



GLOBAL BUSINESS REPORTS

Indonesian mining industry in transition

Navigating the world's last great mining frontier

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Cover photo courtesy of G-Resources.





Remote drill rig support in central Kalimantan; Photo courtesy of Kalimantan Gold.

Despite lacking basic infrastructure, Indonesia's mining industry has claimed a prominent position in supplying international commodity markets. Shrouded in regulatory uncertainty, Indonesia still attracts speculation.

Touring Jakarta's Rawa Bening, the largest gem market in Southeast Asia, the importance of minerals to Indonesia is evident. A love of precious stones is engrained in local culture. Yet like the stones of Rawa Bening, brought from various corners of the world before being peddled locally, Indonesia's mining industry has long been controlled by foreign hands: the Dutch under colonization, and then later, the foreign investor under Suharto. The Indonesia of today – outspoken, nationalistic, and wildly democratic – is acutely aware of this.

An archipelago of 17,000 islands severed from the Australian continental shelf thousands of years ago, Indonesia has long been known for its mineral wealth. Grasberg in West Papua, the crown jewel of Freeport-McMoRan's mining empire and the world's largest gold, and fifth largest copper mine first proved this to the West. Today, the country stands as the world's largest exporter of nickel, thermal coal and refined tin. In spite of the ever evolving regulatory framework of domestic industry, the profitability of Indonesia's mines for all listed companies, surprisingly, has consistently stood above the average of the top 40 mining companies globally for all key metrics.

Announced through "Law Number 4/2009 on Mineral and Coal," on January 12, 2009, the Government of Indonesia began what has become one of the world's most ambitious plans for nationalization of its resource sector. While a few years later

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Zimbabwe would announce partial nationalization of its mining industry, and many South American mining jurisdictions – both historically and today – have toyed with resource nationalism, Indonesia's strategy for development of its mining industry was unique. Not only did the country seek to substitute the mining industry's foreign base with nationals; Indonesia sought to eradicate the presence of the foreigner entirely, and attempted to do so, ironically, under the guise of facilitating foreign investment.

Bill Sullivan, licensed foreign advocate at Christian Teo Purwono & Partners, wrote: "The great irony of recent Indonesian mining policy is that when the 2009 Mining Law was introduced, the aim was to provide a simple, transparent way for foreigners to invest in the Indonesian mining industry through wholly foreign owned PMA Companies which, for the first time, could hold mining licenses. During the last couple of years, however, the Government has increasingly given foreign investors ever greater "negative policy" incentives to, once



Guy Des Rosiers, senior foreign legal consultant at Makarim & Taira S.

again, employ artificial contractual arrangements on the basis that it may be preferable for foreign investors to let Indonesians hold mining licenses while foreign investors extract economic value through indirect means. Essentially, in the space of five short years, Indonesia seems to have come full circle in terms of its attitude to foreign investment in the local mining industry."

Later clarified through several pieces of legislation, the 2009 Mining Law, as it is known today, introduced to the industry the conditions upon which all future developments would be predicated while devolving a significant amount of regulatory power to state governments. Among these conditions were the dual requirements that new entrants must develop "mineral beneficiation" facilities - smelters - and comply with divestment requirements, whereby, it was subsequently announced, companies involved in production would be required to sell a majority stake of their equity to a local partner. The 2009 Mining Law was far reaching, affecting even service providers. Those involved in mine development would be forced to favor local service providers in tendering contracts.

Complying with the 2009 Mining Law is not simple. The legal interpretations of many provisions are ambiguous and evolve as new requirements are announced. Guy Des Rosiers, senior foreign legal consultant at Makarim & Taira S., a leading Indonesian business law firm remarked: "State-level requirements for mining companies continue to be unclear; the industry remains unsure as to how transactions should be structured. There is a long history of people employing various investment structures, only for these structures to be later deemed incompliant."

Examples of this are seen across a number of areas, the most infamous of which has been permitting, which led to the suspension of thermal coal miner Churchill Mining's license; a case that has since escalated to international arbitration.

A second facet of this is seen in the case of shareholder requirements. Guy Des Rosiers explained: "Indonesia opened up its mining industry to foreign capital under the premise that foreign businesses could initially own 100% of their companies, with an obligation to decrease their holdings to 80% after five years of production. This has since been revised to include further divestment obligations, ultimately leaving foreign businesses with only 49% after 10 years of production. While one would think that as results from the sector have continued to worsen, regulation would become more favorable - or at least provide clearer instructions as to how foreign mining companies are to proceed with divestment. The new regulation, however, has only provided more bad news for the industry, especially with regard to how the price of company shares is valued.

Although not unexpected, it has been announced that replacement costs will be the ceiling price at which mining company shares are valued. Obviously for an operating mine, this is not a great valuating technique. One would want to see some multiple of this, but this is not happening. Instead, a ceiling price will be used for the government party—all other valuations will be based off of a benchmark. Again, this is problematic as there is no certainty as to the amount above the benchmark price a company will receive. In fact, there is no certainty as to who is subject to new regulation. Previously, it was assumed that mines operating under the Contract of Work (CoW) system would be protected to the extent that such contracts are considered lex specialis and contain their own divestment rules. This appears to no longer be the case, though it remains to be seen how and when the government may attempt to apply the new divestment rules to holders of CoWs."

Defenders of the legislation have argued that the introduction of these policies had long been public knowledge. Tamba Hutapea, deputy chairman for investment planning of the Indonesian Investment Coordinating Board (BKPM) stated: "The fact that often goes missed by industry participants is that the establishment of the 2009 Mining Law, and its subsequent enforcement in 2014, followed a four-year period of public consultation prior to the law's introduction wherein regulators consulted with the in-



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dustry over the structure of Indonesia's new mining law. Those involved in the production of nickel and bauxite, (commodities whose export was recently banned), had eight years to organize themselves; eight years to, at a minimum, show a commitment to the conditions that Indonesian mining henceforth would be based. The industry's lack of preparation is not for a lack of awareness."

Yet those within Jakarta's legal circles would disagree. Rahmat Soemadipradja, partner at Soemadipradja & Taher Advocates, a leading domestic law firm involved in natural resources, said: "The introduction of the 2009 Mining Law was without precedent. It came as a complete surprise to the industry."

Mochamad Kasmali, partner at Soemadipradja & Taher, said, "For the nickel and bauxite miners that will be facing a shut down as a result of this ban, it is only a matter of time before they take this issue to court."

A correction to a policy of resource governance that did, undoubtedly, splay the wealth of the country's resources among foreign investors and the creation of a suite of laws similar to those introduced by the 2009 Mining Law could have been anticipated. However, the ability of the Indone-



Rahmat Soemadipradja, partner, Soemadipradja & Taher Advocates.

sian government to enforce the regulation has been and will continue to be checked by two opposing forces: the importance of mining to the country as an agent of economic development, and equally, the importance of mining as a tool for generating nationalism in the lead up to the country's 2014 Presidential and Parliamentary elections.

The 2009 Mining Law has had a discernible effect on investor sentiment. In the Policy Potential Index of the Fraser Institute's "Survey of Mining Companies 2012/2013," which ranks the attractiveness of a country's resource policies based off of industry perception, Indonesia ranked

last of the 76 jurisdictions surveyed. If political barriers were to be removed and best practices employed, the Fraser Institute noted that Indonesia would have been ranked fourth globally. Though proponents of the 2009 Mining Law might argue that Indonesia has seen consistent growth in foreign direct investment into its mining industry, which drew in \$4.8 billion in 2013 from \$2.2 billion in 2010, the average size of these investments has shrunk significantly; falling from \$9.4 million in 2010 to \$5.9 million in 2013.

Indonesia has lost its ability to generate mega-projects, and it could be this failure that stymies the development of otherwise indigent regions of the country. Starting in 2014, the country will roll-out \$35 billion in infrastructure projects, 56 of which will take the form of public-private partnerships (PPPs). Regional projects slated for 2014 include the Kuala Tanjung port development in North Sumatra, the first phase of which will entail an investment of over \$600 million, and Russian Railway's East Kalimantan rail line, a freight line which will require an investment of \$1.7 billion. Each of these two projects represents an opportunity for the development of several regions both poor and currently bare of infrastructure. Two hurtles could stand in the way of



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Jeff Tutticci, business development manager, Aurecon.

this: the legal framework surrounding these ventures and the country's treatment of its resource sector.

Rainier Haryanto, country manager of SMEC Indonesia, an Australian professional services company that has acted as a consultant on several infrastructure projects within the country, explained: "The Government of Indonesia has placed much emphasis on building infrastructure; however, the strategy which they rely on for the development of infrastructure is weak. The framework supporting PPPs in Indonesia is immature. The government is still only exploring the correct formula for PPPs. There are many conflicting legal perspectives on how these ventures must be structured. PPPs, in particular, require a clear legal framework."

Jeff Tutticci, business development manager at Aurecon, a provider of global engineering, management and specialist technical services which is currently handling the execution of a major rail line in East Kalimantan said: "When I first arrived in Indonesia in 2005, I arrived before the country's infrastructure summit. I attended it and listened to the proposed deliverables. I presented these ideas to my country manager. He then pulled the list of deliverables proposed in 2004 off the shelf, and then the list of deliverables proposed in 2003. A common theme emerged; Indonesia has great plans, but poor execution."

If given the proper framework, mining can help provide resources. With Indonesia unable to fund many of these PPPs without the foreign investor, the country must at least be cognizant of the way in which resource nationalism intersects with economic development.

Resource nationalism (2009, was also as election year) is a political tool and antimining rhetoric is a rallying point. Bill Sullivan explained: "My take on it is that out in the heartland, where the great masses

of Indonesian voters live, the mining industry is unpopular. Because Indonesia is a densely populated country where mining projects take place in "people's back yards," Indonesians see funds being poured into projects, but unless they are directly employed by the mining industry, they only experience the negative impacts of the mining industry on their region. Coupled with Indonesia's xenophobia, which I put down to the country's bad colonial experience under the Dutch, many are of the view that foreigners are out to take advantage of Indonesia. Indonesia and Indonesians also feel that they did not "get their fair share" of the profits during the last mineral commodities boom and are determined to not let this happen again. Taking a tough stance on the mining industry is, accordingly, seen as a tailor-made, vote-getting opportunity.

Matt Simpson, principal consultant at Mining Alliance, a specialist, Australasia-focused recruitment service provider, echoes this sentiment with regard to the impact that politics have had on foreign hiring. "At its rawest form, without being overly cynical, this is an election year and there is a fair bit of nationalist rhetoric that is being thrown about today. For a long time many have been pushing the Government to limit

the presence of the foreign business in Indonesia. The Indonesian Government now wants for its workforce to move up the ranks of organizations and place themselves in a decision-making capacity. From a human resources perspective, it is important to be realistic as to whether domestic workers can satisfy the expectations of an organization. This is not an event that takes place over night. The transformation of a workforce takes longer. Following the election we may see the industry face less pressure to nationalize its workforce, but this will be a gradual process."

Indonesian regulators would do well to recognize that their country's mining industry is a dark horse. Lacking in basic infrastructure, it has claimed a prominent position in supplying international commodity markets; shrouded in regulatory uncertainty, it still attracts speculation. If handled with care, mining may allow the Indonesian government to accomplish its goals, many of which are, at the heart of it, admirable. Under proper resource governance, Indonesia could become one of the world's last great mining frontiers. If beaten too hard, though, the country may see what has been its best source of economic development far more democratic in distributing wealth than the country's oil - collapse.



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Putri Ahdadia mine. Photo courtesy of Ahdadia Coal.

Indonesia's mining industry is poised to continue to expand in 2014. Growth will continue across the country's broad range of mineral commodities – in spite of an unfavorable regulatory environment and adversity in global markets.

Coal

Estimated to only have 3% of total global thermal coal reserves, Indonesia is an unlikely contender for the world's largest exporter of the fossil fuel. Yet in 2013, Indonesia claimed this title, as well as the honor of being the world's fourth largest producer of the commodity. Production stood at 421 million metric tons (mt) Indonesia has not always played such an important role in global thermal coal supply. Just 10 years before, in 2004, total Indonesian coal exports stood at a quarter of what they do today. The growth of Indonesia's position has predominately been influenced by the beginning of the Asian century. From 2000 until 2011, Japanese demand doubled from 13 million mt to 26 million mt. Demand from other Asian markets - namely. China and India - grew nearly tenfold.

Today, however, the market has become far more internally focused. Ms. Ika Bethari, corporate planning director & CFO at MBSS, a leader in the provision of sea transport and transshipment solutions to the local market, said: "A fall in the price of thermal coal has meant that internal markets are now receiving more attention as Indonesia's internal economic growth is strengthening. There are many power plants that require more coal to be transported from Kalimantan to other islands in Indonesia. Fortunately, Indonesia's coal can easily be transported."

Peter Lynch, chairman and CEO of Cokal, an Australian coking coal miner, said: "We are lucky in Indonesia; we have access to some of the best infrastructure in the world: rivers." The waterways that wind through Indonesia's coal producing regions have allowed for Indonesia to avoid the costly infrastructure solutions that have been the bane of many a prospective mining jurisdiction. Pat Hanna, executive director of Cokal, said: "In Indonesia, incremental expansion is possible; in order to accommodate larger haulages one does not need to undertake a port expansion."

Indonesia's waterways have dictated regional growth. If Kalimantan, the province on the island of Borneo, has been the focal point of domestic coal mining, this is not for the size of its reserves. More important has been the size and depth of the province's rivers navigable by large barges. In narrow-veined Sumatra, large-scale coal projects have instead had to depend on proposed infrastructure solutions that have consistently failed to materialize.



Raymundus Mulyadi, president director, Putri Ahdadia Coal.

Perhaps the most enigmatic quality of Indonesia's coal mining industry is that, in spite of its magnitude, the country has failed to leverage its coal production into any control over global thermal coal pricing. A lack of regulatory oversight has prevented Indonesia from developing clout in coal. In 2013, an estimated 50 million mt – one eighth of the country's total formal coal production – slipped out of the country illegally.

This has serious implications for the mining industry. Raymundus Mulyadi, president director of Ahdadia Coal, a producer of low-ash, low-sulfur, environmentally-friendly coal in Indonesia's South Kalimantan region, explained: "Indonesia is now in over-production as a result of the small scale miner and trading companies. Our resource base is finite; a failure to better regulate coal production could mean that Indonesia runs out of coal... As an industry, we need to closely examine the management practices and values of our coal miners. A greater level of focus must be placed on long-term strategy; enhancing transparency and allowing only the best businesses to operate in Indonesia. Additional regulations also need to be released to reign in small-scale production of thermal coal and the trading companies which sustain them."

Yet the Government's involvement with the market has been, and continues to be, a source of anxiety for most. Though those in mineral production would claim that the Indonesian government has taken a light-handed approach in regulating coal, coal production in Indonesia is hardly free from governmental involvement.

In seeking to preserve its resources for domestic industry, the Government has

imposed a quota system, a domestic market obligation (DMO), on coal producers whereby all those involved in the production of coal in Indonesia must sell an allotted amount of coal to domestic businesses at a price set; the Harga Butabara Acuan (HBA).

Udaykumar, general manager of business development at Adani Global, the single largest buyer of Indonesian coal and the largest importer of thermal coal into India which operates in the country through their low-grade Bunya mine, explained: "Under the industry's current regulatory framework, many IUPs- and CoW-holders are obligated by the Ministry of Coal and Mineral Resources to satisfy a domestic market obligation; a stipulation that dictates that Indonesian coal producers must sell an allotted amount of their coal to the domestic market at market prices."

Largely created to address Indonesia's growing energy problem (the country, in spite of its oil and coal wealth, runs a hefty diesel subsidy which has wreaked havoc on the Rupiah in the past year), Indonesia's DMO system demands domestic industry must sell 95 million mt to the domestic market in 2014. Yet this system fails to address the possibility that there may not be a domestic market for certain grades of coal.

Udaykumar explained the case of Adani's Bunya mine: "DMO requirements have unfairly penalized Adani in that there is no domestic buyer willing to buy our coal because of its low GAR. Our coal can only be used in India, yet Adani has to incur a cost to obtain tradable quotas to enable export of this coal."

Raymundus Mulyadi, president director of Ahdadia Coal, which sells between 20% to 30% of its coal to the domestic market, said: "While important to the further development of Indonesia and the health of domestic coal mining, the Indonesian Government's DMO policy contains several flaws. Their needs to be additional stipulation that grants exemptions based on the moisture content of coal."

Those that fail to meet export requirements can purchase credits from other coal producers who sell a surplus to the domestic market and power plants may one day create a market for undesirable lower grade coal. Nonetheless, DMOs impede on mine profitability today. Bob Kamandanu, chairman of the Indonesian Coal Mining Association, said: "Though the economics of creating syngas facilities are still unproven, technological developments in the field of coal conversion could define the future of the Indonesian coal mining industry."

Thermal Coal

In 2014, thermal coal pricing continued on the path first of 2011, when the market turned. Some have attributed this downturn to a slowdown in China's economic growth. The market, they argue, will soon turn as excess supply is burnt off. Others contend that perhaps coal prices are being deliberately suppressed.

Bill Park, technical manager of New Resource Mine Consulting, a domestic consultancy that specializes in coal, explained: "Several variables recently have affected thermal coal pricing: the slowdown in China's industrial growth and the aftershocks of the GFC. Even though these two factors have impacted thermal coal pricing, thermal coal pricing is suppressed for reasons beyond this. Specifically the supplydemand balance has shifted adversely with over-investment in new and existing operations pre-2013, both in Indonesia and elsewhere. Although fringe players have dropped production, the majors still entertain plans for expansion in 2014 despite the attempt by the Indonesian Government to introduce production caps." Dharma Djojonegoro, president director of Multi Nitrotama Kimia, a leading supplier of ammonium nitrate to Indonesia's coal mining industry through their production facilities





Bill Park, technical manager, New Resource Mine Consulting.

in Central Kalimantan, explained: "The vitality of the Indonesian mining industry is determined by two factors: the price of thermal coal in global markets and the attitude of regulators to the mining industry. If the coal price rises in 2015, the health of the industry will return. A greater amount of certainty on the part of regulators will play an equally significant role in influencing the industry's growth."

Regardless of market conditions, many of Indonesia's largest coal producers are targeting higher production in 2014, following a year in which production soared. Ms. Ika Bethari, corporate planning director of



Ika Bethari, corporate planning director, MBSS.

MBSS said: "We have seen coal producers move towards higher production volumes as profit margins thinned-out. There is certainly a push to maintain, at least, the margins from previous years, although the Rupiah is now worth less and the market value of thermal coal has decreased."

From 2012, production shot up by over 10% in 2013, with all but one miner, Bayan Resources, increasing production from the previous year. This year, industry giant Bumi Resources, historically one of Indonesia's largest producers, plans to collectively increase production at their Kaltim Prima Coal and Arutmin mines by 15%, to 74 mil-



Terry Gray, director, Britmindo.

lion mt/y. Berau Coal, the country's fourth largest coal miner, expects to increase production by 15%, to 25.75 million mt/y. Among those with the loftiest ambitions for 2014 is Bukit Asam; the state-own organization plans to increase production by 22%, to 23 million mt/y this year.

Seemingly at odds with the market, several factors have been cited as possible causes for this occurrence. The scalability of mines in Indonesia and the low cost of operating domestically have allowed for Indonesian coal producers to attempt to maintain the mine profitability of times when market conditions were better simply by increasing output.

Terry Gray, director of Britmindo, a mining services company specialized in coal, said: "Many major coal players, on the back of the lows of 2009 and highs of 2011, invested heavily in infrastructure and are now seeking to amortize those investments as much as possible through increasing production. Even those that did not spend money are still trying to force as much coal through their infrastructure as possible without investing in capital. Those that invested initially will be in a far better place than the latter group when coal comes back in vogue as they will be able to much more easily accommodate an uptick in demand"

Others anticipate more rapid industrial growth in India and China, and highlight low stockpiles as a justification for greater demand in 2014. Yet, like many goals of Indonesian miners, the ability of Indonesia's coal giants to reach their production estimates will be subject to conditions set by the Indonesian government.

In 2014, the Government of Indonesia has stated that it will play a more active role in the market, limiting production to 397 million mt/y, down 6% from the previous year. Though the exact mechanism by which the Government would enforce this remains unclear, sanctions are nothing new



to Indonesia's coal producers. The Government of Indonesia currently retains the right to enforce sanctions on the mining industry should industry participants fail to satisfy their DMO or regularly file their quarterly reports. However, historically the enforcement of these sanctions has been weak. Many hold that the enforcement of such a policy on the country's coal industry will not stand. For this reason, Deutsche Bank predicts production to increase to 435 million mt/y in 2014.

The profitability of Indonesian coal miners, however, could further come under fire through other adjustments to the industry's royalty structure. First suggested last year, the Indonesian Government has stated that it will increase royalties from where they stand presently at 3.5% to 7%, to between 10% and 13% for many of the country's newer coal mines. Whether or not intended, it could be through this mechanism that Indonesia sees its annual production decrease through the closure of many of the industry's smaller mines.

At a time where both the market and the regulation of coal are uncertain, the industry must focus on minimizing operational expenses. This will dictate the success or failure of many of those already invested in the Indonesian coal mining industry.

For some, as in the case of Toba Bara Group, this has meant investing. With three concessions in operation through subsidiaries all in close proximity to one another, Toba Bara invested heavily in developing synergies for the group through infrastructure sharing. The first in the company's series of investments is a hauling road connecting the company's three concessions. As a result, the company was able to internalize what were previously third-party services and, simultaneously, increase output.

Iwan Sanyoto, head of investor relations at Toba Bara explained: "Toba Bara owns three IUP coal mining concessions through its subsidiaries: Adimitra Baratama Nusantara (ABN), Indomining, and Trisensa Mineral Utama (TMU)... . In late 2012, management decided to better its infrastructure by streamlining the road system between TMU, ABN, and Indomining. As TMU was the only concession lacking road infrastructure, we built haul roads to link up with ABN. When we completed construction of the road in May 2013, this enabled TMU to ramp up its production output, transporting its coal across to ABN and using the coal processing plant (crusher) and port facility of Indomining. Prior to having the road at TMU, TMU was relatively inefficient as it had to use third party facilities



at high costs. With the road infrastructure at TMU in place, we have internalized the usage of our own assets, particularly enabling TMU to ramp up its production and become more cost efficient in the process. For example, prior to completion of the haul road, TMU's quarterly production run rate was at 88,000 mt in Q1 2013. After completion in May 2013, the ramp up produced output of 147,000 mt, 275,000 mt, and 420,000 mt in Q2, Q3, Q4 2013 respectively."

'As per first quarter (Q1) 2014, our FOB vessel cash cost was about \$48.9/mt. Last year, the number stood at \$55.1/mt," Sanyoto continues. "The higher the strip ratio, the more expensive it is to remove waste in order to obtain coal. Coal price and fuel price are two major variables we have no control over, but we can at least manage variables such as lowering strip ratio and overhaul dump distance. So far we have managed to lower the dump distance more than the strip ratio as well as reducing logistics and transportation costs."

Arthur Simatupang, director of Toba Bara, summarized: "With the current downturn, if we want to survive as mine owners, we have to do it together and have common cuts to bring down the coal costs. We have to work together as partners."

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Entering the coal market during its high in late 2008, Medco Energi Mining Internasional, a subsidiary of the long-established Indonesian energy company Medco Energi Internasional, soon realized that it needed to find a creative solution to survive in an environment characterized by lower coal prices. With a civil engineer, Arie Prabowo Ariotedjo, as its CEO and managing director, Medco Energi Mining Internasional learned that by performing all contracting services in-house, it could turn a profit on its relatively small concessions in Nunukan. North Kalimantan: Duta Tambang Rekayasa (DTR) and Duta Tambang Sumber Alam (DTSA). DTR is currently only producing 600,000 mt/y and the reserve between the two is a mere 10 million mt.

However, Arie Prabowo Ariotedjo explained that Medco Energi Mining Internasional has created a model that works: "At present, large companies generally only consider buying large concessions, believing that the headache and the cost, including operations, permitting etc. does not change whether you are producing 1 million mt/y or 10 million mt/y. On the other hand, small-scale mining is only being done by smaller companies and it is not being done properly, meaning not in accordance with government and environmental regulations and

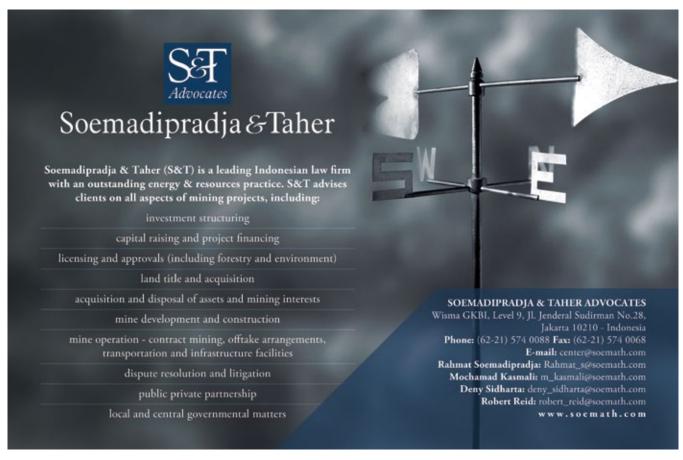
standards. Medco Energi Mining has created a model for small mining concessions of around 5 million mt in total resources, which is not viable for large companies."

Through this scheme, Medco Energi Mining Internasional is in the process of acquiring additional smaller mines with the intention of replicating its success.

Focusing on the minimization of operational expenses represents the best opportunity that Indonesian coal producers have to continue to maintain their profitability – and, through it, Indonesia's unlikely position as the world's largest exporter of thermal coal.

Coking Coal: Opening Up the North Barito Basin

More surprising than the development of Indonesia as one of the world's most important sources of thermal coal are the prospects of Indonesia's still nascent coking coal industry. Though coking coal has long been the terrain of China, Australia and the US more than Indonesia, and demand for Indonesian coal has been driven by India and China's thirst for low-grade thermal coal, Indonesian coking coal shows promise; the qualities of the country's coal are unique and the position of this coal to the market is enviable.





Peter Lynch, chairman and CEO, Cokal.

In 2012, Indonesia did not even stand among the world's 10 largest producers of coking coal, exporting but 3 million mt/y of the substance compared with China, Australia and the US with 510 million mt/y, 147 million mt/y, and 81 million mt/y of production respectively. Even speculatively, many other regions have drawn more attention than Indonesia. This, however, has not been for lack of interest. Rather, Indonesia has failed to develop as a coking coal region because of a number of challenges associated with infrastructure. This may soon change.

Among those blazing trails in Indonesian production of coking coal is Australian Cokal, who, in 2014, will bring the Bumi Barito Mineral project (BBM), their first project in Indonesia, into production. Located in the Murang Raya regency of Kalimantan, BBM, as well as several of the company's other concessions, had long been trapped. The waters of the Barito River, which winds through the region and would act as the access point to the company's coal, were too shallow for the company to access using conventional transportation methods.

For Cokal, necessity was the birth of innovation. Peter Lynch said: "We are building a haul road and employing a push barge system capable of transporting goods through shallow waters. Similar to those seen on the Mississippi River in the US, these vessels are the first of their kind to be used in Indonesia and will allow for us to transport 6,000 mt per shipment; 50% more than others. Additionally, the shallow draft of these boats will allow for us to ship 80% of the year, versus 55% of the year for our competitors."

Upon reaching market, Cokal's product could be strongly in demand. Pat Hanna, executive director of Cokal, commented: "According to the tests we have run so far, the coking coal present at our sites in Central Kalimantan appears to be a very special type of coking coal, perhaps similar to a New Zealand style coking coal, but even then still

different from that. This coking coal could break all the rules."

Peter Lynch added: "This coal compliments the shift in quality which we will see appearing in Australian product as older mines, those developed in the 1970s, cease production and newer mines, such as those in the Rangal Coal Measures, begin to ship product. Australian coking coal produced in these new mining regions has a markedly lower amount of vitrinite. Coking coal produced from the North Barito Basin is vitrinite rich and can offset this drop.

The development of BBM, which is now in the final stages of bankability, will allow for the company to initially produce 2 million mt/y of coking coal, which will later be scaled to a 6 million mt/y operation. The implication of BBMs success may be larger, though, acting as a springboard for regional development. Peter Lynch said: "The development of BBM will bring to the basin a much more efficient and reliable logistics chain, thereby allowing for North Barito Basin coking coal to become a mainstay in the global market."

BHP Billiton is among the few companies that own concessions in the North Barito Basin. The company holds the right to seven concessions in the area, which they have held for 20 years, even while discarding other assets, including Tavan Tolgoi in Mon-

golia. BHP Billiton's assets in the basin, in fact, are the only coking coal assets outside of Australia that the company retains; a sign of the region's promise.

Gold & Copper

Gold and copper mineralization at Erstberg, the mine which would first draw interest to Indonesia's mineral resources and which led to the establishment of Freeport-McMoRan's Grasberg mine, was found nearly 80 years ago. Discovered by Dutch geologist Jean Jacques Dozy when surveying rocks found in a riverbed near the mountain in 1936. The gold and copper found in Western Papua and made famous through Grasberg continues to play an important role in Indonesia's economy. Grasberg alone contributes as much as 2% of the world's gold production annually. Through it, Indonesia was the world's eighth largest producer of copper and gold in 2012.

Gold and copper production in Indonesia, grouped together as gold is often found as secondary mineralization in copper porphyries, has historically been controlled by the activities of two firms: Freeport-McMo-Ran, which operates the Grasberg mine, and Newmont Nusa Tenggerah, which operates the Batu Hijau mine. Both companies collectively account for 97% of total copper production in Indonesia. Other par-



ticipants of note include Aneka Tambang, the state-run mining company that owns the Pongkor and Cibaliung mines in West Java and Bantam, which produce gold and silver, but not copper.

In 2012, this small industry saw the entrance of a new player, G-Resources. A sixth generation Contract of Work (CoW) with a resource base of over 8 million oz of gold, G-Resource's Martabe mine has revitalized interest in Indonesian mining at a time when few thought it possible to put a mine through to production. First entering into production in July of 2012, G-Resources surpassed its own production estimates in a year when aggregate gold production shrank. In 2013,

the company produced 280,000 oz of gold and approximately 1.5 million oz of silver.

Though still young, Martabe has come to represent the best of Indonesian mining; world-class resource bodies and a globally low cost structure. Peter Albert, CEO of G-Resources, said: "Martabe was always going to be a very competitive mine, and the cost profile over the past 18 months has demonstrated that we are operating well within the lowest quartile of global gold producers. In 2013 the "allin-sustaining-cost" (AISC) was \$799/oz and for the first half of 2014 it is about \$700/oz – there are very few gold mines around the world operating at these sort of cost levels."

Key to the company's success has been its emphasis on community relations and safety, both of which have proven to be perennial pitfalls for larger members of the industry, like Freeport. Albert continued: "With a workforce of 2,600, we have placed a heavy em-



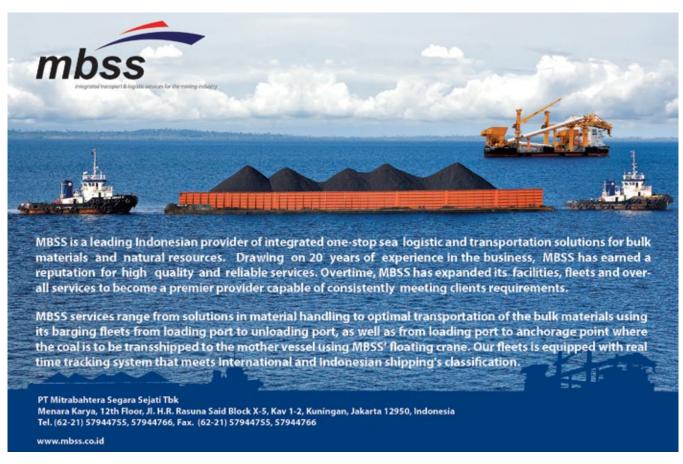
Peter Albert, CEO, G-Resources.

phasis on worker training, development and safety. In two years of operations we have had only four work related injuries – four too many to be sure, and we remain committed to creating a zero accident workplace."

In the past several years, Indonesian copper and gold production has swung wildly on account of poor mine management. Riots have plagued Grasberg, halting production. Many expect production for the mine to fall in 2013 following a bout of community related issues that flared following a tunnel collapse which killed nearly 30 and led to a two-month suspension of operations at the mine.

Uncertainty continues to hang in the

air over Indonesian copper and gold production following several years of declining production and the implementation of an export ban which could adversely affect Freeport and Newmont. In 2012, Indonesian copper production stood at 430,000 mt/y, down from 543,000 mt/y in 2011. Gold production stood at 95 mt/y in 2012, down from 96 mt/y in 2011. Though Newmont achieved its 2013 production estimates, the company was recently downgraded by analysts for fear over the unclear fate of Batu Hijau, which now faces stricter regulation through the country's export ban. This fear was made legitimate in June, when Newmont filed for international arbitration against the Indonesian Government over the impact that the export ban has had on the Batu Hijau mine. The Government has since retaliated with threats of full blown nationalization should Newmont fail to comply with the government's new set of regulations.



another is essential. Each proj-

ect is different and sometimes

we need to utilize all modes of

transportation, combining air,

sea, and road, to assure that the

shipment arrives on time. Mov-

ing cargoes within Java and also

between Java and Sumatra is

straight forward, but Indonesia

itself is divided into two parts:

West and East. Jakarta is the door to the West, including Java,

Indonesia's service providers of today must contend with two opposing forces: the demand to help clients reduce costs and the need to increase efficiencies in a country marked by logistical headaches. To not only survive, but to thrive in such an environment, service providers must rely not only on their depth of understanding of the local Indonesian context but also on their ability to provide creative solutions.



Terrestrial laser scanning for mine reconciliation survey. Photo courtesy of McElhanney.

while Surabaya is the door to the East, where there are numerous additional islands. The major

challenge is to connect West and East. For example, the best route for a shipment destined for south of Sulawesi is through Jakarta, while a shipment destined for north of Sulawesi must pass through Surabaya."

Apart from the complex nature of Indonesia's geography, changes are taking place within the mining industry, particularly in coal, that can shape a shipping provider's strategy. A case in point can be found in the Indonesian company Anugrah Lautan Luas, which specializes in offshore coal transshipment activities in Indonesia. Not only providing the floating crane terminal, Anugrah Lautan Luas has a fleet of tugs and barges, offers storage facilities and also handles agency services. Adi Kusumah, CEO of Anugrah Lautan Luas, explained: "While many other companies in the transshipment business limit their services entirely to transshipment, Anugrah Lautan Luas believes that in order to help the customer in difficult markets.

Shipping: Navigating Rivers, Seas and the Market's Changing Tides

Miners, engineers, and contractors working at Indonesian mines face geographic and topographic challenges ranging from remote locations and rocky terrain to seasonal flooding. These and other factors must be considered in the planning, design, and day-to-day operations of mine sites, but the shipping industry must grapple with its own challenges to meet the demands of clients both within the archipelago and beyond.

To say that Indonesia, with over 17,000 islands spread over 1,919 million km², requires careful planning of shipping logistics is an understatement. Rastian Nazir, managing director of PT. F.H. Bertling Logistics Indonesia, a global project freight forwarder that also provides project management services, explained: "Indonesia is a very large and complex system of islands. Knowledge of the various navigable channels for moving cargoes from one point to



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like the one we see today, it is important to oversee the process from beginning to end and tailor the design of the fleet in accordance to the river's restrictions, trade conditions (need for blending), etc. In this way, Anugrah Lautan Luas is able to protect the customer at all points in the supply chain."

In addition to shifting strategies, the entrance of new technologies is anticipated. Amit Bhardwaj, country general manager of ISS-Marindo, a joint venture between the international Inchcape Shipping Services (ISS) and the local PT Equator Marindo which offers maritime and cargo services, noted: "As the mines in Indonesia continue to move inward, there will be an increased demand for unconventionally sized barges and tugs. They will need to be smaller and have less draft, but still able to perform to the level of barges and tugs currently used; this can only be achieved through the implementation of new technology."

With such a complex landscape to consider, shipping and logistics service providers encourage miners to seek them out as partners. Rather than perform these functions inhouse, miners would be better served to work with those that specialize in shipping and logistics. In regard to the transshipment services that CSL Group provides in Indonesia through its local partner Lintas Wahana In-

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donesia, Jan Gramm, general manager, said: "CSL will work with mines of other clients that wish to develop a reliable, cost effective supply chain that can help differentiate their own business, but also prefers to invest their funds and focus on their core business; e.g. coal mining and marketing. These mines will subcontract the supply chain, including transhippers, to sophisticated specialist companies such as CSL."

Explosives: A Booming Industry

In line with the maturation of Indonesia's service sector, the domestic market for explosives has changed markedly in recent years. This has been driven by changes within the industry's supply chain dynamics. Once entirely serviced through external feed-stock production facilities, today, Indonesia produces just over 500,000 mt/y of ammonium nitrate (AN), the primary feedstock for explosives. This creation of domestic production facilities for AN has offered substantial benefits to both Indonesian miners and those backing investments in these facilities.

In 2012, the market for explosives within Indonesia changed. Initiated by market leader Multi Nitrotama Kimia (MNK), which expanded their existing production capacity from 37,000 mt/y to 150,000 mt/y, this expansion was soon followed by that of

Orica, an Australian company with a global footprint, which invested in a 300,000 mt/y production plant in Bontang.

Underscoring MNK's decision was an understanding of the unique challenges that miners within Indonesia face, especially as a result of the country's slow licensing process. Dharma Djojonegoro, CEO of MNK said: "Our clients value reliability, especially given the constraints present in their supply chain; from those related to licensing to those related to cash-flow. If a mining company asks for 1,000 mt of AN by a specific date, they expect to have that amount of product by that specific date. Having local production facilities was hugely advantageous to capturing a greater amount of clientele from the mining industry."

Having a production facility located in Kalimantan, in the heart of Indonesia's coal mining region, has also meant that MNK can respond more quickly to their client's need, avoiding what has historically been one of the largest pitfalls for those servicing the Indonesian market; the state of the country's logistics networks.

The benefits associated with AN production in the country have not been unique to MNK. The establishment of a production facility for Orica has offered the company similar results. Todd Peate, country manager

Bertling 🚄





Sean Rodger, AEL Mining Services' Indonesia country manager.

of Orica Mining Services at time of interview said: "Our AN plant in Bontang has substantially altered the dynamics of the explosives business within Indonesia for both Orica and its customers.... While both regulators and our customers must adjust to this substantial paradigm shift, the benefits attached to this plant have been strongly felt by our clients and Orica. Through our AN plant in Bontang, Orica has been able to both service the domestic market as well as Australia. We have also recorded strong levels of profitability on the back of this investment. This should only improve in the short-term as we tweak our supply chains to take into account the addition of this plant."

A more recent entrant to the Indonesian market is the South African company AEL Mining Services which delivers 120,000 mt/y of bulk explosives to the industry. Operating via its licensed explosives partner, PT Tridaya Esta (TDE), AEL Mining Services likewise has been investing heavily in Indonesia. While the company has been importing products for initiating systems from the company's central manufacturing hub in South Africa since 2007, AEL and TDE are completing the construction of TDE's detonator assembly plant in Indonesia, planned to be operational by early 2015. Separately from its ambitions to assemble locally, AEL Mining Services is introducing new innovations to the market. In March 2014, AEL began sourcing Ammonium Nitrate Solution (ANSOL) through its joint venture with the PT Black Bear Resources Indonesia (BBRI) ANSOL plant in Bontang to one its customers, PT Kaltim Prima Coal (KPC). This was the commencement of the first successful and ongoing supply of ANSOL in Indonesia. Sean Rodger, AEL Mining Services' Indonesia country manager commented: "AEL has improved the process of manufacturing of explosive emulsion by using ANSOL, making it more cost and time efficient, as the previous melting process of AN prill is not

required, thus reducing AEL's customers cost in terms of energy and adding significant environmental benefits such as carbon footprint reduction." Collectively, through these investments a better industry has emerged.

Equipment Distributors: Providing More than Just Equipment

With the current downturn and environment of regulatory uncertainty, many Indonesian miners have been decreasing their infrastructure spend, including that invested in new machines. As miners delay the purchase of heavy equipment, they are focusing on optimizing the pieces they already own. To achieve greater product longevity, miners are turning to the equipment distributors that they rely on for new equipment in boom times to provide additional services when costs are constrained.

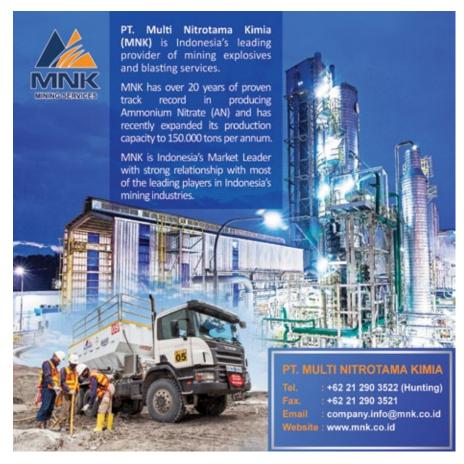
One way that equipment distributors are able to assist their clients is by having nearby branch locations, allowing equipment distributors to reach the mine sites in a shorter time should a piece of equipment breakdown. PT. Probesco Disatama, which distributes CASE construction equipment amongst others, has 18 branch locations in the five major islands, namely Java, Sumatra, Kalimantan, Sulawe-



Hairuddin Halim, COO, Pt. Altrak 1978.

si and Papua, and will be adding new locations in east Indonesia.

However, in an island country as dispersed and underdeveloped from an infrastructural standpoint as Indonesia, oftentimes more locations is simply not enough. PT. ALTRAK 1978, which represents Cummins, Kawasaki and other world-class brands, has 11 branches dedicated to mining operations, with more than 1,000 technicians on staff. Despite this extensive network, Hairuddin Halim, PT. ALTRAK 1978's COO, said: "There are emergency situations where PT. ALTRAK 1978 simply cannot reach a remote mine site in time. It can sometimes take our



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technicians eight hours to reach a site or even two days if there is flooding. If a piece of equipment fails, the contractor will not allow work to be put on hold for four hours. To prevent these kinds of situations from occurring, PT. ALTRAK 1978 trains the mechanics on site to complete easy maintenance, periodic maintenance and trouble shooting."

As the mining sector in Indonesia continues to stagnate and purchases for big-ticket pieces are suspended, equipment distributors can only be successful by approaching the industry with a service-focused strategy. Halim continued: "PT. ALTRAK 1978 provides heavy equipment, but more importantly PT. ALTRAK 1978 is a service based marketing company. In Indonesia, if the staff is trained well, the task will be completed properly. However, the differentiating factor is the way in which the service is provided."

Mineral Processing: Balancing Local and Foreign Providers

Although mineral processing services have been available in Indonesia for decades from the likes of the local heavyweight Sucofindo or internationally recognized Bureau Veritas through its local partner Inspectorate, the sheer volume of production has enticed new entrants, domestic and international alike.

One such company is the global firm SGS. While SGS has had a presence in Indonesia since 1985, it was only in 2009 that the company began to turn its attention to developing its trade inspections for coal, minerals and exploration geochemistry services which it offers to companies active around the world. Partnering with local providers, such as PT. Surveyor Indonesia, SGS has come to learn that international players are at a slight disadvantage to established local companies. Business manager at SGS Indonesia N. Vivekanand remarked: "These local companies have been operating in Indonesia for a number of years and have had the privilege of setting up onsite laboratories for mining companies. These mining companies are dependent on these local service providers to validate the production quality that will be shipped. The mining companies then have an incentive to continue to use these same local service providers to certify that the quality produced aligns with what was ultimately delivered to the shipping vessel."

While this may prove a disincentive to newcomers looking to break into the Indonesian market, N. Vivekanand points out: "Although local companies might be preferred by local mines, the trading of mining and mineral products is a global business and many foreign traders, buyers and joint venture partners require globally recognized services, names and brands, such as SGS. Certificates issued by a company that carries the reputation of SGS are preferred in global or regional markets."

Although a miner might be torn in choosing between a local versus international firm, it still remains that greater competition in the market can only stand to increase the quality of mineral processing services in Indonesia.



Trade sampling. Photo courtesy of SGS.



One of Indonesia's strongest attributes is its waterways, which have allowed for bulk commodity industries, such as coal mining, to develop in areas where infrastructure is otherwise very poor. Photo of coal being loaded onto a mother vessel. Photo courtesy of MBSS.

Two events that will unfold in the wake of the country's export ban will play a far more significant role in determining the future of Indonesia's mining industry than the ban itself.

On Sunday, January 12, 2014, in what was a surprise event for the country's mining industry, the Government of Indonesia moved forward with its plans to enforce a ban on the export of raw minerals from the country's ports. Put forth as law in 2009 following four years of public consultation, January's export ban had long been public knowledge; part of the country's movement to internalize a greater share of the gains associated with its natural resource sector.

The ability of the Government to enforce such a requirement, however, had been doubted since the ban's introduction, many being unconvinced by the economics of domestic smelters. At a point in time when Indonesia's current account deficit was at a historic high and raw ore remained one of the country's most important trade commodities, implementation of the ban seemed all the more unlikely.

Logic, however, failed to give way to the Indonesian Government's determination. Though less stringent than initially conceived (as many of Indonesia's principal mineral commodities were exempted in a last minute Presidential decree), the ban, which still applies to nickel and bauxite, was enforced amidst much uproar. Police took to the country's ports to preempt protests. Speculators considered the impact that the ban might have on global commodities prices. Indonesia accounts for between 18% to 20% of the global supply of nickel, and between 9% to 10% for bauxite.

Though significant, far more important than the impact that the country's export ban will have on Indonesia's economy immediately will be in the way in which several issues attached to the ban's enforcement play out. The most significant of these events will be the way in which many of Indonesia's largest miners are forced to comply with new requirements suggested by former President Susilo Bambang Yudhoyono's (SBY) decree.

In structuring the decree, which exempted many mines from the ban, SBY barely back-stepped from requiring domestic miners to construct smelting facilities. For those miners involved in the production of copper, iron, lead, zinc, and magnetite, exports of raw ore can continue until 2017, at which point in time processing facilities must be established. Until 2017, a progressive tax on all exported commodities will be applied: 25% in the first year for cop-

per -20% for all other commodities - thereafter escalating to 60% for all minerals in 2016.

Aimed at punishing the country's mining industry for failing to comply with the Government's initial mandate, the imposition of this tax strikes at the heart of Indonesia's current struggle to integrate many of the country's oldest mines into the new legal framework. Built under a different political administration, mines such as Freeport-McMoRan's Grasberg and Newmont's Batu Hijau offered their investors concessions that would have not been granted later. The legal document governing each mine, their Contract of Work



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In line with the efforts to develop non oil and gas energy business portfolio, MedcoEnergi acquired two Mining Rights (IUP) for Coal Exploration in Nunukan, East Kalimantan, through the acquisition of PT Duta Tambang Sumber Alam (DTSA) and PT Duta Tambang Rekayasa (DTR), through the Company's wholly owned subsidiary PT. Medco Energi Mining Internasional (MEMI). Started in October 2013, we are constructing a new crusher and ISP in order to increase our stockpile capacity from 60kt to 120kt per month, to avoid any delays of shipment and defers.

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Mining Services

(CoW), was set forth as law; all subsequent legislation affecting the country's mining industry was to be inferior to these pre-established contracts. This included Indonesia's IUP licensing system, which, introduced in 2009 with the 2009 Mining Law, created a new framework for foreign investment into mining and introduced Indonesia's mineral processing requirement. Though CoWs would terminate at a certain point of time, until this point was reached, they were to be considered untouchable.

The Indonesian Government's imposition of the country's IUP system on the country's oldest mines, through requiring CoWs to establish mineral processing facilities and by creating a new tax regime to which their exports will be subject, is the second assault that the Indonesian Government has waged on the sanctity of the CoW in the past six months. In October of 2013, it was announced that all foreign miners would be required to comply with a set of divestment requirements whereby over a 10-year period all mines currently in production that failed to build integrated mineral processing facilities would be forced to divest 51%

of their equity to a local stakeholder. While these events have been noticed by the industry, their recourse has not been fully felt.

This could change, however, with the implementation of Indonesia's new set of export taxes. Estimated by some analysts to cost Freeport-McMoran up to \$5 billion over three years, the price of SBY's export tax could be far larger for both the country and the industry. Bill Sullivan, licensed foreign advocate at Christian Teo Purwono & Partners, explained: "The Government has chosen to pursue its CoW objectives through bilateral negotiations. If, however, this ceases to be true and the Government seeks to unilaterally impose additional obligations on CoW holders, it is quite possible that then a number of the larger CoW holders might seriously consider pursuing arbitration against the Government, although this would be very much seen as a strategy of absolute last resort."

Though generally taxation disputes are one of the few matters within CoWs that cannot trigger international arbitration, the enforcement of an export tax could prove to be the straw that breaks the camel's back

Smelting

As the Government of Indonesia has taken steps to strongly encourage producers to construct mineral processing facilities, proposed projects have materialized. To date, the BKPM, Indonesia's foreign investment coordinating board, has issued 28 permits for the construction of such facilities, three of which will smelt bauxite, five of which will smelt iron ore, 14 of which will smelt nickel, and three of which will smelt copper. Through these investments, the BKPM expects to grow foreign investment into the country by 15% in 2014. These facilities are speculated to bring in \$12.4 billion of investment into the country over the course of the next three years.

Though some have speculated how many of these facilities the industry will see developed, citing infrastructure concerns and rationalizing that perhaps many of the proposed facilities are companies attempts at buying time, some maintain that these projects are economic Simon Birch of Resindo Resources Indonesia, a domestic consultancy, explains that, "The development of smelting facilities in the country requires a large amount of resources, however, these facilities are feasible and are economic for certain groups. We have seen serious interest in nickel. In spite of some arguing that Indonesia lacks a sufficient resource base to develop these facilities, we believe that for certain commodities, especially nickel, we will see smelters developed."

Indonesia has moved to lock in those that would propose the development of such facilities. The country has issued a regulation stating that all those intending to build smelters domestically must pay a 5% guarantee on their investment. In 2014, Indonesia will see three smelters enter production: one involved in processing bauxite into chemical grade alumina, and two involved in processing iron ore.

Among the most interesting of Indonesia's proposed smelters is that of Asia Minerals Corp. (AMC) in so far as it represents the direction in which the Indonesian Government would like for domestic mining to head: smelting acting as part of the company's license to operate. Currently involved in the trade of raw manganese ore in West Timor, AMC plans to use the funding generated through gradually increasing exports, which the firm plans to expand from 250,000 mt in 2014 to 500,000 mt in 2015, to fund the development of first a manganese smelter and then later an iron ore mine. Regardless of the politics that will continue to surround Indonesia's export ban, AMC proves that smelting, if approached properly, can be attractive.

for the industry's largest miners, prompting an escalation of discussions as to the legality of other impositions on the industry, such as mineral processing or divestment requirements, to international courts. While Freeport recently finalized their CoW renegotiations, this could still happen for Newmont, which in June filed for international arbitration against the Indonesian Government. Should the Government of Indonesia lose, the current political administration could lose the driving force behind its push to force others to establish mineral processing facilities. Should the Government win, more drastic measures, such as the use of a full shutdown of the country's largest mines as a political bargaining chip, could be taken.

The implications of such a shutdown would be far reaching: widespread job losses and the descent of several regions into poverty. Ir. Syahrir Abubakar, executive director of the Indonesian Mining Association, explained that in such a scenario wherein the country's largest miners would elect to close, "Freeport-McMoRan anticipates a loss of 22,000 laborers: for Newmont, 8,000. The impact of these losses would be highly regionalized. In West Sumbawa, the area surrounding Newmont's Batu Hijau mine, and Mimika, the area surrounding Freeport's Grasberg mine, 45% and 25%



Ir. Syahrir Abubakar, executive director, Indonesian Mining Association.

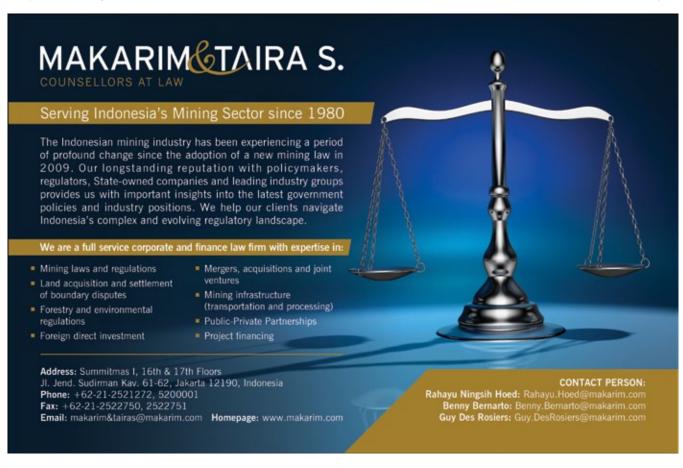
of the region's inhabitants are employed through mining. Yet the effect of a full shutdown is far larger than this. In the case of Grasberg, if Freeport were forced to halt production, PT Smelting, one of Indonesia's four smelters, would shut down, which would in turn prohibit them from supplying Petrokimia Gresik with an important byproduct produced through refinement, in effect causing one of Indonesia's largest fertilizer producers to decrease production. This would, in turn, translate into widespread job losses across East Java."

Makoto Miki, president director of PT Smelting said: "If PT Smelting were to shut

down, it would be quite ironic. Through enforcing a policy that seeks to encourage mineral beneficiation, one of the country's few smelting facilities would close."

Following a shortfall for the supply of copper resulting from the suspension of operations at Newmont's Batu Hijau and production decreases at Grasberg, which has cut production by 60% since the enforcement of the ban, this possibility of forced closure has grown ever more real. Miki notes that this could happen as soon as January 2017.

A second event that will unfold in tandem with these discussions will be the success or failure of Indonesia's efforts to establish mineral processing facilities for bauxite and nickel. In differentiating nickel and bauxite from those mineral commodities exempt from the export ban, the Government of Indonesia reasoned that international interest in the construction of nickel and bauxite processing facilities was stronger than for copper or iron ore. Furthermore, nickel and bauxite smelters could more easily be established immediately. The economics of establishing integrated mineral production and processing facilities for both commodities certainly cause the closure of several hundred small- and medium-sized mines. Infrastructure is weak in many of



the regions best suited for such facilities; rates of electrification are low, and access to water, roads and ports, poor. Rahmat Soemadipradja, partner at Soemadipradja & Taher, said: "The state electricity company has confirmed that in certain areas it can provide the energy needed for infrastructure projects, but other areas will have to go about finding that energy in other ways."

Though the Indonesian Government has slated \$35 billion in infrastructure spending starting in 2014 in part to address this, it is highly unlikely that many of these projects will proceed prior to the establishment of these facilities. Should these projects fail to materialize by 2017, the government of Indonesia will lose a key point of leverage for requiring other commodities to establish mineral processing facilities. Many of the problems experienced by Indonesian miners are a result of the country's rapid decentralization. Decentralization propagated corruption, leading to cases like that of Churchill Mining. Decentralization obfuscated permitting. In the view of some, SBY's Export Ban is an attempt by the central government to rectify the problems created by decentralization through the central government reasserting control over the industry.

Karlheinz Spitz, president commissioner of PT Env Indonesia, a consultancy special-



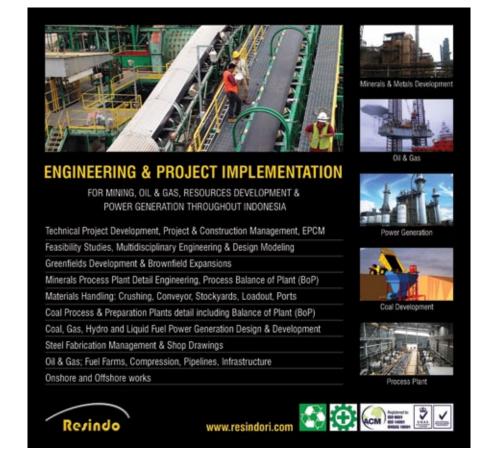
PT Smelting's waste water treatment plant. Photo courtesy of PT Smelting.

ized in environmental permitting and risk management in Indonesia, noted: "The central government realizes that too much authority was devolved to local governments. Power, though, is much more easily given than rescinded. Indonesian President Susilo Bambang Yudhoyono's Export Ban is quite an elegant way of the central government wrestling back some of the authority that was conferred upon local governments. Many of the small mining operations that sprung up post-reformasi will close. The focus of the industry will, once again, return to large-scale mining projects; projects that once fell under the purview of the central government."

Others argue that resource nationalism has been the overriding driver of the ban. Simon Birch of Resindo Resources Indonesia, a domestic consultancy, notes said: "The Indonesian government has put considerable thought into developing the piece of regulation that governs the country's export ban. Although naturally the Government may initially be lenient in its enforcement, granting certain exceptions, the ban itself will be enacted: it plays an important role in encouraging the development of mineral beneficiation facilities. The export ban plays an important role in forcing upgrading in remote areas, in the development of local ecosystems - schools, businesses - that arise to support these projects. It is a tool for economic development."

The lucre of the country's mining industry has certainly been disproportionally appropriated by foreign mining companies. In spite of its mining industry, Indonesia is indigent. The Government's effort to build mineral processing facilities is a bold attempt to use the country's natural resources for greater control in international commodity markets and, ultimately, to generate domestic wealth. This could never have been attained easily and without stepping on toes, but, the logic backing the Government's decision is understandable and many within the domestic mining industry may even agree with it in principal.

The larger criticism that can be made of the Indonesian Government is of the way in which they have proceeded with the enforcement of the ban, which reveals other, more political motives. This is observed in the urgency with which the Government has moved to enact this ban. Four years, regardless of the length of the period of public consultation preceding the implementation of the law, is insufficient to prepare any country – especially a country as ill-equipped by way of infrastructure as Indonesia – for the undertaking of such an ambitious project.





Activity with local children at SMP Wahana Harapan. Photo courtesy of Deloitte.

Rahmat Soemadipradja said: "The government is attempting to make the export ban a political issue. It is important to note, though, that the way the government has behaved is not new. The government has put the industry in a tough position, but it has traditionally approached policy making by necessity."

This would also explain the country's use of a blanket piece of regulation forcing all miners to develop smelting facilities, irrespective of the potential profitability of those facilities and the implications that forcing these companies to do so would have on trust in the country's legal system.

Demagoguery and any potential upside generated through the creation of such facilities, however, cannot justify the way in which this ban was enacted. The cost of the ban on the country's industry and integrity is too great.

Though, since January, the government of Indonesia has proposed a revised export tax which could lessen the impact of the export ban on the country's miners, specifically those investing in smelting facilities, much could still change once Indonesia's new president, Joko "Jokowi" Widodo, assumes office. Ratih (Ipop) Nawangsari, counsel at O'Melveny & Myers, an international law firm with a presence in Indonesia. remarked: "Jokowi is known for his focus to solve the short-term/immediate issues first. Thus, while he will respect and uphold the requirements that have been set out under the laws, he will be open to consider some helpful measures to give mining companies a bit of a breathing room. That does not mean he will lift the export ban completely, but he will probably set some less restrictive requirements so that at least production activities can be restored."

Michael Carl, foreign legal consultant at SSEK, a full service Indonesian law firm speculates on the several scenarios that could come about. "Assuming that there is no major financial crisis, we will see a system in which two situations could occur, potentially together. The first is the entrance of Indonesian entrepreneurial-type players who are not necessarily mining specialists, but have access to foreign capital. The question is then whether these Indonesian entrepreneurs need the technical expertise to build a large mining house or if they can buy it.

The second possibility is that some of the state-owned entities will begin to take more of a center-stage in developing local mining houses. State-owned enterprises have technical expertise and can acquire financing, but they have government and political constraints that can make it difficult for them to be able to move effectively in developing opportunities. In regard to foreign players, their role is unclear if there is no significant regime change. It is too soon to tell what will take place, but Indonesia is determined to remove itself from the middle income trap and wants to make certain that the development of its resources is done in a way that will help the country to develop."

Regardless of the outcome, Indonesia's best days do lie ahead. How soon the country will reach them though, will depend upon the approach the country's next leader takes in engaging domestic industry.



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