

COVER STORY

BY TOBY A. A. HEAPS

CANADIANS AT THE GATE

Two Canadian mining companies stand to give Mongolia's economy a Genghis-Khan-size boost



"Canada's relationship with the US is like that of a mouse in bed with an elephant...no matter how friendly...one is affected by every twitch and grunt."

—Pierre Elliot Trudeau

Extending the metaphor, Mongolia's relationship with China is like that of a termite in bed with a T-Rex.

Mongolia is a country two and a quarter times the size of Texas, with a population smaller than that of Toronto, and a livestock count bigger than the population of Canada. They live next to a neighbour with 1.6 billion people that has already swallowed its other half, whole: Inner Mongolia. Half of all Mongolians are nomadic herdsman, living La Vida 12th Century. Even some of the wealthier cashmere traders who carry cell phones still dress like Genghis Khan.

Eight hundred years ago, climate change opened up the passages from the mountains of Mongolia to the plains of Eurasia and enabled Genghis Khan—by providing grazing ground and provisions for his army—to conquer everything between the Caspian Sea and Korea. Today, climate change is forcing another change, and Mongolia is one of most affected countries.

Average seasonal temperatures in Mongolia have increased by as much as 1.6 degree Celsius over the last 30 years. This change has a large impact on the nomadic herdsman (sorry, Mongolia is not politically correct yet), because it disrupts the grazing pastures. Whatever impacts

the nomads impacts Mongolia because half of the country is nomadic. The Prime Minister of Mongolia Nambar Enkhbayar thinks he has a solution. Since he can't stop climate change, he figures to reduce the number of nomads. This goes to the heart of Mongolia's cultural identity.

Mongolian Snapshots:

At the dawn of the 21st century Mongolia's capital city, Ulaanbaatar, is undergoing ruralization and urbanization at the same time. All you have to do to realize this is check out the headquarters of the Khan Bank, the bank with the most retail branches in Mongolia. Right there where the CEO's parking spot should be is a Ger, a traditional felt circular tent that has served as residence for Mongolians since the time of Christ.

Half of the capital city is soviet style block concrete buildings and the other half is like a carnie convention, called Ger districts. These displaced herders live on the margins of poverty and are a huge source of pollution, from their lignite stoves. The city smells like a big campfire.

There are modern hotels, but the foreigners have only one place to go swimming besides the Japanese embassy. Every car is a taxi and rush hour is from 9 am to 9 pm. And when you ride, you ride shotgun. After almost three quarters of a century living under soviet rule, almost nobody understands the concept of street names or numbers. If you don't have a major landmark in your direction, don't expect any help from the locals.

At the heart of the city is SUPATRAR Square, a massive kilometre-square block of marble that is the seat of Mongolia Government. Like all

great squares, there is man on a horse in the middle. It is Sukhbaatar, the great Mongolian revolutionary who declared the nation's independence in 1921.

A rendering of Genghis Khan (except they spell it Chenghis) adorns every public building, office, home, and tree. At least that's how it seems. Every product is Genghis-branded. There's the Genghis Hotel, Genghis beer, Genghis Vodka, and Genghis-you-name-it. There's even a Korean-food restaurant called Genghis.

You can also see large western style billboards, spanning multiple floors of high rises, advertising expensive cashmere sweaters, using local models posing according to the homogenized western advertising style.

Sambuu Demberel, the jolly chairman of Mongolia's Chamber of Commerce (and nine other titles if you read his business card), is "proud Mongolia doesn't have any McDonalds [although the golden arches can be found at a copycat restaurant called MonBurger]. We have good healthy food," he says. But he likes western technology. His Bluetooth technology cell phone alerts him to his wife's calls with Beethoven's Ninth Symphony.

The traditional Mongolian shoe points up at the toe, so that, according to Mongolian folklore, the shoes do not harm the land. In contrast, the modern Mongolian lady, almost to a tee, sports stiletto high heels stabbing the ground with each step, and surprisingly, adeptly maintaining traction on the non-salted icy streets of Ulaanbaatar.

Cars drive on the right side, but there are almost as many vehicles with steering wheels in the British style (steering wheel on the right). That's because Hong Kong has a fire sale going on for used cars as they convert to the Chinese system.

The Mongolians have a shaman tradition (in fact, many of their folk fables mirror those of the Inuit, who also are born with blue dots on their back). Today the national religion is Buddhism, but a special kind of Buddhism: the head lama is married and they drink vodka. They also bless mines with incense and sacred mantras to bring good luck.

The Mongolians are strong willed, proud people with deep heritage. Modernization is having a hard time curing them of that. The Prime Minister, a former communist, poet and multi-linguist, wants Mongolia's nomadic people to settle down. He is of the school that settlement precedes civilization. He wants Mongolia's vast mineral resource wealth to pave the

way for this transition.

Money Talks

Mongolia's official GDP is about a billion bucks US funds. Ivanhoe Mines, a Canadian company now operating in Mongolia, expects to double that number within the decade. That's with one mine in the South Gobi desert.

Ivanhoe holds a 100 per cent interest in the Oyu Tolgoi Project (8 km by 10 km) and has exploration rights covering approximately 96,000 square kilometres in central and southern Mongolia. Based on drilling to date, AMEC estimates that the property contains an inferred resource of approximately 30.1 billion pounds of copper and 9.7 million ounces of gold. With approximately 25 drilling rigs, it is the biggest exploration in the world right now. Entrée Gold, which holds a licence immediately adjacent to the Oyu Tolgoi site, simply posts pictures of the Ivanhoe site, sending their share price skyrocketing (one of Ivanhoe's contracted drillers says he bought Entrée shares for \$25,000, and sold them for \$200,000. For the record, his buy order for Ivanhoe is set near \$6.).

Ivanhoe, hailing from Vancouver, is basking in the glory of The Discovery of the Year Award for their jackpot find, The Oyu Tolgoi (Turquoise Hill) copper mother lode. The Chinese smelters are hungry. Ivanhoe's investors have ridden a roller coaster from \$2.50 per share to \$15.00, back down to \$8.00. Ivanhoe mines was one of the best investments of 2003 with a return of 700 per cent from November 2003 to April 2004. Preliminary estimates value the mine's metals at \$40 billion.

But there are some problems. The mine-to-be is in the middle of nowhere, there is no water, no roads, and no power. But for Ivanhoe, no sweat. They were able to make a mine work in Myanmar as a joint venture with the Junta, and their VP Exploration, Doug Kirwin has been to North Korea eyeing prospects. The expression is that 'prospectors go wherever the gold is.' These guys take that to a new level.

Boroo Gold, a subsidiary of Saskatchewan-based Cameco, is the other Canadian player with heft in Mongolia. Their gold mine, two hours drive north of the capital, will represent seven percent of Mongolia's GDP this year. It is the largest goldmine in the country. Boroo Gold won the Mongolian Chamber of Commerce's Award for Best Foreign Investor in 2003. The company's Boroo mine extends over an area 2.5 km by 1.5 km, containing four pits. Over this course, the company estimates they will recover 1 to 1.2 million ounces of gold in Dore bar form (85% gold and 15% silver). The mine has an expected life of 5.5 to 6 years, and is being spun off, along with the rest of Cameco's gold divi-

sion as an IPO this year (Centerra).

The mine's VP of Government and Corporate Affairs, Igor Kovarsky, has an old communist pennant hanging in his office. It reads, 'Communist Brigades Unite to Produce a Communist Unit of Labour.' He jokes that now things are better with the Capitalist Brigades in charge. "In communist times, we had all these environmental regulations, but almost no one followed them." Now, in Mongolia, no one would likely be the wiser if Cameco decided to flout the state's environmental edicts. "But the difference is," Kovarsky explains, "we have to protect our reputation. Once you lose that with shareholders, it is all over."

*When the last tree will be cut down,
When the last fish will die of thirst,
When the last river will go dry
People, then you'll understand that
You can't eat money*

—Haranga, The 'Rolling Stones' of Mongolia, UB Palace Concert, March 6, 2004.

"The two companies [Boroo and Ivanhoe] could not be more different," says Mr.D. Turbat (many Mongolians just go by the last name, and sometimes the first initial is a luxury) is the General Manager of Mine-Info, a company that helps most foreign mining companies break into Mongolia. That's understandable looking at their backgrounds. Boroo Gold is part of the Cameco family, steeped in a culture of national security and caution, given its core product, uranium. They are headquartered in sleepy Saskatchewan, and have a reputation for being sure and steady, and quiet. Ivanhoe is, well, Robert Friedland, a personality bigger than the Pacific Rim port that the company comes from. He's the guy that sold Voisey's Bay to Inco for C\$4.1 billion, and he's had his fair share of spectacular flops. He moves quickly, like an Asian Tiger. Maybe that's why he's comfortable living out of his base in Singapore. He's a glitzy promoter.

As Friedland noted at the Prospectors and Developers Association Conference Awards banquet in his speech, mining is similar to pharmaceuticals. You spend a lot of money trying to hit the jackpot. If you do, you're a hero. If you don't, you're the goat. In Mongolia, goats are worth a lot in cashmere.

The Issues

Mongolia is a particular country. Although its official annual per capita income is less than US\$500, the country does not suffer from any of the fashionable economic crises that are prevalent around the world today in countries with similarly low per capita incomes. "Basical-

ly, there is no economic crisis here," says Peter Morrow, Chief Executive Officer, Khan Bank. There is no readily apparent urgency to pawn the state jewels. The country is not starved for foreign currency.

However, there is an impetus for opening up to foreign capital. Part of it is the Prime Minister's push for modernization. Part is due to a widespread acceptance of the orthodoxy of market capitalism. There is also a sense that inviting foreign capital into the country will act as insurance against Chinese assimilation.

The future of Mongolia is at a critical juncture. How will Canada's capitalist ambassadors tilt the balance?

Most of Mongolia's civil society is anaemic. Darsuren, 29 year-old modern day nomad (she works for Ulaanbaatar's Civil Aviation Authority) has a mindset that is typical of many Mongolians: "Sometimes when I think about what they [mining companies] do to the environment, it makes me mad. But then I think, there is nothing I can do."

The Onggi river crisis portends a seed of change on the horizon.

The Onggi river supported over 100,000 people and almost a million cattle with fresh and clean water and was also the source for the the 'Red' lake which went dry in 1995. Ph.D Chandamani, with a team of local people and experts, found that gold miners were largely responsible for the diversion of water from the sources of the river Onggi.

This was the start of the Onggi river movement, registered as an official NGO in 2001. Their fight to restore the river led them to a confrontation with one of the leaders of the Opposition and proprietor of the gold mine that is considered to be the largest culprit. Layton Croft, executive director of the Asia Foundation, says this is the first time Mongolian civil society has stood up for its environmental rights. "They are well organized and control the balance of electoral votes in five districts. They are a political force to be reckoned with."

Mining companies in Mongolia have an atrocious environmental record, according to a UNDP report on mining. The largest mine in the country, the Erdinet copper mine (a joint venture between Russia and Mongolia) is reportedly fined US\$500,000 per year, and just chalks it up as a cost of doing business rather than the more costly option of improving their processes. Enforcement of environmental standards is weak, and the nascent environmental elements of civil society are silent with few exceptions. In other words, a company can do pretty much what it likes.

CORPORATE KNIGHTS SCORECARD

ENVIRONMENT

Boroo Gold: Yellow light
Ivanhoe Mines: Yellow light

IVANHOE MINES MONGOLIA INC.**Strengths**

The company's commitment to achieving the ISO 14001 standard by the end of 2004 is commendable, as is their plan to commission regular external environmental audits. This will help to manage potential problems. Premature kudos as well if the company follows the recommendation of Knight Piésold in its own Scoping Study to place its Tailings Storage Facility at a site based on the least environmental impact and construction on the existing licence area, even though this is the highest cost option

Big Gulp

The company needs to ensure that deep water aquifers tapped for mining operations (up to 500 litres per second of water will have to be pumped in) are not depleted beyond 50 per cent of reserves; otherwise the result could be an "ecological disaster," in the words of Adiya Oyunsuvd, head of the water resource department at the Mongolian Government's Implementation Agency.

Alphonso Rivera, Chief Hydrologist of The Geological Survey of Canada, notes that while it is unlikely, the mine might sink if too much water is pumped out of the aquifers. "The important thing is that the draw down reaches a steady state equilibrium," Mr. Rivera notes. That will be a challenge with the Ivanhoe project because the water recharge rate in the Gobi is so low.

Changes to Mongolia's water law are under consideration at present. The company is lobbying and has made presentations to get jurisdiction over deep-water use transferred out of local hands to the central government. The company's claim that local governors are impoverished and would threaten holding up operations for bribes has a "kernel of truth, but is probably exaggerated," according to N. Batnasan of WWF Mongolia.

Ivanhoe has a strong water team, and knows what is at stake. "Water is the bugger," according to the project's Exploration Manager, Charlie Forster. Senior hydrologists working on the water issue seem confident that treated water from local aquifers can source the mine, and that the impact on the regions' sensitive water conditions can be minimized. "In my heart of hearts, I know a few wells will dry up and the

water table will drop, but I don't think it will be a big impact," says one of Ivanhoe's hydrologists. "For those that are affected, Ivanhoe will make sure they receive proper benefits," promises one of the company's Mongolia directors.

Bring in the NGOs

Mine dewatering analysis conducted by Aquaterra has shown that there would be a strong zone of water drawdown around the pits and the underground workings that will extend many kilometres. Due to the paucity of local monitoring capacity and likely changes to water law, the company will be its own watchdog and monitor. To invite confidence in its results and help bring attention to potential water hazards, Ivanhoe is encouraged to invite credible international environmental groups to do water check-ups to verify the extent of water table drawdown. The company's development of a water resource model is currently in progress and should assist in quantifying the likely effects on existing wells, springs and vegetation.

Shaky ground

The company will need to ensure its Environment Management Plan (EMP) puts in place special precautions for managing spills of chemicals and fuel (plan for contractors will store 1.5 million litres of diesel on-site) in case of earthquake (mine is in a high seismic zone according to the Scoping Report). Amgalan Bayasgalan, Director at the Mongolian University of Sci & Tech School of Geology, spends most of his time studying earthquakes in Mongolia. According to Mr. Bayasgalan, Mongolia is similar to California. There are two areas of concern nearby Oyu Tolgoi: a major seismic area that ends 100 km to the west, and more worrisome, there is a seismic area that runs 22 km south of Oyu Tolgoi. In his estimation, a major earthquake of six or seven on the Richter scale is a distinct possibility in one of these two areas over the next 50 years. Mr. Bayasgalan said he would charge "a very high premium" to Oyu Tolgoi if he was in the insurance business, but he admits that if he had to place a wager on where the next big earthquake in Mongolia would be, his bet would be the capital, Ulaanbaatar. In the event of a large quake, the surface waves from either source of the zones near Oyu Tologi would have "catastrophic effects" on all surface structures of the mining facility, he maintains. But it is the zone 22 km south of Oyu Tolgoi that worries Bayasglan more. "Here, the body waves would hit any underground mining shafts with quite a fury."

Winds of opportunity

The Scoping Study indicated that for both economic and technical reasons, the power station should be located at the Oyu Tolgoi site, rather than brought in from another location. The Scoping Study indicated that the likely capital cost of a coal-fired power station at Oyu Tolgoi will be in the order of \$800,000/MW. The project's projected power requirements are 300 MW. The company should explore how the region's vast wind (and solar) power potential can be cost-effectively integrated into the power mix with clean coal technology as the likely base. In total, the sun shines about 3500 hours per year with an average of 220 hours during winter months and 320 hours during summer months. During most of the year, the average wind speed is 4-6 metres per second. Funding from the Kyoto Clean Development Mechanism (CDM) may be available to help on this front.

Just smelt it

Due to traces of arsenic in fluorine in the deposit, the company would be well-advised to meet the recommendation made in its Scoping Study to put a priority on building a local smelter, tailored to the deposit, so as to minimize harmful emissions (as well as associated penalties and transport costs).

The Wild Ass

Mongolia's Khulan (Asiatic Wild Ass) live in specially protected area, which Ivanhoe may traverse with a 13 km stretch of road. The Park Ranger for the area, Mr. Munkhjargal said he prefers they build a road that takes a more circuitous route to China by Sainshand. Ivanhoe has expressed a willingness to provide funds for more park rangers for the area so they can guard against poaching.

BOROO GOLD CO. LTD.**Strengths**

The company's commitment to upholding World Bank Guidelines for the environment at the mine is a good sign. Ditto on their commitment to clean up the alluvial mining mess that was there before they arrived. The company also demonstrated prudent planning by separately storing topsoil when they dug out the mining pits. It will be used as backfill when the extraction phase is done. The company is willing to invite outside scrutiny: Boroo Gold's Manager of Environment & Safety, Les Adrian, said he that is open to the idea of letting NGOs on site to inspect operations. The company promises

to return the mine site to its original state (minus the alluvial) so that in 30 years, you won't be able to tell they were there. "We believe the mine will have almost zero impact on the local environment," says Moe Lindsay, President of Boroo Gold. The company has a US\$5 million environmental insurance policy and has set a preliminary rehabilitation budget of \$2.6 million. The company's environmental budget is approximately US\$800,000 per year. Boroo is practicing a 'clean as you cook' approach, rehabilitating the site as they operate using the waste rock from new pits to partially backfill old pits.

Not another Montana

The Boroo mine is much smaller than the proposed Ivanhoe Oyu Tolgoi mine. Boroo requires approximately 9MW of power, and will need 80 litres per second of water at the project's peak. The water is drawn from an aquifer nearby in the Boroo river valley.

The big environmental concern about Boroo is the use of cyanide leach process to extract most of the gold. Trolling around the Mongolian Ministry of Nature and Environment, this was clearly an issue of concern. Bayasglan Banzragch, the Deputy Director from the MNE's Department of Sustainable Development and Environment said he is not concerned about grazing animals drinking from the tailing pond, but he is worried about birds. The Boroo project is on the migration path from Siberia to the oceans. Up to 322 bird species fly over the area during migration season. The Boroo mine is only the second mine in Mongolia to be granted special permission to use cyanide and it is the first mine in the country to use it on large scale. The Boroo mine is also located in Mongolia's main agricultural region.

The Environmental Impact Assessment characterises the seismic condition of the mine area as 'stable' but notes it is "within an area which could experience earthquakes on a significant basis."

To Boroo Gold's credit, they have enacted a world-class cyanide management plan, training program and treatment process, but even the best-laid plans are subject to accidents. Just ask Cameco about the accidental cyanide spill into the river from their Kyrgyzstan gold mine—which by most accounts, they were able to limit damages by reacting with rapid professionalism. Mr. Lindsay says Boroo Gold officially takes liability for chemicals once they arrive on site, but should any chemicals en-route to Boroo inside Mongolia spill anywhere, "we will deal with it and fix it."

The company also uses state-of-the-art technology in the cyanide leaching process, which recovers most of the cyanide (so they can reuse

OUR ANALYSIS

Presently, Ivanhoe is considering digging two pits, one 700m deep, the other 400m deep, and then doing block shaft mining at the bottom of one of the pits. Ivanhoe has hosted 16 companies at the Oyu Tolgoi site and would likely benefit from enlisting a large partner with deep pockets and expertise in such a massive mine. Most mining majors would like to see Ivanhoe work out some details first, such as: the Stability Agreement with the Mongolian Government, secure water rights, infrastructure and the impossible: get the Mongolians to give them the 5+5 prize and let them capture the China factor at the same time, which means exporting most of the project's value-add component (construction, infrastructure, power services, smelting) to China (this strategy is vulnerable to reevaluation of the Chinese RMB, the Scoping Study notes). The 5+5 prize means a five-year corporate tax holiday plus five years paying just 50 per cent of corporate taxes.

This will take some convincing. "Certainly, we shouldn't let China take all those parts of development we expect from Oyu Tologi. The people of this country have the right and deserve to benefit from Oyu Tolgoi. Otherwise, why are we doing this foreign investment," asks Mr. D. Jargalsaikhan, the sprightly chairman of The Mineral Resources Authority of Mongolia before pulling on his Parliament cigarette.

Normally, Mongolia awards 3+3 arrangements, as is the case with the Boroo mine. The 5+5 provision is reserved for companies that dedicate a substantial value-add to the Mongolian economy. But, if anyone can pull it off, Ivanhoe just might. They will make the exceptional case that if they can make the Oyu Tolgoi project happen, it will be a guiding beacon for other foreign miners to converge on Mongolia. To some extent, this is already happening. The Mongolian Government has awarded Robert Friedland the title of Investor Envoy of the Year. "We tell everyone, we hope that Oyu Tolgoi is a small part of Mongolia's GDP. Oyu Tologi is the Wayne Gretzky, but who knows where Mario Lemieux is lurking,"

says the bowtie-wearing Howard Bancroft, Canada's former Ambassador to China, and Ivanhoe's present Ambassador to Mongolia.

Mongolia has one of the world's best mining laws for foreign investors and two thirds of it is still pretty much uncharted so the sky could be the limit.

If one of the world's mining majors hooks up with Ivanhoe, it will allow the project the luxury of going forward with a more environmentally friendly route than might otherwise be taken if there is a cash crunch, or a substantial component of Chinese financing.

The initial power will likely come from China on power lines built for the purpose, but the company is careful to point out that power flows both ways, if Mongolia can get a power plant up and running. The company would like to be shipping copper to Chinese smelters (initially, anyways) by 2006. The water is likely to come from the aquifers north of the mine (otherwise it could be pumped in from China). The copper, initially, will probably be trucked across the Chinese border to smelters.

IF IT'S SO GOOD, WHY IS IT STILL THERE?

BHP originally had the licenses to Oyu Tolgoi and massive coal deposit 120 km away called Taven Tolgoi. After some disastrous investment decisions in the 1990's BHP scaled back operations, and Mongolia didn't make the cut. Ivanhoe picked up the rights to Oyu Tolgoi. Mongolian sources say that Friedland was "desperate to get the Taven Tolgoi coal property as well, but he failed in his objective." Instead, the same source revealed with some scorn, "The Deputy Foreign Minister now owns it. Mongolia is still a third world country."

Three things have changed: (1) There is a market; China underinvested in their own mineral exploration and are hungry now. (2) There is a massive deposit: Ivanhoe found the Hugo Dummet deposit at the Oyu Tolgoi site that BHP missed in its initial drilling. (3) Mongolia's development decisions are no longer made in Moscow, and Ulaanbaatar prefers to be a trader rather than a buffer.

it). In total, the amount of cyanide discharged into the thinly lined plastic tailings pond is less than one part per million.

Recently, Mongolia's Standing Committee on Sustainability and Environment held a meeting at the Boroo site, and the company has demonstrated an open-door policy—except during gold bar transport days, that is—to most interested parties.

Ironically, the company that introduced large-scale cyanide to Mongolia is now also its flagship mine for displaying excellence in environmental systems.

COMMUNITY

Boroo Gold: Green light Ivanhoe Mines: Yellow light

How much of a mine's economic benefit will Mongolia retain? The extractive industry has a poor record for localizing the benefits of their projects. Mines can have a big impact on a country's gross domestic product, but a small impact on gross national income. And this small impact does not normally make it to the community where the valuable resource is located and the environmental impacts most harshly felt.

Mr. D. Jargalsaikhan, the chairman of The Mineral Resources Authority of Mongolia, says that the number one priority for the mining sector is to create jobs. The problem is, mines create few direct jobs in relation to investment. A billion dollar project might generate 1500 jobs, which is not a lot, but does include the benefit of upgrading local technical capacity. That makes the value-add component associated with a mine all-important. The real jobs and benefits are in supplying the mine with services, required inputs, infrastructure that can then be used to support other facets of the economy, local community sustainable development ini-

tiatives, and in country processing.

Mongolia has a good base of engineers and mining school graduates, but it also has a limited refining capacity and a poor support network. China has much of this capacity available cheaply. Nothing scares the Mongolians more than the thought of losing their national treasure chest to the Chinese. Against this backdrop, Mongolia's scope for capturing indirect dollars from mines is limited. Boroo still has to import wood boxes for its gold bars, even though they would far prefer to buy them from local carpenters in the area if they were available. Within these constraints, however, an organized mining company can have an immensely positive impact, provided they are willing to put a lot of time and effort into it.

Boroo Gold is subject to a 2.5 per cent royalty (to the state) for its gold sales, and 2.5 per cent of that goes to the regional government. Regarding corporate taxes, the company has holiday for its first three years, and then pays half the 30 per cent corporate tax rate for the next three years, which should take it to the end of the mine's life. Boroo pays 40 per cent tax on payroll, which works out to \$2 million a year for their 500 employees, 90 per cent of which are Mongolian. The company estimates US\$14 million will be expended annually in labour and operating supplies within the local economy.

Kh. Davaakhuu, Governor of the Bayangol soum, a community 20 minutes down the road from the Boroo mine is "very proud to have the biggest gold investor in all of Mongolia operating a mine in my soum. They create 126 jobs for my soum. Everyone here wants to work there. Forty-six percent of the population say unemployment is the biggest problem here."

Mr. Davaakuu hopes Boroo Gold's legacy in the region will be as a catalyst for businesses (such as processed food capacity and intensified animal husbandry) that can be self-sus-

taining long after the mine is finished. Boroo has helped arrange agricultural exchanges between Saskatchewan and Mongolia, and the company has an annual \$200,000 community development fund for the two communities that it hopes to direct to this end.

When Boroo Gold first arrived on the scene three years, 70 families were living illegally in the valley where the mine now operates. "They had to be moved," says Mr. Kovarsky, a potential for an ugly situation. Boroo interviewed each of the families and found out most of them were happy to move, as there was no school at the site. Mr. Davaakhuu, was happy to add the families to his town's roster. Boroo offered to buy any of the permanent buildings at the mine and to cover all the moving costs. The whole thing cost about \$50,000. In the end, the company claims that every one of the families was satisfied. Today 37 of the 50 families that moved to the Bayangol soum have jobs at Boroo.

Ivanhoe is presently negotiating its Stability Agreement with Mongolia and in the exploration stage. At present, almost 90 per cent of its 200 employees are Mongolian.

Mr. Sosorburam is Ivanhoe's neighbour. He has a picture of Robert Friedland's 85-year old father on his camel sitting on a mantle of his Ger. Don't plan on visiting him without drinking some of the prized camel vodka, fermented camels' milk, and beer. He and his wife ride to Ivanhoe to do caretaking on his Russian motorcycle each day. He has a herd of about 100 cattle, 40 camels and 60 goats. His granddaughter is learning English at the Oyu Tolgoi training centre. "If the water dries up," he says about the mine, "no problem: we'll move," he says in true nomadic fashion. "Just the Ger will take half a day. But our fence? That will take 5-6 days."

Ivanhoe has said it will not create an artificial town at Oyu Tolgoi. The few locals that live in the mine's vicinity would like to tap into the mine's electricity and water, but the company

THE CHINA FACTOR

"We assembled a cross section of Mongolian leaders from various stakeholder groups for scenario planning purposes. One of the scenarios they concluded was a distinct possibility was Mongolia getting absorbed by China in the next 100 years," describes Stephen Vance, Executive Director, Mongolian Foundation for Open Society's new headquarters which is sort of like a palace.

"Robert Friedland is on his way to becoming the most hated man in Mongolia if he sells us out to the Chinese," says Mr. Turbat, General Manager of Mine-Info.

HOW NINJAS AND GOLD MINING COMPANIES CAN WORK TOGETHER

- Ninjas could become pathfinders to prospect and discover new placers at low cost, even on a self-financing basis;
- Ninjas could determine economic limit of mining a placer, by tunnelling and testing the placer under thick overburden, even on a self-financing basis;
- Contractual arrangement could allow a group of ninjas to take placer from part of a site, conditional on them excluding other ninjas and so the system would be largely self-policing;
- A properly organised group of ninjas could be subcontract miners to the mining company, for clean-up of gold placer from mine floors, clear placer spillages around wash-plants, rewashing of tailings etc.

doesn't want to be the wrong kind of magnet that could lead to an influx of herders and over-grazing.

Alison Croft, one of Ivanhoe's community development officers, is going to great lengths to ensure that the company can help to feed the local economy. She is arranging for wood to be brought to the Gobi so locals can build Gers to sell to the mine. This makes the Gers a little more expensive (at \$1,400 a pop), but with relatively few neighbours and vast revenues, it is an investment. The company will also establish a community development fund.

EMPLOYEES

Boroo Gold: Green light
Ivanhoe Mines: Green light

Both companies are recognized as leading employers on the EH&S fronts, and local capacity building. They have made good use of local talent. "Canada has brought a new stage of labour relations to Mongolia," says Kh. Ganbaatar, executive director of the Mongolian Employer's Federation.

HUMAN RIGHTS

Boroo Gold: Yellow light
Ivanhoe Mines: Yellow light

Gushir Dalaijamts, Commissioner of The National Human Rights Commission of Mon-

golia, reports no complaints for either company. But there are two areas that could become flash points.

For Boroo, it's the Ninjas, (illegal gold miners). There are 100,000 Ninjas in the country, they have no other work, and the chance exists for conflict. To date, there has been no violence.

For Ivanhoe, the human rights issue is related to the environment. There are 47,000 herders in the South Gobi who depend on the grazing land. If Ivanhoe's operation topples the sensitive desert ecology, there is a small potential for massive dislocation.

BUSINESS PRACTICES

Boroo Gold: Green light
Ivanhoe Mines: Yellow light

Ms Sanjaasurengin Oyun, Member of the State Great Hural (Parliament), says corruption is a serious problem, but that "the mining companies are good for Mongolia."


Best Practice: Both companies have avoided political contributions (although there is an election coming up this spring) and both have strict anti-corruption policies. Both companies are in the process of setting up escrow accounts for the environmental rehabilitation fund. Both companies are open to joining transparency initiative Publish What you Pay (www.publish-whatyoupay.org).

Earlier this year, Ivanhoe issued a press release announcing it had bought a \$50 million

Mongolian Government Bond to help the country retire its Russian debt, noting in the same release that they were also carrying out discussion with the government on a Stability Agreement.

Progress comes at a price. Poor people tend to be shortsighted, but Mongolia has a luxury most other countries in its income range don't: they are not desperate. The Mongolian government have made it clear they want mining to be their passport to modernity. Mongolia's Ambassador to Canada, Batsukh Galsan says Ulaanbaatar, and Ottawa are one and two, in terms of the world's coldest capitals. He would like the same to be true for mining. Boroo helped to put Mongolia on the map with the first foreign operated gold mine. Ivanhoe promises to launch it to a new stratosphere.

Robert Friedland is watching Oyu Tolgoi closely. He's intimately familiar and intricately involved with the company's operations in Mongolia. Twice he interrupted our interviews to talk to site personnel for updates. Mr. Friedland stands to either bask in the glory or take the blame for the project's outcome.

Mr. Sosorburam, Ivanhoe's neighbour with a little Ger at the foot of the biggest mining exploration project in the world right now, says: "I believe in Mr. Friedland. I believe he will make a mine. I believe he will be good for Mongolia." 

Toby Heaps is editor of Corporate Knights.



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