

Arlit & Akokan, Niger

Uranium mining sites

Niger, a country with one of the world's lowest ranks on the Human Development Index, is also the world's third largest producer of uranium. Uranium is the raw material needed for nuclear fuel, as well as nuclear warheads. The downside of this lucrative business: In mining cities like Arlit and Akokan, independent researchers have found increased cancer rates as a result of radioactive tailings and dust from uranium mining.



In this uranium mill near Arlit, the "Compagnie Minière d'Akouta" (COMINAK) processes the uranium ore to yellowcake.



Children on a street in Akokan, a mining town near AREVA's uranium mines. A member of Greenpeace measures radioactivity. Streets in Akokan were constructed with radioactive waste from the mines. During its visit, the Greenpeace team took several dust samples and found dangerously high radiation levels. Photo: © Greenpeace / Philip Reynaers

History

Africa's highest grade uranium ore comes from the twin mining towns of Arlit and Akokan on the border of the Sahara desert. Mining in Arlit began in 1971. Three years later, operations were expanded to the nearby town of Akokan. Today, Akokan boasts the largest underground uranium mine in the world and Niger supplies around 7.5 % of world uranium. By 2006, cumulative uranium output from Niger exceeded 100,000 tons – 56 % from underground and 44 % from open-pit mines. Mining operations are mainly carried out by the French company AREVA, which for the past 40 years has mined Niger's uranium almost exclusively for French nuclear power plants and nuclear weapons. Half of AREVA's total uranium production comes from Niger.

Nearly 35 million tons of radioactive tailings have accumulated over the years, lying uncovered near the mines, exposed to desert winds. The tailings dump is located close to the city's vegetable fields. Children regularly play in the radioactive rubble. The waste still retains nearly 85 % of the original radioactivity through substances like radium and thorium with half-lives of many thousands of years.¹

Health and environmental effects

Until the 1980s, miners were not provided with even the most basic protective gear. They mined in t-shirts and shorts, without masks, gloves or dosimeters.¹ According to local NGOs, doctors noticed rising rates of lung cancer, but did not raise an alarm. Countless miners have contracted lung cancer, but so far not a single case has been officially accepted as an occupational disease.

Through the continued exposure to radioactive dust from tailings and the radioactive contamination of ground water, the inhabitants of the nearby towns are also affected. In 2010, about 200,000 liters of radioactive waste spilled near Arlit, contaminating large areas of land. So far, no independent epidemiological research on the effects of radioactivity on public health has been performed in the region.

In 2010, Greenpeace, the French Independent Information Research Commission on Radioactivity (CRIIRAD) and the Nigerian Network of Organizations for Transparency in Extractive Industries (ROTAB) carried out measurements in soil, water and air in Arlit and Akokan. Their studies showed abnormal dose rates of as much as 63 µSv/hr – more than 200 times higher than normal background radiation levels.² Even spending one hour per day over one year at that location would expose a person to 10 times the annual radiation dose. They also found increased levels of radioactive radon in air and water samples.² Additionally, contaminated scrap metal from the mines was sold at local markets, while an EU-sponsored study showed that radioactively contaminated material was used for construction of houses, further increasing radiation exposure of the general public.³

References

- 1 Meyer C. "Tuareg Activist Takes on French Nuclear Company." Spiegel Online, April 2, 2010. www.spiegel.de/international/world/0,1518,686774,00.html
- 2 "Left in the Dust – AREVA's radioactive legacy in the desert towns of Niger." Greenpeace, May 4, 2010. www.greenpeace.org/international/en/publications/reports/Left-in-the-dust/
- 3 Srebotnjak et al. "Potential use of radioactively contaminated materials in the construction of houses from open pit uranium mines in Gabon and Niger." Publications of the Director-General for External Policies, Policy Department of the European Parliament, 2010. <http://ecologic.eu/3749>



Outlook

Dismissing the evident health effects of uranium mining, the government of Niger has plans to open new mining sites around the country, with companies like AREVA, the Chinese SinoU, Korea's EPC, Japan's OURD and Spain's Enusa vying for new concessions. Places like Imouraren, Abokorum, Madouela, Agadez and Azelik have already been earmarked for exploration and may soon experience similar tragedies like Arlit and Akokan.

Another cause of concern regarding uranium mining in the region is ethnic conflicts. While Niger is mainly ruled by the Hausa people from the south, the uranium mines are mostly located on Tuareg lands in the north of the country. The fortunes being made by uranium sales are bypassing the producing regions and are used by the government to fight local Tuareg uprisings in the north. This contributes to growing ethnic tensions in the country. What blood diamonds are for other African countries, uranium may be for Niger. The neighboring country Mali serves as a worrying precedent – it may only be a question of time before wars are fought over the uranium mines in northern Niger.

More and more people in Africa are becoming casualties of uranium mining – their health suffers from radioactive exposure, their homeland is contaminated for generations to come and regional conflicts are exacerbated by the growing hunger for cheap fuel for the nuclear industry. These people are also Hibakusha – their stories have to be told, their voices have to be heard.

Further reading

We highly recommend the Greenpeace report "Left in the Dust" and the corresponding YouTube video www.youtube.com/watch?v=ioRtzOWm07A, as well as the video "Living near uranium mines in Niger" <http://youtu.be/C6eB-WkjBDw>

Hibakusha worldwide



An exhibition by the International Physicians for the Prevention of Nuclear War, Physicians in Social Responsibility e.V. (IPPNW)
66-70 Union Square, #204 Somerville, MA 02143 USA
ippnw@ippnw.org | www.ippnw.org
Legally responsible for content: Dr. Alex Rosen