

Nuclear Energy / Uranium Mining

Keywords

- > Uranium Mines
- > Uranium Mills
- > AREVA
- > COMINAK
- > SOMAÏR
- > Arlit
- > Niger

The project

The companies Societe des Mines de l'air (SOMAÏR) and Compagnie Minière d'Akouta (COMINAK) are mining uranium deposits in northern Niger, in a desert area close to the Air Mountains, near the towns of Arlit and Akokan.

The two mining companies are AREVA subsidiaries. In 2001, 63.4 percent of AREVA shares were SOMAÏR capital, and 34 percent was owned by COMINAK. The remaining 2.6 percent of shares were divided among the Niger National Office of Mining Resources (ONAREM), and in the case of COMINAK, a Japanese company, the Overseas Uranium Resources Development (OURD) and Enusa, a Spanish company.

Established in 1968, SOMAÏR continues to extract uranium from open pits, which are typically 70 metres (230 feet) in depth, and operates a uranium mill with an annual (maximum) capacity of 2,300 tons.

COMINAK was created in 1974. It still operates an underground mine for uranium extraction at a depth of about 250 metres (820 feet), and a uranium mill with an annual (maximum) capacity of 2,500 tons.

By 2008, both companies had produced more than 100,000 tons of uranium.

The conflict

In 2002, local non-governmental organisation (NGO) Aghir in'Man ("Shield of the Soul" in the Tamashek language) decided to gather independent scientific information about the impact of the mines. Members of the NGO reside in the towns where the uranium mines operate (COMINAK mines in Akokan, and SOMAÏR mines in Arlit), and many of them are mine workers, including Aghir in'Man's President Mr Almoustapha Alcahen. Among the objectives of the NGO are to promote education, women rights, and the protection of health and the environment.



CRIIRAD discovered radioactive scrap metal from the uranium mines was being sold on the market in Arlit streets

Source: CRIIRAD, December 2003

Anxious about the adverse effects of uranium extraction on humans and animals, Aghir in'Man's President M. Almoustapha Alcahen contacted the Commission for Independent Research and Information about Radiation (CRIIRAD) in 2002. CRIIRAD is a French NGO whose goal is to improve people's access to information on and protection from ionising radiation from all sources (natural, medical, nuclear). CRIIRAD has been studying the impact of uranium mines in France since 1992.

In cooperation with Aghir in'Man, CRIIRAD conducted a scientific mission to Arlit in December 2003. This mission was organized with Sherpa, a French NGO of lawyers willing to protect the rights of people confronted with powerful international companies.

CRIIRAD continues to cooperate with Aghir in'Man to gather independent information on the impact of mining activities. Other groups, such as Greenpeace also conducted an independent study in Arlit in 2009.





Radioactive tailings (from COMINAK uranium mills) stored out in the open
Photo by CRIIRAD, December 2003



A computer and radon monitoring devices being offered by CRIIRAD Laboratory Manager Bruno Chareyron to Aghir in'Man President M. Almoustapha Alcahen

Source: CRIIRAD, December 2003



People in Arlit using recycled metal for their homes

Source: CRIIRAD, December 2003

Impacts of the project

Studies by CRIIRAD showed that the radiological impact of mining activities was observable in many areas of the environment:

- The amount of radioactive substances in the water distributed to the workers and local residents by the companies exceeded World Health Organization (WHO) standards.
- Radioactive ore from the mines and radioactive waste from the mills were stored out in the open (over 35 million tons of tailings). The emitted radioactive gas (radon) and dust from these materials can easily be dispersed by the wind.
- Due to high concentrations of radioactive gas (radon) in the open air, people in some parts of Akokan were receiving an annual dose in excess of the maximal annual dose limit of 1 millisievert per year.
- The level of radiation in some streets was abnormally high due to the re-use of radioactive waste rocks from the mines. The level of gamma radiation on the street in front of the COMINAK private hospital in Akokan, for instance, was about 100 times

above natural levels.

- Radioactive scrap from the mines and mills was sold on the markets. CRIIRAD discovered for instance, a pipe with a radioactive crust that had radium-226 activity of more than 200,000 Bq/kg and a dose rate 10 times above natural levels.

These facts all show that the workers and the local population are exposed to radiation through different pathways (external irradiation, internal irradiation through contaminated air and water, etc.). The “very low doses” of radiation people receive continuously have negative consequences on their health.

Outcome of the conflict

AREVA has always claimed that it was extracting uranium in Niger in compliance with all national and international standards and regulations. However, when faced with facts and scientific evidence that confirmed the radiological impact of the uranium mines on the environment, and the subsequent exposure of the population to radiation, AREVA had to make certain improvements.

For example, the contaminated cloths workers used at the uranium mine and

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CRIIRAD Laboratory Manager Bruno Chareyron showing Aghir in'Man President M. Almoustapha Alcahen how to use a small Geiger Muller counter to check the level of ground radiation.

Source: CRIIRAD, December 2003



Children in the suburbs of Arlit stepping on radioactive waste

Source: CRIIRAD, December 2003



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mill are now washed at the mining facilities and not at home.

The most contaminated wells used for supplying drinking water have been closed so that less radioactive water is used for drinking. Nonetheless, independent studies conducted in November 2009 showed that the uranium content in tap water was still above WHO standards.

Waste rocks on some streets in Arlit and Akokan have been removed by the companies. A house built with radioactive material has been destroyed and a new one built. Still, all radioactive places have not yet been investigated and decontaminated.

Some radioactive scrap available in the public domain has been returned to the mine, but all of the radioactive material reused by the locals has yet to be checked.

Presently, much remains to be done, but the existence of a local NGO such as Aghir in'Man, supported by an independent scientific institution like CRIIRAD, empowers the population in the struggle to secure improved environmental protection. However, the fight for more environmental justice will no doubt be a long-term endeavour.

More on this case

- Website: www.criirad.org
- Video: *Uranium, Poisoned Heritage* by Dominique Hennequin

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