### **REGIONAL COAL RESERVE IN MONGOLIA**

Discussed issues of regional reserves of coal, proven reserves of 12.2 billion tons of coal including 2 billion tons coking coal and 10.1 billion tons of thermal coal potential coal reserves of some 100 billion metric tonnes. Currently Mongolia produces only about 5 million tons of coal per year, a negligible volume of the total deposits of this raw material. Given the proximity of China, Japan, Korea, production would increase significantly with regard to the export of Mongolian coal in these countries. To this end the paper proposes to the Department of transportation, which is a government institution and is responsible for the regulation of international road transport of coal, to entrust the settlement agreements between the government of Mongolia and neighbouring countries main rules, regulations and requirements of standard transport.

Keywords: region, coal, transport, Department.

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#### РЕГИОНАЛЬНЫЕ РЕЗЕРВЫ УГЛЯ В МОНГОЛИИ

Рассмотрены вопросы региональных резервов угля, доказанные запасы которых составляют 12.2 млрд тонн угля, в том числе 2 млрд тонн коксующегося угля и 10,1 млрд тонн энергетического угля, потенциальные же запасы угля – около 100 млрд метрических тонн. В настоящее время Монголия добывает примерно только 5 млн тонн угля в год, что является незначительным объемом в общих запасах данного сырья. Учитывая близость КНР, Японии, Кореи добыча могла бы значительно возрасти с учетом поставки на экспорт монгольского угля в эти страны. С этой целью в статье предлагается на Департамент транспорта, который является правительственным учреждением и отвечает за регулирование международных автомобильных перевозок угля, возложить урегулирование соглашений между правительством Монголии и соседними странами основных правил, регламента и требования стандарта перевозок.

Ключевые слова: регион, уголь, транспорт, Департамент.

Mongolia has proven reserves of 12.2 billion tons of coal including 2 billion tons of coking coal and 10.1 billion tons of thermal coal. Mongolia is estimated to have potential coal reserves of some 100 billion metric tonnes. While Mongolia's output is approximately only 5 million tonnes of coal per year, it will grow significantly given its proximity to China.

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Coal transportation began since the time that Thermal power stations started being used in Mongolia but most of the transport is carried out by railway.

Whereas, we can almost say that domestic coal transportation by auto road was introduced when demand for coal utility of the people who lives in the nomadic tent district in the capital was provided by privately owned truck drivers from big mines like Baganuur, Alag tolgoi, Shariin Gol, Nalaikh etc that are nearby Ulaanbaatar.

From the beginning of this century, big coal mines opened and started its operations nearby the border points of our country, as regards to this event coal transport and export were introduced internationally but in more words, in 2003 there was a general agreement between the governors of Umnogovi province and, Bayannuur and Alishaa of Inner Mongolia state about trading of coal that enabled the start of a regular international coal transport service.

Generally, international transportation service with auto transport unit is organized and administered by authorized organizations and with their provision and decision came out of the meetings held every year which is originated and authorized by the contract between the governments of Mongolia and People's Republic of China.

As of today, there are 10 border points with China and 4 border points with Russia that proceed international auto road transportation.



Coal reserves percentage by region in Mongolia

Fig.1. Coal mining and coal export are increasing in recent years in Mongolia.

22.434 million tonnes of coal explored in 2010.

In 2011 /27.764 million tonnes /, coal exploration increased by 23.8 %.

Coal exports rose 31.3 percent in 2011 (18.4 million tonnes) compared to the year 2010 (14 million tonnes).



Fig.2. Mongolian Coal exports



# Fig.3 Coal exploration and target.

# Coal exploration and target

|  | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    |
|--|---------|---------|---------|---------|---------|---------|
| "MAK" Co.,ltd, Nariin sukhait mine             | 1 600.0 | 3 000.0 | 8 600.0 | 9 000.0 | 9 000.0 | 9 000.0 |
| "MonEnko" Co.,ltd Khoshoot<br>mine             | _       | 800.0   | 3 035.7 | 6 432.4 | 8 000.0 | 8 000.0 |
| "Red hill Mongolia" Co.,ltd<br>Ulaan-Ovoo mine | _       |         | 1 000.0 | 1 500.0 | 2 000.0 | 2 500.0 |

| "South Gobi sands" Co.,ltd<br>Ovoot tolgoi mine | 1 327.0 | 2 500.0 | 4 000.0 | 5 000.0  | 5 000.0  | 5 000.0  |
|---|---------|---------|---------|----------|----------|----------|
| Tavantolgoi Co.,ltd<br>Tavantolgoi mine         | 2 600.0 | 2 600.0 | 3 000.0 | 3 000.0  | 3 000.0  | 3 000.0  |
| Baruun naran mine                               | _       | -       | 1 000.0 | 7 700.0  | 10 000.0 | 10 000.0 |
| "Energy Resource" Co.,ltd<br>Ukhaa khudag mine  | 1 400.0 | 3 800.0 | 7 000.0 | 10 000.0 | 10 000.0 | 10 000.0 |

Currently, we export 100 % of the explored coal from the biggest coal mines in our country through the nearest border points to the People's Republic of China and 90 % of this is done by auto mobile transportation. If we look at coal transportation points as border points, they are:



#### Fig.5. Paved road, 2244 km Un

International transportation routes marked on the picture above are the official routes that are accepted by the transportation agreement between governments of Mongolia and China. Coal transportation to People's Republic of China is done through Khoot mine, Dornod province, Matad sum borders with Inner Mongolia (State of China), from the mine Bayantsogt of Erdenetsagaan sum, Sukhbaatar province through transportation point Bichigt of Sukhbaatar province, from the mine Alag tolgoi of Dornogovi province through the transportation point Ereen of Zamiin Uud, Tavantolgoi mine in Tsogttsetsii sum, Umnogovi province, Nariin sukhait mine in Gurvantes sum, Umnogovi province, Ovoot tolgoi from the MAK mine through Shivee khuren transportation point. From Khoshoot mine in Khovd province, Darvi sum coal transport is carried out through Yarant border point to China.



Fig.6. International der construction, 2577 km



Fig.7. International coal transportation research(2007-2011)



Fig 8. Freight turnover from coal transportation

The transport department, which is governmental agency, is responsible to regulate the international road transport and coal transport services with reflect to the transportation agreement between governments of Mongolia and the neighboring countries and Transportation law of Mongolia and its core rules and regulations, and also standard requirements. Another duty is to provide management and report through their state transportation control officers in every border points.

We started working with the objectives to put transport branch at new level, to increase capacity and to improve responsibility of transport companies. For this:

- To transport coal through paved road

- Road which perform transport must be separate from public road, to make change on the law of "A bout road, Road transport" and make appropriate standards.

- To increase the evaluation of coal transport

- To transport coal according to standards

- To depend on company which possess license of usage

- Mongolian border points where coal is transported must work for 24 hours and increase capacity

- To increase human resource of transport companies which work at border point

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