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## RATIONAL USE OF LAND FROM AGRICULTURAL TURNOVER

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### ABSTRACT

In this article describes the results of scientific and practical research conducted by the State Research and Design Institute “Uzdavyerloyiha” in 2018-2021 in order to increase the efficiency of land use in Kashkadarya region, where the situation has deteriorated and lost its agricultural turnover.

### KEYWORDS

Kashkadarya region of the Republic of Uzbekistan, degraded and out of agricultural use lands, land management projects, efficiency.

### INTRODUCTION

Fallow land is land that was previously arable and not used for sowing crops for more than a year from next autumn and not left for pure plowing. [3; 280-b.].

In 2018-2021, the State Research and Design Institute "Uzdaverloikha" conducted scientific and practical

research on lands in a degraded state and out of agricultural circulation.

### OBJECT AND METHODS OF RESEARCH

The object of the study is deposits in the Kashkadarya region of the Republic of Uzbekistan, where the situation has worsened and dropped out of agricultural circulation. The study is a generally accepted method in practice [4; 462-s., 2; 120-s., 3; 280-s.].

### RESULTS OF THE STUDY AND THEIR DISCUSSION

As of January 1, 2021 [1; 35], the total land fund of the Kashkadarya region is 2856.8 thousand hectares, of which 21.9 thousand hectares (0.8%) are deposits.

According to the analysis of the dynamics of changes in irrigated arable land in the region in 2021, compared to 2004, the area of irrigated arable land decreased from 374,626 ha to 347,359 (-27,267 ha), and, conversely, there is a steady increase in population from 2,378, 5 thousand to 3,335.4 thousand (+956.9 thousand). As a result, the level of land provision in relation to the population decreased from 0.16 ha to 0.10 ha (-0.06 ha). These cases show that the increase in the fallow area occurs, on the one hand, due to population growth, and on the other hand, due to a sharp reduction in irrigated arable land.

The following negative factors had a significant impact on the exit of irrigated arable land from agricultural circulation in the Kashkadarya region of the Republic of

Uzbekistan. At the same time, 44,818 ha (64.5%) out of 69,469 ha of arable land in the region fell into disrepair due to lack of water supply, and 8,124 ha (11.7%) fell into disrepair due to unsuitable irrigation systems (canals, flumes and ditches). into disrepair, 1069 ha (1.5%) due to non-working artesian wells and failed pumps, 13359 ha (19.2%) due to the deterioration of the ameliorative state (1779.0 ha groundwater rose and swamped, in 11580 ha increased mineralization), 2126 ha (3.1%) have a layer of gypsum and all these reasons led to the fact that arable land was dropped from agricultural circulation and perennial crops turned into shrubs as a result of non-cultivation.

In studies [5; 179-182-p.] developed land management projects in order to improve the efficiency of melioration and use of agricultural land.

**1-project:** In order to reuse 1085.0 hectares of irrigated arable land in the A.Navoi massif of the Guzar district of the Kashkadarya region, 3.18 km of the Turtsari canal and 4165 km of the Turtsari-2 canal were cleared. According to the analysis, the total cost of the project is 259,441.1 thousand soums in national currency, and the cost of reusing one hectare of land will decrease to 239.1 thousand soums.

According to the analysis of efficiency and payback period, the net profit from one hectare of soybeans can be more than 2,861.9 thousand soums in national currency, and the total profit from 1,085 hectares of

land under the project can be more than 3,105,177.7 thousand soums. This will create jobs for unemployed citizens living in more than 350 villages. In this project, the coefficient of efficiency of capital costs is determined to be 1.7, and the payback period is 0.6 years.

**2-project:** The cost of reconstruction of the Khanabad canal in the territory of A. Navoi Guzar district of Kashkadarya region and the construction of water supply systems, the installation of 2 pumping units and the layout of 1085 hectares of arable land will amount to 6246634.5 thousand soums in national currency. This means that the cost of converting one hectare of arable land into irrigated arable land is 5757.3 thousand soums in national currency.

A comparative comparison of the above projects 1 and 2 reveals the possibility of redevelopment of 24.1 hectares of irrigated land at the expense of the cost of converting one hectare of arable land into irrigated arable land.

**3-project.** A project has been developed to re-enter 197.81 hectares of agricultural land in the Turkmaniston massif in the Nishan district of the Kashkadarya region into agricultural circulation using a laser installation. According to the results of the analysis, the payback period of the project is

0.6 years. The main thing is to expand the irrigated area by 28.9 hectares and create 40 new jobs.

Conclusions. The role of land management projects in practice is great. According to the analysis of socio-economic, organizational, economic, technical, technological and environmental indicators, the efficiency of re-development of 24.1 hectares of irrigated land will be achieved by transferring one hectare of arable land to newly irrigated arable land. This situation indicates that the cost of land turnover will decrease by almost 24 times. The introduction of water-saving technologies has led to the expansion of irrigated land by 28.9 hectares and the creation of 40 new jobs.

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