

URANIUM MINING: A GLOBAL POISON



Uranium mining is carried out in at least 25 countries but 63 percent of the world's uranium comes from Kazakhstan, Canada and Australia. Uranium is a natural, radioactive and toxic heavy metal. As long as uranium ore remains buried underground, the radiation levels at the surface remain low. However, radon gas must be vented during uranium mining. Radon is also released from unearthed radioactive rocks, from tailings and from prospecting bore holes. Tailings contain long-lived radioactive metals including thorium 230 and radium 226 with half-lives of 75,000 years

and 1,600 years respectively. Since uranium mines are often located in dry and windy desert areas, radioactive dust is easily dispersed. Surface and underground water is contaminated by uranium and its by-products—including highly toxic lead 210 and polonium 210. Uranium mining also consumes huge quantities of often already scarce water resources. Even after mines and mills are closed, radioactive

contamination of the environment will remain. Radioactive materials also accumulate in sediments and plants of rivers, ponds and lakes. In some areas, radioactive tailings have been reused to construct buildings and pave parking lots. Discarded radioactive metals are used in households by uniformed residents. Uranium mine and mill workers across the



The Roxby Downs uranium mine tailings ponds, Australia

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The Thunderbird

An effort to expand worker compensation

For many decades, Native American uranium mine and mill workers have received little compensation for their illnesses or the destruction of their lands. But in April 2010, U.S. Senator Tom Udall, (D-NM), introduced a

series of bi-partisan amendments to the Radioactive Exposure Compensation Act. These would: qualify post 1971 uranium workers for compensation; equalize compensation for all claimants to \$150,000;

expand the downwind exposure area to include seven states; and fund an epidemiological study of the health impacts on families of uranium workers and residents of uranium development communities.

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Special points of interest:

- *Uranium industries routinely practice environmental racism.*
- *There are no independent health data on uranium mining effects in Kazakhstan.*
- *Mines in Australia were developed over the objections of Aboriginal peoples.*
- *African countries, lacking regulatory systems, have become easy targets for new mines.*

Uranium poison

Continued from front page

world have manifested similar and consistent illnesses and high mortality rates from cancers, as well as kidney, respiratory and other illnesses that scientific research has shown is associated with exposure to ionizing radiation and heavy metal toxins, both of which are released by uranium mining. In most cases, however, the mining companies have done little to compensate the victims of their polluting practices or to clean up the environments they have contaminated. Once mines close, the corporations simply leave town, abandoning former workers and their families to their fate. Typically, uranium mining is carried out on indigenous lands and in communities that have already been

victimized either by severe economic deprivation or by racism. Thus the nuclear industry routinely practices “environmental racism” by selecting the most powerless communities least likely to fight back against further environmental degradation, sickness, and negative impacts on social structures. Occasionally, resistance is successful. The northeastern state of Meghalaya, India, was the target of uranium prospecting—with 500 tons of uranium removed before residents became sick and died. Fierce resistance by the indigenous Khasi tribes people was unrelenting until, in May 2010, the National Board of Wildlife rejected the exploratory drilling proposal because of the strong local opposition and also because the area is home to elephants, black bear, leopards, deer and the red panda, one of the world’s rarest animals.



Protection of the red panda, along with local resistance, stopped the Meghalaya mines.

Canada

Canada is a leading exporter of uranium, producing one third of the world’s uranium output. Uranium mining in Canada takes place predominantly on Aboriginal lands in northern Saskatchewan. However, First Nations are also struggling against a resumption of uranium mining at Elliot Lake—threatening Lake Huron—and against prospecting for uranium in other parts

of Ontario. First Nations have had little input in the development or operation of uranium mines. Instead, after living off the land in harmony with the environment, they are now witnessing the destruction and desecration of these lands. Uranium mining has also

disrupted the social, physical, economic and cultural health of First Nations peoples who have largely been excluded from the better-paying jobs. A vast expanse of western Canada is already being destroyed by oil extraction from the tar sands.

Uranium mining has disrupted the social, physical, economic and cultural health of First Nations peoples

Kazakhstan

Uranium extraction has been conducted in Kazakhstan since 1950, first in open pit mines and then, since 1980, through in-situ leach mining. The country is among the world’s largest producers of uranium prompting it to consider building nuclear reactors as well. Kazak activist, Kaisha Atakhanova of the NGO, EcoForum, says groundwater and 150,000 square kilometers of land have been radioactively contaminated. Local populations use this water to irrigate

crops and for livestock. Radioactive contamination has been compounded by the 715 atomic tests conducted in Kazakhstan and Siberia, equivalent to the explosion of 2,000 Hiroshima bombs. However, the government has conducted no known health-effects research and there are no independent data on how health has been impacted. There are already 60 million tons of waste rock and 170 million tons of tailings left behind since mining began.



Kazak activist, Kaisha Atakhanova

Almoustapha's story



Almoustapha Alhacen is a uranium mineworker and activist in Arlit, Niger.

Almoustapha Alhacen is a uranium miner in the town of Arlit, Niger. He also operates a small NGO, Aghir In'Man which seeks to

educate local populations about the dangers of uranium mining. He points out that while the French uranium mining company Areva (formerly Cogema) has extracted 100,000 tons of uranium over the past 40 years, there is still no running water or electricity in villagers' homes and no schools for children. Furthermore, the communities suffer not only from exposures to radioactive gases, dust and water but from pollution caused by the coal-fired plants that power the extrac-

tion process. Alhacen says that locals have observed previously unknown illnesses both to humans and livestock as well as frequent miscarriages, a rarity in the past. Uranium mining in Niger has also provoked armed conflict and a recent government coup. Alhacen is calling for an epidemiological study around the mines; a long-term sustainable development policy; no destruction of flora and fauna; and proper protection of current and future generations. "But above all," he says, "education is the key".

South America

Quebrada de Humahuaca in Argentina, named a World Heritage Site in 2003, will not, for now, be the site of a new uranium mine. The plan, rejected by a high court, would have opened up uranium mining in Argentina for the first time since the last mine closed there in 1997. As is usual, the roots of the uranium mining company that planned to mine the site are global.

Uranios del Sur is a subsidiary of Switzerland-based Uranio AG, the majority shareholder of Canadian mining company Rome Resources Ltd. The mines would have menaced the lives and livelihoods of the Quechas and Aimaras Indians in the

A World Heritage site in South America was threatened with uranium mines

province of Jujuy. Local opposition mobilized quickly and was instrumental in defeating the mine project. However, other uranium mining prospecting rights have been awarded in

Argentina. Uranium prospecting is widespread across South America.

Australia

There are three large uranium mines in Australia—Beverley, Ranger and Roxby Downs. Australia contains 30%-40% of the world's known conventional uranium reserves, prompting the government not only to consider expanding uranium mining but also to introduce nuclear power for the first time. Australia continues to pursue a potential radioactive waste dump in the

Northern Territories. All three mines plus the proposed dump site are on Aboriginal lands. The mines have a history of exploiting the traditional owners of the land. The Roxby mine operates on portions of the Arabunna peoples' land, polluting it with its poorly managed 70-80 million tonnes of annually-dumped tailings as well as daily extraction of 30 million liters of

water from the fragile Great Artesian Basin. Ranger operates on the Mirra peoples' land, threatening the health of people as well as the extensive Kakadu wetlands—a national park heritage site. Beverly is located on Adnyamathanha land and was established against the will of the community. The mine dumps its radioactive waste directly into groundwater.

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The Thunderbird, in Lakota tradition, is the Guardian of the Truth.

Thunderbird design courtesy of Glenn Carroll



About Beyond Nuclear

Beyond Nuclear aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abandon both to safeguard our future. Beyond Nuclear advocates for an energy future that is sustainable, benign and democratic.

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Africa—the easy target

NAMIBIA: In Namibia, uranium is mined mainly in the Namib Desert in open pits exposing workers to radioactive dust. The Topnaar-Nama people see their livelihood threatened by the depletion and contamination of essential water sources used up by uranium mining operations. Vast amounts of dangerous tailings and waste rock piles are left behind and strong winds have spread fine uranium dust across large areas, poisoning people, animals, soils and drinking water. There is no radiation protection law in Namibia.

CENTRAL AFRICAN REPUBLIC: Like the Democratic Republic of Congo (below) the CAR is the scene of extreme violence. But Areva, the French nuclear corporation, is proposing to develop the \$200 million Bakouma project, aiming to start open pit uranium mining in 2010.

CONGO: The Second Congo War has already killed 5.4 million people—the worst holocaust since WWII. Yet Areva has a new contract with the DR Congo



for uranium mining rights. Mineral wars are at the heart of the Congo atrocities.

GABON: When Areva closed its uranium mine in Gabon, it ceased all medical aid and abandoned workers to rampant unemployment. The mitigation efforts at the tailings sites are being funded by the European Community and not by the mining company. Millions of tons of radioactive materials have been dumped in forests and waterways. Workers homes were built using radioactive materials from the mine.

NIGER: Areva has mined uranium in Niger through its subsidiaries for 40 years, depleting and contaminating the water supply, workers, local communities and the environment. It is poised to open Africa's largest uranium mine despite a recent coup and constant warring over the rights of indigenous peoples whose communities have not seen the profits from the existing mines.

TANZANIA: There are more than 25 companies exploring for uranium, mainly in the Bahi region, a major rice-growing area. These fields would be taken from farmers to turn into open pit uranium mines, destroying the livelihood of the people in a country which is still struggling for food security. The Wasandawi traditional hunters are also under threat from the proposed mines which would uproot and destroy their societies and way of life. Most inhabitants are unaware of their rights and of the dangers posed by uranium, falling easy prey to prospectors.

The above is a sampling of some, but not all, African uranium mining countries.