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Pages of our history in retellings

Posted By **Zaure G. Aytasheva**, 1 minute ago

Below is translation of Professor Aitkhazha Begaliyev's report to the Department seminar entitled "Nuclear Tragedy of Kazakhstan". To Professor Begaliyev's 70th anniversary we decided to post it, as it was done in the field of the radiation genetics and, secondly, with active scholar's participation in public "Nevada-Semey" movement. I think, Professor Begaliyev is our Pugwash messenger whom we do wish long live and truly impartial genetic research.

The Semipalatinsk nuclear testsite has been erected by the State Decree of the USSR Cabinet of Ministers on August 21, 1947. In July 1948 the first military troops and units in charge of that construction works have arrived to the site. Under unprecedented confidence since that time large-scale construction of a dwelling settlement immediately called "Moscow-400" has commenced. Construction plan has included the erection of laboratories, testing and production facilities, as well as the lounching site.

18,500 square kilometers of the territory of Kazakhstan has been subject to withdrawal from USSR national economy with the purpose of conducting nuclear testings. The testing has stretched over the territories of Semipalatinsk, Pavlodar and Karaganda Regions. Thousands of families of the indigenous Kazakh population living on the lands belonging from now on to the testsite, have been moved to other regions. The military building workers have organized a 300 square kilometers testing field for the first nuclear testing. A nuclear charge of 20 kilotons was installed in the upper part of a 30-meter metallic tower, which had served formerly for water pumping, in the epicenter of the field. Ferro-concrete fortifications, armored towers and pill boxes encircled the field. At various distances from the epicenter the military machinery, artillery cannons, tanks, aircrafts, motor vehicles and armored troop carriers, were disposed.

The first test was caraied out on August 29, 1949 in the Semipalatinsk testing area. Lavrentij Beriya, head of National Security committee (KGB) was appointed as responsible person supposed to give account to the Kremlin for the success of this experiment. The KGB chief drew up two lists. On the first, for the case of success, he has listed the scientists which he would have recommended for receiving state awards. The second list has included the same list of the scientists to be shot in case of a failure.

Scientists have placed in the number of built-in shelters experimental animals: sheep, pigs, dogs and rats. In the vicinity, a settlement with three-storied dwelling houses, industrial facilities, subway and railway lines as well as motor-car bridges with wagons and tank-trucks, filled up with the fuel, were built up, too. All over

the field one could see artificial clay figures, dressed in a military uniform, and supplied with food boxes. All this has been prepared in order to study the ruining power of the nuclear explosion.

First successful explosion inspired the Soviet nuclear physicists. To please the military-industrial complex they promoted research on development of the nuclear weapon. On the 12 of August, 1953 the first thermonuclear device was tested and on the 22 of November, 1955 the world has heard about a super-powerful Soviet hydrogen bomb created by the academician Andrei Sakharov. Soon after the testings in the testsite itself and adjacent settlements the scientists have recorded radioactive precipitations. Near the Karaul village capacity of a dose has made up 250 mR/hr, in Dolon it was 200 mR/hr, in Kainar and Sarzhal villages 150 mR/hr. During the whole period of testings local dwellers were evacuated to the neighboring region but in nine days after the explosion, when the dose capacity was of 40-60 mR/hr the dwellers of the Karaul settlement decided to come back to their houses. Inhabitants of other settlements returned to their homes a bit later, though the radiation level remained still high, reaching 25-35 mR/hr. Altogether over forty years of nuclear testings in the Semipalatinsk region 470 nuclear explosions were conducted, 118 of them were ground or air explosions with the capacity reaching 100 kiloton, within the period from 1949 to 1963.

According to the statistics, in the Semipalatinsk Region in 1980 158 cases out of 100000 were recorded as cancer-related. In 1990 this ration has increased by 33%. The death rate from lung tumour increased three times, esophagus cancer - eight times, and from different oncological diseases this rate has rised 39 per cent comparing to that one of control group.

Starting from 1950, just one year after the first nuclear explosion, infant mortality grew 5-10 times. The average life span has decreased by 3-4 years. In the settlements surrounding the testsite, the scientists recorded births of abnormal infants with deformations. If this continues, in a short period only disabled, deformed people would walk along the streets of our cities and villages.

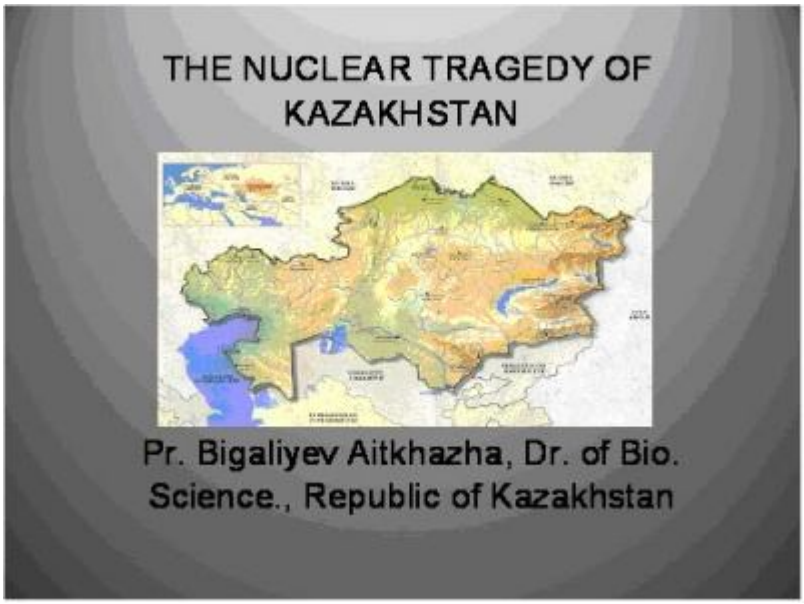
In Sarzhal village, Abai Region, Semipalatinsk Region the rate of suicides among youngsters has increased considerably. Young men drafted for military service, returned home to their native villages, and some time later committed suicide. The most frequent reason was impotence. The scientists suppose that the explosions and then the military service in the army have caused incurable damage to the health and the future, still unborn generations. Apart from the scientists, regular military servicemen directly took part in the nuclear tests. Many of them died young, others drag out a miserable existence, living on a scanty pension, insufficient even for buying needed medicines.

According to the statistics over 40 years of testings at the Semipalatinsk testing area more than half a million people was exposed to various doses of ionizing

irradiation. In the first fourteen years the scientists conducted air and ground tests of uranium, hydrogen and plutonium bombs. During this period the population of the region occurred unprotected from irradiation and has had no access to medical observations. The military leadership did not keep people informed about the forthcoming nuclear explosions. Prior to an explosion of a superpower hydrogen bomb local people from the near-by settlements were evacuated to relatively safe regions at a hundred-mile distance, and they returned to their homes in one-and-half - three weeks. They held living and working in their villages, spoiled with the radioactive precipitations.

It was noticed that irradiation causes premature aging of the body, growth of cancer diseases and suicides. Later this new disease was named "Kainar syndrome" in the name of the village, where this disease was first registered.

Kainar village is located at the foothills of a mountain range nearby the Semipalatinsk nuclear testing area. Its population exceeds 5000 inhabitants. A. Shakhantaev, Chief Doctor of the local hospital, told that 396 patients died in the years when nuclear tests were conducted. Except usual cancer diseases, he has recorded such at that time rare sicknesses as tongue cancer, eye cancer, thyroid cancer, auricle cancer, and skin cancer. There is no family in the settlement, where at least one member did not die of cancer. The infant mortality has tripled. 90 per cent of 1029 patients examined in 1992-1993, suffered from immune deficiency. Many of the infants, born here, suffer from various forms of mental backwardness or physical defects. 114 children of 3200under 14, living in this region, have congenital deformations or affected central nervous system.



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