

**ACTIVITIES OF THE DEPARTMENT OF LAND AND STATE
PROPERTY IN THE IRRIGATION SECTOR OF SAMARKAND
REGION IN TURKESTAN (1897–1917)****Otabek Allayarov**

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Abstract: *This article systematically analyzes the activities of the Department of Land and State Property operating in Turkestan between 1897 and 1917 in the field of irrigation development and regulation within the territory of the Samarkand region. The study is based on archival materials and collections of official documents. Particular attention is devoted to the administrative structure, practical measures, and socio-economic reforms implemented by the colonial administration in the irrigation sphere. The article examines meliorative projects carried out in the region, the construction of new main and branch canals, changes in agrarian relations, and the formation of new cultivated lands. It also explores how the water resources of oasis rivers, especially the Zarafshan River, were mobilized to serve the economic interests of the Russian Empire, primarily in support of cotton monoculture. Furthermore, the study highlights the contradictions that emerged between the Russian administration and the government of the Bukhara Emirate regarding water distribution, as well as the heavy tax burdens imposed on the local population and their negative economic consequences.*

Keywords: *Turkestan region, Department of Land and State Property, Samarkand region, Zarafshan River, irrigation system, water distribution, Bukhara Emirate, Nicholas I Canal, irrigation obligations, tax system, cotton production, resettled population.*

By the last quarter of the nineteenth century, the Russian Empire had begun reforming the administrative and governance system in order to further strengthen its colonial position in Central Asia and systematically exploit all the resources of the region. One of the most important strategic tasks facing the imperial government was reducing the dependence of Russian industry, especially textile factories, on foreign raw materials. In this regard, on June 2, 1897, in accordance with an imperial decree, the Department of Land and State Property was established in Turkestan.

The newly established department was entrusted with broad and highly responsible functions. Its main activities were directed toward achieving the following objectives:

1. To conduct a strict registration of all land and water resources in the region and officially declare them state property.
2. To adapt American cotton varieties to local climatic conditions in order to increase productivity several times and eliminate the need for importing cotton from abroad.
3. To expand agricultural lands in areas with limited water resources or lacking artificial irrigation systems through the construction of new canals and hydraulic engineering structures.
4. To create special land reserves with fertile and well-irrigated lands for Russian peasants resettled from the inner provinces of the empire¹.

A.V. Krivoshein, the head of the Main Administration of Agriculture and Land Organization, to which the Department of Land and State Property in Turkestan was subordinate, visited Turkestan in 1912. During his visit, he stated:

“If we take into account the inevitable future increase in demand for cotton, it becomes impossible not to conclude that the required amount of

¹ Abdurakhimova, N.A., & Ergashev, F.R. *Turkistonda chor mustamlaka tizimi*. Tashkent: “Akademiya” Publishing House, 2002. p. 104.

cotton harvest cannot be obtained without irrigating new lands. Attempts to solve this problem through various indirect and simplified methods, without employing the principal force capable of resolving it fundamentally and directly, must be regarded as futile².”

These statements clearly reveal the colonial nature of imperial policy and reflect the general direction of the department's activities in the field of irrigation.

The Samarkand region, owing to its geographical location, climatic conditions, and irrigation culture that had been formed over centuries, was regarded as one of the principal experimental territories for the implementation of these plans.

During the initial years of its activity, the Department encountered serious difficulties. The most significant of these was the absence of accurate instrumental and geodetic maps of the irrigated lands in the province, as well as the lack of complete and systematic statistical records. The statistical information collected by officials of the imperial administration was often based on oral or traditional data provided by local tax collectors, which did not fully reflect the real situation³.

In order to eliminate these shortcomings, special topographic and hydrological groups were established within the structure of the Department. These groups were entrusted with the task of determining the actual extent of irrigated lands and water resources in each uezd of the province.

As a result of the investigations carried out in 1909, it was established that the total area of cultivated irrigated lands in the Samarkand province amounted to approximately 700 thousand desyatinas.

The territorial distribution of these land areas was as follows:

² Krivoshein, A.V. *Zapiska glavnoupravlyayushchego zemleustroystvom i zemledeliem o poezdke v Turkestanskiy kray v 1912 godu*. In: *Voprosy kolonizatsii*. Saint Petersburg, 1913, No. 12, p. 317.

³ Geyer, I.I. *Turkestan*. Tashkent: Printing House of the Turkestan Partnership of Publishing Affairs, 1909. p. 61.

In the Samarkand and Kattakurgan uezds: 308 thousand desyatinas of the most fertile and productive lands were situated directly along the Zarafshan River and its branches.

In the small mountain valleys: The cultivated lands spread throughout territories such as Urgut and Ohalik amounted to approximately 35 thousand desyatinas.

In the Jizzakh and Khujand uezds: In these districts, located in the northern and eastern parts of the province, all cultivated lands were scattered around smaller rivers such as the Sangzor, Khoja-Boqirgon, and Oqsuv, with their total area comprising approximately 355 thousand desyatinas⁴.

The Zarafshan River was regarded as the heart of life in the oasis and the foundation of its economy. The river originates from enormous glaciers located to the east of Samarkand, at the junction of the Turkestan and Hisor mountain ranges. Near Panjikent, the river valley widens and flows out onto the plain, beginning its life-giving course with an average annual water discharge of approximately 500 million cubic sajens.

The economic and political significance of the Zarafshan River lay in the fact that it served as the only source of water not only for the Samarkand province under the control of the Russian Empire, but also for the territories of the semi-colonial Bukhara Emirate. After irrigating 241,700 desyatinas of land within the Russian possessions, the waters of the Zarafshan entered the territory of the Bukhara Emirate, where they further irrigated another 279,000 desyatinas of land. This situation gave rise to continuous disputes and conflicts between the two administrations over the distribution of water resources.

When discussing the legal regulation of this issue, particular attention should be paid to the decisions of the special Russian–Bukhara Commission

⁴ *Obzor Samarkandskoy oblasti za 1909 god.* Samarkand: Typo-Lithography of the Partnership of B. Gazarov and K. Sliyanov, 1912. p. 33.

established in 1902. According to the agreement, the waters of the river were to be distributed between the two territories according to a strict ratio of 2:1. In other words, exactly one-third ($1/3$) of the total volume of the river's water was required to be allocated to meet the needs of the peasants of the Bukhara Emirate. In order to supervise the implementation of this regulation, district irrigation chiefs and hydrometric stations were appointed as responsible authorities.

However, because of the extreme obsolescence of technical equipment and the dependence of the river flow on natural fluctuations, the government of Bukhara continuously submitted complaints and protest letters regarding the insufficient supply of water reaching its territories⁵. This situation demonstrates that the Russian Empire also used the Zarafshan River as an instrument of political pressure against the Bukhara Emirate.

Although the colonial government developed extensive plans for the modernization of irrigation systems, in practice the entire heavy economic burden of maintaining and repairing all traditional irrigation networks, canals, and dams was placed completely upon the local peasants. In addition to the general taxes paid to the state, the local population was compelled to fulfill three major natural and monetary obligations. These included:

- Expenses related to combating locust invasions.
- The obligation to repair public roads and bridges.
- Most importantly, the so-called "irrigation obligations," namely the artificial irrigation tax.

Statistical analyses preserved in archival documents demonstrate that the total monetary value of the compulsory labor annually mobilized for the repair and maintenance of canals amounted to 1,018,197 soums. The value of

⁵ Rizenkampf, G.K. *Problemy orosheniya Turkestana. Vypusk pervyy. Orositelnaya khlopkovaya programma*. Moscow: Kuznetskiy Lane, 3, 1921. p. 72.

materials forcibly collected from the population for construction works, including timber, reeds, branches, and fodder, was estimated at 105,888 soums.

Thus, every year the local population paid the state the equivalent of 1,124,085 soums in the form of unpaid labor and material resources solely for the maintenance and functioning of the irrigation system⁶.

These obligations led peasant households into a deep economic crisis. During the most intensive periods of spring sowing, cultivation, and irrigation, thousands of able-bodied men were forced to abandon their own lands and were compulsorily mobilized for weeks to repair state-owned dams or the embankments of large main canals. This directly caused delays in agricultural activities and resulted in a decline in productivity and harvest yields.

By the beginning of the twentieth century, it had become evident that the financial resources of the state treasury were insufficient to fund all large-scale irrigation projects simultaneously. For this reason, the tsarist government initiated legal reforms aimed at attracting Russian and foreign private capital into the irrigation sector of Turkestan. After several years of discussions, important legislative acts were adopted by the State Council at the end of 1912 and in April 1913.

Among these laws, particular significance was attached to the law “On Carrying Out Irrigation Works in Turkestan through Private Investments.” According to the new regulations, the state introduced a system whereby large irrigated territories could be transferred to private companies or investors under long-term contracts⁷. In modern terminology, these contracts were distributed on the basis of a tender system — that is, through competition among investors who presented the most effective, economical, and technologically advanced hydraulic engineering projects.

⁶ Nazirov, B., & Yaqubova, D. *O'zbekistonda yer-suv munosabatlari tarixi (qadimgi davrdan hozirgi kunga qadar)*. Termiz: “Bekshox Print Servis”, 2023. p. 339.

⁷ Boltaev, A. *O'zbekistonning dehqonchilik madaniyati tarixi (Sirdaryo va Jizzax vohalari misolida)*. Monograph. Jizzakh, 2024. p. 33.

According to the new legal norms, land and water facilities covering a total area of more than 5 thousand desyatinas and leased for a minimum contractual period of 36 years were officially classified as “Large Irrigation Enterprises.” Such enterprises were granted special tax privileges and state guarantees⁸.

During the course of the Department’s activities, not only theoretical plans but also a number of major practical projects were implemented. One of the largest structures constructed by the state was the Emperor Nicholas I Canal, built in the Mirzachul steppe and associated with Grand Duke Nikolai Konstantinovich. This enormous canal brought life to thousands of hectares of barren steppe lands and added more than 12 thousand desyatinas of new fertile territories to the category of regularly irrigated lands. In a short period of time, new Russian settlements and cotton-growing farms were established in these areas⁹.

The operation and administration of the canal were transferred entirely under the control of the resettled population by the Department.

An analysis of archival documents, particularly document No. 5162 of April 3, 1909, issued by the Office of the Governor-General, together with the official response letter No. 4332 sent by the head of the Department of Land and State Property in Turkestan, makes it possible to clearly observe the practical problems of that period. According to these documents, the administration of the Samarkand province, under the leadership of engineer N.N. Psarev, developed a project for a special water-distribution structure designed to ensure the precise and equitable allocation of water among the Khurmo, O‘rta-Bozor, Juyruk, and Og‘ajon canals branching off from the Mirza canal.

⁸ Boltaev, A. *O‘zbekistonning dehqonchilik madaniyati tarixi (Sirdaryo va Jizzax vohalari misolida)*. Monograph. Jizzakh, 2024. p. 33.

⁹ Masalskiy, V. *Rossiya. Polnoye geograficheskoye opisaniye nashego otechestva. Nastolnaya i dorozhnaya kniga. Tom 12. Turkestanskiy kray*. Saint Petersburg: Publishing House of A.F. Devrien, 1913. p. 430.

Two separate engineering cost estimates were prepared for the construction of this structure. The first estimate amounted to 4,410 rubles, while the second, which envisaged the use of stronger and more durable construction materials, was calculated at 6,772 rubles.

The documents also contain the minutes of special commission meetings dedicated to the radical reconstruction and widening of the channel of the well-known Dalvarzin canal. These materials demonstrate that the colonial administration sought to elevate the irrigation system to a more advanced engineering and technical level¹⁰.

Despite the implementation of several major projects, however, the overall irrigation network of the Samarkand province remained largely based on ancient methods that had developed over centuries and was in a highly unsatisfactory technical condition. The head sections of the main canals and irrigation ditches consisted of traditional temporary dams built from mud, branches, reeds, and stones placed directly within the riverbed. Every year, during the spring floods and seasonal rises in water level, the river current would easily wash away these dams. As a result, the canals were either destroyed by excessive flows of water or, conversely, left completely without water after the collapse of the embankments.

Such temporary and outdated constructions made it absolutely impossible to accurately measure water consumption, systematically regulate water distribution, and, most importantly, ensure the economical use of water resources. Another serious problem was the almost complete absence of drainage canals. As a consequence, excess water from irrigated lands could not properly flow away and instead accumulated in lowland areas, gradually turning large rice fields and surrounding riverbanks into marshlands¹¹.

¹⁰ National Archive of Uzbekistan, Fund I-7, Inventory 1, File 3038, folio 7.

¹¹ Rizenkamp, G.K. *Problemy orosheniya Turkestana. Vypusk pervyy. Orositelnaya khlopkovaya programma*. Moscow: Kuznetskiy Lane, 3, 1921. p. 72.

Hydrotechnical scholars and specialists of the Department at that time emphasized that the only effective solution to this problem was the construction of large mountain reservoirs in the upper reaches of the Zarafshan River in order to store water reserves for the summer drought period, as well as the reconstruction of the outdated canal systems on the basis of modern engineering principles. According to official calculations, if such meliorative measures had been implemented, the productivity and annual net profitability of the lands could have increased by at least 20 percent, while the additional income obtained from each desyatina of land might have reached up to 58 rubles¹².

The irrigation activities carried out by the Department of Land and State Property in the Samarkand province between 1897 and 1917 left a profound mark on the agrarian and economic history of the region. This activity possessed a dual and contradictory character.

On the one hand, the imperial administration undertook large-scale measures aimed at transforming the region into a raw cotton base for the Russian Empire. Modern engineering structures, such as the Emperor Nicholas I Canal, were constructed, and new fertile lands were brought into agricultural circulation.

On the other hand, however, the entire burden of the system — including taxes and “irrigation obligations” — was imposed upon the local peasantry, which impoverished the population of the region and deepened the agrarian crisis. Due to technical backwardness and the reliance on temporary dam systems, it proved impossible to establish a fully fair and stable distribution of water between Russia and the Bukhara Emirate.

Nevertheless, the hydrological research conducted during these years, together with the maps that were produced and the engineering experience that

¹² National Archive of Uzbekistan, Fund I-7, Inventory 1, File 4591, folio 18a.

was accumulated, later acquired significant scientific and practical importance for the creation of large-scale irrigation systems in the Zarafshan Valley.

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