

Environmental Damage Seeps Into Central Soviet Union

Excessive farming, pesticide use

The Shrinking Aral Sea

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NUKUS, SOVIET UNION

Salt is slowly taking over the land here

It covers sun-baked fields in a light crust. It is smeared over the ground in Nukus, the capital of the oasis Karakalpak Autonomous Republic of 1.2 million. And when hosts in Karakalpak serve a guest tea, they apologize for its taste: The drinking water here is salty, they explain.

The salt comes from 200 miles north. It is part of the 75,000 tons of salt and dust that are sucked up annually from the dry bed of the Aral sea and spread across Central Asia. Once the world's fourth-largest inland sea, a prosperous and important fishing area, the Aral has already lost 60 percent of its water and most of its fish.

Karakalpakia is an oasis between two deserts: the Karakum and the Kyzylkum. Soon, people here say, Karakalpakia will itself become a desert—the Aralkum, formed in the death throes of the Aral Sea.

The area should be declared an ecological disaster area, says Sabir Kamalov, who heads the Academy of Sciences outpost in Nukus. The disaster's implications go far beyond Karakalpakia, he says. The shrinking of the sea has already damaged much of the farm land in Karakalpakia and two other populous, poor, and largely agricultural republics in Central Asia—Uzbekistan and Turkmenia.

It will require vast amounts of money—by some estimates \$88 billion to \$96 billion—to remedy. It could cause further ethnic tensions



in an already restless part of the Soviet Union. (In the month of June 1989 there have been violent disturbances in Fergana and Novy Uzen.) It could have incalculable consequences for the climate in Central Asia. And it further aggravates the damage done by the massive use of pesticides, he says.

The Aral started to shrink when water from the Amu-Darya and Syr-Darya rivers was diverted to irrigate Uzbekistan's cotton fields. The risks entailed in draining the Aral were well known, Professor Kamalov says. An academic meeting in 1962 warned of serious agricultural and climactic damage if the Aral's level dropped.

But cotton took priority. From the mid-1960s to about the mid-80s it provided the cover for one of the greatest rip-offs in Soviet history. Government and party officials of all levels exaggerated the cotton crop by anything from 15-30 percent, were paid by Moscow for the fictitious amount, and pocketed hundreds of millions of rubles yearly.

The massive use of pesticides on the cotton fields also had a disastrous effect on the health of those living around the Amu-Darya and Syr-Darya rivers. The Aral expedition, organized last fall by the journal *Novy Mir*, reported a dramatically high incidence of child mortality in Karakalpakia. The area's water was polluted by "lethal doses" of pesticides, salt and sewage, the expedition reported.

By the start of this decade the extent of the disaster was becoming clear.

Fishermen in the town of Muynak gave up trying to work the sea in 1980, Orazbay says. By then 20 miles of sand-dunes separated the former

port from the sea. The sea is now 45 miles from Muynak.

The last fish in the Aral died out around 1983, officials say. Muynak's cannery now processes fish brought all the way from the Atlantic and the Pacific Oceans, and the town's population has dropped by half. But it still has a harbor master.

The destruction of the Aral Sea was the handiwork of the Ministry of Land Reclamation and Water Resources, usually known by its Russian acronym Minvodkhoz.

Minvodkhoz has been put in charge of rectifying the situation. The ministry has proposed a preliminary budget of 35-37 billion rubles (\$56-59 billion). This includes 920 million rubles (\$1.5 billion) for developing the Aral area as a resort.

Vasily Selyunin, a writer and member of the Aral expedition with a remarkable track record of revealing what lies behind official statistics, suggests that the government plan will run between 55 billion and 60 billion rubles. (By contrast Chernobyl cost 8.5 billion rubles, the Afghan war 5 billion a year).

A large part of the outlay will go into the construction of two major canals that will channel water into the Aral. Another chunk will be spent on a massive system of water pipelines.

"They plan to build as many kilometers of pipelines every year as

have been built here in the whole 70 years of Soviet power," says Kamalov in disbelief.

Despite its cost the plan will not restore the Aral. Nukus officials say it will at best stop the sea from shrinking further. Thirty-two million acre/feet of water a year are needed to maintain the sea at its present size, Selyunin says. (An acre/foot is the amount needed to cover an acre of water to the depth of one foot). The official program envisages gradually increasing the water that runs into the Aral to 17 million acre/feet by the year 2005. By then there will not be much sea left.

Many Karakalpakis see in the drying up the of the sea a symbol of their own fate. Some blame Uzbekistan, which administers the autonomous republic. The Uzbeks want to empty the land and then settle it with their own people, says a woman writer in Nukus.

Others blame the economic system: "The annihilation of the Karakalpak people and the Aral was built into the state (development) plan," Orazbay claims.

Residents of the area say their standard of living has dropped in the last few years, and their enthusiasm for reforms is apparently wearing thin. Pesticides and salt could combine with economic discontent to turn quiet resentment into open anger.

Courtesy: The Christian Science Monitor