar Steel's iron ore mine has reserves of 100 million tonnes, according to the current estimates. We plan to mine around six million tonnes per annum. We are in the process of seeking all approvals. This will take care of approximately 30 per cent of the requirement of our integrated steel plant at Hazira", a company spokesperson told Business Standard in an e-mail response.

The Odisha government has issued the letter of intent to Essar Steel after it emerged as the preferred bidder in the first iron ore block offered for e-auctions in Odisha. The block is at G2 exploration stage and located in Koira sector in Sundargarh district.

The mineral concession area is spread over 139.16 hectares (ha), including 20.88 ha forest land, 110.69 ha government land and the balance 7.58 ha private land.

Survey of the mineral block had been done by the Geological Survey of India (GSI).

Currently, Essar Steel runs a 12 million tonnes per annum (mtpa) iron ore beneficiation plant at Dabuna in Keonjhar district and six mtpa pelletisation complex at Paradeep. The iron ore mine in Odisha is expected to meet 50 per cent of the firm's pellet making facility at Paradeep.

"The pellets produced at our Odisha facility are meant primarily for use in our own 10 million tonnes per annum integrated steel plant at Hazira. Any surpluses available are being considered for sale/exports", said the spokesperson.

Both the pellet plants at Paradip and Visakhapatnam are now operational and ensure consistent supply of pellets to the Essar steel mill at Hazira. Essar Steel's flat steel production in the April -June period of this financial year was 1.22 million tonnes (mt), marking a growth of 48 per cent over 0.824 mt produced in the same period of previous period. Even pellet production grew by 58 per cent to 2.02 mt, as against 1.28 mt in the comparable period of last year.

By the end of 2016-17, Essar Steel expects to record a marked increase in its capacity utilisation, and produce 80 per cent of its rated capacity in the country.

DIGGERS & DEALERS: 'JUNIORS CAN HELP MAKE BIG DISCOVERIES'

Rio Tinto's new group executive in charge of the exploration portfolio says Australia is overdue a Tier 1 minerals discovery and called on junior miners to team up with the global giant to make it happen.

"In this environment every dollar counts and we can do better at sharing risks and rewards," Stephen McIntosh, newly appointed as Rio's group executive for growth and innovation, told the Diggers & Dealers conference in Kalgoorlie-Boulder this morning.

"Let's let the specialists do what they do best.

"In the case of majors like Rio Tinto that's using our decades of experience, and modern technologies, to sort the novel idea from the Tier 1 opportunity.

"In the case of junior explorers, that is getting out in the field and testing them."

Mr McIntosh said the industry probably had to go back two decades or more to the Century Zinc (in Queensland) or

Cadia-Ridgeway (NSW) discoveries for the last true Tier 1 finds, after the massive Pilbara iron ore deposits and bauxite in northern Queensland."I suggest a Tier 1 discovery in Australia is overdue, and we want to be involved with you in finding the next one," he said.

"Getting boots on the ground will be key.

"To achieve this we recognise partnerships are key. So my message to you today is, I have an exploration cheque book for quality projects and our door is very much open.

"Our growth and your success ultimately depend on it - so please don't be backward in coming forward."

Mr McIntosh said Rio was searching for eighty commodities across 17 countries, with a global exploration budget (excluding project evaluation and technology program work) of $US150 million a year.

Although Rio's exploration focus had been dominated recently by projects in developed world and Peru, and the hunt was on for a Tier 1 copper asset, "we like to describe ourselves as commodity agnostic".

Mr McIntosh said exploration ventures were increasingly important for Rio, which had more than 10 projects in partnership with publicly listed companies in Australia, USA, Chile, Serbia, Zambia and Botswana.

"Our experience shows that only one percent of the targets we generate are likely to be a discovery," he said.

"We need to continue to invest and renew our pipeline to increase our chances of T1 discovery.

"The good news is globally, greenfield Tier 1 copper discoveries are made, on average, once every four years. The challenge is it takes an average of 25 years from exploration programme inception, through to discovery and then first production.

"The chances are that any new copper discoveries my team make under my watch are likely to be in production when many of us are in retirement."

Mr McIntosh said that regardless of the price cycles, Rio wanted to ensure it had a pipeline of high quality options to both sustain and grow its business, and one of best ways to do that is though a fresh discovery.

But he said research also revealed that there was a general decrease in the quality or size of new greenfield discoveries, especially those since the mid-80s. "(So) despite the higher spend, discovery rates fell," Mr McIntosh said.

"The industry could be accused of 'busy being busy' rather than 'busy being successful'.

"Now that exploration spend levels are falling, every dollar counts.

"We should look to move from opportunism to opportunity and use partnerships and technology to turbo-charge discovery selection and activity – to get better bang for our industry buck."

That included the industry working more closely with regulators to achieve quicker and more efficient access to land and finding ways of better distinguishing between baseline and low-level field reconnaissance work and more intensive activities.

And Mr McIntosh said technology available to the industry had never been better.

"What the old timers would have given for a phone that worked, an XRF in the backpack, or a laboratory focused on path-finder element testing," he said.

"Despite the many new technologies and powerful computing power at our disposal over the past 20 years we've not seen an observable lift in discovery rates.

"Maybe it's because we are not collaborating enough.

"So how can we improve discovery rates?

"Clearly we can do better in some of the traditional areas of mapping, sampling, drilling and the like.

"But harnessing new micro-analytical technologies and bringing to life the legacy data we all hold is the new opportunity.

"Imagine the power of taking decades of field work and reanalysing it for new path finder minerals and chemical signatures. Resistate Indicator Minerals or RIMs technology is one such example.

"Broadly speaking, as an industry, we have been reasonable data-hoarders, poor data managers and very poor translators of data into knowledge.

"But it is not just data for data's sake, it's to serve a purpose. It's to improve target selection, so if you want to share an interesting find or concept, we can see if it's distinctive or an outlier and a result worthy of closer inspection.

"And computing power is beginning to transform mineral exploration much in the same way it has the oil and gas industry with 3D modelling to look deeper with more spatial detail and options

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