# IRRIGATIVE CONSTRUCTION IN KARAKALPAKSTAN IN THE 20-70 YEARS OF THE XX CENTURY

#### A.A.Abdukarimov

Nukus State Pedagogical Institute

From the first days of the establishment of Soviet power, the new government took a number of measures to nationalize land and water. The purpose of these events was to concentrate the land and water resources and other natural resources of the region of the central government headed by the Bolshevik Party.

Since 1919 they began to expand the Kyzketken channel to improve the water supply of the lands of the Kuvanyshdzharma and Kegeyli channel system, which gave new land development in the amount of 15 thousand hectares in Chimbay and the Daukara lowland. In 1926, there was construction of the head structure on the Kyzketken channel. Putting into operation in April 1935 it ensured a stable water intake and by 1937 made it possible to irrigate areas of up to 60 thousand hectares [1]. In 1939-1940, the Kegeyli channel was expanded and straightened, and a new Mayab inter-farm channel was built.

In 1926, it was going to improve the water intake on the right bank in the southern regions of Karakalpakstan, where the watercourse was especially intensively deformed, which often receded several kilometers at the height of vegetative irrigation. The head section of the Shurakhan canal was expanded and moved up the river, connecting all small water intakes from the river to it. However, the absence of the main regulator did not guarantee against the breakthrough of the flood water of the river into the Shurakhan channel and flooding of irrigated lands. Therefore, in 1926-1927, the old Suyargan channel was prepared for the discharge of excess flood water from the Shurakhan Channel. Following this, the distributors Bozyab, Kunyabagyab, Amirabad, Kelteminar, Sarabiy. In 1928 the Shurakhan channel was named Pakhta-arna. In the future, in connection with the development of irrigation on lands under its command system, the watercourse was repeatedly strengthened by dams. In 1941-1942 the work was completed to switch the Naiman and Beshtam channels, which made it possible additionally to develop 4 thousand hectares of new land and get rid of the use of 250 chigiri and 8 pumping units [2]. In August 1941, the first stage of the Kyrkkyz Channel was built. Thus new lands of the massif began to develop. In the spring of 1942 the land was continued to develop for another 12 km. As a result, a large Bagyab-Kyrykkyz system with a total length of 40 km was created. Irrigative areas increased by 2.1 thousand hectares due to the lands of ancient irrigation. The development of land on the area of 24 thousand hectares of the Ellikalinsky massif and 60 thousand hectares of the Kyrkkyz-Dzhambaskala massif were continued successfully. In order to improve the water intake from the Amudarya River to the Pakhtaarna Channel, in 1946, the construction of a new head section began along the Tuyamuyun highway with a length of 20 km and with head water intake located 1 km below the head of the left-bank Tashsak channel. In the spring 1947 the channel was put into operation . It worked until September 1948 when its head section up to 2 km long was heavily washed away by the deigish and by the spring of 1949 the river moved away from the temporary head of the channel, and the water intake was transferred to the old head. In 1957, a new head reinforced concrete structure was built with a capacity of 80 m3/s. In 1927-1930, two channels were built in the area of Lake Khodjakul. Thus a new irrigated massif of Nazarkhan was formed on the right bank of the Amudarya River in the southern zone of Karakalpakstan.

In 1941, the water intake was moved to a stable section of the river to the gorge of Karatau and Dzhumurtau, and a head structure was built at the outlet to Lake Khodzhakul. The new channel was named Nazarkhanarna, which improved water use in the Nazarkhan massif with an area of over 500 hectares [3]. The construction of the united Suenli-Leninyab channel on the left bank of the Amudarya River was of great importance for the development of the irrigative system of Karakalpakstan. The lands of the Khojeli district (until 1939) were irrigated from the channels Keneges-Kchil (discharge 8 m/s) and Sueli (9 m \* 1s), Kungrad (until 1929) from the channels Khanyab, Kalynyab, Ikhlas. All of them had independent water intakes from the Amudarya River. The Leninyab channel, which built in 1929 and combined these channels, is 82 km long. The capacity of the Lennnyab channel on the Bekyab loop of the Amudarya River has reached 25 m3/s. In October-November 1939, the 1st stage of the channel was built with a length of 15 km. connecting Sueli and Lennnyab.

## Innovative Developments in Sciences, Education and Humanities Hosted New York, USA

**April 28th 2022** 

### https: econferencezone.org

On March 1, 1940, more than 40 thousand collective farmers from all regions of the autonomous republic were involved in the construction of the 2nd stage of the canal and in1940 by April 6 one of the largest irrigative systems in Karakalpakstan, the Sueli-Leninyab canal, which is 128 km long. was put into operation. This construction of a new channel with a capacity of 80 m/s ensured normal water supply, allowing to expand the irrigative areas of the economy of the Khojeili Kungrad district by 15 thousand hectares. The most fertile massifs of Shumanai, previously abandoned due to lack of water, after restoration in 1941-1942, re-entered the fund of cultivated lands, which made it possible to additionally develop 6.1 thousand hectares. new lands. In 1943-1944, the channel was expanded, its first branch lengthened, and the cultivated area expanded by another 4 thousand hectares.

Until 1938, the lands of the Amudarya region were irrigated by the Klychniyazbay, Toksnarna, Mangitarna, Bozsu channels with independent water intakes from the Amudarya River. The backward water intake system made it impossible to expand new irrigated lands. Therefore, first of all they improved the head supply during the reconstruction of irrigative systems. In 1938-1939, the Bozsu, Kipchakarna and Sovetyab canal systems were merged into the Kipchak-Bozsu system. In 1940-1941 the Gurlen branch was put into operation, which combined five small systems, and six reinforced concrete structures. The Gurlen branch was connected to the Klychniyazbai system and the head section was reconstructed which of the length was 7.9 km long from the river to the water divider. In the post-war period, the main attention was paid to the reconstruction of the Pakhtaarna channel system, since almost a third of all cotton crops of the Autonomous Republic grew on the lands of this region. As a result of irrigation reforms, only in 1946 the collective farms of Karakalpakstan mastered 12 thousand hectares of shifted land; in general, during the war years, the area under cotton increased by 19.5 thousand hectares and under alfalfa by 15.2 thousand hectares. Despite the large-scale construction of the irrigation system of the region, there were facts that the collective farms did not receive water supply during the irrigative period. So at the meetings of the Council of Ministers on the irrigation issue in 1948 chairman of the Kegeyli district executive committee Akhmedov asked to increase the supply of water for the district, because received 3.5 cubic meters was not enough and 100% irrigation of cotton couldn't be provided by April 15. Dzhanabaev, head of the Kuibyshev district water management, asked to close Kuanysh-Dzharma below the Stakhanov-Arna channel to ensure irrigation of the lands of the district.

In 1967 Glavsredazirssovkhozstroy began to deal with the issues of complex construction of rice growing state farms which created the territorial administration of Karakalpakirsovkhozstroy. Yugkarakalpakvodstroy and Yugkarakalpakirsovkhozstroy were organized being responsible for the integrated development of land. The implementation of a huge amount of water management work in the period under study made it possible to increase productivity in the field of cotton growing in the Autonomous Republic. Irrigation of fertile lands in 1976 reached 270.4 thousand hectares, but 99.2 thousand hectares was in 1913. The cotton yield in 1976 increased by 27.8 centners per hectare.but it was 13.9 in 1913. The gross harvest of cotton in 1976 amounted to 371.0 thousand hectares. against 14.5 thousand hectares. in 1913 [5]. Irrigative construction of the Autonomous Republic required specialized operation of irrigation systems, frequent silting of channels led to low water permeability. There was an urgent need for the construction of control structures on the main intercollective farm canals, the need for the construction of 9 structures according to the Pakhta-Arna system, 3 structures according to the Nazarkhan system, 4 structures according to the Keneges system, 8 structures according to the system named after. Lenin, 16 structures along the Kyz-Ketken system and, in addition reinforcement of collective farm branches and reinforcement of 627 collective farm branches with brick and concrete structures [6].

#### References and sources:

- 1. Sarybaev K, Sarybaev M. about history of Kyzketken channel -N., 2003. -p.14
- 2. CGA RUz. f.837, op.33, d-2454, p.1763
- 3. CSA RUz. f.837, d-32, op-1221, p.10
- 4. CSA RUz. f.837, op.-33, d-2453, p.1445
- 5. Irrigation of Uzbekistan. t-3. -T. 1979. -p. 298
- 6. CSA RUz. f-837, op.33, d-2454, p.180