ENVIRONMENTAL PROBLEMS IN THE NAVOI REGION COTTON FIELD

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Annotation: This article provides feedback on the positive solution of environmental problems in the Navoi cotton complex. To do this, it is necessary to increase the gross yield of cotton in the region through the efficient use of cotton fields.

Keywords: Cotton production complex, specialization, land reclamation, economic efficiency, agronomic measures.

The cotton production complex is the main branch of the agricultural-industrial complex in the country and plays a special role in increasing the socio-economic efficiency of the country's economy and strengthening relations between the sectors. Raw cotton and its primary and finished products are the main source not only for filling the domestic market, but also for replenishing the national budget with foreign currency on the basis of their exports. Today, Uzbekistan ranks 5th in cotton production after China (27.3%), the United States (18.4%), Pakistan (10.6%) and India (9.7%). 7.3% or 1.3 million tons of fiber produced worldwide is grown in our country. Uzbekistan is the second largest exporter of cotton after the United States, accounting for about a quarter (24%) of world cotton exports.

Navoi region is located in the northern part of the country (area 110 thousand sq. Km.), The second largest in the country after the Republic of Karakalpakstan. Cotton is grown on 39.4 thousand hectares of irrigated land in the region. This is 3.2 per cent less than in the neighbouring Bukhara region (127.2 thousand hectares) and 2.6 per cent less than in Samarkand (103.8 thousand hectares). Because of the limited irrigated land in the region, the main reason for this is the lack of water resources. Irrigated lands are mainly located in Khatirchi, Karmana, Navbahor and Kyzyltepa districts, which are the main cotton growers. In terms of the gross cotton harvest, Khatirchi district (on average more than 35,000 tons per year) ranks first in the region. There are about 7,000 farms specializing in cotton growing.

Rational placement and specialization of agricultural production will allow for the efficient use of land, labour resources, fixed and working capital, as well as accelerate the growth of social labour efficiency and gross domestic product. Location and specialization of agricultural production in the Navoi region are some of the important tasks in today's market economy. There is an opportunity to increase scientific and technical progress in agriculture, increase gross output on the basis of improving the material and technical supply of farms. Scientific and technical progress in agriculture requires qualitative improvement of all elements

of production processes. The industrialization of agriculture is currently going in two main directions — horizontal and vertical. The first direction envisages mechanization and automation of production processes in agriculture and animal husbandry, and the second direction envisages industrial processing of agricultural products. In recent years, many small enterprises specializing in the processing of agricultural products have been built in the region. These small enterprises play a major role in the employment of surplus labour resources in rural areas.

The rational organization of agricultural production on a scientific basis, the improvement of specialization provide an opportunity to address a number of important socio-economic tasks. This will, first of all, increase production efficiency and make full use of natural, economic, labour resources and the internal potential of the economy. Secondly, the improvement of the territorial organization and specialization of agricultural production will positively solve the food problem. With this in mind, the main issue on the agenda today is the appropriate specialization of agricultural crops in the region with the efficient use of irrigated lands.

It is impossible to increase soil fertility without the introduction of science-based crop rotation in irrigated cotton-growing areas. It is known that the continuous cultivation of one crop in one field leads to a sharp decrease in the amount of humus, which is a major factor in soil fertility.) and lead to the proliferation of various pests of cotton (spiders, aphids, caterpillars). As soil fertility declines, productivity declines and costs increase, despite much labour and investment. Along with the implementation of crop rotation, the whole system of agro-technical and organizational measures must be aimed at restoring, maintaining and increasing soil fertility. Crop rotation is not only the main means of increasing the efficiency of agro-technical and reclamation measures but also ensures high yields of all crops and an increase in livestock production with low labour and investment, with a high level of use of all land allocated to farms. Extensive experiments show that the only correct way to use irrigated land effectively is to introduce a system of alfalfa, cotton and cotton rotation.

Violation of technological discipline in cotton growing and untimely and quality implementation of agronomic measures lead to negative environmental consequences. Poor tillage, excessive mineral fertilizers, excessive use of pesticides, improper land reclamation, pollution of groundwater, erosion, reduced soil fertility, salinization of soils. The reason for many negative consequences in cotton-growing is due to the monopoly of cotton. It has a negative impact on the social and economic development of the country. This is deteriorating the environmental situation. To improve this situation, we need to introduce cotton planting to combat monopoly. We consider it expedient to cultivate 55-60% of irrigated lands for cotton, 40-45% for cereals, vegetables, melons and fodder crops.

Article 55 of the Constitution of our country stipulates that land, mineral resources, flora and fauna and other natural resources are national wealth, which must be used rationally and are under state protection, which strengthens the legal basis of relations there. However, the monopoly of cotton in agricultural production in the 1970s and 1980s led to the deterioration of the ecological environment in the regions of southern Uzbekistan. The acquisition of new land from large areas, which in some cases consisted of non-irrigated and low-quality soils, led to the country's agriculture spending a lot of money just to grow raw materials. As a result of the rise of the cotton monopoly, the degradation of agricultural lands has intensified. Currently, 25-30% of cotton, grain and food crops are planted in areas with unfavourable soil and climatic conditions, resulting in very low yields. Soil salinity has drastically reduced soil fertility. Currently, more than 60 per cent of irrigated land is more or less saline. This is especially the case in the Karshi desert, in the Surkhan-Sherabad valley. We can see it in Nishan, Kasbi, Kasan, Mubarek districts of the Kashkadarya region, in Qizirik, Jarkurgan, Angor and Kumkurgan districts of the Surkhandarya region. In the Khatirchi, Kyzyltepa, Nabahor and Karmana districts of the Navoi region, where cotton is grown, the salinity of soils is much higher.

Improper use of land has led to soil erosion and insufficient work against erosion. Events such as soil erosion and salinization have led to a decline in the quality of the soil during production. Improper use of the land has made it unusable altogether. Land must be protected from unauthorized distribution and use, degradation, pollution, and related adverse effects that degrade the quality of natural resources.

The land is a limited resource, so it needs protection. Land intended for specific use and given (for enterprises, organizations, institutions and landholdings and land use) is limited by the width of the plots. For one type of land use to expand the area (e.g., one category of land in the land fund), the other must be reduced.

At each stage of society's development, the area of fertile land will be limited. Their proliferation or increase can be done at great expense and depends on the level of development of science. Land protection is a system of organizational-territorial, organizational-economic, legal-economic, technical and other measures aimed at restoring and improving the condition of lands and preventing unreasonable use and expenditure of land resources and reduction of productivity and reduction of agricultural lands.

The protection of land and the environment depends on the proper use of land and water and their proper organization. At a time when water shortages are being felt, it would be right to focus all knowledge and internal capacity on reserves. Under these conditions, it is necessary to determine the reclamation status of irrigated lands, the extent of their use, the transformation of all resources that can be

developed within farms into arable land, and the organization of efficient and rational use of these lands. We also believe that it is necessary to improve the condition of more than 60% of saline irrigated lands, where soil fertility has decreased as a result of many years of deficiencies, saline leaching, restoration of collectors, drains. Work will be carried out to improve the soil, water and ecological condition of 3 districts (Shurchi, Kumkurgan, Jarkurgan), which do not have a common border with Tajikistan but are covered by the wind of the Tajik aluminium plant.

An important means of ensuring high-yield land use is the application of science-based farming systems, as well as the correct identification and consistent improvement of crop structure in accordance with the specialization, high-yielding and economically unprofitable and low-yielding crops it is necessary to replace it with very valuable crops. A positive environmental situation in cotton production does not arise spontaneously. A favourable ecological situation is created if all agrotechnical measures, carried out from early spring to late autumn, are carried out in a timely manner, based on the results tested in science and practice.

Summarizing the above factors, we make the following recommendations for a positive solution to environmental problems in the cotton production complex in the Navoi region:

1. Rational use of water resources in cotton-growing areas of the region, maintaining the volume of cotton fields in this condition for the next 20 years;

2. Continuous improvement of land reclamation, combating soil salinization, regular introduction of crop rotation;

3. Formation of high agricultural culture in cotton growing, increase of cotton yield using local fertilizers;

4. To recommend to the management of the farm agronomist-economist, agronomist-engineer with higher education specializing in agriculture;

5. We consider it expedient to increase the number of small enterprises processing agricultural products in rural areas.

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