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# MONGOLIAN ECONOMY



Competition Gets Fierce

The Valuable Work Mongolian  
Engineers Do

Mongolian Economy and Business Magazine

2011. September. № 007

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## Letter from the Editor:

The delegates and investors attending "Discover Mongolia" Forum (which is nearly synonymous with Mongolian mining) will apparently not hear any new information or decisions on the issues surrounding Tavan Tolgoi. It wracks the brains of Mongolians while foreigners remain incognito. However everyone will catch up with recent news related to nuclear waste storage in Mongolia. The media has reported continuously on the matter, but we hope our readers will enjoy Mongolian Economy's take on the matter.

This issue, Mongolian Economy has made mining issues its main topic to observe "Discover Mongolia". This year the event will be held for the ninth time.

The question will Mongolian mining develop or not is not appropriate. The train for mining's development already left the station and great construction has already begun. Now better discussions about how to develop responsible mining can be begin. Therefore, most of this issues articles related to mining reflect this sentiment and can be read in our report on the results of mining rehabilitation at Baganuur. There are also examples of places that had beautiful nature, but became victims of mineral exploiters and left as a memory in history because no rehabilitation was done.

Two reporters prepared real case stories, "Flimsy Scenes of Development in the Gobi", and "Walking Coal" about life at Tavan Tolgoi, where rapid development continues.

Oyu Tolgoi spends USD 7 million each day on products and services, which tickles domestic and international companies. The feature story "Competition Gets Fierce" tells about foreign companies coming to Mongolia in great numbers. The new environment requires Mongolians to meet international standarts in a very short period of time.

Not all of the 100 pages in this month's issue of Mongolian Economy are devoted entirely to issues regarding the mining sector. New, interesting information on the economy and business are also available. Readers interested in the process of releasing IPOs might be interested our interview with B. Bold, the chief of the Mongolian Stock Exchange's board of directors.

Also please be interested in reading an interview with T.Lkhagvadorj, Managing Director of Hunnu Coal, that is running successful operation in mining sector.

Finally, the section Made in Mongolia presents the story of a young man who not only runs a business making Morin Khuur (Mongolia's national instrument, the horse fiddle), but is also quite a talented musician.



Deputy Editor I.Otgonjargal

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### Special Issue

## Mining Development Demands New Mentality

By D.Munkhchimeg

Many expect mining will feed Mongolians for years to come. The land in Mongolia, carrying 80 different types of mineral resources (most importantly gold, copper, and coal), has become powerless against the prowess of the large mining machinery and mechanisms. At a time when foreign direct investment has matched the speed of light and large reconstruction projects are taking place in the south, children with pulmonary disease are born in the Gobi and young and old are breathing dust. At a time when operations at Oyu Tolgoi are underway and the issues regarding Tavan Tolgoi are nearly resolved, the so-called “ninjas”, who dig into the soil for scraps of gold, make their children crawl into stiff little tunnels.

It gives pleasure to hear Mongolia given a variety of flattering names such as the “Central Asian Kuwait”, the “Next Asian Tiger”, “Wolf Economy”, and the “Coal of Saudi Arabia”. However, Mongolia is also being nicknamed “Mine-golia” and “Mon-coalia”. Mongolian Economy is touching upon this issue to inform its readers about examples of countries that have become rich with mineral

resources as well as countries that have experienced downturns because of their wealth. Will Mongolia develop like Australia and Chili, or fail like Zimbabwe and Bolivia? Wall Street Journal journalist Maureen Orth hit the target when she wrote, “Currently no other nation has been faced with a crossed road and confronted with a historic choice like Mongolia”.

Although, foreign investors have set their eyes on the resource-rich Gobi for many decades, they kept away. The executives at BHP Billiton, who proudly passed on Oyu Tolgoi and Tavan Tolgoi, are probably now truly biting their lips. Previously Mongolians looked up to foreigners, but now large foreign companies coming to Mongolians looking for work.

“In 2000 we used to puzzle over how to turn Tavan Tolgoi into an economically viable project”, Full-time advisor to the Executive Director of Energy Resources R. Sundui said. “We approached and asked many countries to invest into this mining deposit, but nobody displayed interest.”

Undoubtedly, nobody then could have envisioned large companies from five different continents would

compete to conduct operations at Tavan Tolgoi-the project rejected by BHP Billiton.

What was the situation like a decade ago? In terms of mining in Mongolian, there was nothing but the mining companies Erdenet, Monrosvetmet, and many small-scale gold mines. However, apart from international mining giants such as Vale, Rio Tinto, Peabody Energy, and Cameco that operate here in Mongolia today, it should be noted that the expansion of some domestic companies are on the verge of rapid mining development. For instance, Energy Resource hired one of the top-ranking companies in the world, Leighton Asia, to trade shares on the Hong Kong Stock Exchange (HKE) and consequently, raised capital for the construction of a coal-breaker in waterless Gobi. Did anyone ever think a decade ago that a Mongolian company would raise capital on a foreign market? Also of interest is Pricewaterhouse Coopers, which has 158 years of history and ranks fourth in the world in consulting and auditing services, as well as the international company Behre Dolbear Group, which opened branches in Ulaanbaatar. ▶▶

Our coal sector once barely supplied enough for domestic demand. Within three years after setting its foot on the export market, it managed to catch up with Australia's volume of coking coal exported to China. Many examples of transitions such as this are taking place within the mining sector and are increasing. It worth restating once again that a decade ago all this was just a dream.

The mining sector, which contributes to 30 percent of Mongolia's GDP and more than 80 percent of export profits is considered to be the main driving force of the Mongolian economy. Thanks to mineral wealth, officials can state that Mongolia's GDP in the coming decade will increase by 20 percent per annually. Furthermore, mineral resources bring half a billion US dollars of investment to Mongolia according to data from the first half of this year. Oyu Tolgoi Executive Director Cameron McRae pointed out that seven million US dollars per day is spent just to put Oyu Tolgoi into exploitation. This is a major reconstruction work never before seen in Mongolia. In addition, at a time when Erdenes Tavan Tolgoi has started to export its coal, operations at large coal deposits such as Ukhaa Hudag, Ovoot Tolgoi, and Tsagaan Suvraga have intensified. In addition to an announcement to the world that it is exploring for crude oil, Mongolia has also considered undertaking the economic prospect of exploring for other minerals such as uranium and rare-earth elements.

Although the number of companies operating in accordance with international standard is increasing, there are also some hard-to-crack trouble makers that do not conduct restoration operations and leave behind open holes and piles of sand. "Ninjas" put their lives at risk for gold and are still roaming free without any regulations upon them. The developing mining sector is sending signals that this situation cannot continue. It is a good thing that the concept of responsible mining is going strong despite its late appearance.

Companies that abide well by the laws and regulations of Mongolia, pay their taxes, respect the interests of local citizens, utilize progressive, environmentally friendly technology with minimal negative effects on human health, conduct restoration

## Mining Supply

# Competition Gets Fierce

By D.Maral

Shall we scoop up money from the money deposit with spoons or with a bucket? The company Oyu Tolgoi spends USD 7 million a day to mine copper and gold. It is the world's second largest deposit attracting the attention of domestic and foreign companies alike. In addition to the 80 trucks traveling daily between China and Oyu Tolgoi, American, Australian, German and Canadian supply companies are coming in great numbers to Mongolia to sell their products and services. Is it not time for national producers to ponder over this situation? It is time to see that the Oyu Tolgoi project produce not only gold and copper, but also money and knowledge. If Mongolians can do that then we can "snatch" huge profits not only from Oyu Tolgoi but also from Tavan Tolgoi and other large projects. If one talks big, then it is possible to become a world player.

It is time to stop thinking that mines only need huge machinery and large equipments. The demands are endless, starting from buildings and flats to furniture, electric appliances, bread to eat, pens and papers and the protective clothing for miners. The Oyu Tolgoi project will need all types of services, including the equipments repair, clothes washing, and so

on. If they could supply of all these demands, many national companies would have an opportunity for growth. However, this is not an easy task. The number of companies supplying the Oyu Tolgoi firm exceeds 2,500. On the other hand, there is news that less than 60 Mongolian companies supply a small amount of products and services on a regular basis to Oyu Tolgoi. The majority of the USD 5 billion that is spent towards construction for the mining becomes the profits of foreign companies. Why are Mongolia's domestic businesses unable to get as much as it can from this money as possible?

"In reality, our national companies' capacity, finances, management and personnel capability are too low", said President of the Supply Consortium of Oyu Tolgoi S. Balchindorj. "The world standard project requires products and services conforming to world standards. All of these are purchased through international open tender bids, not through the "acquaintances" so well known by Mongolians.

"The conclusion of the Oyu Tolgoi investment agreement is creating a large network of supply companies", said advisor to Khan Bank Peter Morrow. "In the coming years, many ▶

operations, and conduct their activities transparently are called socially responsible companies. The number of such companies is increasing and the government proved during the "Mongolian Economic Forum" that it has started to pay attention to this concept. Additionally, during the "Discover Mongolia" forum to be held for the ninth time, a special session discussing responsible mining will be held. Moreover, this edition of Mongolian Economy will pay specific attention to this concept, novel to Mongolia.

Due to the growth and rapid development of the mining sector a big question has arisen: how should Mongolia appropriately distribute the income generated from mineral wealth.

Will Mongolia reach development through the extraction of gold, copper, followed by cash-handouts? No, it will reach genuine development only through human development. Therefore, this edition of Mongolian Economy will also devote its attention on this important subject. Neither can it be forgotten that the increase of mineral exploration and the number of exports are making Mongolia's low levels of infrastructure development felt even more. The mining sector-which changes on an hourly basis, not daily-demands from Mongolia new policies and a new mentality. Therefore, the staff at Mongolian Economy has striven to approach this issue in a comprehensive and innovative manner. ■



▶ foreign companies will open their doors to Mongolia”.

This point is now being realised in Mongolia. Last year during the “Discover Mongolia” forum, many supply companies from Australia, Germany, and Canada introduced their products and services. Foreigners are coming to Mongolia realising a lot of opportunities exist here. This flow is likely to intensify in the future. It is certain that Mongolian companies will fear competing with international companies that have many years of experience.

“One will lose the first tender bid, then another will lose the second tender bid, but year another will be able to win the third tender bid”, said Executive Director of the FSCo D. Jargalsaikhan. “This process is currently taking place.”

It is true that the products and services of national companies have been rejected for the Oyu Tolgoi project. It is a very good thing that Mongolians are starting to realise this. It is easier to spot their mistakes and how they can be amended. It seems that the issue

of supplying the mining project is being revisited again and again. Seminars on this topic continue unabated. It is a good thing that an initiative to unite, merge and enlarge has come out.

“There is a requirement for Mongolians to unite and improve their finances, management skills, and marketing capacities in order to deal with the Oyu Tolgoi project”, said S. Balchindorj. “This way we will be able to receive orders for large projects with high profits. If we could learn from the companies that meet world standard, then Mongolians would be able to start exploiting for themselves the next big projects.”

Z. Battushig, vice chairman of the foreign investment and foreign trade agency pointed out transnational companies would not come carrying only U.S. dollars. The techniques and modern technology that bring are investments worth more than USD 5 billion or USD 10 billion. Not only monetary, but also an intellectual and technological investment wave is coming. Therefore, the door is open for national companies more

than money, but also knowledge to raise their capacities in order to enter the world arena. Such experience can be acquired not abroad, but from domestic businessmen. For instance, the company Geosan, established in 1996, has attained a world standard providing services to foreign companies such as BHP Billiton, Vale, Cameco, and Ivanhoe Mines, each of which currently has operations in Mongolia. This company receives orders not only in Mongolia, but also Myanmar and companies operating in China. It is clear that Mongolians have a lot of opportunity.

World mining companies such as Rio Tinto and Peabody Energy operate in Mongolia and learned to satisfy their needs. To cater to companies like this, it is important to meet European standards and introduce concepts of corporate governance and management culture to Mongolian firms. It is time for Mongolians to understand this and begin intensifying their operations to produce high-quality products. Experts state that if Mongolian companies can do that, then they can issue their shares on the international market and become strategic investors themselves.

Great opportunities are abundant because foreign investors have become well aware of Mongolia’s tremendous natural wealth. Quite a few companies such as Petro Matad and Energy Resources were able to raise capital on a foreign stock exchange. On the other hand, the Director of CPS International B. Munkhdul explained that some supply companies are more profitable to investors than mining companies. When Oyu Tolgoi and Tavan Tolgoi are fully operational, supply companies will be unable to manage their workloads and will have no other choice then to raise capital for expansion. Foreign investors will then start to understand the value of Mongolian suppliers. However, he stressed everything will depend upon the enthusiasm and initiative of domestic businesses.

There is an algorithm which states that every one dollar to the mining sector creates four dollars more worth of demands in other sectors. The opportunities grow even more as the rate of money investment towards Mongolia’s mineral resources reaches light speed. The competition is getting fiercer. The new environment requires Mongolians to meet international standards in a very short period of time. ■



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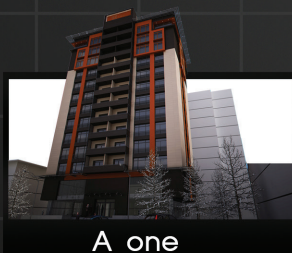
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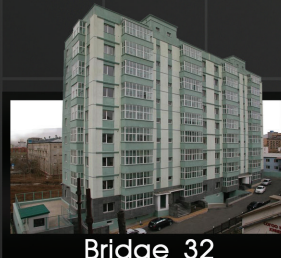
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## Tavan Tolgoi



Ongoing

## Uncertainty Surrounds Tavan Tolgoi

D. Munkhchimeg

The Government convened a special session just before Naadam to create strategic investment for operations at Western Tsankhi at the Tavan Tolgoi mining site. Specifications were needed partly because none of the six companies and consortiums were successful in the first round of international tender bids and declared a winner. However, Shenhua Energy of China, Peabody Energy of the United States entered a second round of bids with addition of a new challenger, the newly added Russian-Mongolian joint consortium. This entity did not participate in any of the initial bidding. Such a sudden decision not only left the governments of Japan and the Republic of Korea in shock, but also upset analysts at the National Security Council because of whiffs of scandal.

The president's advisor for mineral resources policy P. Tsagaan explained, "We could either speak softly because application materials did not sufficiently comply with requirements, or harshly because there was an irresponsible submission of materials.

[The former allows us to] advance our interests after requesting for additional information and analysis."

National Security Council analyst B. Altan-Ochir stated, "If we go along with this agreement we will lose our Western Tsankhi."

Consequently, when the scandal surrounding Western Tsankhi had not yet been settled Erdenes Tavan Tolgoi LLC concluded an agreement with Chalco, a Chinese company worth USD 250 million, and started to transport Eastern Tsankhi's coal to the south. New information and resolutions regarding a deposit estimated by the World Bank to be the world's second largest reserves for coal intended for coking coal and energy may cause concern not only for Mongolians, but also foreigners.

### Western Tsankhi

After heads of state and government came back from their official visits to the Russian Federation, the People's Republic of China, and the United States made a resolution catering to the interests of these great powers in Tavan Tolgoi. Specifically, Shenhua Energy, Peabody Energy, and the

Russian-Mongolian joint consortium were chosen as strategic investors to conduct operations in Western Tsankhi; with Shenhua Energy owning 40 percent, Peabody Energy owning 24 percent, and the remaining 36 percent divided within the Russian-Mongolian joint consortium (each nation of which owns 18 percent). Mongolia will receive USD 1 billion from the sale as an initial payment.

There are several issues of interest here, such as why Peabody Energy and Shenhua Energy joined forces in the second round of the international tender bid and afterwards went their separate ways. Also, where did their third partner, Japanese firm Mitsui, disappear to? Why was the consortium of Japanese and Korean companies, an entity deeply connected to Russian Railways, booted? It is not only Mongolians left in the dark regarding these questions. International media agencies such as AFP and Reuters were competing to report that the Japanese and South Korean governments sent official letters requesting explanations from relevant Mongolian ministries and agencies. They complained that Mongolia conducted its tender bids in incomprehensible and unjust ways. Funniest, is how Mongolian leaders became objects of ridicule when they could not straight away provide an appropriate explanation.

However, according to interviews given by the Chairman of the State Property Committee D. Sugar, Japanese and Korean companies were not barred from bidding, but there was a misunderstanding created when the organisers sent invitations to the companies playing a leading role exclusively to the consortium.

Sugar explained, "To clear the misunderstanding that Korean and Japanese investors were totally excluded is important in terms of political and economic relations". He further explained, "Any Mongolian company can participate in the Mongolian-Russian consortium. Mongolian companies could even establish a fourth consortium and take part, or they could exercise their right to participate in cooperation with others".

Of the six companies chosen for the second round of bidding, none were domestically owned. However, now an unknown Russian-Mongolian

join consortium has supposedly been added to the roster. If the Mongolian government was going to behave so strangely, why did they begin under the ruse of a fair competition? It is uncertain as to why the Australian company Xtrata Coal, which tops the world in energy coal exports, the Brazilian company Vale, which ranks first in the production of iron ore, and the steel production Luxemburg giant Arcelor Mittal were rejected. Most important is the government needs to explain to its people under which principles the proportion 40:24:36 was made.

Economist D. Jargalsaikhan commented, "Why did a predominantly state-owned Chinese company alone receive 40 percent, the power to appoint the executive director for projects, and other rights? On the other hand, how does the fact that Russia received merely 18 percent of shares fall in line with our foreign policy to maintain balanced relations with our two neighboring countries as well as conducting a third neighbor policy?"

### Eastern Tsankhi

At Eastern Tsankhi, where the Erdenes Tavan Tolgoi LLC promised to conduct its mining operations while overseeing its coal sales, three companies (Mesco Steel from India, BBM Operta from Germany, and Macmahon from Australia) competed for exploration rights. However, why did not Mongolia announce the results of the tender bid, and furthermore, begin extracting coal and transporting it to China? It is not that Mongolians are incapable of conducting such operations—they can do so very well. The question is why not was this objective declared from the very beginning? Is the international tender bid a fool's game? Prior to this, the Mongolian Stock Exchange (MSE) selected its management team, but also canceled the tender bid, creating scandal. It seems that the government's strategy is to disgrace itself in front of the world by constantly changing its decisions.

The main thing, however, is that many people would probably be unhappy to learn that Mongolians, themselves, will not be selling the coal extracted at Eastern Tsankhi. Also Erdenes Tavan Tolgoi, on its own wishes, concluded an agreement

of USD 250 million with the Chinese firm Chalco (the daughter company of Cinalco) to oversee this vital issue. Then, in an attempt to prevent offense to the Republic of Korea and Japan they have established a memorandum on the sale to them of 30 percent of coal extracted there.

Not long after the establishment of the aforementioned agreement, the first chain of 40 heavy loaded trucks carrying Eastern Tsankhi's four thousand tons of coal headed towards Gashuunsukhait border port. In addition, at the top of the first truck there was a golden soyombo, Mongolia's national crest. The surprise was the elation government officials, including Minister of Mineral Resources and Energy D. Zorigt. Was this really such good news?

Why did Erdenes Tavan Tolgoi, which planned to conduct its selling operations alone, give up this task to the Chinese?

Sugar explained, "Since we are getting advance payment from someone, we need to give additional responsibilities, don't we?"

Mongolian will give 100 percent of its coal to Chalco until Mongolia has fully repaid the USD 250 million Chalco payed in advance. The Chinese will transport between 20 and 30 percent of the coal it bought to Japan and South Korea. For this year, it is understandable that Mongolia sold one ton of coal for USD 70, less than the market price rate.

"Approximately five or six years the government of Mongolia will have a possibility to sell its reserves at its own will", said Sugar.

According to Erdenes MGL Executive Director L. Enebish, this year 1.3 tons of coal will be exported from Eastern Tsankhi, reaching 15 million by 2015. Will we still be selling this coal at such a cheap price to the China then?

Why did Mongolia give its southern neighbor not only the largest share of Western Tsankhi, but also the right to sell the coal from what remains at Eastern Tsankhi? It is true that the Republic of China leads the world not only in the consumption of coal, but also in its production. Is not this all the more reason to reduce its influence over Mongolia? What consequences will the majority owner of Tavan Tolgoi's resources face when assuming a leading position at this

mining deposit? Doesn't this mean that China will both negotiate the price of Mongolian coal with itself and sell it within its borders? If that is the case, Mongolians better forget the world market price for some time.

### Money is Everything

It is time for every Mongolian to demand an explanation for all of these uncertainties surrounding Tavan Tolgoi from the government. Today, 2,796,000 citizens hold ownership over Erdenes Tavan Tolgoi shares and thus have a right to know what policies are being undertaken here.

The government announced in an official statement, "Due to the fact Mongolia was able to firmly advance its position, investors will directly give [the Mongolian government] USD 500 million without return and, in addition to that, advance USD 500 million".

It is hard to understand this position. Yet, it is hard to deny the fact that a certain group's struggle to fulfill its election promises of cash handouts is superseding all other priorities. Actually, it would be silly to expect negotiations to benefit only Mongolians. All parties involved in the exploitation of Tavan Tolgoi have their own interests in profiteering. It is suspicious, however, that for these interests, companies are throwing billions of US dollars the hopes of making the whole of Western Tsankhi their own.

Sugar explained, "Eastern and Western Tsankhi are 100 percent under state control. We are only talking about what percentage will be owned by a company that will exploit Western Tsankhi."

Yet, did not Mongolians undergo a great deal to gain 34 percent of Oyu Tolgoi Co., Ltd shares, the company currently operating at the Oyu Tolgoi mining deposit?

In addition to the lack of adequate information regarding counter conditions, a railway to transport coal, transit costs, and a resolution to develop ports for trade, there is still uncertainty as to what technologies will be used.

The public has heard nothing else, except for uncertain statements. Take for example, the official statement, "Parties have agreed upon the railway transportation to be directed to the south and east. In addition to an agreement on the construction ➤

► of a 600 megawatt power station, a resolution was made to build value-added factories, such as plants for the extraction of liquid fuel from coal, and the production of coke”.

It is uncertain how much capital will be invested into the project, let alone the technical and economic specifications needed. Also, the government informed the media that in addition to taxes and fees, it has agreed to receive additional payments amounting to five percent of profits, minus transportation costs, to be payable to Erdenes Tavan Tolgoi. What is the estimated cost of transportation expenditures? Although there were negotiations with the Russian Federation for providing transportation concessions, who knows where their interest will turn to based on its mere 18 percent share earnings.

Government officials are happy to end discussions at the payment of USD 1 billion for Western Tsankhi, and USD 250 million for the down payment of Eastern Tsankhi. From this one can conclude that all of these agreements and negotiations are based on nothing more than money. China's USD 3.2 trillion foreign currency reserve influences US policy decisions. Is China setting their influence at Tavan

Tolgoi in a similar way?

Even President Ts. Elbedorj cautioned, “Don't allow the government too be driven to much by the sum of a down payment when selecting an investor. Receiving prepayment is only one issue. Furthermore, there are other big issues related to infrastructure and counter conditions”.

A member of Erdenes Tavan Tolgoi's board of directors, J. Batzandan, stated that the government is trying to earn MNT 330 billion worth of funds from the recently established Russian-Mongolian consortium and the Human Development Fund to fulfill its political promises. World Bank experts also warned about the dangers of sitting behind the negotiation table focusing on prepayments.

Mongolians have a saying, “money is white but eyes are red”(money is everything). There is reason to fear that Tavan Tolgoi, positioned at an axis of economic, business, and geopolitical interests, will be given away for just USD 1.25 billion. One can only hope that 536 shares of Erdenes Tavan Tolgoi LLC will not be blank sheets of white paper, but will instead be a guarantee to raise to the livelihood of every Mongolian man and woman. Will the government live up to these hopes? ■

mining sector is considered to be the fuel of the Mongolian economy. Nearly 11,000 inhabitants (four thousand live permanently in the community while the other eight thousand migrate) in this village, 98 kilometres from Umnugobi Aimag's provincial capital, Dalanzadgad Soum. Tsogttsetsii is the main location for big mining projects for the mineral sector.

“The Unemployment rate in Tsogttsetsii, where more people are moving, is relatively low: five percent”, said Chief of the Governor's Office B. Tsetsmaa. “Over eighty companies operate in this mining field. The basis for the village's future is mining and cattle breeding”. Around 60 percent of the cattle there died because of the dzud and the village now has about forty thousand cattle left. Tsogttsetsii needs lots of work for development, such as the establishment of settlements, basis for the mineral sector, development of intensified cattle breeding, construction of infrastructure, enhanced access to education, improvement of health in the community, development of a cultural sector, and construction of a new hospital and school”.

The foundations of red-brick houses, piles of dirt everywhere, and an unfinished road welcome visitors when arriving at Tsogttsetsii. Every guest grasps the value of water, a precious treasure here, from the first day of arrival until the time of departure. This memento never escapes one's mind. Voyagers must travel over 500 kilometres by car on a bumpy road. It is impossible to find enough water to rid the dust, only mouthful water is to find. There is a public shower near a hotel without its own running water or bathroom. Numerous guests are covered in dust, and the local population is its regular guests.

G.Tsog-Urnukh, the governor of the Tsogttsetsii mentioned laying heating pipes worth MNT 498 million in a speech. He also emphasized the two most crucial issues confronting the community: roads and plumbing.

#### Plenty of Dust, but Not Enough Medical Services

Dense dust falling by the wayside of coal trucks covers the region with loose soot until paved roads are constructed. Imagine sand filling the lungs of cattle pasturing along the road for coal transport. Experts from ►

### Local Development

## Flimsy Scenes of Development in the Gobi

By Kh.Khulan

**W**hile purchasing a bottle of water at the supermarket in Tsogttsetsii Soum, one man came running in. He said, “Oh no, I cannot find any place to have my tooth pulled. I have been to several places”, and wiped off his sweat. The shop-owner wondered why and asked him about it. The guy explained, “Well, there is only a root left from my tooth, so it's difficult for someone to pull it out”. The salesman joked: “I can take out your tooth with this tong” and both men laughed heartily.

#### In Search of a Dentist

There is a tragedy behind this humorous story. This sort of sad story could have happened in any region of Mongolia. However it was an astonishing experience to learn of the weak medicinal treatment available in the region where big mining projects are now flourishing. There are three large mines in Tsogttsetsii. Therefore, this village is under attention of not only Mongolians, but also foreigners. The



*Tsogtsetsii Soum, road construction 2011*



*Outside of the school in Tsogt-Ovoo Soum*

▶ the Veterinary Academy conducted a survey on cattle. D. Delgermaa, a doctor at the local hospital, said that the dust from the coal trucks affect not only livestock, but also infants. More than 80 children under 2 years old were treated between January and May this year at the hospital. The austere truth is 75 percent of all children living in the community became sick with such illnesses as bronchitis because of air pollution.

Smog-free mining does not exist. However the creation of green zones, areas dedicated to gardening and tree growth, have become a crucial topic in Tsogtsetsii for the protection of the community's health. The birth rate has grown here, but the hospital still has only nine doctors and five nurses. Delgermaa said that one

doctor examines between 50 and 60 patients daily. The present hospital building lacks the capacity for so many patients. She pointed out the significance and necessity of doctors for specific treatments, equipment, dental services, and physiotherapy.

Orchlon School proposed to open the doors of its branch on 1 September at Tsogtsetsii. The private kindergarten and the elementary school will surely make many parents happy. B. Tsetsmaa said that 120 children attend the kindergarten, but it should not hold any more than 75. Over 800 pupils must go to a school originally intended for 400 students. A village resident, S. Otgonbayar, agreed that the lack of kindergartens is a problem.

"The children stay at home", said

Otgonbayar. "It is prohibited to open a kindergarten at one's home".

The planned school and kindergarten buildings will be a solution. The sunflowers and trees saplings fenced in outside the school of Tsogt-Ovoo Soum, located 85 km from Tsogtsetsii, raised hope that if the mining sector develops right and in a responsible way, it may bring development into other villages in the Gobi.

The mining companies will take part in the regional development because they operate on that region and contribute to the state budget. Tsetsmaa provided some information about the amount of support Tsogtsetsii receives private business. The domestic company Energy Resources donated a Russian car to the hospital, 15 computers to the school, and observes environmental issues. Tavan Tolgoi donated fodder to herders for their cattle, and the company Tavan Tolgoi Trans gave furniture for hospital rooms.

Kh. Tumenbayar, Tavan Tolgoi's Executive Director said, "We are contributing to the construction of a 256-kilometre road and contributing 50 percent of the funding needed, while the other half is covered by Energy Resources. We also transport coal using trucks with covers. A scheme for the concrete road is being drafted and an itinerary is being prepared".

Contributions from mining companies are vital to the improvement of the region's living environment in addition to the health and education of the community, and infrastructure for the village.

The mining sector has growing rapidly in recent years, but what is the condition of infrastructure and human development in this Southern part of Mongolia attracting world-wide attention? If the government, regional administration, and mining companies would collaborate, then it is possible to implement human-focused policy that suits the public interest.

Remember the man with the terrible toothache? Although there are two private tooth clinics, they do not operate regularly. No place else exists for someone with a toothache. If a dentist cannot even pull a tooth, it does not say much about his professional credentials. Desperate, that man with a terrible toothache left the shop after buying a bottle of vodka. ■

**Feedback**

*The Mongolian Economy Magazine have now Free Tribune for you, its subscribers and readers, to express their opinion and feedback of the magazine. Space for your feedback is always open in each edition. We do hope that you will send us your opinion and critical view flicking us to improve quality of our products and expand topics we cover rather than to encourage us with stimulating words.*

Ch. Tumurchuluu, an investment chief of at an agency:

### **Reading Mongolian Economy Is Like Having Been to a Library**

Reading the magazine Mongolian Economy helps to bring people's mind to a new level. From the other side, doubts arise. It helps organization. To me, reading this magazine is the same as having been to a library. As a person who has subscribed to your magazine since its first issue, it is not possible to skip reading one. You will not find here the common political and economic dirt that is issued in the press. It could be said, this magazine is devoted to the development of a sound economy. People calculate their budgets after having received their salaries. I would recommend they include in their family budget a subscription to the magazine Mongolian Economy.

It is good that you are asking for feedback from regular readers, thank you. Currently, not enough press is in touch with its readers. Almost none. My recommendation is to introduce some economical concepts in schemes and tables.

Kh. Shinebat, Operator of the stand No. 161 at Narantuul market:

### **The Interviews with Successful and Competent Directors in Business Are Good Guidance for Me**

I am happy that I subscribe to the magazine Mongolian Economy. Your Interviews with prestigious, successful business people are good guidance for a small business entrepreneur like me. The interviews are written in an easy, interesting way. So it is possible for me to take my time and easily enough find time for reading. Also regular information on products prices could be useful to readers. I personally always look at this. I wish the staff of your magazine success.

M. Ulambayar, Director of Housing Financing Corporation:

I Have been in the countryside for a long time. I am now reading the August issue, where corporate social responsibility is the main topic. This is indeed an important issue. I like that you deliver economic and business information systematically. In general, it is enough to write issues on the economy and business in a simple and understandable manner.

Ts. Tumentsogt, Chief Representative of General Electric:

### **Good Articles on the Macro Economy**

The topics are apposite. You derive the main issues in the right form from the interviews with specialists in mining, foreign investment, the economy, and the business sector. I support your publication because you release good articles on policies regarding the macro economy. If you continue working at this pace and improve, then you could become as reputable as The Economist.

I think you would remain the reliable partner of your eternal readers if you continue to bring features about the best international practices and worldwide trend of the certain branch issues at the professional level.

J. Sandagsuren, Director of Management and Marketing Department of Ochir-Undraa:

### **In the Future, Your Magazine Could Reach the Level of The Economist**

To me, the best aspect of Mongolian Economy is that it delivers information with different aspects, enriched with facts. The unique character to your publication is that you write articles interestingly. Also your choice for interviews is good. I hope that your magazine can reach the level of the English magazine The Economist in the future. Good luck. ■

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## MONGOLIAN ECONOMY

МОНГОЛЫН ЭДИЙН ЗАСАГ, САНХҮҮ, БИЗНЕСИЙН СЭТГҮҮЛ

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2011 оны 8-р сар



ХАЙЛТ

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### Шилдэг нийтлэл

## “Мянганы үйлдвэр” мянгуужингийн үлгэр болох уу?

...Монголд өнөөдөр  
нефтийн үйлдвэр босох  
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“Монголын маргааш  
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### Онцлох сэдэв



## “Өглөгийн тангараг”

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### Үйл явдал



## Infrastructure

## Walking Coal

By E.Zorigt

There is an extremely hot air coming from all four directions, and at the center it is as if the sun simultaneously burns from the Gobi sky and radiates from the ground. In the naked steppe without a stone in sight, smoke and dust blanket the sky, and the loud sound of heavy-weight machines and mechanisms covered in dust make it feel as though a war has started. Heavy

“It is said that the smoke that comes out of burning coal is good for the lungs. Therefore, we burn coal even during the summer season and inhale this smoke”, replied one.

Another said, “Of course, authorities do not care much about establishing any infrastructure. Our leaders don’t know how what it is like here because they do not transport coal and never lived in

operations in this area for 45 years), R. Zorigtbaatar, gave many wonderful answers, but he spoke great deal in the future tense. His comments focused on what needs to be done and the plans his company has made. Yet, not much was said about any real improvements already made, aside from a few accomplishments made for the start of a few projects.

“We are paying attention to this issue”, said Zorigtbaatar. “We have produced an action plan to build a road with pavement 1.5 metres thick. We have also laid the foundation for a school to be built in Tsogtsetsii Soum. We have also produced a plan to provide local households with electricity”.

Erdenes Tavan Tolgoi started its operations a little over a month ago and also idles happily with many plans for the future. Yet, this is probably normal for a company that just recently started operations. The companies Energy Resource, Erdenes Tavan Tolgoi, and Tavan Tolgoi, which all conduct exploration in a single coal basin, are planning to build a road of their own that will lead to China. Construction has already begun.

Energy Resources will build about 250 kilometres of hard paved road from Tavan Tolgoi to Gashuun Sukhait. Although the road’s construction is progressing well, the Auto Transportation Authority has issued several requirements that need to be met.

First, the road has become very narrow in two places and will need to be extended because it is very difficult for two cars to pass each other at these places. Second, this road has sharp turns in three spots. The coal transporting trucks are heavily loaded, which will make it difficult to make sharp turns. It is also likely that a car may suddenly appear in front of a driver because the other end of the road is not visible. Therefore, the authority has demanded that these sharp turns be changed. Third, appropriate road signs must be installed. Soon after these requirements are fulfilled, this road will likely be put into use.

In respect to the issue of transporting ►►



trucks dig up soil, throwing up dust and sand, and giving off loud huffs and puffs. Dirty faces are seen here and there, like children with dirty faces.

In the dust, bare-chested men are painted black, covered in a mixture of oil and dust. The nickname “walking coal” that these people have given themselves is given to reality. This is the daily color of the Tsagaan-Ovoo brigade, situated along the coal transporting road from the mining sites of Tavan Tolgoi and Erdenes Tavan Tolgoi to China. Here people live, children play, and elderly subsist. There are many people who live in such a dangerously unhealthy environment, getting by and comforting themselves with all sorts of false hopes.

When asked, how they protect their own and their families’ health in such a dusty and smoky environment, people give all kinds of replies.

dusty conditions like we have here. On the other hand, it seems that I got used to living in dust and smoke. Even my arthritis has been cured”!

There are very few people who know when they last took a shower in this place because water is so scarce.

The aforementioned scene is the reality of many communities entertained by many wonderful promises and trivia such as, what is the driving force for development in Mongolia? what is the main source of economic growth? and which one will bring development to Umnugobi. Here, along the road for coal transport, the need for infrastructure such as paved roads, water, a kindergarten, schools, electricity, and a hospital has become an urgent and sensitive issue. When asked about this situation, the Deputy Director of Tavan Tolgoi (a company which has conducted

► coal, an advisor to Energy Resources R. Sundui stated, “Should we build 10 roads to transport our wealth to China? Should many trucks compete with each other, traveling side by side?”

All of this seems to indicate a desperate need for a common infrastructure policy and initiative. In fact, after speaking with mining company directors it seems that there is a plan for the construction of many roads. However, it seems that so far no concrete works has been accomplished. Only foundations have been laid. There are big reasons for not having accomplished anything yet.

“We have started our operations just recently”, B. Batsaikhan, a branch director at Erdenes Tavan Tolgoi in Umnugobi Aimag.

“Our company wants to do something”, said Tavan Tolgoi Director Kh. Tumenbayar. “However, we do not have enough power to spend money and capital. All of our instructions come from members of the board of directors. All money matters are decided by them. Even though I am the general director, the amount of money I can spend on a decision I make is limited to about MNT 5 million”.

On the other hand, Governor of Umnugobi and member of Tavan Tolgoi’s board of directors G. Tsog-Urnukh said, “In our town, there are more than 5,000 heavy-weight trucks that transport coal. Due to this situation, dusting has become an issue of concern.”

In any case, starting with the road’s construction, they are planning to do a lot of work. Due to the closing of the coal transport road from Tavan Tolgoi to Tsagaan Cliff. As ordered by the Minister of Roads, Transportation, Construction and Urban Development, representatives from the Auto Transportation Authority arrived in Umnugobi and gave instructions to certain people working for the mining companies.

“Although the administration of Tavan Tolgoi were called upon, they did not come”, said Auto Transportation Authority Senior Inspector S. Batbold. “The recent inspections were done according to the requests of Energy Resources. However, Tavan Tolgoi has not given us any explanations to date. Governor of Tsogtsetsii Soum G. Tsog-Urnukh is a member of Tavan Tolgoi’s board of directors. Therefore, we have given instructions through him about what Tavan Tolgoi needs to do in respect to building the road.”

According to reports from coal transport drivers, it seems that it is very dangerous to go through the rocky, unpaved roads. There are many accidents because a lot of dust and dirt in the air makes it hard to see the vehicles in front. One of the most difficult issues to deal with is damage done to a truck’s heavy tires. The trucks, weighing between 20 and 30 tonnes alone, carry loads of coal that reach approximately 100 tonnes. If a tire breaks, a terrible accident could occur.

Personnel at Erdenes Tavan Tolgoi complain that no labor contracts have

been given while drivers continue to work under such difficult conditions. There is no country in the world other than Mongolia that transports its coal via trucks, especially on unpaved roads. What would happen if all of the coal from this world renowned coal deposit was transported and exported on unpaved roads?

Let us hope that the issue of infrastructure for this large mining deposit attracting so much investment will be resolved tomorrow, the day after tomorrow, or in the near future. ■

## PPP

# 2,000 Kilometre Rail Project for Tavan Tolgoi

**B.Zayabal, Head of PPP, concession department of the State Property Committee of Mongolia replies on the questions of the Mongolian Economy.**

**-Is there a mining project within the PPP list approved by the Government?**

-There is no mining project in the list of concession items of the State Property Committee of Mongolia. However there are numerous infrastructure projects connected with mining. For instance, big projects for the roads for the transportation of mining products, energy sources, railways, increased capacity for entering the border harbour, and settlement zones at the harbours.

**-Are there any companies that applied for railway building project’s tender?**

-In the amendment of the list of concession items, a railway of a total 2,000 km is proposed for construction in two phases. Within its first phase, a license to lay the foundation of the railway was given to the company Mongolian Railway. Surveys on technical, economical calculations are being made. The preliminary results of the survey will be implemented in the project’s phase combined. There are positives to this, such as investment making, reduced costs to the foundation, and time saved. Implementation of this project requires a lot of capital and it needs to be solved in accordance with the strategic investor’s operations at the Tavan Tolgoi coal mine and its investment, framework. The relevant decisions will be issued according to the law. Concerning the road building projects, the tender for providing a concession for building a road to transport mining products is ongoing. I am pleased to say that both domestic and foreign companies are taking part in it actively.

**-How PPP can be implemented in the mining sector?**

-Considering international experiences, the possibilities for implementing a public-private partnership in the mining sector are various, depending on the economic development and legal environment of the country. In order to develop the mining sector quickly, it is urgent that Mongolia carry out a public and private-partnership for infrastructure. A chance to cooperate in a profitable way successfully is open for the public and private sector by following the principles of concluding concession contracts; such as diverse project studies, well grounded analysis, support for competition and transparency, and the formation of an efficient control system after the contract is made.

For Mongolia, we are working on the implementation of projects and programmes related to infrastructure and basic social services for the public. These are displayed in the state policy documents on public-private partnerships. Of course, among these infrastructure projects are ones that will have significant influence on the development of the mining sector. A public-private partnership is implemented in a broad way, based on the various laws, such as concession law, minerals law, and land law etcetera. ■

## Branch Expert



**T**he success story of Hunnu Coal is a wonderful one. Its director was able to raise capital on the international market by earning the trust of international investors and raising the profile of Mongolia. This company amazed everyone with its success when its IPO listed on the Australian Stock Exchange (ASX) in February 2010, raising USD 20 million and growing five times its original price within a few months time. On New Year's Eve, the Australian mining magazine Resource Stocks selected Hunnu Coal as the best of the best.

The Mongolian head of this company is T. Lkhagvadorj, well known by foreign investors as of George. He participated in the reconstruction works of large mining companies such as Erdenet, Mongolrostsvetmet, and Energy Resource. His desire to develop his own business with his Australian partner Matthew Wood drove him refuse an Executive Director position at Energy Resources, which was approaching the peak of its development. Currently, he is heading the company Hunnu Coal, which has amazed Australian investors.

Hunnu Coal operates at more than 10 projects for coal prospecting, rendering support for Mongolians, is preparing for explorations to begin any day now.

## Mongolia's Future Lies With Humans, Not Stones

**-Just a year ago the share price of Hunnu Coal growing rapidly on the ASX. What progress has there been since then?**

-Let us leave behind the issue of our company's success in terms of its share price, and turn attention to its expansion. A year ago Hunnu Coal had only 15 people on staff. It now has grown up to about 100 personnel. Because our workload increased, we recruited more staff. In addition, around 300 or 400 people work as project assistants. Most importantly, since these are prospects, we spend a lot of time and money on our projects. Also, in order to better utilize these projects, the kinds of resources were determined through multifaceted studies. A year ago, we only just started prospecting, but now the company has turned into one that explores intensively, has resources in line with international standards, and will start mining anytime soon. Actually, we have expanded significantly.

**-How are the resources at the Tsant Uul project in Umnugobi Aimag? Hunnu Coal planned to begin operations there by October. How are preparations progressing?**

-It has not been long since we obtained our mining license after

discovering the Tsant Uul coal mine. Very soon we will put our technical and economic specifications into discussion. It is estimated that by September equipment will arrive at the mine. Using techniques that follow international standards, we estimated that 157 million tonnes of coals exists at Tsant Uul. From this data we conducted more detailed land estimates of resources, amounting to around 20 million tonnes to be explored for another five or six years, producing the technical and economic specifications necessary. Preparatory works are going intensively. Last spring, we planted two hectares of trees and bushes. Planting trees and bushes along the road near mining operations helps us shield against dust. Before we start operating the mine, we want to first identify the obstacle and determine ways for resolving them. We also need to conduct archaeological excavations and studies. We have completed this work. We have already made an agreement with local households that reside near the mine in respect to their migration. It can be thus concluded that all preparations have been completed prior to the start of mining operations.

**-How many tonnes of coal do you plan to extract each year? Have** ▶▶

▶ **you resolved all issues regarding infrastructure?**

-At first we will be unable to extract very much. Before the end of the year we will probably extract about 300,000 tonnes of coal maximum. The total amount will reach approximately 1.5 million tonnes next year. We have set our goal to increasing the capacity of the project by three million tonnes of coal per year. In terms of infrastructure, we are located 38 kilometres away from the road through which we transport the coal. At first we plan to sell the coal from the mine bench. However, we have completed the technical and economic specifications for the road to connect the mine with the main highway, and sent them to the relevant ministry for discussion. We are planning to build a paved road and assume there will be no difficulties in transporting the coal from the mine on a road with the capacity of three million tonnes. There is now a discussion about the construction of a railway connecting Tavan Tolgoi; therefore, once it is put into operation we can transport our coal via this railway as well.

**-Hunnu Coal is exploring the possibilities of more than 10 coal prospecting projects. Which is most important and you have the most confidence in?**

-It is very difficult to distinguish which one is most important to us. That is like asking the parents of many children who they love most (laughs). We, of course, consider all of our projects to be the most important. However, due to the location, and quality of coal, we are estimating which one of the mines will yield the most profit if put into operation. We are developing our plan of action along these criteria.

Currently, we are paying the most attention to Tsant Uul because prospects are best there and we established the volume of its reserves. We have decided to implement this project first, even though the quality of the coal there coal does not match that at Tavan Tolgoi. However, we estimated that it will yield the greatest profits. Our next project is called "Altai Coal" at Gobi-Altai Aimag. Although there are exploration activities there, detailed studies are needed. Therefore, we are currently conducting drilling operations.

**-You have said before that after**

**your first mine goes into operation, you will raise capital on the Hong Kong Stock Exchange (HKE). What is the progress on this goal?**

-We have been planning to introduce our shares to the HKE. However, for a month now there has been world economic crisis. When the international market gets shaken, investors start to approach the stock market cautiously. In terms of our operations, we think we can invoke trust from investors at the HKE when we announce the results from our exploration activities because we already launched mining operations and recently acquired a new project. Therefore, we have postponed this work for some time. However, international investors are interested to know when we will introduce our shares and how much capital we plan to raise. To all such inquiries, we reply that we have some homework to do before then. We are doing just that now.

**-How long do you think the market crisis instigated by the credit rating downgrade of the United States and fiscal difficulties both there and in Europe will continue?**

-The crisis of 2008 has been compared to the stock exchange crisis of 1929. Information is also circulating that the more recent crisis will also reach that level. What kinds of measures will be taken by the leaders of the U.S. and Europe before the crisis goes any deeper? This recent, bitter experience has led to discussions about adopting preventive measures are in full swing. Of course, they will find a gateway. However, the measures taken to improve the economy do not yield results straight away, and time is needed. Everything depends on if resolution will require one or two year's time. We are obtaining financial data everyday and observing the situation.

**-Hunnu Coal entered the Australian market at a very favorable time, didn't it?**

-Yes, it did. However, now the situation in Australia is not so favorable. The government of Australia started to adopt policies imposing high taxes on mining operations and require higher standards for environmental protection. Therefore, people think that it is better to invest abroad rather than into Australia.

**-Moreover, isn't it true that among**

**the Australian investors Mongolian mineral resources and companies are coming into fashion?**

-Recently, one could have observed many investors from Australia came to Mongolia. Some come openly, some covertly, while some silently open up their branches in Mongolia and see what the opportunities there are. Our country is not only rich in mineral resources, but also the current price of many products is low. Therefore, investors from not only Australia, but also Canada and the U.S. are interested in investing here. Due to investments, it can be observed that the currency rate of the tugrug continues to be strong.

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**Mongolia compared to other countries has a long history of development. Not necessarily because of its warfare and conquests, but rather the type of a policies implemented when it established that empire. If we adopt these policies, it would be the best developmental model for Mongolia.**

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**-Hunnu Coal was selected as the best IPO of 2010 on the ASX. Through corporate social responsibility you were able to earn the trust of investors. Could you share more on this subject?**

-As I stated earlier, growing from 15 personnel to a staff over 100 is enormous expansion. However, with expansion responsibility also grows. With shares for sale on the market we need to understand this responsibility even more. There is a big responsibility beginning at the production of reports and accounts according to the guidelines established by the stock exchange. Many people learn the most information from these reports. However, we cannot deny the fact although a report may be of good quality, there could be made some matters difficult to understand for the public. ▶

► Therefore, it is very important to go to our top investors in person to inform them about the state of our operations. For example, one large investment fund could have divided and allocated its capital to 100 different companies. Today the shares of Hunnu Coal could look attractive, but if there is a lack of information and contact between us and our investors, after two or three months they could lose interest and sell their shares. A fund will not read in detail all of the financial reports from 100 companies. Therefore, in order to earn the trust of our investors we spend time going to different places to inform our investors. Investors will also see that Hunnu Coal is not a company that operates only on paper.

**-Do you mean the method a company uses to deliver information is just as important as the transparency of a company?**

-This is only a single part of the matter (laughs). The key to our success is our human capacity, which comes from the capable personnel at our company and the Mongolians who oversee our projects. They work responsibly and are able to yield the results we want. This is their achievement.

**-How do you envision Hunnu Coal in a decade's time?**

Actually, it is very difficult to give a prediction of five years let alone a decade. However, if everything goes well, I hope that our Mongolian coal company, Hunnu Coal, will be known around the world just like other renowned names such as the American Peabody and the Chinese Shinhua. Of course, it will not rank amongst the international "sharks", but, hopefully Hunnu Coal will attain a fair reputation and stand as a company that conducts its operations continuously well and is responsible.

**-How will your projects progress in 10 years?**

-At the very least, we are planning to begin operations at three coal mines within the next five years. This is a big job. Even though it is a difficult task for one company to operate three mines, we are determined to reach this goal. Of course, this will depend upon the market. It is one thing to extract coal, but there are also many issues involving how to build infrastructure and how to meet government regulations. We strive to coordinate our actions with all of these criteria in mind.

**-There is talk about amending**

**the laws on mineral resources. What type of amendments do you hope to see?**

-Currently, I am not too aware the bill being circulated. In any case, I hope that it will be a stable law that can be followed and does not scare many people.

**-What do you think about the argument that the popularity of renewable energy sources will lead to a lesser demand in coal?**

-Mongolian coal exports have continued for a mere 3 years. It is in its infant stage and is striving hard to enter the world market. We need to understand that market is big. For example, Japan would require raw materials, including a tremendous amount of coal to recover its losses after an earthquake. The Republic of Korea is developing rapidly, and just to the southwest of China is India, which also has a huge market. It does not mean that India will buy coal from us, but the Indian market will compete with the Chinese market. Therefore, India needs to share, to a certain extent, the coal that China purchased from Australia, the U.S., and Brazil, doesn't it? What should Mongolia do to fill this gap? In addition, the African continent, which has a billion people, is set on the path to development. Therefore, there is no need to be afraid when it seems as though the market of the developed countries are satiated as there is even bigger market of the developing countries. We need to be afraid that our resources may deplete before we have even fully determined the extent of our resources. Therefore, we need to work.

**-In recent years, mining operations have expanded and there are now many mines operating everywhere. Where will all of this lead us?**

-Should we just sit back and wait for development, relying on mining? It would be wrong to assume that wealth will come just like it did for Arabian countries through the sale of their oil. It is better to invest the profits generated from mining into long-term development. First of all, I think that the majority of profits should be allocated towards education and health. Then, we should pay attention to infrastructure and other issues. Only when a person is healthy and educated can they contribute towards the development of his or her country; this is more important than the wealth underneath the soil.

**-There is some talk on models for development. Some believe that if Mongolia pursues the policies of Chili, Australia, or the United Arab Emirates it will develop well. In your opinion, which country's example should Mongolia follow?**

-Mongolia compared to other countries has a long history of development. Not necessarily because of its warfare and conquests, but rather the type of a policies implemented when it established that empire. If we adopt these policies, it would be the best developmental model for Mongolia. It is not about deciding if this country or that one's model is best. This is because Mongolia's people, land and, history are all said to be unique. I don't think such people need to follow others (laughs). ■

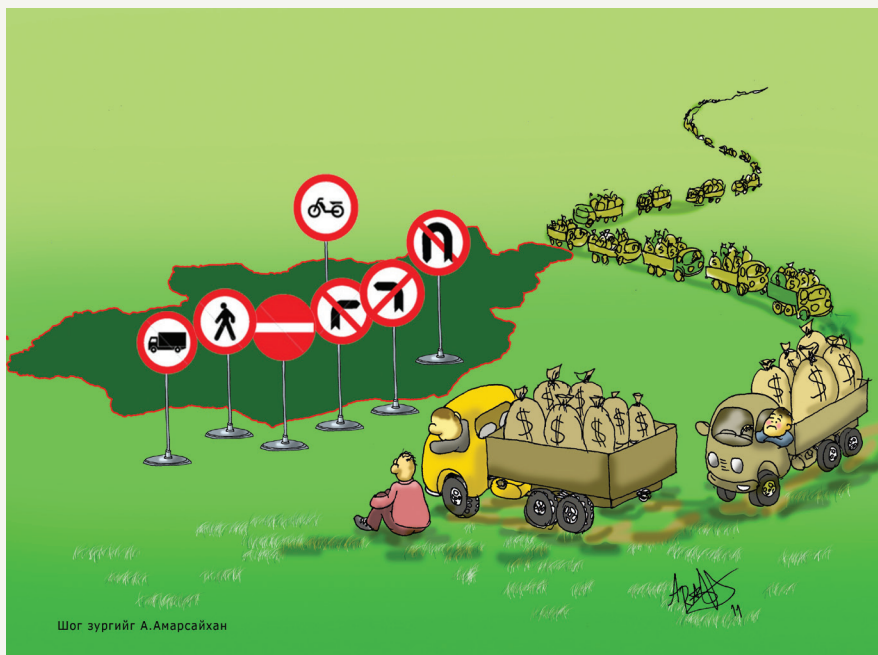
## Jurisdiction

# Mongolian Law Lives Three Days

By D. Maral

Due to budgetary issues, President of France Nicolas Sarkozy had to cut his vacation short and quickly return to work to attend a special cabinet meeting. Although leaders of countries around the world have succumbed to the fear that the next financial crisis could be imminent due to United States and Europe's credit and budgetary issues, Mongolia's leaders seemed

unperturbed. Not long ago, members of the Parliament (who hurried to celebrate Naadam) promised to hold a special session during the closing ceremony of Parliament's spring session. The fact is, although members of the Parliament are quite adept at appearing at a variety of national, provincial, town, and organization's anniversaries, festivals and celebrations—lest we forget trips ►



“Our country’s mineral resources sector in reality does not stand strong on its feet.” Vice President of Rodman & Renshaw Investment Bank J. Jamul told the newspaper *Uls Turiin Toim*. “For example, there is only one large mineral deposit of gold at the world level, while others are small deposits that do not measure up to the global market standard. Therefore, the most important thing for Mongolians is to raise the primary level of investment. However, it is a big issue in itself that its legal climate is unstable”.

After attempting to raise capital for several projects in Mongolia using his personal banking connections, he was hard hit in May 2010 when the government adopted a new law halting the issuance of special exploration licenses. After this resolution the value of Mongolian companies trading shares on the market fell sharply.

Director of CPS International B. Munkhdul stated, “It seems that information in respect to the legal climate in Mongolia is directed only towards the citizens. After issuing a certain resolution, the authorities strive to make it understandable to its citizens only and do not pay attention to investors. Therefore, companies have no other choice than to explain these things to themselves.”

Do the government’s leaders realize that adopting certain laws and resolutions affects investors spending millions of U.S. dollars in the resource sector foremost? Canceling the 68 percent windfall tax and taxes on some other products gave way to the close of the Oyu Tolgoi investment agreement, and consequently, renewed the trust of the investors. However, the so-called “Law with the Long Title”, (the Law on the Prohibition of Mineral Exploration in Water Basin Areas and Forest Areas) quickly followed. At first, people welcomed a law for environmental protection. However, soon Mongolians learnt why Mongolian tax payers and the Mongolian government refused to pay the compensation fees. If a company passed on a site because of a hefty fee, illegal “ninja” miners could mine for themselves, wreaking even worse havoc to the environment. There was a caution that even if the companies could be turned away by paying them with compensation fee the so-called ninjas could go into the gold deposits and contribute to even more destruction of the environment. The “Law with the Long” ▶

▶ to the countryside to train race horses—they have not been seen in the halls of Parliament. Perhaps their promise was a joke. It seems as though the uncertainty surrounding a driving force for the Mongolian economy, the mineral sector, and investors’ apprehension will not be resolved until Parliament’s autumn session commences 3 October.

So much depends on the mining sector. Minerals contribute 30 percent of the economy and makes up 80 percent of imports. It also supports the Human Development Fund’s cash handouts to Mongolian citizens throughout the country, and attracts more than 80 percent of foreign investment. However, it has been such a long time since vital issues, including the amendment to the Law on Mineral Resources, the controversy surrounding the so-called “Law with the Long Title”, and the investment agreement regarding Tavan Tolgoi’s Western Tsankhi have left investors in anticipation. In addition to all of this, the likelihood of imminent world financial and economic crisis risks sending huge sums of money headed for Mongolia to somewhere else abroad.

President Ts. Elbegdorj ordered the issuance of exploration licenses after the adoption of the amendment to the Law on Mineral Resources. During the last spring session there was talk about adopting the amendments to this law before that season’s session ended. The Law on Mineral Resources was first adopted in 1994; its content was

significantly altered in 1997, and again in 2006. Since the discussion would be open at the Citizens’ Hall and proposals were gathered from representatives from the sector in addition to scholars and scientists, people working in the mining sector were hoping that this iteration of the law would have a longer life. Therefore, the public remains cautious in the event that Parliament and government set a precedent of amending laws as they please.

Former Australian Prime Minister Kevin Rudd’s initiative to levy 40 percent of income from large mining companies caused a stir around the world. This bill, later dubbed the “super tax” by the international media, prompted leading mining companies to warn Australia’s leaders that if passed, the law would scare away investors interested in Australia’s mineral sector and cut jobs. Mongolia’s ill-fated 68 percent windfall tax was cited as an example of just this. Opponents quickly developed the prognosis that this new tax would drag Australia’s mineral sector behind the rest of the world. Ultimately, this controversy contributed to Rudd’s eventual resignation. This scene showed the world how fragile and dangerous it is to play with the legal environment when it comes to resources. If this is the case for Australia, with a history spanning over 200 years, then what are the consequences of the Mongolian legal climate with a “changing temper like spring”?

► Title” included more than 1,700 licenses and a resolution canceling 254 special licenses of gold deposits at first instance. However, it failed to be implemented until now. Although the law that was passed two years ago, it still continues to create controversy. Several politicians followed the lead of Minister O. Chuluunbat who felt implementing this law would lead nowhere. The minister submitted an amendment to the law at the beginning of this year, but to no avail.

“If the business entities had conducted exploratory works without finding anything, then they should bear the risks,” said O. Chuluunbat’s colleague, Minister Ya. Batsuur. However, according to this law the government has to give out compensations to any company conducting explorations. We should not spend so carelessly the taxpayers’ money, should we?”

Although it has been estimated paying the fees attached to the “Law with the Long Title” would cost the government more than MNT 500 billion, other estimates say it might cost as much as MNT 2 trillion.

“This is more money than this year’s and next year’s budgets together” Chuluunbat pointed out.

In addition, experts from the Bank of Mongolia warned that these incentives might not lead to any returns. Because mining companies borrow huge loans from commercial banks putting their licenses as collateral, the “Law with the Long Title” may negatively impact the financial sector as well. Also a fear exists that employees who have lost their jobs could become ninjas and mine for themselves if a company is forced to surrender its special license. Due to these risks, while some parliament members strongly opposing the law, others have put up such up a fight, they have nearly taken up arms.

“Law with the Long Title” is just one example of how lawmakers can produce a poorly studied product, when it is unclear how that law will be later implemented or what consequences it will bring. Then if it does not work, nothing is easier than to simply amend it. It would be interesting to know where all the member who now oppose the “Law with the Long Title” were during its passage.

During the last days of the spring session, Parliament adopted four laws. Passing four laws in one day is not much better than a herder who waits for the

Siberian winds to blow past his ger before he finally begins to gather enough hay to feed his animals for winter. Just a year ago during Parliament’s 20th anniversary celebration, it proudly announced that more than 500 laws were discussed and adopted since the creation of Parliament. Actually, would not it be wiser to judge Parliament’s performance through an assessment of how well it implements laws rather than how many it rushes to pass? The current situation, where it is apparently just as easy to adopt a law as it is to amend one, seems to have given fruition to the phrase “Mongolian laws live three days”. A lot of facts show that it is time to transfer from quantity to quality.

Experts have already pointed to the urgency in clearing the legal climate of the mineral resources sector because it constitutes the main driving force of the economy in. The World Bank has warned that countries such as Mongolia with a small and open economy will definitely be affected if another world financial and economic crisis arrives. Vital to both foreign and domestic investors, this umbrella law hovering over the mineral resources sector still has an unclear forecast. ■



## Minerals

# Should Mongolia Take Advantage of the Rare Opportunity of Its Rare-Earths?

By D.Maral

Surging rare earth mineral prices have gotten developed nations and high technology manufacturers worried. China, with more than 95 per-

cent of the world’s supply, is tightening its policies in mining and cutting export quotas. But this decision, which has recently attracted the world’s attention,

may open a favorable opportunity for Mongolia. Once, the World Bank estimated that Mongolia has USD 10 billion worth of rare earth minerals. ►►

## ► China's Monopoly

Rare earths are a collection of 17 chemical elements listed on the periodic table. They are becoming an important part of day to day life. The car you drive, the smart phone you hold, and the TV you watch all hold some of these 17 elements. This explains why rare earth minerals are also called 'high-tech vitamins'. The principal consumers of these 'vitamins' are high-tech hardware manufacturers and developed countries.

In recent years, the demand for rare earth elements has steadily increased as technological innovation has hit a peak. Over the past decade the demand for rare earth metals increased three times to 125,000 metric tons a year. According to an estimate by a survey organization from the U.S. Congress, the world's annual consumption of rare earth elements will exceed 200,000 tons by 2014.

Three decades ago, China discovered in Inner Mongolia's Bayan Obo a huge deposit of rare earth elements. Using its gigantic reserve, China strengthened its monopoly and took its competitors out of the race by applying a "cheap price" policy. Once China began supplying developed countries with these minerals at the cheapest prices available, it became unprofitable for other countries to spend funds on these high-cost rare earth metals extraction projects. That is why today Mongolia's southern neighbor holds over 95 percent of the rare earth elements market.

However, citing concerns about pollution and over-exploitation, China has in recent years limited the export of rare earths by slashing export quotas, combating illegal mining, and proposing a strategic reserve of the minerals. In the second half of 2010, China reduced its export of rare earth elements by 72 percent. That meant the world was facing a shortage, sending developed countries into panic. Japan started to cooperate with India, Kazakhstan, and Vietnam in order to ensure its supply of rare earth elements. While South Korea is planning to spend USD 17 billion by 2016 to secure rare earth reserves, the United States preferred to render government support to companies running rare earth minerals exploration operations.

Prices have increased by as much as three times since May 2011.

"It helped domestic producers earn billions of dollars, but because of high raw material costs, downstream companies such as producers of energy efficient bulbs have cut or halted production", said Zhang Anwen, deputy secretary general of the Chinese Society of Rare Earths to China Daily.

"Higher costs may drive users to avoid applications based on the 17 chemically similar elements entirely", said Shinya Yamada, a Tokyo-based analyst at Credit Suisse, Bloomberg News reported.

"You are seeing a lot of investment by high-tech firms on research to become less reliant on these materials" said Matt Robinson of Moody's Analytics to BBC.

Scientists from the University of Tokyo demonstrated a new engine for electric vehicles that does not contain rare earth elements at the trade show Techno-Frontier 2011. Although currently their engine is unable to create the same torque as other modern motors that contain rare earth metals, they hope that future research will improve and help its rare-earths-free engine reach acceptable levels. Perhaps, in the near future rare earth minerals may not be high technology vitamins any more.

### Enter Mongolia

For those with reserves of rare earth elements, China's decision opened an opportunity to attract new investment.

Japan's Nippon Steel and South Korea's Posco took up a share of a Brazilian rare earth metal mining company in a bid to secure supplies. Sumitomo Corporation bought newly issued shares of U.S. Molycorp for the purpose of shipping rare earth metals in large quantities from the United States to Japan.

Australia's Arafura Resources is raising a huge sum for its rare earths project. The company plans to produce 22,000 tons a year of rare earth oxides beginning 2013.

Countries such as India and Kazakhstan are rushing to put rare earth minerals into economic circulation while their prices are up. In the first half of 2011, rare earth

metal exports in Kazakhstan rose 75 percents, reported Kazakhstan Today.

According to a 2009 estimate by the U.S. Geological Survey, Mongolia has 31 million tons of rare earth reserves or 16.77 percent of the total global reserves, making it the second biggest holder in the world after China. Experts established five large deposits and about 246 occurrences of rare earth minerals in Mongolia. However, domestic geologists state that there is almost no area in the country where detailed studies were conducted.

Explorations were conducted at the Lugiin Gol, Mushgia Khudag, Khotgor and Khalzanburgedei deposits, and according to results it is likely that the deposits total about 6.6 million tons of rare earth minerals, states Eurasia Capital in its report Rare Earths not so Rare in Mongolia.

Prospecting, exploring, and mining rare earth minerals is very expensive, as it requires the use of sophisticated and costly technology. This is why no substantial work has been conducted in Mongolia, although surveys have been conducted. In the 1990s, Japanese and Chinese experts came to Mongolia, but did not pay any attention to rare earth.

Prime Minister S. Batbold was able to obtain a favorable agreement with its Japanese partner who promised to send a survey team to Mongolia to perform analyses. Also it was reported that Japan has decided to sell Mongolia satellite observation devices for the purpose of accelerating the exploration of rare earth minerals.

"Our country will provide all the support necessary to Mongolia to start the exploration and mining of rare earth minerals" said Dr. Stefan Hanselmann, project director at the German development organisation GIZ. Although a year has passed since then, no more news about the success of the Mongolian, Japanese, German cooperative effort has circulated.

"Although we have not discovered a world class rare earth deposit yet, there is still an opportunity to find one, if we explore", said Kh. Enkhtuvshin, general director of Erdenyn Erel.

Specialists recommend that Mongolia conduct extensive surveys to establish the amount and location of rare earth minerals on its territory using Japanese and German know-how. Both nations are interested in diversifying their sources of rare earth metals. ■



### Mining Rehabilitation

## Exactly As It Was

By E. Zorigt

The lake's water, quietly dimpling and its silver waves reflecting the many colors of the sun's golden rays, is beautiful. Mandarin ducks are gabbling one after another and diving down into the lake. Autumn's gentle wind causes blades of grass to sway, and far to the southeast on small hillock are cattle grazing. This is not the beauty of a cool and beautiful, mountainous and fertile pasture land, but the site of a mine. This piece of landscape is within the vicinity of Baganuur Mine. Twenty years ago at this spot, where miners have excavated for minerals since 1978, was a lake that was nearly dried up, ruined by dust from a road for coal transport.

Since 1999, management at Baganuur Mine has paid attention and money to biological and technical techniques for restoration. Thanks to this, there is now an area of 129.2 hectares reclaimed to nature. This company started its coal mining operation to supply thermal power plants and give Ulaanbaatar's residents their electricity and heating. The mine has disturbed the beauty of a pristine land, stripping 8.8 million cubic-metres of soil for operations. Although these activities devastate the environment, life without electricity of even a moment is unthinkable. Today, it is impossible to continue without coal mines, but it is important to know what environment friendly technology is and how restoration can be done.

"Without coal mining, there will be a

shortage of heat and electricity. However, we should not throw away a box after taking its gold, believing we must only dig out coal. As a mining company that conducts operations harmful to the environment, we are socially responsible and obliged to restore the environment we've damaged" said B. Bazar, the first vice director of Baganuur Shareholding Company.

The area, amounting to 129.2 hectares, is tiny compared to the total area disturbed by mining operations. Whatever land that has been restored has become land for pasture for livestock.

Today, Baganuur Mine conducts its mining operations on two plots of land. Each year four million tonnes of coal is extracted from this mine. However, depending on demand, three million tonnes of coal a year may be mined, stripping between 12 and 14 million cubic metres of soil, while restoring 10 hectares a year. For open-pit mines engaged in mineral excavation, soil stripping creates a great deal of dust, drying up rivers and streams, and killing plant life. This is especially so when mining for coal.

However, until today, citizens of Baganuur district have not made many complaints about the dust and its effect on the environment. It is widely believed that this is because the mine's management focuses as much energy as it can on restoration activities. In Mongolia, mining

companies say that it is impossible to conduct restoration operations if reserves have not yet depleted.

"Our reserves are not going to be depleted. Our studies say there are reserves for mining for about another 10 years", said R. Zorigbaatar, the vice director of operations at Tavan Tolgoi, a small shareholding company that has been operating for more than 40 years. "However, I am fully confident that the reserves will be even more. Therefore, we will begin restoration after the mine's closure. It is impossible to conduct restoration before then."

In contrast, the experiences of the first vice director at Baganuur indicates that the idea that it is not possible to begin restoration before reserves are depleted is wrong. Restoring land after a mine closes is awfully expensive. It might cost as much as what was spent on opening the mine. This will be the greater burden to companies. If a company is able to spend money and labors on restoration work from the start of operations, not only will it face fewer difficulties, but it will also achieve better results.

Although Baganuur ignored restoration up until 1999, it started a great endeavor conducting its restoration efforts almost 10 years ago. A Company with the goal to repair all the land it disturbed must plant between 2,000 and 4,000 trees and bushes a year in the vicinity of the mining site. Soil dug out from the mining operation should be divided and separated as fertile soil and top soil. Whatever is left over should be used to contour the foundation of the area. Next is to plant annuals and perennials that can adapt to the local environment. At Baganuur also is a pool, which has effectively reduced the amount of dust produced. In addition, the company protected Bagagun Lake by feeding ground water into it.

Although the staff at Baganuur pay attentions to restoration, D. Enkhbat, the head of Environment and Natural Resources Department of the Ministry of Nature, Environment and Tourism, noted, "There are just a few companies—no more than the number of fingers on my hand—such as Boroo Gold, Monpolimet, Shijir Alt and Baganuur that pay attention to restoration like this. I can say that the companies I've mentioned are somewhat better ones. Although they did some specific work and were able to make the environment green again, what people see does not in fact meet the requirements set by the Ministry".

Now management at Baganuur Mine »

► has decided to upgrade their rating a bit and will cooperate with Mireco of South Korea for land restoration, beginning this year. Mireco has successfully completed restoration works not just in their country but throughout Asia, and was able to establish its reputation based on the quality of its work by doing so. As of now they have successfully replanted

in an area of 10 hectares in the vicinity of Baganuur for a trial. The director of Mireco, who visited Mongolia last month, examined this restoration work himself. Baganuur's staff is confident that cooperating with Mireco will return the natural landscape to how it was before mining operations were ever conducted. ■

It is sad to see the local people hoping to collect water from mere puddles of their once plentiful land during the hot summer season. It is extremely heartbreaking to know that these people have to consume dirty water after having their river dried up because of the wrongful actions of gold diggers. Local citizens protest against gold diggers who have broken the stones of their homeland and dried up the rivers from which they used to take their drinking water, but the gold mine's management's only reply is "we have a license" and do not heed their demands.

<http://www.mongolianeconomy.mn>

## The Harm Done to Mongolia's Land

The TV programme Questions Surrounding the Gold broadcasted on the Mongolian National Broadcasting Channel starts with a foreigner, who comes out of a Mongolian ger and pees without paying any mind to the TV cameras. People of unknown origin are extracting gold in Bayankhongor Aimag and say without embarrassment and in broken Mongolian with a thick, foreign accent, "Our big boss is in the city. He has the mining license and all other documents. Our embassy required that we not to be shown in front of the TV cameras".

We see many scenes like this when people hide their faces and identity while making a statement. The media reports many broadcasts about how gold diggers walk away after dredging the ground and destroying the rivers. The programme discussed here is the most recent such broadcasts. It breaks the heart to see a mountain torn in half, the steppe devastated, and nature look sad and gloomy as sands swirls in a gust of wind.

There are plenty of scenes like this to be found in Mongolia. The beautiful virgin lands, fertile mountain pastures and vast steppe at Zaamar in Tuv Aimag, Uyanga and Bat-Ulzii in Uvurkhongai, and Mandal and Eruu in Selenge Aimag have become a distant memory. A Mongol's heart feels empty they see their homeland without a single drop of water and flowers that do not bloom any longer.

"It was just recently when there was nothing to be seen as horses pastured along Ulziit River", exclaimed a herdsman from Bayankhongor, Ts. Baasan. "However, now the river has dried up and it has become an empty steppe with no grass for the herds to graze with lacking the conditions needed for humans to live. Actually, it used to be a beautiful place with plenty of pastoral land. No rehabilitation work has been done after turning our beautiful land into an empty place with only dust".



"Due to exploration operations conducted 23 kilometres away from the town, Shar River has dried up", said Director of the Committee of Seniors of Gurvanbulag Soum in Bayankhongor Aimag L. Dashzeveg. "As a result of this, the townspeople are experiencing shortages of water".

Shar River provided water for the people of Gurvanbulag Soum since 1962 when it flooded and left no connection to the town. Today, however, the local people are pondering whether to leave or not.

Gurvanbulag Soum Governor D. Bayarjargal said, "Due to the wrongdoings of gold mining operations, people have succumbed to water shortages. During the spring and summer seasons people collect water from the puddles leftover from the dried up river. However, it does not conform to quality standards. Due to the consumption of poor quality water, there has been an increase in the rate of diseases. There is even a case of around 50 people annually needing their appendix removed."

"When we put forward our demands they do not yield to us saying that they have the mining license", said L.Odkhuu, chief of Ulaan Sair's first district at Bumbugur Soum in Bayankhongor Aimag on this subject. "They say that the local administration has to pay them if we disrupt even one day of their operations. They further say that their daily operations cost MNT 30 to MNT 40 million. Therefore, we cannot do anything."

Today, everywhere in Mongolia has places that have been devastated without anyone to blame. According to recent estimates by the Mineral Resources Authority on the amount of land destroyed by mining operations, more than 500 sites were counted consisting of 56 town of 15 different provinces. As a result of these figures, the agency declared that 3,984.46 hectares of land on the territory of Mongolia have been destroyed. However, it is not clear who exactly destroyed all this land. Although Parliament adopted law dictating how mining operations should run, they are rarely followed. "The Ministry of Nature, ►



not welcome the visit, fearing what his intentions may be. The congratulatory remarks on Mongolia's success as a democracy, appeals for greater transparency from Mongolia, promises to deepen ties, and even the possibility of a U.S.-Mongolia free trade agreement could not soothe their rage; or even registered interest.

The protests were the product of months of whispers and news reports of a plan to use Mongolia as a personal waste dump for spent nuclear fuel. Two countries in particular, the United States and Japan, were named most often as parties interested in buying nuclear waste storage in Mongolia. Repeated denials came from both U.S. and Mongolian officials, but still the rumors persisted. Just a few days later, a source from the U.S. executive office told the press the Obama administration is exploring a new uranium trading program, allowing the United States to "lease" uranium to fuel its nuclear reactors until it is depleted and send it back to the country of origin. The United States signaled that it is hoping Mongolia will be a major partner in this program. Conveniently, by then Biden had already wrapped up his trip in Asia and was heading home from Japan.

### A Policy of Uranium-mum

All summer the media had circulated reports of foreign interest in using Mongolia for nuclear waste storage. To many the reports were dubious at best. The stories were commonly based on hear-say, cited unnamed sources, and involved a lot of hypothesizing by political talking heads. Not to mention the extremity of the accusations. After all, both the United States and Japan are two allies of Mongolia. The United States has invested several millions into Mongolia's roads in an attempt to connect even the most remote corners of Mongolia, and its Millennium Challenge program has brought numerous projects and studies for community health. Japan is Mongolia's number one provider of aid for development and has built numerous

## Mongolia's Big, Glowing Nuclear Question

By Terrence Edwards

This month, U.S. Vice President Joseph Biden stopped for a seven-hour visit in Mongolia during his tour through Asia. His short visit featured the kind fanfare one would expect for the man serving in the second highest office of the world's superpower. Biden was greeted by a brigade of soldiers wearing ornamental uniforms, harking

back to Mongolia's rich history and its grand Mongol empire. Performances were put on featuring Mongolia's most talented dancers and contortionists in addition to wrestling, horse riding, and archery competitions. Mongolia's leaders fell over themselves trying to impress him.

Yet, not far away in front of the State Central Library, Mongolians were engaged in heavy protest. They did

Environment and Tourism (MNET) issued an order forbidding any exploration operations within the distance of 800 to 1,000 metres of the Baidrag River", said head of the Citizens' Representative Council of Bayankhongor Aimag G. Batjargal. "However, now exploration operations are conducted a mere two fathoms away from the river banks. Such law breaking actions should be reported to the MNET and the government, and all of their licenses for small mines should be canceled. However, they continue to conduct their explorations still today".

In reality, this is the implementation of laws. It has become common practice for gold diggers to dry up water sources and destroy nature. They continue to disregard others as long as they can dig up their gold. So-called "ninjas" or enterprising gold diggers are the real enemies to nature. All of

the land that they roam, with their shovels and buckets, are being devastated. There is always news about the holes ninja gold diggers dug up that grazing herds and others searching for gold have fallen into and died. The local people can no longer leave their herds untended to.

"People looking for gold are destroying the beautiful pasture land left by our ancestors", said Herdswoman Horoloo. "If we do not look after our herds, with or without vehicles, they fall into the holes dug up by the gold diggers and die".

These people without any documents as evidence of their Mongolian citizenship roam everywhere looking for gold and claiming all sorts of hardships. A significant portion of Mongolia's vast lands are being destroyed and is crying under the greedy hands of foreign and domestic gold diggers. ■

schools across the country.

Yet, the stories persisted and in many different papers. Perhaps, parties interested in embarrassing foreign nations sent those sources to the press. Maybe less scrupulous publishers were hoping for a payoff to make the stories go away. Of course, it is also possible that newspapers were reveling in the drama of it all.

The only ones not talking were government officials from both Mongolia and foreign nations. Of course, this also poked holes in the credibility of reports. Government officials could easily wave off the reports as incredible and laugh about their ridiculousness. Some may have even been frustrated by the story's inability to die. During the U.S. vice president's visit, the words of U.S. Ambassador to Mongolia Jonathan Addleton appear exasperated when read.

"We never talked about nuclear waste burial", said Addleton. "This official visit has nothing to do with nuclear burial. In talks and discussions, this topic will not be covered or mentioned, because the U.S. Government has no idea, or proposal or objectives to bury nuclear waste in Mongolia".

It is likely that these reports all started with a statement by Richard Stratford, director of the State Department's Nuclear Energy Safety and Security Office at the Carnegie International Nuclear Policy Conference on 29 March that the United States was discussing the idea of building an "international storage depot" for spent nuclear fuel in Mongolia. However the embassy denied negotiations had taken place and representatives of the U.S. Department of Energy said it doesn't have the authority to negotiate commercial deals or force governments to take its nuclear waste. The U.S. embassy has maintained the same statement in regard to this controversy since April.

"We regret that recent statements made by a U.S. official responsible for nuclear energy, safety and security during the recent Carnegie International Nuclear Policy Conference may have been misinterpreted to mean we are in discussions with Mongolia about the establishment of a storage facility to accept foreign spent nuclear fuel. That is not correct", said the U.S. embassy in an official statement. "We fully respect that Mongolians are making sovereign decisions about their activities in the nuclear field as they deem necessary,

and we stand ready to collaborate with and support them where our interests converge".

No one else is saying much either. Government officials continue to wave off comments even after the U.S. government has already said it is looking to partner with Mongolia for a uranium trading program that would ultimately leave its waste on Mongolian soil.

"Mongolia is developing its own energy industry based on our own uranium resources," said M. Batchimeg, President Ts. Elbegdorj's national security advisor. "We have spoken with other countries about cooperating on this. That makes people suspicious".

There are indications that some plans must have been made amongst some officials. Whether or not the nations' leaders have discussed it together is perhaps unimportant. In the New York Times report on the possibility of a uranium "leasing" program, it mentioned Mongolia by name 12 times and referred to it throughout the entire report. It was the only country named in the story's lead too. This was not a story about trading nuclear materials with Mongolia, but one about the nuclear program in general and all possibilities. Yet, no other country was discussed as thoroughly as Mongolia.

#### Instructions Not Included

Most worrisome about the New York Times report is how little it actually says. Although the report speaks in depth about the difficulties of implementing a plan with Mongolia politically, no technical specifications or actions to be made were released. The U.S. government simply did not discuss those issues in depth. The only comment made in regard to what a country should do with the spent fuel once it has been sent back to the country of origin was a hope to prevent proliferation by providing alternatives to domestic enrichment and reprocessing capabilities. Although the article by the New York Times has been confirmed by sources as the best account of happenings involving nuclear trades between the United States and Mongolia, it still leaves a lot of lingering questions.

For its own part, the U.S. government too had been denying claims that it is interested in building a nuclear waste repository in Mongolia. Perhaps The U.S. Department of Energy's dis-

closure of its real plans was meant to refute those claims, but instead it must have some wondering what the real difference is. After all a rose by any other name is still a rose and both a nuclear program for the lease of Mongolian uranium and one to hire Mongolia to house depleted uranium rods leave nuclear waste on Mongolian soil.

According to the report, the biggest obstacle is selling the idea to other nuclear-capable countries around the world. Although the United States does not have a nuclear cooperative agreement, they have signed a memorandum of understanding to cooperate on civil nuclear technology. Nuclear waste is a facet included on that agreement. However, the Nuclear Suppliers Group, an international organization comprised of countries with nuclear capabilities (including the U.S. and Japan) for the purpose of limiting the proliferation of nuclear weapons, has already agreed to terms for trade and spent fuel reprocessing this summer. This agreement would make it difficult for the United States to share enrichment or reprocessing technology.

Other lingering political questions remain as well, such as how Mongolia neighbors, Russia and China will react. So far, leaders from neither nation has commented, but it is unknown if the issue is pressing to either. Of course, it would be difficult to gauge, knowing both nation's reputation for maintaining narrow channels for the release of information and keeping a tight lid on reports before the government is comfortable with them, if ever.

Two of Mongolia's neighbors, Kazakhstan and Russia, have voiced interest in participating in a program with the International Atomic Energy Agency to create international "fuel banks". Russia already stores its own nuclear waste in Siberia. However, in recent years, groups such as Green Peace have protested large shipments of nuclear waste to there.

Another worry is Mongolia's lack of expertise in the area. Although it might make sense to partner with Mongolia in a program like this for the United States, it might be dangerous to do so.

"It's not clear how transparent its corporate and political governance structure is. All these questions would have to be resolved before any project like that could go forwards," said Mark Hibbs, a nuclear energy analyst with the Carnegie

#### ► Endowment for International Peace.

However, a transparency agreement between the United States and Mongolia was one issue Biden spoke a great deal about during his short stay in Mongolia.

#### Remade, but Not Quite Better

If the United States were to actually move forward with this plan with the intention of assisting with reprocessing as it suggested, it would be a reversal of over three decades of U.S. policy. The debate over the benefits and costs of reprocessing spent nuclear fuel is a highly contentious one.

By the time a rod of uranium has been deemed depleted, only about 10 percent of its energy has been used. Just three inches of a 14-foot rod with the diameter of pencil can supply enough energy to a family for one year.

“Waste is just too gross of a term for it,” says Sherrell Greene, director of Nuclear Technology at Oak Ridge National Laboratory. “I’m trying to get to the 90 percent of the fuel in that rod.”

The United States first began to study reprocessing for its nuclear weapons program in the 1940s and 1950s. One of their by-products of reprocessing is plutonium in an isolated powdered form. In the 1970s the United States refocused its efforts to study reprocessing for recycling nuclear material and reducing waste. However, the United States has never built its own plant and discourages attempts abroad. Currently, only a few plants exist throughout the world.

“Less than 20 pounds of plutonium is needed to make a simple nuclear weapon”, reported the Union of Concerned Scientists, an advocacy group that began at the Massachusetts Institute of Technology. “If the plutonium remains bound in large heavy, and highly radioactive spent fuel assemblies (the current U.S. practice), it is nearly impossible to steal. In contrast, separated plutonium is not highly radioactive and is stored in a concentrated powder form.

The group goes further to claim that reprocessing effectively eases the proliferation of nuclear materials. Supposedly proliferation resistant technologies would make it more difficult for international inspectors to prevent smuggling because it is more difficult to make precise measurements of the by-product material. Direct disposal is the most effective way to safeguard from

the growth of nuclear armament, said the group.

The resultant waste is not much safer or easier to manage either. Reprocessing uranium creates three different by-products: uranium, plutonium, and a highly toxic and radioactive nuclear waste. The uranium and plutonium can actually be combined to create a fuel called Mox. Six grams of this pellet is enough energy to equal one tonne of coal. A family could live on the energy supplied of just three of those pellets for a year. Although the harmful by-product is supposedly worse than the original material it would degrade in just 10 years compared to the 10,000 years needed otherwise.

Ultimately, the waste does not disappear and storage is needed. Although reprocessing does reduce the volume of waste, it does not remove it 100 percent. Researchers are searching for ways to reprocess uranium without isolating plutonium, but opponents claim reprocessing over-complicates matters with new forms of waste.

“It’s an oxymoron to talk about proliferation-resistant processing”, said Frank von Hippel, a physicist and professor of Public Policy and International Affairs at Princeton University.

Finally, the procedure is an expensive one. Reprocessing spent uranium is so costly that it makes the reprocessed fuel substantially more expensive than uranium. The recent fall in price on spot uranium would only exacerbate that problem. Uranium had been doing quite well this year with an average of USD 59.20 per pound up until July. Unfortunately, last week uranium dropped as low USD 49 per pound. Uranium actually dropped a quarter from its peak price this year of USD 65 per pound in February.

#### The Campaign for a Nuclear-free Mongolia

Nuclear technology has been an issue Mongolians have feared for over two decades, so it is not likely they will be easily persuaded that storing nuclear waste can be safe. Already, students are mobilizing in protest. The website nuclear-freemongolia.com is a hub for all activity opposing the possibility of nuclear waste disposal in Mongolia. Linked to the website are blogs and videos of young Mongolians speaking out against nuclear capabilities within Mongolia.

One opponent who goes by the username Almas on Facebook organised a

protest at Sukhbaatar Square during Biden’s visit. He is a pediatrician and said he is worried about the effect nuclear materials will have on today’s children.

“It’s absurd to suggest that a nuclear waste repository be built in Mongolia”, said Almas. “If it were, I can’t live here. Each Mongolian person should be aware of this information. I want the people to know the truth about the danger of nuclear waste”.

Almas manages a Facebook group with 227 members against nuclear technology in Mongolia. Another seven pages are currently running on Facebook as well. The largest group has 7,700 members. A quick Google search brings up many pages of protest against the issue. Young people have also been handing out fliers at coffee shops and lounges, spreading their nuclear-free Mongolia message.

The government’s silence may be exacerbating the issue if its refusal to comment draws out outrageous claims made in newspapers. The popular political analyst D. Gankhuyag accused MP O. Chuluunbat of having negotiated a secret deal in Taiwan. Chuluunbat responded in the media and denied ever having made the trip.

“It’s very beneficial business, nuclear waste”, said Chuluunbat. “It’s not as terrible as people say. Thermal power plants with ash and smoke are much more harmful than nuclear waste. Ulaanbaatar’s air pollution and outdoor latrines are 10 times more harmful than nuclear waste.”

Atomic Energy Agency Chairman S. Enkhebat spoke to the newspaper Unuudur, complaining that attacks on him and his organisation were unjustified. However, he also admitted there have been discussions about the possibility of receiving waste from foreign partners, though informal.

“It is well known that Mongolia is a nuclear-free state”, said Batchimeg. “Mongolia does not allow nuclear waste to be buried or transported, according to law. Such gossip has been around since 1990.”

Coverage on this issue continues and there is no indication that it will end any time soon. Perhaps there will be more reports as Elbegdorj is planning his own trip to the United States this month. It is possible that a silent majority is less concerned by the issue or might even be interested in the trade. However, all these echoes of silence are enough to leave one’s ears ringing. ■

## Simple Question

## Will the mining sector bring development to Mongolia? If so, which changes could occur in our lifetime?



**J. Jargalsaikhan, Deputy Director at Development Policy and Strategic Planning Department at the National Development and Innovation Committee**

Developing the mining sector can make people's life good. However it is vital to manage it in a right way. Firstly, state policy is important. If the government will define well how to exploit minerals, then business entrepreneurs will conduct their operations on that defined level. Also an export policy for the international market is required. It means conclude long-term contracts with other countries. For instance, we export coal from the Tavan Tolgoi. If two or three companies will do this business separately, then it isn't efficient at all. It is better is to export enriched and washed coal. Also it is necessary to conclude long-term contracts with China, Korea, and also European countries. For this purpose, state support is necessary for contracts on the governmental level that explains how to supply enriched coal to Korea and China for 30 to 40 years. A reliable market will be found. The Germans are interested in purchasing coking coal. Mining can improve the lives of Mongolians, but it will bring results by developing industry.



**B. Tumurtogoo, First-year Student at the National University of Mongolia**

If the Government manages and develops well, then the mining sector can easily lead Mongolia toward development. It is fully possible to develop in a correct way. Employment can be supported, which is profitable for all people and also for the country. However, if exploited in the wrong way, the environment will be destroyed.



**Ya. Norompil, Herder at Bayankhangai Soum, Tov Aimag**

I doubt that mining can lead to development. A lot of mining products are being transported to China. If it is done correctly, then it won't be an issue. The wealth from these resources should be dedicated to people in the right way, and develop Mongolia. If this sector could be developed, changes in our lives will occur and become reasonable.



**D. Bat-Erdene, Vice President at New Minerals Project Development Division at Monnis International LLC**

The mineral sector will bring large investments to Mongolia and attract the interests of foreign investors. The development of our agricultural sector is usually directed towards the domestic market. Exporting meat from Mongolia is challenging. The tourism sector might not develop well depending on the infrastructure, services and weather. We have to search, exploit, process and sell our minerals. The profits need to be spent on education, health, new technology. However a broad development, based solely on the mineral sector, is not possible.



**V. Battsengel, Director at School of Geography and Geology at the National University of Mongolia**

The mining sector's influence on economy is various. It is related to the historic development of the industrial sector. In some countries, mining production positively affected the economy and they became leaders in the field. But for most countries, the direct positive impact on the economy is less. There are several methods to prevent this. Economic development stories and experiences of developed countries worldwide exist already. We have to pay attention on it, and implement it a right and regulated way. Mining's impact on the economy is measured by time. Prices and needs are changing always. This should be considered and a survey of this topic must coincide. Not only mining, but also other production sectors have to develop. Most importantly, a processing industry should be conceived. ■

## Mongolian Economy's Guest

*Discover Mongolia* is being organized for the ninth since 2003. It has developed into a name card among investors as an introduction to the state of mineral resources in Mongolia.

Executive Director of the National Mining Association of Mongolia N. Alгаа, Executive Director of FSCo D. Jarlgalsaikhan, Director of Monrud G. Ankhbayar, Mineral Industry Advisor of Behre Dolbear D. Turbat, and Head of Cooperation and Communications Department of Newcom Group E. Sodontogos gathered at our publishing house and passed around each other's photos from 2003 with interest. No one has forgotten to bring their honorary leather-bound certificate either. The organizers of "Discover Mongolia" design the honorary certificates presented to the media and sponsors in a unique decorated with national flavor. Since then a lot has changed. What did the "Discover Mongolia", which has managed to become a brand name among foreign and domestic investors, accomplish on the road to its road to ninth anniversary? Mongolian Economy looks back on many interesting and unexpected memories related to a Mongolian deel, a commander's hat, and a felt bag.

**-How did you get the idea to organize the "Discover Mongolia" forum?**

Jargalsaikhan: In Canada there is a governmental organization called PDAC that has very similar functions to the National Mining Association of Mongolia. Each year in March they organize an investors' forum along with an exhibition in Toronto city. Since Mongolia transitioned into a market economy, they have sent invitations to our relevant ministries and started paid mind that representatives from Mongolia participate in this forum. In 1993, Minister of Geology and Mineral



## The Colour of Felt

Resources Tsogtbaatar took me with him to the forum.

**Alгаа:** There was news of two people wearing commander's hats and Mongolian deels. (laughs).

**Jargalsaikhan:** The Minister and I, in order to attract the interest of investors gathered in Toronto to Mongolia, went there with a complete set of national attire. But then the participants of the forum were more interested in our attire than mining in Mongolia and when I took out the snuff-box to sniff the tobacco they were extremely curious. (laughs).

**Alгаа:** At the time Sh. Otgonbileg was a MP and though it was important to have a permanently functioning NGO in the mineral resources sector, and initiated the Mining Association. He became the President of it and selected me for the position of the Director.

**Jargalsaikhan:** In 2001, I was selected as the President of the National Mining Association of Mongolia. Alгаа and I together with our accountant, housed at a small room, started our work developing the goal that our association will become powerful. In 1997, the adoption of the Law on Mineral Resources established the conditions for foreigners who come to Mongolia with money. However, as it turns out, it is not enough to adopt

a law for investors to come. We understood that it is important for them to come here to meet with each other, exchange information, and listen to the thoughts of governmental officials. Then we had the idea to organise a similar forum as the one organized by PDAC in Toronto. For the first time in 2002, the association organized a forum and exhibition at the UB Palace alone and without the name "Discover Mongolia".

**Alгаа:** We made arrangements to prepare 250 chairs and spent a night without a sleep. We did not know if anyone would come or not (laughs). This is the first time we organized a forum for hundreds of participants.

**-Did people come? How did foreigners respond to the event?**

**Alгаа:** The place was packed with 250 people, and I was relieved.

**Jargalsaikhan:** It gave us a lot of encouragement. However, we understood the difficulty in organizing a large forum without support from private companies and sponsors. Then in 2003, following our appeal for financial support, quite a few companies extended a helping hand. Mine Info and Monrud did so before anyone else. At that time, Turbat was the general manager of Mine Info, while Ankhaa was the President of Monrud. Each of them stated that »



to their inexperience, they stated a low price and consequently, accumulated little profit. Actually, in order to make it on time, they had been working at home until their hands were covered with blisters. Therefore, we invited them to the “Discover Mongolia”, and paid them additional money.

**-Did the investors like felt bags?**

**All together:** Yes, of course, they liked it. They even demanded them from us.

**Algae:** Foreign guests have probably never seen such a bag before (laughs). Therefore, they were very happy.

**Jargalsaikhan:** Every year we improve the design of our bags to make it more appealing. The main thing is that it needs to contain Mongolian national characteristics.

**Sodontogos:** “Discover Mongolia” probably made colored felt fashionable in Mongolia. In 2005 we created an innovation by attaching our colorful logos on the white felt. Afterwards, shops selling colorful felts opened their doors in Ulaanbaatar.

**-I really like that you said that you strove to redistribute the money from the forum back into Mongolia. What needs to be done in order to give as much as possible from all of the investments arriving from the mining sector into the domestic economy?**

**Jargalsaikhan:** There is a standard from around the world that states, one dollar to the mining sector creates a demands of four dollars to other sectors. At Oyu Tolgoi, there is a demand for electricity, transportation, health and banking services. Today the economy is rapidly growing and the construction sector is also intensifying. On the other hand, all of these are just dry numbers. There are no studies as to who buys these apartments. There is only a guess. It is stated that more than 50 percent of demand for apartments come from the mining sector.

Therefore, the key question is not whether the government will own 34 percent or 51 percent of Oyu Tolgoi. The most important issue to Mongolians is to strive to get as much as possible out of every MNT 100 coming from investments into the Oyu Tolgoi project.

**Algae:** For this the issue of supply is of urgent necessity. Today the good news is that Mongolian companies are »

▶ they would give us USD 5,000, and would recover their expenses from any profits generated. However, if not, then they were still willing to spend it on this forum. Then the organizing committee was established, the logo was created, and “Discover Mongolia” was born. At the time, USD 5,000 could be issued only by courageous people.

**-How did you conduct promotional activities abroad? Mongolia’s mineral resources were not well known around the world. You must have encountered difficulties.**

**Algae:** I remember very well that out of USD 10,000, USD 7,000 was spent on placing an advertisement in the newspaper Northern Miner. We could not even consider placing an advertisement at that magazine because we could not afford the fee. However, if promotional activities are conducted abroad, then one can accumulate registration fees and financial support from sponsors.

**Sodontogos:** Thanks to PR activities abroad, we were successful in bringing the British Mining Journal, Canadian Northern Miner, and Australian Asia Miner publications to Mongolia for the first time. For several years we sent our promotional leaflets and introductory brochures to the mining forums organized in countries such as Australia and Canada.

**-What happened to the USD 10,000 you just spoke about? Did you go bankrupt?**

**Jargalsaikhan:** No, we did not go bankrupt. We recovered our

expenses.

**Algae:** During the first “Discover Mongolia” forum, representative from Vale, which ranks second in the world in the production of iron, came to participate. Of course, we met with this person and talked a lot. Then when he got back home he introduced the administration of his company to Mongolia. Afterwards, they opened a branch in Ulaanbaatar. This was a big success for us.

**-Of course, there must have been a lot of memorable events when organising “Discover Mongolia”. Could you tell us about it?**

**Jargalsaikhan:** We still keep the felt bag we handed out to our sponsors during the first forum. Actually, we strove to redistribute the money accumulated during the forum some way into Mongolia. You may have noticed that it is common in Mongolia to put the conference materials into a black bag and hand it out to participants during large forums. It is not known whether it was purchased from Erlan or somewhere else. On the other hand, our bag is unique and features national characteristics.

**Turbat:** It has a very interesting history behind it as well. A project organized by the Dutch, held a training seminar for the female head of households in Darkhan. Here, the women learnt how to make crafts from felt. They were registered as members of a cooperative. Then once these women started their operations, we caught up with them. They were elated to receive such a big order, but made some wrong calculations. Due

▶ competing with their foreign counterparts for the supply of products and services to large mining projects. On the other hand, the world's largest projects demand the best standards. Mongolians reach that level themselves. It is good that we have started to become aware of this issue.

**-What is needed to reach that standard? Mongolian companies do not know what to do and they perhaps require some advice.**

**Jargalsaikhan:** One might lose in one tender bid, then another in the next one, and learn to win the third time. Currently, this process is taking place. The good news is that Mongolian companies learnt the pain of loss. This is the best lesson because many companies will know why they lost. Otherwise, nobody would come out and give great advice like Danko did when he gave away his heart and showed his people the right way.

**-What was the level of support from the government to "Discover Mongolia"?**

**Jargalsaikhan:** At the time, I was the Head of the Mineral Resources Authority; therefore, it was a bit easier to gather active participation from government representatives for the forum. On the other hand, it is hard to say that the government gave us support. The most tragic example of which is that the forum was conducted during the year Buyan's director Jargalsaikhan held the position of minister to the Mineral Resources Agency. He just came to "Discover Mongolia", berated the investors and left.

**Turbat:** Actually, if the government does not create obstacles for us, then they are doing us a favor.

**Alгаа:** There is another example. It might have been in 2008, on the second day of "Discover Mongolia", the government organized the "Investors' Forum" at the Parliament House. Then under the pretext of a governmental organization, all the people invited with our money were taken to the Parliament House.

**-Today mining in Mongolia has come into fashion around the world and there is growing interest from investors to participate in "Discover Mongolia". However, What was the situation like initially? What was the impression from the investors of the first forum? What kind of information was published in the foreign media?**

**Turbat:** There was short report only in Reuters and Bloomberg. There was no other information published anywhere else. Since mining forums are organized everywhere in the world, foreign media does not pay specific attention to this issue.

**Alгаа:** However, the situation was totally different after Minister Jargalsaikhan told the investors, "We do not need you. You can leave Mongolia." When he said those words at "Discover Mongolia" during the day, Bloomberg had already broadcasted the information by the evening's reception. Such information seems to be spread very fast.

**-You have said at first there was not much coverage from the media. Now all of the large news agencies around the world come to Mongolia to report on Discover Mongolia. Did you think this was possible nine years ago?**

**Ankhubayar:** To be honest, I did not think so.

**Sodontogos:** I thought so.

**Turbat:** I thought so more than anyone else (laughs all around).

**-Then Alгаа was, probably, predicting this**

**situation...**

**Alгаа:** No, I was just dreaming about it.

**Jargalsaikhan:** However, for the second forum the number of participants increased and many foreigners arrived.

**Ankhubayar:** I would like to emphasize here only one issue. Today everybody talks about mining. Everybody says different things about the 1997 Law on Mineral Resources whether it was good or not. It is stated that mining has expanded and developed. However, the people put all their efforts into attracting foreign investors who at the time know this issue well. People today cannot possibly know this. This is because there were a lot of people who did not know about Mongolia and where it is located at the time when we wanted to attract the foreign investors to Mongolia. Now, because this law was adopted, many foreigners are investing huge amounts into Mongolia today. Now it is as if foreigners just came to Mongolia themselves. In reality, they were brought to Mongolia using specific policy directions.

**-In just a few years' time, mining has expanded in**



E. Sodontogos, Head of Cooperation and Communications Department of Newcom Group



D. Jarlгalsaikhan, Executive Director of FSCo

**Mongolia. In addition to Oyu Tolgoi and Tavan Tolgoi, many other mining deposits are being developed by national companies who have started to raise capital on international markets. How does "Discover Mongolia" changing with developments like this?**

**Alгаа:** Each year we observe the situation, and conform to the goals of our forum accordingly. At first "Discover Mongolia" paid a lot of attention to the issue of prospecting. Now we are emphasizing genuine development projects. We have started paying attention to the issue of Tavan Tolgoi, Oyu Tolgoi and the supply companies involved in these projects. Of course, there is difference in quality. This year we created the motto "Let's Develop Together" and are planning to include more speeches that are directed towards development, along with infrastructure and local areas separate from mining.

**Sodontogos:** Actually, "Discover Mongolia" should be understood not just as a forum, but more as an event occurring in the mineral resources sector of Mongolia and evolving within it. At first, we just said Mongolia has a lot of wealth, come to Mongolia and discover it. But now we ▶

are urging everyone to jointly and responsibly develop Mongolia. In addition to organizing “Mining ABC”, the mining alphabet training seminar, we organize other seminars, such as one on the topic of water exploration. Generally, “Discover Mongolia” should be seen comprehensively as a developmental, educational, and informative event.

**Jargalsaikhan:** The main initiative of this year is “Let Us Develop Together with Mining”. Develop, not by knocking down mining, but on the basis of it. In addition, since it is very difficult to talk about it, we are also paying specific attention to the issue of mining in Mongolia without infrastructure. Of course, we are organizing a special session on the topic of responsible mining. From all of these, one can see that the “Discover Mongolia” forum is following social and sector changes. Society is changing very fast.

**-As you said, this year’s motto is “Developing Mongolia Together”. Last year a survey was conducted on whether the title “Discover Mongolia” should be changed to “Develop Mongolia”. What was the result of that survey? Do you have plans to change the title**

**Alгаа:** Only when civilised society, the government, and representatives of the mining sector reach a certain understanding that mining will progress into the future. One can say that these are three stones on which the hearth of mining stands. Society is starting to understand little by little that the issue is not about whether we need mining or not, but that it needs to be responsible. Now if the issue of ninjas is resolved, then it would be good.

**Ankhubayar:** While on the issue of ninjas, I would like to say one thing. The private gold diggers have spread the word, “If you are digging for gold, then why can’t we?” Journalists wrote articles defending ninjas for some time. We study geology for five years. During this time a lot is learnt a protecting the environment. For example, while I was doing my field trip I was scolded by my teacher for crushing a stone attached to a rock in order to take a sample.

He said to me, “Why are you breaking something that naturally exists on its own? If you are a good geologist then take a sample from a stone that has already fallen”.



G. Ankhubayar, Director of Monrud



D. Turbat, Mineral Industry Advisor of Behre Dolbear



N. Alгаа, Executive Director of the National Mining Association of Mongolia

**of the forum?**

**All together:** No, there is no need to change the title. Since the title “Discover Mongolia” has become a brand name in itself, there is no need to change it.

**Jargalsaikhan:** It is wrong to say that everything was good in the past. Of course there are mistakes as well as successes. During the years of 2004 and 2005 there was some hysteria surrounding the issue of mining in Mongolia. All of the obstacles encountered by Mongolian society come up at “Discover Mongolia” as well. I do not recall exactly when; maybe in the year of 2005 or not, there was even a protest organised by some young people outside the forum saying that Mongolia does not need mining.

**Alгаа:** On one side the Dayar Mongol and Our Mongolian Land movement marched in protest of mining, and on the other young people who supported mining also marched. No major issues occurred apart from people on two sides with different slogans standing opposite each other for two days. Actually, it was a very civilized protest.

**-Mining is still debated. What are your thoughts on this?**

Such is teaching. Yet, what do ninjas do? They do not have any understanding about protecting the environment because they are unprofessional. They only work for profit. Therefore, society needs to understand the issue correctly.

**Are you saying that professional people are better at protecting the environment? Then why does rehabilitation continue so poorly in Mongolia?**

**Ankhubayar:** I think that all of this is connected to the issue of money. From 1997 to 1998 everyone was poor. Mining was not very profitable. Now the situation is totally different and the mineral resources are highly valued. As profits increase, rehabilitation will be conducted more often.

**Jargalsaikhan:** Previously, in the package of environmental laws there was a provision that stated that the owner of a mining license after conducting explorations should restore the land to its original state and give it back to the local authorities. What is meant by the term “original state”? This is a loophole made by our society and the government. There was no explanation and definition of

▶ what rehabilitation is. Since 1998, it was felt that such a situation cannot continue any longer, and only in 1999 was a standard and definition of rehabilitation first made.

**Alгаа:** Now many small mines are operating in many locations. However, government organizations cannot reach all of them. Even though there are local inspectors, who monitor all of this, often they do not know what rehabilitation means. For instance, they sometimes just appoint a high school teacher to this position. If that is the case, representatives from the mining company just show them a paper and send them away. In short, the state adopts a law and then fails to monitor its implementation. There is no need to have an environmental inspector in each of the towns. On the other hand, in Zaamar there needs to be three such inspectors. Then there is a need for a mechanism to train these people. Instead of changing the situation, people focus on the fact that there are no results because each community has only one inspector. People say it is just no use and everything needs to be stopped completely. It is a good thing that now people are starting to realise this and pay attention to the issues of responsible mining.

**Ankhubayar:** I recall in 2004 when there was a discussion surrounding the issue of rehabilitation in Zaamar. We made souvenirs with the emblem of "Discover Mongolia" on such precious metals as gold and copper and put them up for an auction. However, because that there were no buyers, we bought them ourselves and gave the money to the Environmental Protection Fund of Zaamar. Now I think that was one step towards the improvement of the rehabilitation process.

**-What will be the scope of "Discover Mongolia" after five years?**

**Alгаа:** I have a dream of turning "Discover Mongolia" into a large Asian forum.

**Jargalsaikhan:** If dreams finish, then the life will finish. Our work that we warm-heartedly began in 2002 produced results and now we need to give a way to others. This is because our time is finishing and the needs from society are also getting rising. On my behalf, I no longer wish to participate in the daily operations of "Discover Mongolia"; therefore, it is now being organized by young people. We strive to make it similar to

the Canadian PDAC even, and hope that it becomes a platform for people to exchange their opinions.

**Sodontogos:** However, we are still the members of the organizing committee. It means that we are directing young people, and telling them our opinions. On the other hand, we are not participating on all of the activities. We give them their freedom.

**-In recent years, some have said that the quality "Discover Mongolia" is diminishing. Last year, especially, there was criticism that government officials did not participate in the forum and it was rather low key. How do you assess the work of young people who are replacing you in forum's organisation?**

**Ankhubayar:** The specific feature of our forum is related to its business aspect. Government organizations do not participate widely. The main objective of the forum is to build a platform for the two parties to meet—on one hand, the investor and on another, the producer. During "Discover Mongolia" they talk to each other about whether one will invest and whether the other will deliver his products. Yet, the reason for the participation of governmental representatives is related to their wrong actions. Our legal environment is not stable. After two or three years, a law is amended and a new regulation is issued. However, investors will draft long-term business plans and relevant calculations only when the legal climate is stable. Therefore, foreigners want to ask ministers whether the legal climate in Mongolia will be stable or not.

**Jargalsaikhan:** It is very difficult for governmental representatives to answer the questions of forum participants. For example, visitors will certainly ask about the so-called "Law with the Long Title", and exploration licenses. Then how will the representatives from the Office of the President, Parliament and the government reply? If any reply is given and a promise is made, then later it cannot be fulfilled. They are afraid to come and fail to participate because of these circumstances.

**Alгаа:** It is actually wrong to assess the scope of the forum by the participation of ministers and other government officials, and if many people are listening to the speeches

made. During last year's forum I deliberately stood around the area for tea and coffee. I noticed that it is important to make time for the forum participants to meet each other and discuss freely on their topics of interest.

**Ankhubayar:** Previously, we could not invite and bring speakers from abroad. Three years ago we started to bring speakers and this year many speakers are coming, some of who sent their own proposals to deliver a speech. Furthermore, representatives from the London Stock Exchange proposed that we organize a mini-version of the Discover Mongolia in London. This is a very good example of the forum's expansion. I just hope that it will further expand and develop in the future.

**-What will the rapid development of the mineral resources bring? Will the government be able to appropriately spend income generated from mineral resources and improve the lives and livelihoods of citizens?**

**Alгаа:** I think it will be able to do it. It has come a long way. However, still I am quite optimistic on this issue.

**Jargalsaikhan:** I also approach this issue optimistically. This is because a lot of highly educated young people are coming back to Mongolia. On the other hand, the majority of our population is young people. Young people are coming fast. We will win nothing by fighting off their new mentality.

**Turbat:** -The drawback to this is these people after coming back hoping to be employed by government organizations. This is a truly dangerous sign. It isn't good that they want work for the ministry after studying and living in the U.S.

**Sodontogos:** I want to say in regards to this that the issue of macro-economic management and the change to civil service are of the utmost importance. As the private sector is progressing very fast I think that our civil service also needs to reach that level. Generally, I just hope that looking at "Discover Mongolia" will move government officials to start to understand the direction of the mining sector. Just like when people by watching Fashion TV in November and start to understand what kind of clothes women in New York will wear, I hope that after they have seen "Discover Mongolia", they will realize what they need to pay attention to next year. ■



### Technology

## The Valuable Work Mongolian Engineers Do

In times of drought, Energy Resources has constructed a water-efficient thermal power station in Ukhaa Khudag of Umnugobi Aimag. Mongolian experts and engineers were able to complete the project following global standards. The company's first thermal energy station is technologically advanced and is not connected to Tov Aimag's energy grid. Engineers and experts at MCS Group laid the foundation of the facility in August 2009 by the order of Energy Resources. It began operation within a year and has had a minimal impact on the environment. The power station uses eight times less water than other stations because it uses a dry cooling system that does not require water for its cooling process. Water consumption is reduced by a cooling system using an air turbine and removing ash with a dry process. Every oven has three turbine generators capable of producing six megawatts of energy each; thus the facility's total capacity is 18 megawatts. This is relatively small when compared with other facilities worldwide, but for Mongolia this can supply 4 or 5 provincial capitals with energy.

The equipment here is up to par with international standards: The oven has "CFB" technology used around the world; the air cooling system's equipments comes from the French company GEA; Water technology and equipment for water processing comes from the United States; and the main electricity system is

equipped with techniques and technology from the German companies ABB and Siemens.

Energy Resources's thermal power station now uses 85 percent of its total capacity. The workers spoke proudly about the station, founded for the purpose of solving the energy and electricity issues of the Ukhaa Khudag mine. It produces 72.2 million kilowatt-hours of electricity annually, and burns up to 73,600 tonnes of coal. The ovens burn coal at low temperatures and partially-burnt coal is re-ignited with limestone. This produces a minimum of poisonous substances in the leftover ashes. Smog is cleaned with an electric filter, reducing the amount of ash 99.6 percent, diluting the amount of poisonous substances sent out into the air. The guaranteed period of operation is 30 years, and every third year the company will make renovations.

Many challenging issues have arisen during the plant's construction, beginning with the export of equipment and climate conditions.

"Although we did not have enough experience during construction of the thermal power station (so we have both success and failure stories), we are glad that we could do it within such a short period", said Z. Tumennasan, a manager. "Construction work was performed at the same times as drafts were being drawn. This caused difficulties in budget and planning. However we did it". ■

## Life

## A Bright Future Is Waiting For Me!

*The wish to live a good life is gleaming in the soul of every human being, and the spirit and beats of life guide us to that point. The human heart's desire is to live without tears or distress. "Life" tells stories about people who are full of confidence and have happy lives thanks to their own dreams, vision, and work.*

**One of the most crucial current topics related to mining development in Mongolia is the lack of professional staff available. There is an article in the Minerals Law that says "No less than 90 percent of the staff at a company operating on the territory of Mongolia with the objective to exploit minerals shall be Mongolian workers". However, in a reality it could be said that there isn't an adequate number of workers available for modern mining technology and professional work tasks. The inhabitants of Umnugobi Aimag for instance are hired by mining companies, but mostly for low-paid positions as servers or cooks. We mentioned in the previous issue about a total 113,000**

**unemployed people out of 1,860,000 men and women in the labour force according to a report by the National Statistics Committee. Society is expecting the number of unemployed to reduce drastically mining because of the operations of Erdenes Tavan Tolgoi and Oyu Tolgoi. In past years, the government has placed its attention on training professional staffs for the mining sector.**

**Teachers tell about overcrowded classes on the subject mining. They are full of requests such as, "please enroll me in any classes on the subject of mining". Mining development could create many new workplaces that can offer high-paying salaries.**

Sh. Battsengel left his studies after having studied computer programming for two years at Ikh Zasag. He could not imagine his life in a positive way in that field. Now he is studying with a scholarship from the company Oyu Tolgoi on maintenance for heavy machinery.

"I have chosen this profession in order to live good in the future", said Battsengel. "It is challenging to find a job with high salary. But after graduation, a job is waiting for me".

More than 40 trainees study alongside him and work is also waiting for them. They received a scholarship of USD 250, plus an allowance for lunch.

"To have a good life, the salary

needs to be sufficient," he said. "The most important thing is the ability to earn money to cover one's needs. I learned about this training from a newspaper announcement. Now I am studying for my second year.

"After graduation Trans West will have work for me. Last year, I finished a training course at Wagner Asia, also with help from the government. There are plenty of requirements the trainees have to follow; such as abstinence from vodka, cigarettes, and learning well. If you can follow these rules, then it is not hard to learn. I am only 23 years old now. My aim is to become an engineer by moving up in my profession and live well in my home country". ▶



▶ E. Batjargal operates one of two drills worldwide specialised for deep earth. The UDR-5000 drill has the capacity to drill 5000 metres deep into the ground. This machine exists only in Australia and Mongolia; one for each country. He is a physical education teacher, but because of his low salary, he decided to work as an assistant-driller for the company Major Drilling Mongolia in 2003.

“At that time, physical education teachers received a salary of MNT 43,000”, said Batjargal. “Social and health insurances were taken from this too. So that salary was not enough for anything. I used to run lots of different businesses to improve my life. One of my friends recommended that I work for the company Major Drilling Mongolia in 2003. At that time, the assistant worker’s salary was USD 300. The difference of salary of phys-ed teacher and an assistant drilling worker was the difference between heaven and earth”.

Batjargal drills to depths of 2,000 and 2,700 metres at Oyu Tolgoi Mine to explore where and how much minerals exist.

“I am proud with my profession”, said Batjargal. It is not easy to drill to those depths without any visual orientation. Now, specialists in deep mining are being trained. But- no Mongolian has education for deep, 2,000 metre drilling. I am a specialist based on my experiences. Mongolians can learn anything



well. For instance, drilling specialists at Major Drilling Mongolia were Australians ten years ago. Today there are six shift heads and seven foreign workers. The rest are Mongolians. I am pleased to do my favourite job, receive a sufficient salary, and live happily”.

Supervisors scolded him a lot in the beginning of his drilling career because of language difficulties, and technical jargon.

“If one has a desire to create something, then life rises up”, he said. “As long as one has the wish for better life, a good life is waiting for him”.

“I was thinking about studying in the field of mines and mining when I was in the ninth grade”, said D. Yusuntumur, a student in his third year of classes studying mining engineer at the Mongolian University of Science and Technology (MUST). “To me, mining work is a job for a real man. It is great to exploit the richness of the ground’s depths by our own strength and intelligence. Discussion about how mining could bring Mongolia to new phases of development new phase are common. I am waiting impatiently for graduation and my participation in the development of Mongolia. My wish is to be called a skilled specialist after I begin my profession and have a high salary in the future”.

Yusuntumur does not worry about

where his future job will be and plans to attend further his training abroad. The majority of the students in the mining sector are fully-provided with jobs, thus the worry of employment is not a headache for him.

“We do receive many job applications”, he said. “The main criteria are good marks and the knowledge of at least two foreign languages”.

As teachers of MUST say, those who receive the highest scores during enrollment exams will no doubt choose one of the mining classes available. There are those who receive scores of 770 out of the maximum 800, and stay crying. Yusuntumur is glad about his good marks amongst heavy competition. He is full of hope to live well in a deep ocean called life. ■



## Economic Growth Won't Put Food on the Table

While the government beams at the growth of Mongolia and foreign investors boast about their foresight, life for the average Mongolian family remains largely the same if not more difficult. As salaries and cash handouts increase, so do the pains of inflation. As the government and Bank of Mongolia battle over economic growth, families are caught in the middle.

For the first time in her life Ts. Dulmaa is going towards the bank to obtain a loan. She is matriarch of the household with two sons and works as a nurse at the state hospital. She was elated to learn last year she earned a 30 percent salary raise. Aid from the Human Development Fund also improved her family's livelihood for some time. However, the good here comes at the price of inflation. This includes meat and other food commodities, as well as the public transportation, electric, and tuition fees. Dulmaa cannot send her son to university unless she obtains a loan. Last July inflation stood at 11.4 percent in Ulaanbaatar.

After obtaining the loan Dulmaa, returned home to watch TV. She learned on the news that in this year's second quarter economic growth reached 17.3 percent. Will the price of petroleum continue to rise or will transportation fares increase again? What about the price of meat and vegetables? The answer to all these questions should depend not only upon the Bank of Mongolia but also the government.

Due to financial and economic crisis when the state budget became insolvent and the foreign currency reserve reached bottom, the Ministry of Finance and the president of the Bank of Mongolia promised to coordinate the state budget and monetary policies and signed a memorandum of understanding. The government's decision to tighten its belt and the Bank of Mongolia's move to increase interest rates on a step by step basis thwarted rising inflation just as it reached 34 percent. However, once the economy recovered and the state budget started to generate income again, the aforementioned two state organizations again went their separate ways. In terms of the Bank of Mongolia, it places



all its efforts in providing stability for the tugrug's exchange rate, and keeping inflation in the sing-digits. In addition to increasing interest rates twice this year, driving inflation to 11.75 percent this year, it also passed a resolution increasing its emergency fund to 11 percent. However, experts point out that at the time when there are signs that the economy may be overheating, it would be impossible to temper inflation through interest rates.

Instead of focusing its attention on inflation, the government is making the growth of the economy its top priority, busying itself fulfilling its promise to distribute cash handouts. Deputy Minister of Finance Ch. Gankhuyag pointed out that Mongolia's current gross domestic product of USD 7 billion will grow at least 20 percent each year over the next decade. However, head of the IMF working group Steven Barnett has advised many times before that long-term sustainable growth is more important than rapid economic growth. Leading economist at the World Bank Roger Van Den Brink stated that the Netherlands' economy, which provided the scenario that gave the world the term "Dutch disease", has learnt from its mistakes and grows a mere 3 or 4 percent annually. However, this sort of sustainable growth successfully brought real change to people's lives and improved their livelihoods. On the other hand, did not Mongolians see

what high growth brings three years ago?

In 2008, exactly a year after cash handouts were distributed, inflation rates jumped to 34 percent; an all time record. Later when the price of copper fell, the Mongolian economy was hit hard and unable even distribute funds for children. Mongolia's 2007 economy experienced rapid growth, 10.2 percent, and just two years later a minus sign was put on that figure. However, today due to the skyrocketing price of mineral resources, state income is soaring and showing a profitable, balanced budget. Yet, the World Bank continues to warn of the danger of returning to a too lenient fiscal policy. The growth of Mongolia's economy is directly proportionate to the value of copper (see chart above). However, today our economy could take another hit, not only from a fall in copper prices but coal prices as well.

The World Bank's quarterly report shows that the current economic situation of Mongolia is very similar to the situation prior to the 2008 crisis; including a massive increase in government spending, cash handouts, growing debt, and rising inflation. At a time when the state budget and the credit of developed countries could lead to a global crisis, if the value of coal and copper suddenly fall, then the Mongolian economy could regress into the same crisis of three years ago. The World Bank warned that ►►

▶ another global crisis could definitely affect an open economy such as Mongolia's. Therefore, it is very sad that the Fiscal Stability Law passed in 2010 will not be implemented for at least another year now until election time. Leaders in power talk about expanding not trimming the state budget expenditures. It seems that they are not satisfied with cash handouts of MNT 21 thousand to everyone, regardless if they are rich or poor. Next year the government

plans to give stipends to every student regardless of their study efforts and capabilities.

Officers at the Bank of Mongolia perhaps sigh at these measures that make it impossible to keep inflation in the single digits. However, it seems that the Bank of Mongolia is building hurdles for the government trying to produce rapid economic growth when it increases interest rates.

What does the rapid economic growth mean? Dulmaa does not

care the economy grows or not. She understands from the marrow of her bones that her living standard does not improve with salary increases and cash handouts. Dulmaa only wants to stop worrying about the price of meat and flour every time she goes to the supermarket. The Ministry of Finance and the Bank of Mongolia need to join forces and direct their monetary policy in one direction in order to fulfill the wishes of many ordinary people like Dulmaa. ■

### For Your Knowledge

## The London Stock Exchange is in Process of Reforming MSE's IT Computer System

D.Bekhee

*Mr. B.Bold: Our magazine once again interviewed Chairman of Board of Directors of Mongolian Stock Exchange (MSE), and Chief Executive Officer of "Newcom" Group Mr. B.Bold. This time the topic of our interview touched upon the possibility and conditions for issuing IPO. He gave an important advice to the companies interested in selling shares on the foreign stock exchange.*

### -What role MSE would play in development of Mongolia mining sector?

-I guess there are number of different types of issuers. First, let's say Ivanhoe Mines is worth USD 15 billion, Mongolia Mining Corporation USD 4.5 billion and add on together mining companies with Mongolian assets listed on foreign stock exchanges their total market capitalization is around USD 30 billion. Let's say if those companies list 5-10% of their shares on MSE, then MSE would have extra USD 1.5-3 billion in shares in its trading volume and liquidity. One of the advantages of this is Mongolians can easily own those shares and reap the benefits of price appreciation when those companies do well. For example Ivanhoe's stock price went from USD 2 to 20 in a matter of 2 years on Toronto Stock Exchange, and at that time only



few Mongolians were able to buy and own those shares because they were listed abroad. If these companies start listing their shares on MSE, Mongolians would start buying their shares, which will be a good "political" protection as well and help mitigate the nationalistic sentiment. But there is always a downside; one must be ready to shoulder a risk.

Second group consists of companies owning strategic deposit licenses. If we manage to list those

strategic deposits on MSE, it will attract foreign investors on to the local exchange and create a buyer universe for other mining companies. Those investors once in Mongolia will start looking for other opportunities to invest and meet other entrepreneurs and businesses.

Thirdly, development of mining sector is greatly influenced by exploration, which requires substantial investment. So if we are able to satisfy financing needs of exploration ▶

► companies our mining sector should rapidly grow. Exploration companies are always digging and drilling for their next discovery but it is a risky investment

**-When Mongolian companies can start raising significant amount of capital on MSE?**

-I think a term "a significant amount of money" should be used little differently in relation to MSE. Couple hundred million and billion dollars would be considered a significant amount of money. first we need to create the right financial infrastructure before we can start talking about that kind of money including proper legal and judicial environment. Also I think the investor base that could invest that amount of money has not formed in Mongolia yet. But things could change when we list shares of Tavan Tolgoi on MSE. According to some media and estimates, valuation of Erdenes Tavan Tolgoi could be as much as USD 10 billion, meaning \$1 billion of potential trading flow over time. Of course, not all of 2,8 million Mongolians would be holding on to their shares in the long term. Maybe in a year or two, these shares will be held by 10-20 thousand investors. In other words, only dedicated investors who understand mining or have a longer term interest will remain in those shares. Number of large institutional foreign funds will own some of these local shares and look for arbitrage in pricing between various listed exchange prices. In addition, local institutions such as insurance companies, pension funds and asset management companies will be formed. That is when Mongolian mining companies could raise significant capital domestically. At the moment, we are thinking more along the lines of USD 10-20 million.

**-Mongolian mining companies are mainly raising their capital abroad. What kind of influence it will have on efforts to develop the domestic capital market? What are its advantages and disadvantages?**

- The investors, who understand the risks of mining companies, are located in Canada, Australia and London. They conduct studies to determine which mining companies in comparison to each other are profitable and which are not; and since they have the know-how, knowledge and information we cannot raise substantial amount of capital without them. We need to have a favorable legal environment in place in order

to attract Mongolian companies listed abroad to Mongolia. Moreover, we need to establish a scheme for exploration companies to raise USD 10-20 million on the Mongolian Stock Exchange (MSE). Mongolia is not Africa. During 1960-1980's the former Soviet Union, in cooperation with some socialist countries, conducted explorations for many mining deposits using our capital. Now next step is to take a look at the deposit findings, conduct additional drilling and validate those findings. This requires certain amount of capital and investments. However, it is stated that we have explored about 10-15 percent of our total land. we have sufficient amount of information in database pertaining to the explorations conducted by Russians. Ideally, the MSE could be a venue to raise capital for validating those Russian studies or funding new exploration projects.

The disadvantage of raising large amounts of capital abroad is that it will create risks of volatility to the monetary system. For example, if \$600 million is raised abroad and immediately flows into the country what will that do to the currency and interest rates. On the other hand if it all stays outside in the form of payments to equipment providers and etc the country may not benefit as much. So we have to look for the right balance in managing the large amount of money flow.

**-Could You tell us what are the opportunities for domestic companies to issue their shares on the foreign stock exchanges and issue IPO?**

-Issuer of shares on foreign stock exchange have to meet certain requirements. Some of the specific requirements include good corporate governance, financial reporting, information quality and transparency. Some stock exchanges look at company's historical sales, income, and number of years it has been in business: for example some exchanges require more than three years of operation and annual net income to be more than USD 50 million. Generally, the issuing of shares is the most expensive way of financing. It is more expensive than debt financing. For established, mature companies issuing debt may be more suitable ideal than issuing shares. The Trade and Development Bank issued debt with 8% coupon. In the US, shareholders expect their shares to increase 10% per annum in price

while investors in Mongolian shares would expect, let's say, 25% increase in price due to our country's high-risk profile and small economy. Therefore, to satisfy and meet investors' expectations companies have to sell their shares 25% cheaper than their intrinsic value. It is appropriate for the mining companies to issue shares at the first stage of mining exploration. It is because of mining industries high-risk and high-reward nature. However, for a relatively steady running communications and air transportation companies, issuing shares abroad poses a risk that their shares could be significantly undervalued. IPO has advantages as well as disadvantages. It is important to appropriately determine price of the shares. Mongolia is gaining exposure to foreign investors and attracting a lot of interest from outside. The advantage of such a trend is that investors are interested in Mongolia more than ever. The disadvantage is that all types of foreign investors come to Mongolia. It is important to distinguish real investors versus opportunists. Just because someone is a foreigner it does not mean they are the most suitable partner?

**-Our domestic companies are willing to issue their shares on foreign stock exchanges. However, they do not know where to start and what to do. What would be your advice to them?**

-Companies with stable functioning operations should issue their shares. It is impossible to issue IPO on a foreign stock exchange without any track record, appropriate disclosure of information, financial model and reports. There are groups in Mongolia that have successfully floated their shares locally. For instance, I can mention "Remikon" company. Their team successfully took advantage of the local capital market; they were able to successfully issue their shares on the MSE and became a leading concrete cement producer. Also one can mention "Beren" Group. It can also become a successful company if it expands its iron production.

On the other hand, I would like to repeat that a company wishing to issue shares needs to have a clear business model and fair valuation expectations. For example, some exchanges require a minimum valuation or liquidity in excess of \$100 million. In Mongolia there are not that many Companies that have even sales of \$50-60, ►

▶ million. Most foreign exchanges will not be interested in attracting small companies as it does not create enough trading volume. Even if it is listed and registered then its shares will likely join the ranks of thin-traded shares, called pink sheet shares or over the counter shares. Most institutional investors stay away from these shares and they tend to be bought by retail investors and individuals. The problem with thin-traded, small-cap stocks is speculative price fluctuation. The high degree of volatility could make additional share issuance difficult. For example, some companies that have listed outside through a back door listing using a shell have experienced high degree of price volatility recently and makes it difficult to assess the fair value.

There are many advisory investment banks that give advice on the IPO process. Such banks will tell you if your company is ready to issue IPO on the international capital market. In addition, there are four large auditing companies in the world namely, Ernst & Young, Deloitte, KPMG, and PricewaterhouseCoopers. These firms have large teams dedicated to prepare companies wanting to go public. International stock exchanges require companies to have, at least, historical audited financial statements prepared in accordance with international standards, be registered abroad and, if any, have mining licenses in compliance with JORC code or 43-101 standard.

In order to list companies need to conduct valuation. This valuation produces financial projections of the particular company for many years ahead. This model forecasts profitability of the company for the next 15, 20 and 30 years after incorporating various financial performance and other indicators such as sales, net income, financing needs, annual production, currency exchange rate etc. Of course, it is very interesting if valuation amounts to billion US dollars. If it's USD 25 million then it would be very difficult to go public on international stock exchanges. For instance, valuation of mining company will depend upon the mineral deposit itself. There are investment banks in Mongolia that advise companies on issuing IPO. MICC and BDSec come to mind.

**-Mongolian companies that are listed on foreign stock exchange are interested to be listed on the Mongolian Stock Exchange as well.**

**Is there an opportunity to get a dual registration with the MSE as well?**

-Legal environment for dual registration is lacking, and we need to build up favorable legal environment to provide dual registration opportunity for aforementioned companies. For instance, let us imagine that one of our mining companies has been registered with British Virgin Islands or Cayman Islands and has issued its shares on the London Stock Exchange. What rules and regulations does it follow if it wishes to list its shares on MSE? There is a need to improve the appropriate legal environment to clarify, for example, as to what laws it needs to follow For a shareholders meeting and etc.

**-What is the current state of management reforms of the Mongolian Stock Exchange?**

-There is a need to resolve several issues. Mongolian Securities Clearing House and Central Depository (MSCHCD) needs to work very closely towards the reforms of the MSE. The State Property Committee has drafted a specific proposal on this issue and the London Stock Exchange also advanced its proposal for cooperation to the State Property Committee. In other words, the MSE needs to properly develop both of its right and left "hands". If only one "hand" develops and the other does not what type of results it would yield. Therefore, it is important for MSE to cooperate with the MSCHCD. Our current system requires investors to pay in advance at the Clearing House when buying shares. In other words, I would need to place my money at Clearing House before I can make any trade. At more developed stock exchanges, investors can settle their transactions 2-3 days after the trade. Of course, this is risky. What will happen if an investor does not make the payment for stock he or she bought for 2 days and share price of that particular stock drops sharply? Who is going to bear the costs? These are the types of risks that could face the investors. Therefore, there is a need to build confidence and trust in the settlement system among investors. if we want to welcome foreign institutional investors then there is no other way than to introduce this system.

Secondly, the London Stock Exchange is in process of reforming MSE's IT computer system. They are working to put it into operation by the end of this year. Also they sent

60 people to training in London. 30 of these people are civil servants while the remaining 30 people come from the brokerage and dealer companies. More training will be organized in Mongolia. Especially, there is a need to pay more attention to brokers and dealers and the private sector. Recently, Mr. Kh. Altai, who worked as the acting director of the MSE, has been appointed as Chief Executive Officer of the MSE. Also Mr. Bill Gorman became the MSE President.

**-As I understand Newcom Group is establishing "Newcom mining service" company and entering the mining sector, isn't it?**

-We have established "Newcom mining service" company in cooperation with our long time friend Mr. John Karlsen. Previously Mr. John Karlsen worked as the Executive Director of Wagner Asia, and is one of key people who have played an important role in expanding Caterpillar business in Mongolia for the last 15 years. "Newcom mining services" aims to cater to mining and construction sectors by providing rental equipment, maintenance and services. We are hoping to expand our workforce to 180 people by next year this time. ■

[www.sec.gov](http://www.sec.gov)

*US Securities and Exchange Commission*

[http://www.hkex.com.hk/eng/listing/listreq\\_pro/ListReq.htm](http://www.hkex.com.hk/eng/listing/listreq_pro/ListReq.htm)

*-Requirements for listing on Hong Kong Stock Exchange*

[http://www.asxgroup.com.au/Listings.htm#application\\_admission\\_official\\_list](http://www.asxgroup.com.au/Listings.htm#application_admission_official_list)

*Requirements for listing on Australian Stock Exchange*

<http://www.pwc.com/gx/en/audit-services/index.jhtml>

[http://www.tmx.com/en/listings/listing\\_with\\_us/index.html](http://www.tmx.com/en/listings/listing_with_us/index.html)

*-Requirements for listing on Toronto Stock Exchange*



## NewsWire Highlights:

NewsWire is a weekly news feed sponsored by the Business Council of Mongolia. Each week, NewsWire delivers breaking and significant news from local and international news sources for a Mongolian and foreign audience alike. The following are news highlights from August.

### TAVAN TOLGOI BEGINS OPERATIONS

Coal exports from Tavan Tolgoi recently commenced and will be followed by an increase in coal extractions, said Executive Director of Erdenes Tavantolgoi B. Enebish. Exports indicate the company will participate in the international market.

The director of the state-owned company said 15 million tons of coal will be extracted from the mine annually, yielding at 155-year reserve. However, the development of infrastructure is needed to handle this increase.

Negotiations are underway for several issues, including the candidate for a mine operator, the distribution of shares, the company to construct a railway for the mine, and the sum the company will pay the government in advance.

*Source: M.A.D. Mongolia, News.mn*

### COAL EXPORTS REACH USD 1 BILLION IN MONGOLIA

Mongolian coal exports recently reached a record USD 1 billion this year. This is over a 120 percent increase from last year, reported Frontier Securities.

Coal exports are currently earning USD 120 million a month and USD 4.5 million each day. Frontier Securities said these prices fall within its predictions for 2011 and predicts an additional 20 percent increase in following years.

Southgobi Resources Ltd. produced 1.97 million tons of raw coal. Its increased production is a direct result of its mining infrastructure. At 1.5 million tons, the company sold its coal at approximately USD 53 per ton. This price is a 36 percent increase from 2010.

While profits are rising, companies are battling the rising costs of fuel and screening. However, most gains are from favorable price growth, said Frontier Securities.

*Source: Frontier Securities*

### ASIAN CURRENCIES ROCK SOLID WHILE THE WEST'S WAIVER

World stock traders are turning to emerging Asian currencies amidst the decline of western currencies. Asian currencies have reacted minimally since the US credit rating was down-graded from "AAA" to "AA+," propagating the idea they may be a "safe haven."

At a time when most expected Asian currencies to strengthen against the US dollar, the Thai baht, Malaysian ringgit, and Indonesian rupiah all remained largely unchanged. Safe balance sheets and continued growth inspire greater confidence, reported the Wall Street Journal. China allowed the yuan to increase just 0.8 percent against the US dollar, but this is quite a drastic appreciation for China.

Meanwhile, governments in the west have raised interest rates and made lending more difficult. China's strict control over the stock market and limits to foreign investors gives them less hope; thus investors are turning to countries with close ties to China. Due to its "free-floating currency" and short-term investments, Australia is a winner.

The strategy bottlenecks at the limit of assets available for investment, reported the Wall Street Journal. The Asian Development bank estimates the local currencies at USD 5 trillion compared to the USD 31 trillion worth of US bonds. Worse still, at least half of that figure belongs to the well-guarded Chinese market.

*Source: Wall Street Journal*

### ROCK BEATS PAPER: PRECIOUS METALS APPRECIATE AGAINST THE U.S. DOLLAR

As investors lose confidence in the U.S. dollar and Euro, precious metals continue to rise in value. Gold reached a record high of \$1,888.90 an ounce after staging its biggest weekly gain in two and one-half years.

Forebodings regarding the economy in addition to weak macro data from the United States and the loss in faith in the European economy have boosted gold's value by over a quarter since July. Investors will not likely turn their attentions back to the U.S. dollar until they receive encouragement from the U.S. Federal Reserve. However, some fear that additional bond purchases from the Federal Reserve could spark inflation and bolster gold even further. While some theorize how high gold prices can reach, some speculators scaled back their bullish bets in U.S. gold futures and options for a second week last week, as bullion's rapid rally prompted some investors to liquidate positions, data showed.

"Key resistance in gold will be found at \$1,946. However, the market may need an extraordinary event to take it above that level," said MF Global in a research note.

Other precious metals tracked gold's strength. Silver rose 2.5 percent to a three month high of USD 43.93 and platinum it hits three-year high at USD 1,890.25.

*Source: Mining Weekly*

### MONGOLIA MAY BE A CANDIDATE FOR U.S. URANIUM LEASE PROGRAM

Mongolia was included on a list of countries the U.S. Department of Energy (DOE) hopes to "lease" uranium from. Although the United states has nuclear cooperation agreements in the U.S. Atomic Energy Act, Mongolia was not one of them.

The United States described how such a trade might work. A country, such as Mongolia, would mine the uranium reserves, then enrich and fabricate the material, at which point it could be leased to a reactor company abroad. Finally, the spent nuclear fuel would be sent back to country of origin. However, there was not an explanation what a country should do with that spent uranium.

Meanwhile, other countries and international entities have been planning for "fuel banks" to create nuclear fuel reserves for countries threatened by fuel shortages. Mongolia's neighbors Russia and Kazakhstan are two nations who have volunteered to host such an institution. However, there is a difference in opinion how this sort of institution would be run compared to the plan the United States is suggesting. .

"Some of the differences have to do with how the U.S. would implement the conditions for the supply of sensitive nuclear technology to new nuclear countries," said Mark Hibbs, a nuclear energy analyst at the Carnegie Endowment for International Peace. ▶▶

► These plans may have effected the rumors that the United States was considering to dispose its nuclear waste in Mongolia. Director of the State Department's Nuclear Energy, Safety and Security Office Richard Stratford spoke about building an "international storage depot" for spent nuclear fuel in Mongolia with the Carnegie International Nuclear Policy. However, U.S. Ambassador to Mongolia Jonathan Addleton denied this statement and the DOE said the United States is unable to broker such a deal.

Although Mongolia lacks a nuclear cooperation agreement, last year the two nations signed a memorandum of understanding to cooperate on civil nuclear technology. During his visit this week, U.S. Vice President Joseph Biden talked about strengthening economic ties with a transparency agreement. The possibility of a United States-Mongolia free trade agreement, although never committed to, is not out of the question either.

Hibbs said involving Mongolia in a program might be a good idea, but worries about the lack of "nuclear expertise." The United States also recently agreed with nuclear supply countries to "discourage the transfer of enrichment technology or reprocessing technology to Mongolia, he added.

"It's not clear how transparent its corporate and political governance structure is; all these questions would have to be resolved before any project like that could go forward," Hibbs said.

Reports from the New York Times suggest that a long time will go by before such a program can pass through U.S. Congress.

*Source: New York Times*

#### **TAVAN TOLGOI DEAL REDUCES MONGOLIAN SHARES' VALUE TO PENNIES, SAYS NGO**

China acquired its stake at the Tavan Tolgoi coal mining site at a price severely under market value, said experts. Others claimed the Mongolian government violated its own laws by going ahead with the deal.

The NGO Fair Judgment of Citizens criticized Minister D. Zorigt for making a deal that undercuts the value of the shares issued to all Mongolian citizens born before March 2011. According to the NGO, if an average 15 million tons of coal is extracted from the site each year, it will total 450 million tons after 30 years of operation, resulting in a net profit of USD 5,492,000,000. Divide that figure by 14 billion shares and Mongolian can only expect to receive USD 0.32 for each. Since each citizen was granted 536 shares, the result is USD 126 after 30 years of coal extraction from Tavan Tolgoi per citizen, or USD 1.09 each month since mining operations began.

Claims that the Mongolian government violated its own laws are also piling up. According to Resolution No.39 passed by Parliament, dividing the Tavan Tolgoi deposit into a west and east site is a clear violation. The resolution also instructs government to establish an Erdenes Tavantolgoi subsidiary for transferring the special licenses for the deposit itself. Furthermore, others complain Mongolia should be heading operations itself without foreign mining operations at all.

The decision to grant the Chinese mining company Shenhua 40 percent of the western Tsankhi mining site located at Tavan Tolgoi and the rights to transport and sell all coal extracted from it has been under heated debate since its announcement.

*Source: Zuunii Medee*

#### **MINISTRY ANNOUNCES PLAN FOR THERMAL ENERGY PLANT**

The government is beginning to plan for a thermal power station to power the Gobi region. The government hopes to complete construction by 2012.

The Deputy Chief of the Energy Policy Board of the Ministry of Mineral Resources and Energy, D. Purevbayar, told the Mongolian

Mining Journal that Oyu Tolgoi LLC and Erdenes Tavan Tolgoi LLC cooperated on a memorandum for a thermal power station with a capacity of 600 megawatts.

Foreign advisors have conducted studies to determine whether the plant should be built in Tavan Tolgoi or Oyu Tolgoi. According to one report, a station built in TT would open four years before another one is built in OT. However, if the plant is built in TT, OT could still be connected to the energy system.

Although the ministry has expressed interest in the Tavan Tolgoi mining site, no location was officially announced.

*Source: News.mn*

#### **DESERTIFICATION THREATENS MONGOLIA**

The UB Post recently reported on the risk global climate change may have on Mongolia. Human activity is reported to be having a dramatic effect on the Mongolian landscape. Desertification can result in the loss of rivers and lakes, plant life, and the erosion of soil.

In Mongolia, 90 percent of the landscape is vulnerable to desertification, said the UB Post. This is the same land used for grazing in Mongolia, so the impact on herders would be immense. Currently, this land is occupied by approximately 30 million livestock in addition to wild animals. Harsh winters with great amounts of snow fall in Mongolia, known as dzuds, and annual droughts are both a symptom of climate change and a cause for desertification. Both are also the cause of mass death to livestock, corning herders into small pieces of countryside where livestock can survive. Unfortunately this leads to over-grazing, exacerbating the problem. With the addition of extreme fluctuations in temperature that damages soil, and other human activities, desertification severely threatens the Mongolian way of life.

The staff at the UB Post call on government for specific policies to avoid this environmental tragedy. This includes placing limitations on herders to prevent overgrazing, managing water irrigation and crop cultivation, and enforcing laws upon miners and mining companies. Vehicle tracks are another cause that most people overlook. Without proper roads, drivers are damaging the earth and its soil, making it more vulnerable to desertification. Thus the construction of roads could help prevent these effects.

The threat of desertification to Mongolia is expected to increase due to Mongolia's extreme continental climate in conjunction with factors resulting in climate change. Without immediate and effective policies, life will change very soon in Mongolia, and not for the better, reported the UB Post.

*Source: UB Post*

#### **GOVERNMENT WILL FOCUS ON MERIT BASED GRANTS FOR EDUCATION SAYS MP**

A new grant will focus on the student's who study hardest, said B. Baasankhuu, head of the Department of Education in Mongolia. Last month Parliament passed a law to provide students with MNT 70,000 per month.

The grant will take effect on January 2012, said the education head. Financing will be discussed within Parliament during its autumn session. This grant will have no effect on previously decided upon grants, specifically one that distributes MNT 500,000 to students annually. Other issues, such as the grants availability to foreign students, are to be decided.

The education head stressed that this will not be a form of "social welfare". Currently, the children of government workers and children-at-need receive assistance for education fees. He said programs such as these may be cut.

*Source: MAD-Mongolia, News.mn* ■

## Why?



Is their economic reform underway in Mongolia? Did the stages of reform stages during the first naive stage, the optimistic and inspirational medium stage, and the all the reforms since 1990's give any results? Since reform itself is a process, the short answer is "it is a work in process".

The stages of reform have given results within the goals, scope, time, and space they were set in. However, why cannot the economic stability that results from reforms be felt in peoples' lives? Why is some so proud of the fact that economic growth exceeds 10 more percent, while the majority is not proud, but rather is resentful of this? If economic reforms have been taking place, why does corruption continue to expand and the poverty increase? Why, despite the fact that each year there is talk on the macro-economic and monetary policy and the consequent drafting policies, red tape grow and deteriorate the economic and financial climate for conducting business? Why are people running away from taxation, the Government, and from the country? Why do we proudly introduce foreign tourists to the grandness of Mongolia and Chinggis Khaan when in reality there is so little to be proud of? Why cannot democracy and its standards translate well into society? What are the reasons and causes for crime, poverty, alcoholism, and all that make our society so dim and grey?

Should we ask all of these questions from ourselves or should we perform cosmetic surgery and talk about the large volumes of written works, long-term development, and projects, and then continue deceiving ourselves with empty pride? Should we continue advancing the name of Chinggis Khaan while we working poorly? There is a need to ask and (especially) to give concrete answers.

After some time, one looks back at his own footsteps, ponders over them, and learns a lesson. In just this way, Mongolian society and its government need to look over its 20-year road of history, make a well-grounded assessment and determine a forward-looking policy. It is time to determine the development of Mongolia, which we like to sing is "tied to our heart", and create measures that can realistically produce development. However, the sum of a hundreds of pages and volumes of written work will not allow Mongolia's hidden dream and ideas to reach this kind of development. Nor will that level be achieved by 2020 or 2030. Nor will Mongolia become the Asian tiger, the Asian financial center. Nor will it become a totally new model for development with labour, capital and wealth to flowing into Mongolia.

In years past, Mongolians have produced and accumulated too many volumes of papers. Does the country need a mission to set its most important goal, and the vision to plan for the future? The answer is yes. However, the activities needed for its implementation start from very specific, real, and small things. Development does not need papers. Development starts with providing favorable conditions of living to everyone. This includes the herdsmen who tend to their livestock; public officials who work for government; young people who are either just graduating or entering university; the business entrepreneurs who produce goods and provide services; or the unemployed people who search for work.

In the end the questions for development end at issues regarding the people standards of living. Above all else is this point. ■



Made in Mongolia

## A person who tunes wood

By E. Zorigt

*There are more than a few foreigners who imagine Mongolia with the soft melody of the two strings of a horse-headed fiddle (morin khuur), soothing the world. Mongolians regard it as superior instrument and place it in a position of honor as an integral part of themselves and the history of their ancestors. a horse-headed fiddle craftsman*

*Wood which is the most suitable for making a fiddle; birch, cedar, or pine?*

When I entered through the door, I smelled the odour of wood and glue, heard the knock of wood. This man is over 30 years old and has dedicated his intellect to knocking wood. Without noticing someone had entered, he continued hammering a piece of wood. The craftsman is B. Bayarsaikhan, the director of Bayar and Brother Co. The work that kept him occupied is the most important part of crafting a good horse-headed fiddle. The wood he was hammering will control the fiddle's range, one part of the 6-sided box attached to the neck. He was tuning the wood.

According to Bayarsaikhan, each wood has its own tune—a language. It is widely believed that the most important skill a craftsman shall hold is his ability to hear and understand the language of the wood. Therefore, tuning wood with a mallet gives a fiddle its unique melody. The box that makes up the body of the instrument is called a tsar. If the wood that composes this part is not tuned well, the fiddle will not sound as well it could.

Bayarsaikhan emphasized, "Everybody has his own method of tuning. Some tune wood with a musical melody while others check its thickness. I tune by knocking. Tuning wood is hard work that requires problem solving ability and experience. If the range control box's tune is wrong, a fiddle will not sound good, even if it has good strings." »

Just as a speaker without an amplifier can not produce sound, a horse-headed fiddle without a range-control box cannot produce a melody. Tuning wood depends on many things, so the choice of wood choice depends on several different criteria. Choosing the type of wood to use is the start of horse-headed fiddle crafting. After a careful decision is made on the wood selection, the craftsman must next decide from what part of a mountain and what tree it should be taken from, how old it should be, and how the wood should be dried. Wood of a particular character is needed. Wood most suitable for making a fiddle are birch, cedar and pine. Then the tree that was chosen shall be suitably dried under the sun. Many fiddle craftsman tightly guard the secrets of their wood drying process. The quality depends on how long it is left to dry.

"I have been crafting fiddles for 20 years", said Bayarsaikhan. "I let the wood dry up from the first day I begin until I've finished. I use the wood for producing the most precious one ordered from me."

First, the head of a fiddle is crafted with dried wood following the design requested by a customer. After this, the neck is tailor-made for the customer: wide or thin, and long or short. Meanwhile, others details, including its calibration mar, hitch-pins, and the fiddlestick, are addressed. Finally, the range control box is made and will be tuned as described earlier. In addition, planing, rubbing and polishing, and cutting is done using interesting and sophisticated tools such as a finger-sized carpenter's plane, and specialty a hammer and saw. Four boards are prepared and then a hole is made in one for the front of the instrument. This hole has a tremendous influence on the

sound of the fiddle. Afterwards, the prepared boards will be glued together and to build the range-control box. Making a good quality fiddle depends a great deal on the tools used by the craftsman.

One of strings of a fiddle consisted of 100 and 120 hairs of a horse tail

Now all that is left is to prepare the two strings for the fiddle. The strings of a horse-headed fiddle are made from the hair of horse's tail. One needs to choose strong hairs that will not fly off during the process of fastening the strings to the fiddle. Although there are only two strings, one string consists of 100 or 120 fine hairs. Thus, each string must be thoroughly inspected. The hairs must be processed special attention paid to cleaning the tail without damage it. Bayarsaikhan washes tails mostly with household soap. If a tail is washed with other types of soaps or detergents, the tail's oiliness and reliability are lost. After making ready the strings, the final integral parts are attached.

One of the peculiarities of a horse-headed fiddle is no part is attached using nails and it is one of the few musical instruments that has no metal components. The semi-finished product is complete and can now be painted and decorated. Once the body of a fiddle is ready, the previously prepared strings are fastened. A tuner is placed on the range control box. After all this is finished, the two strings are tuned differently depending on the the melody and the musician.

The finished fiddles stand in rows, waiting for their owners at The Pegasus, a musical shop. In the shop a horse-headed fiddle is sold at an average price of MNT 350, 000. Fiddles crafted by Bayarsaikhan are valued by customers for its high-quality craftsmanship, elegant appearance, and fine tune.

"Today there are many people producing horse-headed fiddles," said Bayarsaikhan. "However, there are just a few craftsmen who make high-quality products. It is impossible to differentiate a good or bad quality one from the unprofessional eye. I think every producer can say that the ones he or she made are of good quality. Most fiddle players have a craftsman whom they go to for fiddles."

Mr. Bayarsaikhan is not just a fiddle craftsman, but also a player in the Etugen, a horse-headed fiddle musical group.

The Pegasus Center sells to customers and trains musicians for all types of musical instruments. At present, musical the instruments he crafted are at Shubert Club, a musical instrument history museum in New-York and World's Musical Instrument Museum in Fenix, Arizona in the United States. They stand to represent Mongolia's national instrument. In addition, horse-headed fiddles crafted by Bayarsaikhan are used by Mongolian art and educational organizations such as the National Song and Dance Ensemble, Morin Khuur Ensemble, University of Culture and Arts, Music and Dance College and Cultural College and by musicians from Japan, Buriatia and Inner Mongolia. In 2009, he hosted a discussion on the standard dimensions of horse-headed fiddles and offered certification. This is the result of his 20 years of experience. Bayarsaikhan is one whom loves the horse-headed fiddle from the bottom of his heart. For him, playing the fiddle mobilised his skills and talent. To move people is exciting and creates peace. This is the harmony between a man and his fiddle. ■



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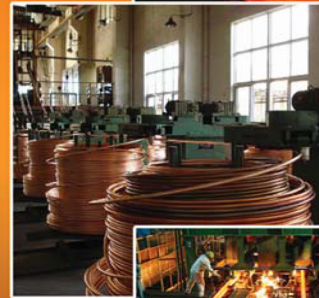
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