

## Abstract

The constant demand to feed the nuclear reactors in order to produce nuclear power and provide mainly the developed countries with plenty of energy, made international companies such as AREVA explore new countries with rich uranium deposits. One of such newly discovered countries was Mongolia, which sadly was victimized in every way. This paper explains what effects the uranium exploration and extraction had on the environment, water, animals, plants and people, particularly the herders whose lives entirely depend on their animals and environment. The government of Mongolia is more concerned about the revenue it receives by licensing mining than for the well-being of its citizens and their environment.

This paper presents the evidence against uranium mining and talks about the common struggle of civil society, including local herders and non-profit organizations dedicated to the environment and a sustained healthy livelihood. Through demonstrations, seminars and social media, Delhiin Mongol Nagoon Negdel (DMNN) and other non-profit organizations have tried to educate the public on the adverse effects of uranium mining for the environment.

In the interest of the well-being of the population, particularly in rural areas, and in consideration of a likely downtrend for uranium as resource in a world relying less on nuclear energy, yet in appreciation of a growing interest for Mongolia by the tourism industry, the preservation of the beauty of the land and the cleanliness of the waters should have the utmost importance for the Government of Mongolia.

*Key Words: Uranium, Uranium Exploration and Extraction, In-situ Leaching, Environmental Law, Human Rights*

## Situation in Ulaanbadrakh

The constant demand to feed the nuclear reactors in order to produce nuclear power and provide mainly the developed countries with plenty of energy, made international companies such as Areva explore new countries with rich uranium deposits. We all know the production process of nuclear power and weapon starts with finding the raw material and extracting it first. At every stage of this process, regular citizens, surrounding environment such as ground and underground water, plants, soil, animals and air are damaged permanently and irreversibly.



Image 1.

Areva Mongol LLC, a subsidiary of French state company Areva has started to build an enrichment plant right in the middle of a protected black saxaul forest in Ulaanbadrakh county, Dornogobi province violating the Mongolian law prohibiting mineral exploration and mining operations at river headwaters, protected zones of

water reservoirs and forested area. There are no rivers in the Gobi deserts, as you may know. The source of potable water for nomads and locals is underground water. However, many underground water wells have been polluted and make their milk go sour when it's poured into tea. Water quality of some wells is so bad that herders have to travel about 20 kms to get their drinking water.



Image 2.



Image 3.

Mongolian desert is very windy. Yearly average wind speed in the desert is about 4-6 meters per second. 41.3 percent of the country is considered desert. About 30-100 days in a year have storms in this area. 61 percent of the storms happen in March and 7 percent happen in summer. According to the weather agency's observation, 300-600 storms take place a year<sup>1</sup>.

Areva has been conducting uranium exploration in our country since 1997. Waste material and tailings produced during exploration and experimental extraction are left on the ground unattended rather than being contained in a safe container and dispersed by the wind only to be absorbed into ground polluting the very plants the animals eat.



Image 4.

The livelihood of the Mongolian nomads entirely depends on their livestock. Animals getting sick, dying and having defective offspring are becoming a norm today in that area. Herders throw away the intestines of the animals and use only their meat to be safe. The State Veterinary and Central Veterinary Laboratory proved that animals died from radiation and heavy metal poisoning. They also sent the samples to South Korea and their findings were confirmed. The Government of Mongolia has not taken any action despite this solid proof. Animal deaths and defective offspring still continue to happen.



Image 5.

When plants in the pasture which are the main food source of the livestock get polluted, herders and consumers of the meat products become sick as well. Information on the health of the herders were obtained from the herders themselves. Neither Areva nor the local health agencies have statistic numbers on the health of the herders. The provincial health department told us that doctors go to every county

once a year and take blood and urine tests from the residents, however they could not provide statistic numbers of the total tests and examination done on the provincial population since Areva started their operation. When we contacted the Ulaanbadrakh county herders, we were told that the doctors came only once in 2013 and took tests from about 30 people of 10 households.

Ms. Amarjargal, a specialist of the Health Department of Dornogobi province told us that about 21 percent of all pregnant women of Ulaanbadrakh and Zuunbayan counties have been suffering from miscarriages every year for the past several years. She also said many pregnant women prefer to have an abortion due to the fear of having defective babies.

Our organization has repeatedly notified the appropriate government agencies of the violations Areva has committed, organized public protests and demonstrations against uranium mining, distributed flyers describing the effects of uranium mining, organizing seminars on ISL and meetings with locals residents and government officials of Ulaanbadrakh, Dornogobi and all the counties of Sukhbaatar province and co-organized a conference along with the Mongolian National Association of Scientists and Mongolian State University of Agriculture in which representatives of domestic and international environmental NGOs, government agencies and herders were in attendance.



Image 6.



Image 7.



Image 8.

Some actions need to be taken such as having herders living in the area get tested at least once a year by independent and unbiased medical organizations or doctors, get the water quality tested in an international laboratory and count and record the plants. Working towards well-being of the population in general and preserving its land, waters, forests and animals should be utmost goal of the Government of Mongolia.

#### Reference

<sup>1</sup>[www.stockholm.mfa.gov.mn](http://www.stockholm.mfa.gov.mn)