

Sasyk blockade ended in ecological disaster

Anna Samwel

Project officer Women in Europe for a Common Future (WECF)

www.wecf.eu

Lake Sasyk, 208 square kilometer in size, lies between the deltas of the Danube and Dniester rivers in Odessa oblast, Ukraine. In the late 70's the Soviets started a big agro-industrial project by cutting off the bay from the Black Sea with a 14 km long dam and infusing it with large amounts of fresh Danube water by an artificial channel (Vyhrystyuk, 1999). It was to become fresh water to irrigate the surrounding agricultural area. A few years after the project was completed, the negative effects became visible. The project not only failed in achieving its intended objective, but has also turned Sasyk into an ecological and social disaster zone (Rusev, 2001). The morbidity in the area has increased dramatically (Shvebs, 1988).

“The water was going to remain salty due to the salty mud and highly mineralized springs at the bottom of the lake. Land was irrigated despite of the high salinity and destroyed for the coming decennia, because authorities wouldn't commit their mistakes” (Rusev, 2001). The lake has become an accumulator of pesticides, heavy metals and other toxics deriving from household and agricultural waste and toxic algae blooming. The water cannot be used for irrigation or for household needs and has polluted the underground aquifers. The ground water level in the surrounding areas dropped dramatically, leaving villages without any water. The water level in Lake Sasyk raised, washing shores and even half a grave yard away (Rusev, 2001).

In the Tatarbunary region, where the Sasyk reservoir and Danube-Dniester irrigation systems are located, the death-rate has increased with 30%. The life expectancy and fertility rate have decreased, while the number of children with deformations and inherent pathologies has increased (Rusev, 1996).

Before the closing off from the sea, this precious estuary contained water and sediments with medical properties. Medical clinics and children's tuberculosis sanatoria were constructed. Thousands of people visited the facilities: some to be cured and some came for holidays. However, after the construction of the dam, all the facilities were abandoned and the ecosystem toppled. Due to the difficult social, economic and environmental situation, some thousands of inhabitants have left their villages (Vyhrystyuk, 1999).

The Sasyk estuary was inhabited by 52 species of fish, belonging to 26 families, including 28 marine, 10 freshwater, 7 brackish, and 6 migratory species. Sasyk functioned as a breeding area for Black Sea fishes (Shvebs, 1988). On the sand strip, which divides Sasyk and the sea, rare kinds of birds, such as *Himantopus*, *Recurvirostra Aresetta*, *Glareola Pratincola* and *Charadrius Dubius* could once be found. Migration season brought many water birds into the shallow waters that lacked predators and had rich food supplies. The low growing thickets of the estuary's upper areas attracted many different species of birds for nesting, some of them found in the Ukrainian Red Book. By 1991 the variety of the shores fosters only 10 out of 45 steppe plant species. The flora of the shores is now represented by weed species (Rusev, 1996). 90% of the fish that is being caught consists of *Carasius Auratus*. 360 different kinds of parasites can be found. All crabs in Sasyk are infected with hepatitis. The fishes are severely polluted with heavy metals (Eftushenku, 2005)

The only way to turn around the ecological disaster is to re-open the dam. "The technical feasibility study of rehabilitation of the Sasyk estuary ecosystems" pleads for the restoration of the natural connection with the Black sea. This study has calculated that the water will be completely replaced with Black Sea water within 45 days. The idea is supported by specialists of several scientific institutions; the Academy of Sciences of Ukraine, the Council for the Study of

Productive Forces, the Institute of market and economic-environmental studies, the Institute of Hydrobiology, specialized agencies and it is supported by non-governmental organizations, local authorities of the Tatarbunary district and rural communities. In 1999 an independent survey was conducted and people were randomly interviewed in the villages surrounding Sasyk. 97% of the respondents want the dam be opened (ISAR, 1999).

It is surprising that so far nothing has been done, even though the solution seems so simple, well researched and agreed upon by the local inhabitants. The local authorities have already commissioned a decision on the breaking of the dam. The Ukrainian politicians have been promising the re-opening of the dam since the fall of the Soviet Union, but have not been able to put it in practice.

The decision depends on higher authorities. Different authors mention different reasons:

“Already a few years after the closing of Sasyk, its negative effects had become apparent to local residents. However, powerful parties at higher levels of government were loath to admit they had erred, particularly since the project had resulted in higher budgets for their departments” (Rusev, 2001). There is a lack of knowledge about the problem and its possible solutions. Authorities lack the capacities to take the necessary decision and put in into practice (Vyhristyuk, 1999).

In response to the deterioration of the health of the population and nature, a group of people with the desire to restore the natural balance to the level it was before this horrendous change, set up the non governmental environmental organization ‘Vozrazhdenije’ (Revival) in 1996. They wish to leave this unique ecosystem for future generations. The Vozrazhdenije are active in promoting the re-naturalization of the area by lobbying, informing the local population and conducting research studies about effects and possibilities.

Vozrazhdenije started a dialog with local people, authorities and scientific institutions about the perspectives for sustainable development in the Sasyk region after the opening of the dam. The development of tourism and health resorts will provide income for the region, as well as the revived fishing industry. The perspectives for agriculture will increase. Farmers are advised to grow crops that do not need irrigation. The ground water level and quality will improve. The most important gain will be the healthy environment and improved living conditions for the local population.



References:

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