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EXPANSION OF IRRIGATED AGRICULTURE AND THE ISLAND TRAGEDY

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ANNOTATION

The article discusses the expansion of irrigated agriculture and the tragedy of the island, as well as the fact that reservoirs, large irrigation canals and pumping stations built to develop cotton growing will further increase the cotton monopoly in the country.

Keywords: cotton monopoly, Irrigation and reclamation, land development, collector-drainage, state farms, main canals.

INTRODUCTION

In Uzbekistan, as well as in the Fergana Valley, the Soviet government's large-scale development of new lands, the rapid development of irrigation and land reclamation, and the misuse of water resources have created a number of environmental risks and serious problems. In particular, the large-scale development of new lands, the digging of canals, as well as the construction of pumping stations and reservoirs in order to increase cotton production in the center, eventually led to the Aral Sea problem. The First President of Uzbekistan Islam Karimov commented on this problem as follows: “As a result of the great measures taken under the motto of subjugating nature during the former Soviet Union, our nature has suffered irreparable damage. The Aral Sea, once one of the rarest and most beautiful seas, is drying up. Over the past forty years, the Aral Sea area has shrunk by 7 times, the volume of water has decreased by 13 times, and its mineralization has increased by tens of times.

METHODS AND ANALYSIS

The Aral Sea problem was a direct result of the unrealistic "experience" of the former Soviet government. In the future, they plan to grow cotton and rice instead of the dried-up Aral Sea3. It is no secret that the drying up of the Aral Sea has a negative impact on climate change in the Aral Sea. There are several reasons for this tragedy. According to a group of experts and researchers, the Aral Sea problem was caused by the following factors:

- Wrong choice of strategy for the deployment of productive forces. The continuous negative impact of this factor on the nature, economy, and social relations of the region;

- mechanical composition of the soil does not take into account hydrogeological and geomorphological conditions;

- low quality of design, construction and operation of irrigation and hydraulic structures;

- the accepted irrigation norms do not take into account many specific features of soil and agricultural plants1;

-development and location of water-intensive production enterprises;

- expansion of water-intensive crops in agriculture, especially cotton and rice; - opening of new low-yielding, difficult-to-irrigate areas and neglect of the quality of irrigation works;

- poor quality of design, construction and operation of irrigation systems; - Improper setting of irrigation standards in order to achieve high yields, regardless of location, climatic conditions;

- Lack of scientific substantiation of processes that may have a negative impact on the environment in the economic development of the region. In 1950, 2.9 million hectares of land in the Aral Sea basin (which occupies a large part of Central Asia) were irrigated. By the 1980s, irrigated area had more than doubled to 7 million hectares. About 95 percent of the total cotton and about 40 percent of the rice were grown here. Irrigated lands in the Aral Sea region also provided the former Soviet Union with 25 percent of vegetables and melons, and 32 percent of fruits and grapes.

The data collected by Sredazgiprovodkhlopok show that the volume of the Aral Sea was 1,059 km in 1950 and 1,095 km in 1960. In 1970, the volume of the sea decreased by 74 km compared to 1960 and amounted to only 985 km1. The main reason for this is the increase in water intake from the Amudarya and Syrdarya for irrigation of agricultural crops and other sectors of the economy. By 1961, the total area of the Aral Sea outside the islands was 66,085.6 km2, and the deepest was exactly 69 meters2. Until the 1960s, the level of the Aral Sea was relatively stable. The annual inflow of the Amudarya and Syrdarya rivers (54 cubic km per year) and atmospheric precipitation (9 cubic km per year) replaced the water lost as a result of evaporation from the sea surface. In the following decades, water consumption increased due to industrial growth and the expansion of irrigated lands, and the drought in a number of years led to a gradual decrease in the flow of river water into the Aral Sea, which eventually led to its complete cessation.

Since the early 1960s, water inflows into the Aral Sea have declined sharply due to a rapid increase in irrigated areas and river water intake for other purposes. It decreased to 35.2 cubic kilometers in 1970 and 10 cubic kilometers in 1980. In 1986, the waters of the Amudarya and Syrdarya did not reach the sea at all. In April 1987, a government commission on the Aral Sea was formed, chaired by Yu.A. Israel was appointed. The Commission has developed measures to prevent the sea from drying up. However, they were not fully implemented. As a result, as he noted, after 15-20 years, the sea has become a swamp of bitter-saline, which is 6-7 times smaller than the original area4. Since the 1960s, the Soviet government has focused on large-scale development of new lands in the Amudarya and Syrdarya basins, a process that required additional withdrawal of river water. In addition, along with cotton growing, rice growing has been highly developed in the country. In 1975, rice was grown on 9,000 hectares of new land in the Karakalpak ASSR alone1. Since the early 1960s, the volume of water in the lower reaches of the Amudarya and Syrdarya has been gradually declining due to excessive water intake for irrigation massifs and natural water shortages. In 1911-1960, the average volume of water flowing into the Aral Sea by both rivers was 52 km, in 1971-1980 it was 16.6 km, and in 1981-1985 it was 4.2 km.

Uncontrolled irrigation of arable lands, mass development of lands, cultivation of cotton in poorly reclamated areas have led to salinization of lands with environmental problems. The constant increase in the amount of cotton, the excessive salinization of arable lands, the relentless use of mineral fertilizers and toxic chemicals have had a negative impact on the environment, water resources, and especially on human health. Irrigated lands in the Aral Sea Basin amounted to 6.9 million hectares. .

It is known that a large amount of irrigation water is required during the development of new lands. During the Soviet era, water authorities used water sparingly for this purpose. As the area under irrigated crops

expanded, so did the water consumption. For example, in Uzbekistan alone in 1975-1985, about 1 million hectares of new land were developed. Huge areas have been developed in other republics as well. As a result, the water of the two great rivers split into canals and irrigation networks, preventing them from reaching the Aral Sea.

CONCLUSION/RECOMMENDATIONS

The development of the Central Fergana and Mirzachul regions has created a number of negative developments, and based on the analysis of the study, the following conclusions can be drawn:

- Irrigation and land reclamation were completely subordinated to the cotton monopoly. In order to implement this policy, cotton occupies almost 75% of the country's arable land. Uzbekistan, a member of the former Soviet Union, specialized mainly in cotton growing, was turned into a raw material base, and 90 percent of the cotton grown was transported to the center. At the same time, the billions in revenue from cotton alone provided the central treasury in its entirety;

-Cotton monopoly tied the Uzbek people to the cotton fields sooner or later and forced them to work hard. They were condemned to a helpless marriage, the amount of taxes increased from year to year, and the cotton-growers were not paid for their labor;

- Based on the essence of cotton monopoly, the Soviet government paid special attention to the high level of development of irrigation and land reclamation in the country. For these purposes, a large amount of capital funds has been allocated from the state budget for the development of these sectors on the basis of five-year plans. In many cases, they were not mastered.

- Irrigation during the Soviet era, including the construction of reservoirs, large irrigation canals and pumping stations for the development of cotton, led to the further development of cotton monopoly in the country.

In the 1960s, a large-scale development of protected, gray and neglected desert lands was carried out not only in Uzbekistan but also in Central Asia. The dictatorial government began to develop the Mirzachul, Jizzakh, Karshi, Surkhan-Sherabad, and Central Fergana reserves in order to harvest crops from previously vacant lands. As a result, the cotton monopoly in the republic has become much stronger than in previous periods. All the reserves in the territory of the republic began to be developed. As a result, the cotton monopoly in the republic has become much stronger than in previous periods. The development of all protected lands in the country has not been fully achieved, and the funds allocated to them have rarely paid off.

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