

ANALYSIS OF THE WORK TO BE DONE TO IMPROVE THE MELIORATION CONDITION AND MELIORATION CONDITION OF THE IRRIGATED LANDS IN ANDIJAN REGION

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Abstract: During the writing of the article, the improvement of irrigated lands in Andijan region and the improvement of land reclamation conditions and the results of these works are analyzed over the years.

Key words: *Irrigated areas, groundwater level, pressure water, soil salinity, vertical wells, vertical wells, closed wells, open wells,*

Introduction: Effective use of irrigated areas and improvement of land melioration and obtaining high-quality and abundant harvest are one of the most urgent issues at the time when ensuring food security is urgent. In order to ensure the implementation of the decision of the President of the Republic of Uzbekistan dated January 10, 2020 No. PQ-4565 "On measures to develop the social and production infrastructure of the Republic of Uzbekistan in 2020-2022".

Location of the region, natural conditions and sources of irrigation.

Andijan region is located in the east of the Republic of Uzbekistan, bordering Fergana region to the west and Jalalabad and Osh regions of the Kyrgyz Republic to the north, east and south. borderline. Andijan region is located mainly in the foothill plains, and is surrounded by Kurama mountains in the north-west and Altai mountains in the south. The location has favorable conditions for growing agricultural crops. In the South-East is the Osh-Aravn lowland, which consists of:

Polvontosh, Andijan, North and South Olamushuk. The lowest parts of these plains are 340-400 meters above sea level, and the slope decreases towards

the Syrdarya. Cultivated areas are irrigated lands. Due to the annual amount of precipitation, humidity (100-300 mm) and hot summer days heating up to 40oC, our region belongs to the low water region.

Soils in temperate soils consist mainly of fast-melting, light arid soils, while soils in low-lying soils consist of more heavy-duty soils.

Irrigation sources mainly consist of the Karadarya, Norin, Maylisoy, Avorov and White-Boira rivers. It also forms steep wells built for springs and irrigation.

Meliorative conditions: The main land area of the Andijan region is the main part of the artesian basin, which is a complex of underground ground and pressurized waters and water-permeable layers in the intermountain area of the Ferghana Valley. It is divided into the following hydrogeological layers, which are sharply different from each other:

1. Bottom layer: consists of complex rock, brittle decomposable paleozoic rocks.

2. The middle layer is a layer of Mesozoic, Paleogenic and Neogenic rocks, with a thickness of 6-7 km.

3. Basement: Water-permeable fourth residue, thickness 500-600 m.

The bottom layer is characterized by a large amount of pressurized fresh water. The location and variation of groundwater in our region is as follows, depending on the low altitude of the land, in some places up to 1.0 meters, in some places less than 10 meters. Basically, the direction of groundwater flows towards the Karadarya and the Syrdarya.

Land area and use of our region As of January 1, 2023, the total area of our region is 405,959 thousand hectares, of which the area under crops is 271,528 thousand hectares, divided into the following farms:

1. In the account of farms - 246,327 thousand hectares.
2. Other winter enterprises- 25,201 thousand hectares.

Crops provided with forage networks amounted to 186.48 thousand hectares, of which the area provided with steep ditches is 34.56 thousand hectares, The area provided with closed ditches is 15.98 thousand hectares and the area provided with open ditches is 135.94 thousand hectares. The density of ditches in arable land is 32.30 pm. The density in the areas supplied with the ditches is 45.08 pm/ hectare.

Determining groundwater and their salinity levels. The results of a five-year estimate of the depth at which the sizot waters are located in the region were compared in tabular form. It can be seen that from year to year the sizot water level showed 2.30 m in 2022, while the average annual satx in 2018 was 2.19 m. This is the result of the timely implementation of many years of reclamation measures.

Formation of reclamation programs and projects. In order to ensure the implementation of the Resolution of the President of the Republic of Uzbekistan dated January 10, 2020 “2020-2022 on measures for the development of social and industrial infrastructure of the Republic of Uzbekistan ” PQ-4565 reclamation 6 projects on construction and reconstruction of facilities were implemented. The results of the examination of these projects were obtained, and on the basis of the tender, the contracting organizations were identified. On the basis of these projects, 18.45 km of open collectors and 6.79 km of closed horizontal drainage networks were built and reconstructed in the region.

13 projects on systematic repair and restoration of reclamation facilities have been implemented. All new projects were prepared within the prescribed timeframes, expert opinions were obtained, and contractors were identified. On the basis of these projects, 5,095.03 thousand meters of soil work was carried out and cleaned in the 1064.9 km long ditch networks. 12 water metering facilities, 218 piped crossings, 127 units under the restoration of structural repairs, from the local budget, 13 units, a total of 140 observation wells were

installed in Dayver equipment and 77 observation wells were repaired, 17.1 km of closed-circuit ditches were washed using washing aggregates, technical set.

As a result of reclamation measures, the reclamation of 23,951 hectares of arable land in our region has been improved, and the satx of sizot waters has been brought to normal. Irrigated areas with poor reclamation in the region have been identified and measures to improve them have been identified and a program is planned for 2023. According to these plans, the Andijan region will carry out systematic repairs and restoration of collectors on 13 projects, which will be started in 2023, and construction and reconstruction of reclamation facilities on 6 projects. Draft project of structural repairs and restoration and construction and reconstruction facilities included in the State Program for 2023, project-establishment documents were prepared and expert opinions were obtained.

Efficiency In accordance with the State Program for 2022, 12 systemic repair and restoration projects, 6 construction and reconstruction projects were implemented. Proposals submitted by the districts were analyzed and information was prepared on the depths of groundwater deployment, salinity level, areas of stabilized areas. Reduction of areas with moderate and high salinity; in Balykchy, Boz, Ulugorny districts, the area with salinity decreased by 525 hectares, in the districts of the region, the area with salinity of up to 2 meters decreased by 8114 hectares, the area with maintained meliorative stability amounted to 15 034 hectares, the meliorative condition of a total of 23 673 hectares was improved. The assessment of the meliorative state of the land and analysis of its yield were carried out on the areas where the projects included in the state program were implemented. In the territories where the event was held, the specificity was increased to 2.9 ts / cotton and 4.4 ts / grain.

CONCLUSION

The region has a total of 7,620.9 km of zakan-turor networks, and the state program carries out an average of about 900-10,000 kilometers of clean-up

work each year. The cleaning period of all lush networks is 8-9 years. As a result, there are cases where the level of sizoat water has increased from the arable land of farms in areas that are not included in the state program. In order to overcome the above problems, it is necessary to carry out a wide range of systematic repairs and restoration and construction and reconstruction work, to reach 1400-1500 kilometers per year, and to carry out reclamation measures in a timely manner.

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