ANALYSIS OF THE RECLAMATION STATUS OF AGRICULTURAL AREAS

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The role of the agricultural sector in the development of the economy of our republic is very important. More than 4.322 million hectares of land are under cultivation in our republic. Of these areas, 1.9 million hectares are saline to varying degrees, and the remaining 2.422 million hectares are non-saline. Of these, 73.1 thousand hectares of arable land are classified as very saline.

These indicators are 276.3; 234.2; 42.1 thousand hectares in the Bukhara region, respectively. As can be seen from the figures, the share of areas with high soil salinity in irrigated areas in the total irrigated area is somewhat higher than the average for the republic.

While the areas with varying degrees of salinity make up 44.0 percent of the total cultivated land in the republic, this figure is 84.8 percent in the region, or almost twice the republican figure.

In terms of the proportion of total saline areas to existing cultivated land, Bukhara region ranks third in the republic after Khorezm (99.3%) and Syrdarya (97.1%) regions. Based on this, since one of the main indicators determining the reclamation status of cultivated areas is the level of soil salinity in irrigated areas, the share of lands considered to be in good reclamation status is also very small in Bukhara region (15.6%) compared to other regions. This figure is 0.8 percent in Khorezm region and 2.9 percent in Syrdarya region. Also, the average area of land with satisfactory land reclamation status is 2,100.1 hectares (48.6%) across the republic, while in Bukhara region it is 221.5 (80.2%), in Khorezm region it is 245.6 (92.5%), and in Syrdarya region it is 240.3 (83.7%).

The areas considered the most difficult from an ameliorative point of view, that is, the areas with an unsatisfactory ameliorative condition, account for 173.8 hectares or 4 percent of the total irrigated area in the Republic, while such areas account for 38.7 hectares or 13.5 percent in the Syrdarya region, 17.8 hectares or 6.7 percent in the Khorezm region, and 11.8 hectares or 4.3 percent in the Bukhara region.

The analysis of the above data shows that the largest share of irrigated arable land in relation to the total irrigated area of lands with an unsatisfactory ameliorative condition falls on the Syrdarya region.

Considering the information presented so far, in the Bukhara region, as in all regions, the average groundwater level in the area of irrigated areas in recent years has been much lower than the normative indicators (1.9-2.2m) (on average 2.69m in 2022; on average 2.77m in 2023), although the lands with satisfactory and unsatisfactory reclamation conditions of cultivated areas still occupy the main part (84.5%) of the total irrigated area.

This indicator is 52.6 percent on average in the Republic, while in Khorezm region it is 99.2 percent and in Syrdarya region it is 97.1 percent.

Considering that the agricultural sector is one of the main production areas in our Republic, we should pay special attention to the reclamation condition of irrigated areas, since the reclamation condition of lands used for irrigated farming is of great importance in increasing the yield of agricultural crops.

According to the results of research and analysis conducted by industry experts, in areas where the reclamation condition of lands is considered unsatisfactory, the yield of agricultural crops is reduced by 30-35 percent, and in areas with very high soil salinity or extremely difficult reclamation conditions, the yield is even reduced by 75-80 percent. In some cases, it is not even possible to harvest seedlings from such areas at all.

In conclusion, in order to achieve the desired goals in agriculture, to reduce the cost of agricultural products and increase the productivity of crops, we believe that, among all agrotechnical measures, it is necessary to take measures to improve the land reclamation status of areas where the reclamation status is considered unsatisfactory. Also, areas with a satisfactory reclamation status should be constantly monitored.

In these areas:

- observations of the dynamics of soil salinity;
- control of the regime of groundwater and pressure waters;
- observations of the level of mineralization of groundwater and constant analysis of the results.

The following three factors determine the reclamation status of areas where irrigated agriculture is practiced:

- the location of the groundwater level in irrigated areas;
- the level of mineralization of groundwater in irrigated areas;
- determines the level of soil salinity in cultivated areas.

Considering these, first of all, the effective use of water supplied to cultivated areas is considered very important. Because one of the main factors leading to the deterioration of the land reclamation condition in irrigated areas is the amount of water

supplied to these areas and its mineral content. It is these factors that, in addition to increasing the level of groundwater and its mineralization, also lead to a high level of soil salinity. Therefore, during the vegetation period, it is necessary to apply water in the amount established for the crop types when irrigating agricultural crops. It is also very important that the total salt content of the supplied water does not exceed 1.5 grams per liter.

The unevenness of the irrigated areas also plays a special role in the improvement of the land reclamation condition. Because if the cultivated areas are uneven, it will cause the water to exceed the norm during irrigation, as well as accelerate the process of re-salination in the soil. In addition, in areas where agricultural crops are planted, the water needs of crops are met differently, with deep-lying areas receiving much more water than the crops need, while crops in higher-lying areas are left without enough water. In both cases, crop productivity decreases sharply and the soil becomes salinized.

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