The Improvement Of The Agriculture Based On Market Relations In Karakalpakstan

G.E. Toreniazova – assistant
Karakalpakstan Institute of Agriculture and Agricultural Technologies

Abstract: This study examines the agricultural reforms and challenges in Karakalpakstan, Uzbekistan, from 1993 to 1998. Based on government decrees, statistical data, and archival documents, the research highlights significant developments and obstacles in the agricultural sector. Despite the organization of numerous Dekhan farms and increases in crop production, environmental issues like soil salinity and water mismanagement, exacerbated by the desiccation of the Aral Sea, hindered productivity. The study underscores the need for improved water management, soil quality, and sustainable agricultural practices to enhance productivity and ensure long-term environmental sustainability.

Keywords: farmer, coefficient, agricultural technician, state farm, highway, collector, melioration.

Introduction

It is known to us from history that our people have been engaged in farming since ancient times, farmers were highly respected in our country. During the centuries, agricultural relations have developed and matured. Today, agriculture is considered one of the main branches of the economy of our republic and is important in the socio-economic life of our country. One of the important reforms implemented in the agriculture in the early years of Independence was the policy of transition to market relations and transformation of state property into private property. One of the important sides shown by our First President is the introduction of deep changes in the field of agriculture as a result of the gradual implementation of economic reforms aimed at changing the relationship between people and property, and the specialization of land ownership by our peasants. He also noted specially that the worldview of rural workers has changed, and to increase humane qualities such as initiative, entrepreneurship, responsibility for land and water resources, and saving. In the process of transition to the market relations in our republic, the main content of the agrarian reform was to create farmers’ farms and was carried out sequentially.

Methods

Decisions and decrees of the first President of the Republic of Uzbekistan on the reform of agriculture, government decisions adopted by the Council of Ministers of the Republic of Karakalpakstan, statistical information, and documents from the state archive fund were taken as basis. Methodologies and principles of historicity, objectivity in the science of history were used.

Results and Discussion
Results

In the first stage, which included the years 1993-1998, the first resolution on Dekhan (farmer) farm was adopted in 1991, and 7.6 thousand Dekhan (farmer) farm were organized in our country [1]. January 1, 1993 in the region of the Republic of Karakalpakstan total area of agricultural lands, forest farms, fish farms, and excess agricultural lands in the state fund was 16.7 million hectares. This year, the area of agricultural entity and farm lands is 6884.3 thousand, used land is 4076.2 thousand, plowed land is 427.4 thousand hectares, gardens, vineyards and other agricultural cultivated land is 420.2 thousand. The fund of forest farm is 1326.7 thousand ha, and 6562.4 thousand ha is the land of the state excess fund, the rest of the land is the land of people's production entities, water management and other land users. As of 1993, agricultural farms in the Republic of Karakalpakstan can be divided into three groups based on their land use: the number of cotton, rice, vegetable, horticultural farms is 150, the second animal husbandry in the direction of meat and dairy farming is 14 farms, and the third the number of the karakul state farm is 8 farms [2].

The land resources of the farms of the first and second groups were productive and consisted of perennial and cultivated crops. In the south regions of the republic, it has the possibility to acquire large vacant lands and develop them in the future. Kyrykkyz, Zhambaskala, Kyzylkala regions, which were massive irrigation systems, totally consisted of 140 ha of land. Also, the amount of usable excess land fund in the modern irrigation circuit is 450 thousand ha in the north.

In Karakalpakstan, cotton, rice, vegetable crops, fruit and grapes, alfalfa seeds and fodder are mainly planted by the own farms. The lands specialized to cotton and rice (profiled) are significant production areas.

Discussion

In 1992, 349.4 thousand tons of grain crops were grown in all types of agricultural farms (of which 311.7 thousand tons were rice), 275.3 thousand tons of cotton, 4.4 thousand tons of potatoes, 74.2 thousand tons of vegetables, 91.1 tons of vegetable products, 11.5 tons of fruit, 404 tons of grapes were grown. According to the share of products in the private sector, potatoes - 67.2, vegetables - 44.4, vegetable - 35.7, fruit - 47, grapes - 61.4, meat in live weight - 62.7%, milk - 80.3%, wool - 76.3%, egg - 45.9%. More than 93.3 percent of grain products, fully the cotton were produced in the state sector. The average increase per hectare (in 1985-1992) was 19-23% of cotton, 30-35 centners of rice, 35-40 of potatoes, 75-80 centners of vegetables, 35-40 centners of fruit [3]. From the given information, it is possible to know the number, that is, we know that yield in the agriculture was not able to fully satisfy the demand of the people at that time. For Karakalpakstan, animal husbandry is considered to be an important, future, geographically favorable area. The reason is that this was well-developed branch for agriculture in the area with vast steppes surrounding each Khizilkum, Karakum, Ustyurt Plateau plain. As of January 1, 1993, there were 401,100 large livestock in the republic, including 160,900 cows, 26,600 pigs, 544,800 animals with small horn, and 16,100 horses.

From these indicators, in the private sector: large cattle are 66.2%, cows 79.7, small cattle 41.6, horses 37.4, camels 48.9, pigs 13.3 and birds 45.2 percent. 50.5 tons of meat (in live weight), 181.3
thousand tons of milk, 95.2 tons of egg, 1880 tons of wool, and 110.9 thousand pieces of karakul skin products were produced in all types of farms [4].

From that, we know that in Karakalpakstan, the growing of agricultural products per capita is lower than the indicator in Uzbekistan. Vegetables are 138.4 kg per capita, in Uzbekistan 138.4 kg, as well as 9 and 32.3 of fruit, 0.3 and 36.3 grapes, 23.6 and 26.4 meat, milk 138.4 and 147, 8, egg 72.7 and 119.5 pieces, potatoes 3.9 and 16.4 kg. The reason for these problems was that the agriculture was behind the times in the condition of the growing population, and the process of transition to the market conditions, which we mentioned earlier, was being carried out slowly. In the localities, there was a low level of professionalism in the implementation of changes in the agricultural economy, and the use of initiative with new scientific basis by the working communities was low. In order to obtain large yield in the agriculture, it consists of the actions such as increasing the quality of the soil based on comprehensive improvement of economic, agro-technical measures, fight against harmful insects, and economical use of the irrigation system.

Due to the Aral Sea problem, almost all the irrigated lands in the republic were saline lands. This, in turn, required additional treatments such as systematic application of adaptive planting and watering. The Takhiahtash hydroelectric power station was built in the region for water supply, and there were 207 main water supply and inter-farm canals, 29 main canals and 178 inter-farm canals. 87 hydroposts were built for the points of water walls. Irrigation branches in the republic by location: the main and inter-district is 728 km or 1.45 p/m per hectare, 2233 km between farms or 4.45 p/m, 46.1 p/m per hectare[5.10].

In Karakalpakstan, 6.5-7 billion cubic meters of water walls are used to irrigate agricultural lands throughout the year. However, due to the lack of covers in the use of irrigation facilities, a lot of water is wasted. In 1992, the conclude coefficient of useful activities was 0.58.

In the territory of the republic, there are large main canals KS-1, KS-3, GLK, Beruniy, Kyzylkum and a number of inter-farm collectors for collecting drainage water. The total length of the collector branch is 19,383.4 km, of which the highway is 875 km, the inter-farms is 2079.2 km, and the internal farm is 16429.3 km. As of January 1, 1993, 78% of arable lands on 350.9 thousand ha were fully provided with a drainage system, and for the remaining 143.8 thousand ha, it was necessary to build a new internal collector drainage system. In the region, the internal farm collector drainage branches average 33.2 p/m per hectare, per hectare 28 for fields of cotton fields normally 40-50p/m; in rice fields per hectare - 47.3 p/m normally 50-60 p/m. 1243 hydraulic structures, 76 hydroposts (for measuring water) are provided in the main and inter-farms collectors. During the year, 2-3 billion cubic meters of drainage water flows from the field areas, which covers 30-35 percent of the water wall and takes an average of 4.5-6 thousand cubic meters per hectare. Washing the salinity in agricultural areas is in the range of 1 to 1.5 tons, and this indicator is considered a low indicator for reducing salinity.

The low indexed works in the drainage system and high of groundwater cause an increase in soil mineralization. As a result, the increase in salinity increases. And these two factors cause great damage to farming. The impact of environmental problem on agriculture is increasing year by year.
By this time, 96 percent of the land of the Republic had been salted to some degree. In the arable area, which was 494.7 thousand ha, salinity was as following. (as of 1993)

1. non-salted lands - 20.7 thousand ha, 4%
2. less saline areas - 194.7 thousand ha, 40%
3. medium saline lands - 201.1 thousand ha, 41%
4. heavily salted lands - 78 thousand ha, 15.9% of land, and according to the cadastre of arable land, the state of land reclamation is as following: good land is 15.5 thousand ha, 3%, satisfied land is 370.3 thousand ha, 75%, impractical, unsatisfied is 108.9 thousand ha, 22% [6.333-336].

Conclusion

The study highlights significant advancements and persistent challenges in the agricultural sector of Karakalpakstan from 1993 to 1998. Key findings include the establishment of Dekhan farms, substantial production of crops like cotton and rice, and notable contributions from the private sector in various agricultural outputs. However, issues such as soil salinity, inefficient water management, and environmental degradation due to the Aral Sea's desiccation have impeded progress. These findings imply that while agrarian reforms have laid a foundation for market-based agriculture, there is a critical need for improved irrigation practices, soil reclamation, and sustainable farming methods. Future research should focus on innovative solutions to enhance soil quality and water efficiency, ensuring the long-term viability of agriculture in the region.

References

[3] It was calculated based on the information of the State Statistics Committee of the Republic of Uzbekistan.
[4] It was calculated based on the information of the State Statistics Committee of the Republic of Uzbekistan.
[8] RESUME. In this article, agriculture of which has been achieved in the field of agriculture of the Republic of Karakalpakstan, today, is one of the most important sectors in the economy of our republic and plays an important role in the socio-economic development of our country.
[9] Karakalpakstan Institute of Agriculture and Agricultural Technologies
[10] Assistant, G.E. Toreniazova
[12] Telephone number. +99891376-31-91