# AGRICULTURAL ECONOMY IN THE FERGANA VALLEY IN THE LATE 19TH AND EARLY 20TH CENTURY

Khaydarov Abdulkhodi
*Independent researcher of the National University of Uzbekistan named after Mirzo Ulugbek*

**Abstract:** *This article explores the transformation of the agricultural economy in the Fergana Valley during the late 19th and early 20th centuries under Russian imperial rule. Using the scientifical methods, it analyzes changes in cropping patterns, irrigation infrastructure, land tenure systems, and population dynamics. Drawing on archival data, Tsarist-era statistical records, and modern historical scholarship, the study demonstrates how the introduction of American cotton varieties, expansion of irrigation, and colonial policies led to a shift toward a cotton-dominated cash-crop economy. The article also examines the socio-economic consequences of these changes, including rising peasant indebtedness, demographic shifts, and the partial integration of Fergana's rural population into imperial market systems. Despite infrastructural improvements and increased yields, the research reveals that colonial agricultural policy often failed to provide long-term sustainability for local farmers. The findings contribute to a broader understanding of the colonial legacy in Central Asian agrarian development and its enduring impact on regional agricultural practices.*

**Keywords:** *agriculture, economy, Fergana valley, Kokand Khanate, Russian imperia, irrigation.*

**Аннотация**: *В статье рассматривается трансформация аграрного хозяйства Ферганской долины в конце XIX — начале XX века в условиях российской колониальной политики. На основе научных методов анализируются изменения в земледелии, системе ирригации, земельных отношениях и социально-экономическом положении населения. Используя архивные данные, статистические обзоры Ферганской области периода Российской империи и современные исторические исследования, автор показывает, что внедрение американских сортов хлопка, расширение оросительных сетей и проведение имперских реформ привели к формированию в регионе хлопкоориентированной хозяйственной модели. Особое внимание уделено последствиям этих процессов: росту задолженности крестьян, демографическим сдвигам, усилению зависимости местного населения от рынка и финансовых институтов. Несмотря на повышение урожайности и развитие инфраструктуры, колониальная политика в аграрной сфере не обеспечила устойчивого развития для местных земледельцев. Результаты исследования раскрывают двойственный характер модернизации в Ферганской долине и позволяют глубже понять специфику колониального наследия в сельском хозяйстве Центральной Азии.*

**Ключевые слова**: *сельское хозяйство, экономика, Ферганская долина, Кокандское ханство, Российская империя, ирригация.*

## INTRODUCTION

The Fergana Valley – a fertile basin spanning today's Uzbekistan, Kyrgyzstan and Tajikistan – was a densely cultivated and intensively irrigated oasis in Central Asia. After the Russian conquest of the Kokand Khanate (1876), Tsarist officials eyed Fergana as a source of raw cotton for Russia's textile mills and sought to transform its agrarian economy. By the late 19th century sedentary farming dominated: local peasants grew wheat, barley and sorghum on rainfed soils, and under irrigation cultivated rice, cotton, vegetables and orchards. Villages held communal water rights to simple canal networks, and plows and hoes remained the main farm tools. Against this backdrop, our study examines how Fergana's agriculture evolved between the 1870s and World War I, focusing on cropping patterns, irrigation development, colonial land policy and their social impacts. It draws on Tsarist-period statistics and recent scholarship to chart the quantitative and institutional changes of that era.

### Methods

We conducted a historical-economic analysis using both primary and secondary sources. Key data were extracted from official Tsarist publications (such as Statisticheskiy obzor Ferganskoy oblasti), Russian colonial reports and period maps, supplemented by modern research on Central Asian agrarian history. In particular, we rely on archival statistics for crop areas and yields (e.g. Fergana Oblast surveys of 1904, 1913) and on contemporary studies (e.g. Matley (1994) and Alimdjanov (2024)) that analyze these figures. Qualitative interpretation is supported by scholarly accounts of irrigation projects and colonial policy. Together, these sources allow a detailed reconstruction of Fergana's late 19th/early 20th century agrarian economy.

### Results

In the precolonial and early colonial period, Fergana's agriculture remained multi-crop and labor-intensive. Staple grains were sown extensively on rainfed lands: wheat, barley and sorghum predominated, with minor dry-farmed areas on upland soils. Irrigated farming – critical in the valley's climate – included both food and cash crops. Where adequate water was available, peasants grew rice and alfalfa; alfalfa often rotated with cotton as livestock fodder. Local farmers also cultivated a diversity of vegetables and fruits: melons, gourds, apricots, plums and grapes were widely grown on small holdings. In addition, mulberry trees were common (for silk), and livestock rearing (sheep, cattle, goats) complemented farming on every household.

These traditional practices were handicapped by primitive tools and land tenure. The main farm implements remained the wooden ketman hoe and small plow (amāj), and crop rotation was minimal. Agricultural land was organized as communal mir-regulated holdings; each village jointly managed a few earthen canals and water was treated as collective property. This meant that even as late as 1910, most arable land could be irrigated only by simple gravity canals maintained by peasant labor. Industrialization was virtually absent: the only significant "industry" in the region was small-scale processing of farm produce (cotton ginning, wool carding, silk reeling), and even these operated on a cottage

scale. In short, Fergana on the eve of major colonial change was still a peasant economy of smallholdings, diverse cropping and communal irrigation.

Under Tsarist rule, Russian authorities pursued policies to reshape this agrarian economy, with mixed results. A central aim was to boost cotton cultivation as a "white gold" crop. Governor-Generals and later ministries introduced incentives to enlarge cotton acreage. For example, in the early 20th century the administration granted tax breaks for fields sown with high-yield American cotton varieties, a measure intended to induce farmers to replace lower-quality local cotton. At the same time, colonial officials undertook land surveys and cadastral reforms, but private land ownership remained severely restricted. As one recent study notes, "lack of clear economic laws and the restriction of private ownership of land in Fergana [valley] hindered the development of cotton farming". In practice, communal tenure (the mir system) survived, and land could rarely be sold or consolidated into larger farms.

Tsarist policy also involved resettlement and taxation measures. Small numbers of Russian and Cossack peasants were moved onto newly irrigated "virgin" land (see below), and the state levied land taxes on local peasants – initially a general 10% of expected crop value, with later preferential rates for cotton. Importantly, most of these initiatives came from local military-administrators rather than imperial planners. Historian Beatrice Penati argues that key policies (like the American-cotton tax break) were "forced on the imperial government" by colonial officials in Tashkent, reflecting on-the-ground needs rather than a grand Moscow scheme. Thus, while the Tsarist regime clearly promoted cotton (seeing Central Asia as a future cotton granary), it did so unevenly: farmers were given some incentives but little land freedom, so many remained tied to traditional communal farming even as they grew more cotton.

The demographic composition of the valley also shifted modestly under Russian rule. By 1897, over 90% of Fergana's 1.57 million residents were Central Asian (mostly Uzbeks/Sarts, Tajiks, Kyrgyz), with Europeans (Russians, etc.) barely 0.5%. Even by 1914 the Russian-speaking share remained small. However, new irrigation projects drew waves of settler families into frontier zones, as described below. Urban centers (Kokand, Namangan, Andijan) also grew as market towns and transit points for cotton. In sum, Tsarist land and resettlement policies brought some newcomers and a cash-crop mentality, but the core rural population remained indigenous peasant communities, now more closely integrated into the imperial economy.

The agricultural transformation had significant social consequences. The new irrigation schemes and land reclamations drew waves of settlers and altered living conditions for many. For example, after the Romanovsky Canal opened in 1913, new Russian peasant colonies were founded on the formerly barren northern steppe. By 1917 some 17 new settlements (housing about 3,677 families) had been established on these lands. In addition, the canal provided free irrigation to existing Central Asian villages downstream: one report notes that the kishlaks of Begovat district (Tajikistan) suddenly had ample water and thus "their population began to grow and quite settled farms were formed". In other words, free water led to more stable agriculture and modest demographic growth in irrigated areas.

However, life for farmers was not always easy. Contemporary accounts describe the perils of the new cultivation zones: malaria and periodic locust invasions devastated early crops, and peasants had to learn to manage salinity and irrigation laziness for the first time. As one historian of the canal project observed, "life was initially quite difficult. Malaria was often rampant. Frequent plagues of locusts were a disaster". Over time, though, diligent settlers overcame these obstacles and "life flourished" on the new farms.

For indigenous dehkans (peasant households), the shift to cash-cropping had mixed effects. Some accumulated considerable profit in boom years, but many also became indebted. High loan rates and credit practices by emerging banks and traders created financial stress. Archival studies indicate that by the 1910s many Fergana peasants were heavily in debt to financiers, a condition exacerbated by cotton price fluctuations. Indeed, an economic crisis hit Fergana in 1911–13, not because of shortages but because of "the carelessness of banks" and an imbalance between producers, financiers and the global market. In sum, local livelihoods grew in scale and complexity – with bigger harvests and more cash – but also with greater risk, indebtedness and exposure to market vicissitudes.

Discussion

By the eve of World War I, the Fergana Valley's agricultural economy had been fundamentally reoriented by Russian colonial rule. Traditional village farming was overlaid by a predominantly cotton-based, market-oriented system. This change was driven by imperial policy, improved (if still basic) infrastructure, and active local uptake. The rapid expansion of cotton acreage (from a few thousand to hundreds of thousands of hectares) and the introduction of high-yield varieties testify to this shift. Irrigation networks – while still operated with simple tools – were extended to bring more land under cultivation, and new rail links integrated Fergana into the imperial economy. Russian policies (tax incentives, subsidies, settling peasants on virgin land) clearly accelerated cotton growth, but they did not dismantle the communal land regime. As a result, most plots remained small and village-managed, limiting long-term productivity growth.

The socioeconomic outcomes were similarly ambivalent. On the one hand, cotton brought wealth into the valley and improved transportation and market access for all crops. Farmers who could exploit new lands or varieties often did well. On the other hand, the focus on a single cash crop made the economy fragile. Several years of bad cotton prices or crop failures led to widespread hardship and debt. The 1911–13 crisis, for example, demonstrated that even healthy cotton harvests could not shelter Fergana if financial practices were poor. Moreover, colonial land policy bred resentment: peasants paid taxes and debts on land they could not freely own or sell, fueling later unrest.

In terms of demographics, the valley's population continued to grow modestly under Tsarist rule (driven by higher yields and some inward migration), but ethnic balances remained essentially the same – overwhelmingly Central Asian. The handful of new Russian settlements in the irrigated frontiers did add a few tens of thousands of Europeans to the statistics by 1917, but Uzbeks, Tajiks and Kyrgyz remained the majority on the land. For these indigenous farmers, the transformation meant moving to a more cash-intensive

farming style, which in turn altered social relations and village life (e.g. crop-sharing gave way to rent or sharecropping in some places).

Conclusion.

In conclusion, the late 19th and early 20th century saw Fergana's agricultural economy evolve from a subsistence-based, diverse system into a colonial-era cash-crop economy dominated by cotton. This process was driven by Russian policy (irrigation projects, railroads, tax incentives) but also by the agency of local farmers responding to market signals. The result was a significant increase in output – for example, total cotton production in the valley rose from essentially zero in the 1870s to hundreds of thousands of tons by 1915 – but also new vulnerabilities.

These developments set the stage for the further expansion and mechanization of cotton cultivation under the Soviet regime, yet by 1917 the Fergana peasantry was already deeply indebted and partly in revolt.

Our findings underscore the complex legacy of the Tsarist period: it modernized Fergana's farms in some ways, but did so on colonial terms that often disadvantaged the local peasantry.

## REFERENCES:

1. Abdullaev, O. (1995). Namangan region (Nature, population, economy). Namangan: Namangan Regional Publishing Department.

2. Abdurakhimova, N., & Ergashev, F. (2002). Tsarist colonial system in Turkestan. Tashkent: Academy (Fan).

3. Fedorov, E. G. (1925). Ocherki natsional'no-osvoboditel'nogo dvizheniya v Sredney Azii. Tashkent: Gosizdat UzSSR.

4. Fergana Regional State Archive (Fergana, Uzbekistan). (n.d.). Fund 1022, List 1, Case 87, pp. 28, 35.

5. Istoriya Turkestana (s momenta prisoedineniya Sredney Azii k Rossii do nastoyashchego vremeni) [History of Turkestan]. (1984). Tashkent: Fan.

6. Kasimbekov, K. F. (1978). Iz istorii narodnykh dvizhenii v Ferganskoi oblasti v kontse XIX – nachale XX veka. Tashkent: Fan.

7. Lutfullo, O. (1926). Krovavye i gorkie dni [Bloody and Sad Days]. Yerd (11).

8. Middendorf, A. F. (1882). Ocherki Ferganskoi doliny. St. Petersburg: Imperial Academy of Sciences.

9. National Archives of the Republic of Uzbekistan (Tashkent). (n.d.). Fund 58, List 17, Case 26, p. 244.

10. Olimiy, L. (1926). Krovavye i gorkie dni. Yerd, no. 11.

11. Palen, K. K. (1910). Zemskaya ferma. St. Petersburg: [Government Printing Office].

12. Qazokov, T. (1999, August 6). Sovremennaya sud'ba Ferghana. Adabiyot va San'at.

13. Savitsky, A. P. (1956). Nekotorye dannye ob islamskikh uchebnykh zavedeniyakh i roli tsarskikh vlastey v Turkestane. Trudy SAGU, (6).

14.Spoor, M. (2005). Cotton in Central Asia: Curse or foundation for sustainable development? Paper presented at the Cotton in Central Asia Conference, School of Oriental and African Studies, London, UK.

15.Statisticheskiĭ obzor Ferganskoi oblasti za 1887 god. (1889). Novyi Margelan.

16.Statisticheskiĭ obzor Ferganskoi oblasti za 1897 god. (1899). Novyi Margelan.

17.Statisticheskiĭ obzor Ferganskoi oblasti za 1913 god. (1916). Skobelev.

18.Statisticheskiĭ obzor Ferganskoi oblasti za 1914 god. (1917). Skobelev.

19.Usarov, U. (2019). Some comments on the irrigation system and agriculture of the Fergana Valley in the early 19th–20th centuries. Vesti KarSU (Special Issue).

20. Yakubov, B. (1954). Bor'ba za ustanovlenie sovetskoi vlasti v Ferganskoi doline. Tashkent: Kyzyl Uzbekistan.

21.Ziyoev, H. (1998). Bor'ba protiv russkoi agressii i dominatsii v Turkestane. Tashkent: Sharq.

22. Ziyoev, H. (2006). Uzbekistan v ioke kolonializma i ugneteniya (vtoraya polovina XIX – nachalo XX veka). Tashkent: Sharq.