

## Mongolia and Her Uranium Prospects

Contributed by Dr. Agvaanluvsan Undraa  
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The entry of Mongolia to the league of democracy took place less than two decades ago. Therefore coverage of the democratic chapter of Mongolia in the history books is very thin compared to that of the Great Mongolian Empire. However, the free society and economic freedom brought about the prospects and openness that embody the present economic and cultural globalization. Mongolia is an exotic destination that appeals to western investors for its highly educated population and its proximity to the world's largest growing economies. The geographic location of Mongolia – landlocked, sandwiched between two giants, Russia and China – was once a drawback for business investment. As the world changes and the economic growth center (and thus the demand) shifts eastward to Asia, what was once a drawback is now an advantage. Of special importance is being next door to China's enormously large and growing market.

Another sweeping change that the world anticipated, yet is facing unprepared is the shortage of inexpensive energy. The 21st century is already being referred to as the energy-century. More and more energy is needed every day: from households in ever-growing cities to manufacturing plants to agricultural fields, energy supply is paramount. Naturally energy is produced in myriad of ways, but the most common methods require natural resources such as coal, gas, oil, and uranium.

Accordingly, Mongolia with its vast mineral wealth is one of the key-holders to the energy century. Since the start of the free market economy, Mongolia's young democracy has been struggling to have economic reform keep pace with its democratic maturity. The present Minerals Law came into effect in 1997 and the amendments made to it in 2006 have been at the center of attention for quite some time. It is important that we obtain support from the international community to formulate the revised laws well: the anticipated growth in this area will have long term serious consequences. For example, the copper mining enterprise, the Oyu-Tolgoi mining project, has the potential to double Mongolia's economy in every few years for several decades. Therefore the impact is indeed long lasting. The proven reserve at the Tavan-Tolgoi coal mining project is 6 billion tons, which is substantial even in the world-scale.

Of all the goodies in the natural resources basket, uranium provides a very interesting potential. Worldwide the trend for nuclear energy is experiencing a so-called "nuclear renaissance" and the demand for uranium has been steadily increasing. The nuclear energy option is being seriously considered by many countries as a reliable source of energy generation and Mongolia is no exception as it considers building its first nuclear reactor. Mongolia has 65,000 tons of proven uranium resource, which places it 12th or 13th in the world. The one-and-a-half million tons estimated uranium resource makes Mongolia the largest potential uranium producer. Until the 1990s, Mongolia had one operating uranium mine at Mardai in Dornod province under total control by the then Soviet Union. A new nuclear energy law is being currently drafted and will be reviewed by the Parliament later on this year. The potential players may include in addition to the Mongolian Government, Japanese Marubeni and Mitsubishi, French Areva, as well as a host of Canadian interests, all of whom are awaiting the legal certainty. A memorandum of understanding for bilateral cooperation has been signed between the Mongolian Ministry of Trade and the Russian RosAtom agency in April 2008. Another cooperative agreement with Japan is being proposed and considered.

Moreover, Mongolia's participation in the global nuclear enterprise as a raw uranium producer and perhaps as a supplier of nuclear fuel components is attractive for Mongolia not only for its economic impact but for the potential contribution that nuclear energy might have on carbon-emission-free energy generation. Global climate change is having a drastic negative impact on Mongolia's nomadic culture; although Mongolia's past carbon footprint is negligible. The climate is changing in unpredictable ways, causing a series of winter droughts called dzud which is a serious threat to the traditional nomadic way of life, especially in the southern Gobi area, the mountainous west, and the eastern plains. Another example, in a recent article in Nature magazine researchers reported finding that the onset of winter is changing in the Northern Mongolia. This is impacting the vegetation patterns on permafrost, which has been lowered by 20 cm in just a few years. If Mongolia can become one of the players in the global nuclear market, in addition to keeping its unwavering commitment to nuclear nonproliferation, the nuclear energy

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development will be in line with its will to contribute to efforts to reduce impact of the global climate change.

Other ways to produce energy are being considered as well. Mongolia's abundant sunshine and windy climate provide excellent potential for solar and wind power stations. The first wind power station is being developed by a private company. For another coal mine at Shivee-ovoo that will need at its initial stage 3.5 GW power, the government should already be looking from the beginning into various clean technologies. Clean technologies, regardless of their carbon-emission, all require components and parts, especially metals, which in turn demand raw materials. Mongolia can benefit from using its minerals wisely. Although the global economic downturn temporarily reduces demand for all goods, the growth will surely resume. Therefore Mongolia must focus on long term prospects and plan accordingly. The present economic downturn might be indeed a disguised blessing, providing more time to carefully study these significant decisions.

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