The Nuclear Monster Gets a Second Wind

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Background

Kazakhstan is one of the primary producers of high-level nuclear materials in the former Soviet countries for both for energy generation and weapons production.

Due to mismanagement of a number of stockpiles, more then 746 nuclear explosions on the SNTS this is also the most nuclear-polluted country in the world.

The site for poorly maintained radioactive and chemical waste sites that are located near heavily populated sites and contaminated surface water systems.

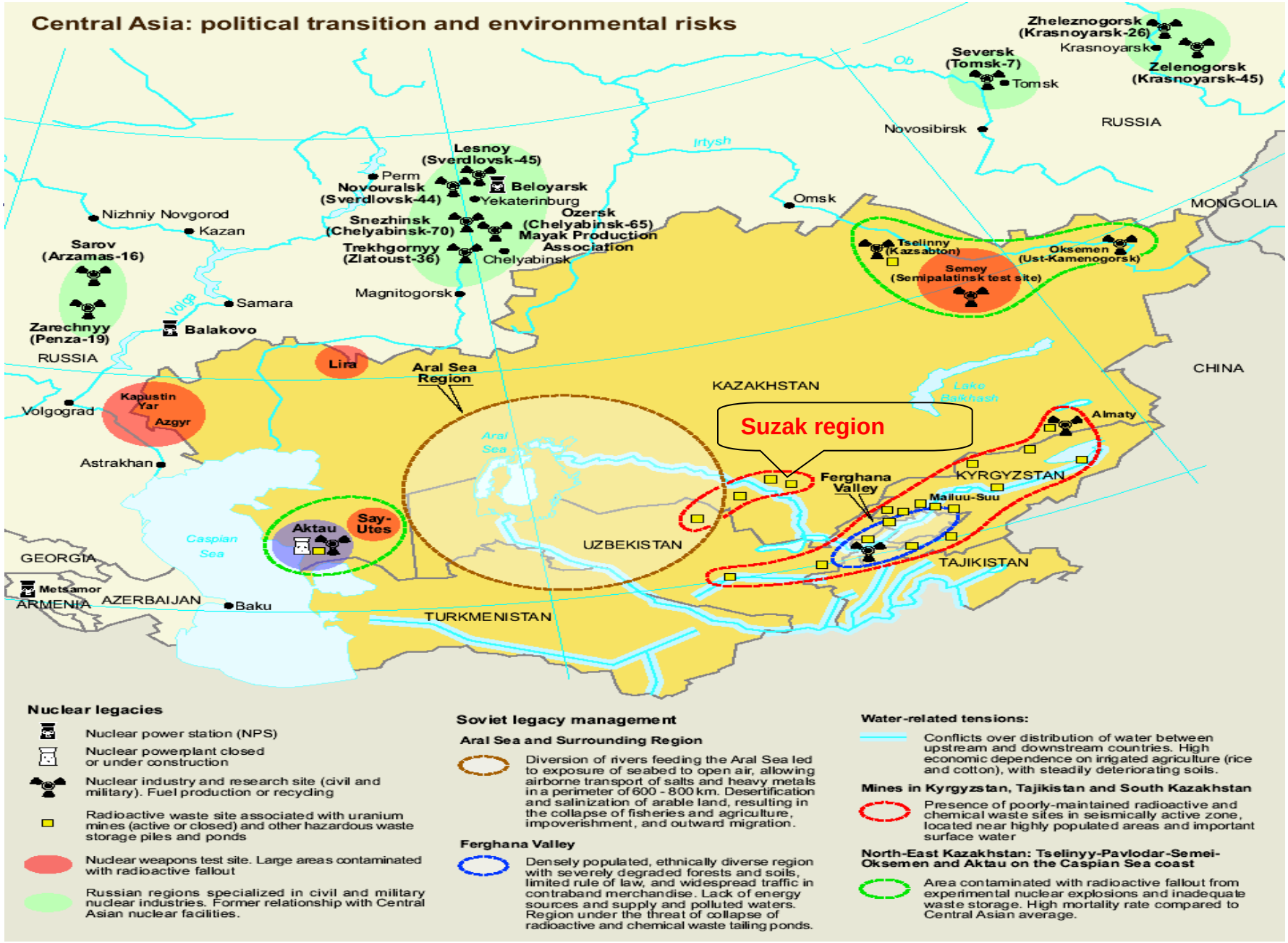


Fig 1. Suzak region in red; region of poorly - maintained radioactive and chemical waste sites in seismically active zone located near highly populated area and important surface water

Legacy of Radiation

Technological works on extraction and processing of uranium ores has been carried out here from the middle of 1950. Until the middle of the 1980 ties recovery of the uranium ore was accomplished by mining in mines and in open pits, and since then the in-situ methods of leaching by sulfuric acid have been used.

The entire full cycle of the uranium recovery and processing industry is located on a different areas Kazakhstan. Until recent time this territories was considered to be an administratively "closed area" and the ecological state of this region was never investigated.

Legacy of Radiation

- **The question of how the natural uranium deposits and the uranium recovery and processing industry affects the quality of life of the local population has remained open and practically unexplored.**
- **It is worth mentioning that the extracted uranium material was used for creation of the first USSR nuclear bomb.**
- **The pollution problem is not restricted to mining operation; the largest areas is also a burial site of nuclear waste, and contaminated with nuclear explosions, including peaceful .**

Legacy of Radiation

Kazakhstan has over 1500 factories and sites that contain radioactive material

- **Total quantity of RW in Kazakhstan is 237,197 000 tons:**
- **High level- 450,000 tons (BN-350 reactor)**
- **Mid level- 6,532.000 tons (SNTS)**
- **Low-level -230,663,000 tons (wastes and uranium mines**

60 million tones of waste rock and 170 million tones of mill tailings. These wastes result from explorations at more 100 uranium sites and the production of 60,000 tonnes of uranium on the past 50 year.

Radioactive Wastes with Accumulated at the Enterprises

- More than 40 years of operation, the Ulbin Metallurgical Plant at Ust-Kamenogorsk has **accumulated about 1.4 million tonnes of radioactive and toxic beryllium waste** containing U-238 and Th-232 and their decay products. This is of special significance in view of possible health effects, as both the plant and the radioactive tailings are located within the city limits.

- **The associated beryllium plant was the place of the biggest disaster of this kind, when on 12 September 1990,** an explosion ejected a large amount of metallic beryllium powder into the atmosphere. Reports on the "losses" of beryllium through this accident range from 40 kg to several tones.

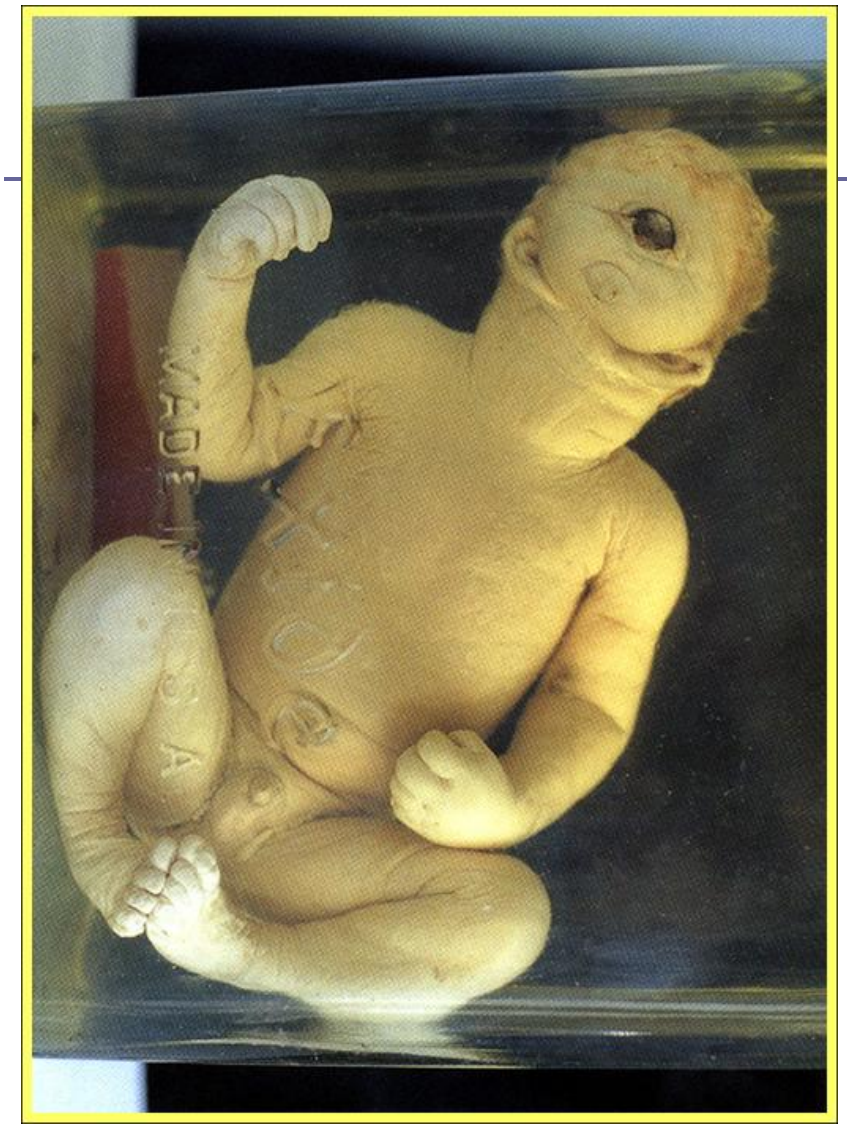
Radioactive Wastes with Accumulated at the Enterprises

- More than 250 oil wells produce contaminated oil in the Mangystau and Atyrau oblasts. There are no precise data at present on the quantity of **radioactive waste produced by petroleum and gas extraction**. Estimates of this low-active waste range between **3 and 5 million tonnes**.

- **According Agency on Statistics about 42 million tones of radioactive wastes are accumulated at the enterprises by 1998.**

Nuclear weapons testing

- **The darkest legacy of the Cold War nuclear arms race is the residues and the consequences of nuclear weapons tests, many of which were conducted on Kazakh territory.**
- **Minatom and its Ministry of Defence have released a chronology of Soviet nuclear tests between 1949 and 1990, stating a total of 715 Soviet tests including peaceful nuclear explosions (PNEs). Out of the 715 tests, 489 were performed on the territory of Kazakhstan, 456 at the Semipalatinsk Nuclear Testing Site (SNTS) and 33 outside test sites.**



SCO concerning in face

In the coming months, world governments will take decision on whether to make nuclear power eligible for the CDM.

We are very concerned that governments with state interest in nuclear industries, are pushing for the inclusion into UN mechanism, as these government have conflict of interest and will have difficulties to truly take the interest of the world's citizens, environment and future generation into account above their short term economic interest

Our proposal

- **To make a statement to recommend the governments of the world to not include nuclear power into CDM (or its successor) as its in conflict with the aim of UNEP to promote long term environmental protection in a sustainable way in accordance with human rights.**
- **To develop a global strategy to address the great risk from nuclear operation to global environment and survival of humanity, with need a global government response**