



THE ROLE AND ROLE OF WATER NETWORKS IN THE IMPLEMENTATION OF IRRIGATION AND MELIORATION WORKS IN SURKHANDARYA

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Abstract:

This article talks about irrigation and reclamation works in Surkhandarya region. Extensive scientific research conducted in the oasis, as well as material sources found in the course of archaeological excavations, provide sufficient information about this.

Today, the role of water networks in the flourishing of the Surkhan-Sherabad oasis, as well as the functioning of existing reservoirs in the oasis, has been sufficiently discussed.

Keywords: massif, "Southern Surkhan Reservoir", "Sherabad Joint Stock Company", agro-industrial complex, water resources, Surkhan-Sherabad oasis, water saturation, canal, ditch, ditch[10].

When discussing the progress of irrigation and land reclamation works in the Surkhandarya region, it is necessary to first look at the history of irrigation farming in the Surkhan-Sherabad oasis. According to sources related to the science of geography, the territory of our region is called the Surkhan-Sherabad oasis. Because both rivers have been the main source of irrigation for the oasis. So, the issue of providing water to Serunum Sherabad deserts has not been put on the agenda until today.

It is known from history that the entire territory of our region, as well as in the south of the Sherabad oasis, had excellent irrigation networks four thousand years ago. In the course of the scientific research conducted by archaeologists in Jarkoton, the development in this area was greatly advanced, science and culture flourished, our ancestors were engaged in handicrafts, blacksmithing, jewelry, and pottery along with agriculture and animal husbandry. the weaving of various fabrics, the remains of wheat grains, the discovery of ceramics, which amaze everyone today, as well as the discovery of water pipes, indicate that the Surkhan-Sherabad oasis was one of the developed regions in ancient times.¹

According to the obtained sources, the Kairon-Angor massif (in the territory of the "Mustaqililik" collective farm and the Angor village in the Termiz district) was a prosperous place with gardens, and in the southern regions of the region, there were canals from the existing water sources. watered through[11]. The Iskandar (Macedon) bridge between the "Surkhan" and "Komsomol 30 yilligi" (currently the "Besh Khorekh" collective farm in the Kumkurgan

district) areas located in the central part of the region was built to carry water over the Bandikhon stream. built as a rod and used only for this purpose.²

Arab historians and geographers, he used the water of the Surkhan River (then called Chag'onrud) in such a way that it did not flow into Amudarya in all seasons of the year. Also, Spanish and Chinese tourists and merchants mention that agriculture and animal husbandry in this oasis are highly developed. Especially in the 5th-8th centuries, the waters of the Sherabad River[15], Topolang, Sangardak, Karatog, Khanka, and Khojaipok rivers were used on a large scale to irrigate oasis lands. However, after the 8th century, especially after the invasion of the Mongols in the country, the irrigation networks of the oasis were completely destroyed. Disasters of drought and lack of water often threatened the way of life of the local population[46].

Deforestation, especially in the Hisar and Boisun mountains, has led to a decrease in the available river water. The main occupation of the people of the oasis, which suffered from the lack of water, was cattle breeding and planting grain on dry land.³

As a result of Tsarist Russia's conquest of Central Asia, life in the Emirate of Bukhara changed dramatically. In 1898, military engineer Captain B.Kastalsky developed his own project for water supply to the territory of the city of Termiz, on the instructions of the leaders of the Russian government

² From the history of the development of the Sherabad desert. "Banner of Lenin" newspaper, November 6, 1966, page 3

³ Our old beautiful oasis. "Banner of Lenin" newspaper, January 8, 1975, page 3

¹ One necklace Sherabad in Independence Square. "Surkhan Tongi" newspaper, July 27, 1993, page 2



and with the consent of the emir of Bukhara, Abdul Ahad Khan. The water structure was taken from the upper part of the village of Salavat and was intended to irrigate the city of Termiz and its surroundings, as well as 40,000 hectares of land[17].

In our country, the government is working on improving the supply of drinking water on a large scale, and special attention is being paid to this issue in social programs. In the last five years, 10 trillion soums or 5 times more funds were allocated to this sector than in previous years[47]. During this period, 6 million 500 thousand inhabitants were provided with centralized drinking water for the first time. In particular, last year, 474 water facilities were built in our country, and about 6,300 kilometers of networks were laid. The water supply of more than 2 million people in 592 neighborhoods has been improved. But there are still many neighborhoods that are struggling in this matter. In particular, the supply of drinking water in Kashkadarya, Surkhandarya, and Jizzakh regions is less than 60 percent. In Guzor, Dehkanabad, Koson, Sherabad, Angor, Gallaorol and Khatirchi districts, this indicator does not even reach 30%. Therefore, in the next five years, it is planned to attract 40 trillion soums of investment in this area, to increase drinking water supply to 90%, and wastewater coverage to 35%. This year, 2 trillion soums will be allocated from the state budget and 245 million dollars will be attracted for these purposes[48].

(Tasks to improve drinking water supply have been set. "People's Word" newspaper, February 9, 2022, No. 30, p. 1).

As for drinking water, a lot of work is being done to provide drinking water to the residents of Surkhandarya region through the Topalang reservoir. Topalang river, the right tributary of Surkhandarya, starts from the snow and glaciers of Hazrat Sultan, located at an altitude of 3800 meters above the sea level of the Hisar mountains. Its length is 124 kilometers. It is fed by snow, rain, ice and underground water and expands along its course due to the water of dozens of rivers, streams and springs. Water increases from early spring to summer, and then gradually decreases. In January, the flow of river water is 11.5 cubic meters per second, and in June, i.e., during the flood period, it reaches 144 cubic meters. The name of the river is not called Topalang for nothing. Some people call it a wild and raging river. Because it starts from high mountains and flows through narrow gorges with great speed and intensity[21].

Until the middle of the eighties of the last century, the Topalang water overflowed in the spring

months, causing great damage to the national economy. Organizations, enterprises, farms mobilized equipment and people and built dams in order to reduce the level of river water and prevent damage to cultivated fields, roads and bridges. Finally, in 1982, the construction of the Topalang Reservoir was started in order to concentrate the river water in one place. Until now, the water in the reservoir with a capacity of 500 million cubic meters has been used for two purposes, i.e. opening water to the Hazarbog and Oggapchigay canals in the summer months, irrigating more than 120 thousand hectares of farmland in the oasis, and Zarchob-1, Zarchob-2 It is being used for energy production in hydroelectric power stations. The President of the Republic of Uzbekistan, Shavkat Mirziyoev, during his visit to the Surkhandarya region on June 1-2, 2021, issued an order to eliminate the problem of drinking water at the expense of the sources of the Topalang reservoir[49]. After that, technical and economic calculations of the object were first carried out, and then the project exploration work was carried out. Scientists of the Scientific Research Institute of Irrigation and Water Problems under the Ministry of Water Management of Uzbekistan studied the condition and composition of water in the Topalang reservoir and concluded that it is useful and rich in minerals, and the degree of hardness does not exceed 4 percent[19].

The construction of the project, which started in August last year, is planned to be completed step by step. Water from Topalang Reservoir reaches Sariosia, Uzun, Denov, Oltinsoy, Shorchi, Kumkurgan, Zharkurgan, Termiz, Bandikhon, Kyzryiq, Angor districts and Termiz city through pipelines and mineral-rich obi. - 1.7 million people will enjoy life[50].

In 1909-1911, another Russian military engineer, AGAnanev, developed a project for the development of the Surkhan-Sherabad deserts. On February 23, 1912, with the consent of the Emir of Bukhara, Amir Olimkhan, a contract was signed between AGAnanev and the Qushbeg of the Emir of Bukhara, Mirzo Nasrulloboy. In accordance with this contract, 72,000 decimeters of land from the Sherabad desert were approved for the development of new land by taking water from the Surkhan river for a period of 99 years. 1,200 desyatins around Karakamar, 30,000 desyatins around the Beshkoton massif, 30,000 desyatins around the present Angor district, and 6,000 desyatins around Yangariq were included in



this contract. AGAnanev paid 100,000 soums for water to the Bukhara emirate every year in December.⁴

Not only the Russians, but also the British were interested in the desire to make a big profit by releasing water to fertile lands. Therefore, they ask the tsarist government to lease East Bukhara (the territory of our province was called that at that time). This will be completed in due time with the formation of the Russian and English "Sherabad Contributory Society". The main task of the society is to study the underground and natural resources of the region. However, the beginning of the looting war forces to stop these works[29].

As a result of the commissioning of the Zang canal in 1910-1911, by 1915, the area of cotton in the entire Sherabad desert will reach 4400 hectares. Irrigated land is about 20,000 hectares, including 1,200 hectares of irrigated cropland in the Sherabad deserts, and 850 hectares of cotton fields.⁵

Interest and efforts to explore and develop the Surkhan-Sherabad oasis will continue even after the October Revolution. In 1922, leading scientists of the Central Asian State University (SAGU) carried out scientific research on an area of 300,000 hectares. As a result, in 1927, a book titled "Soils of the Right Banks of Sherabad Oasis, Kyzirikdara and Surkhan River" was published under the editorship of Professor NADimo. This scientific work will be used in the design and organization of collective farms "Besh Khorekh" in Kumkurgan district and "Surkhan" belonging to Zharkurgan district[49].

During the former Shura period, more attention was paid to the development of the Surkhan-Sherabad oasis. Hazarbog (1927), Kumkurgan (1932), canals were dug. Kakaidi (1931y), Zang channels (1966y) were renovated. Uchkizil (1954), Southern Surkhan Reservoir (1967), Topalang Reservoir, Oktepa Reservoir, Degrez Reservoirs, Sherabad Machine Main Canal (ShMMK), as well as Amu-Zang Machine Main Canal (1973), Topalang- Karatog canals (1974y) were built and put into operation.⁶

If in 1966 the area of irrigated land in our region was 183,300 hectares, today this figure has exceeded 327,000 hectares.⁷

The oasis of Surkhan-Sherabad, which has a long past, has changed beyond recognition today, becoming a prosperous place and turning into a lush meadow. Of course, these achievements are based on human work and activity. Therefore, we should not forget that the further development of the Surkhan-Sherabad oasis, which is considered a corner of our beloved land, and turning it into a garden, will be due to the selfless work of all of us.

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⁴ The path traveled by the ancestors. "Surkhan Tongi" newspaper, January 8, 1995, page 3

⁵ From the history of the development of the Sherabad desert. "Banner of Lenin" newspaper, November 6, 1966, page 3

⁶ Roziev A., Mirzaev Sh, Borataliev U. Development issues of Surkhandarya reservoirs and agro-industrial complex. T, "Jayhun" publishing house, 1977 1, pp. 38-39

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