

How did the Nomads Act during the 1916 Revolt in Russian Turkistan?

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Abstract: This study applies the Geographic Information System (GIS) to the historical studies of the 1916 revolt in Central Asia and specifically investigates the role of the nomads in this revolt. This historical GIS research compares nomads in Ferghana, Samarkand and Semirechie provinces to examine the relationship between the socio-economic situation and the uprisings and particularly analyzes agriculture and Russian migration in nomadic area. This study shows that the Russian policy regarding the nomads was implemented without principle. Although some nomads could secure profits, most lost their land or water. The socio-economic conditions of the nomads were forcefully changed, and they participated in the 1916 revolt. Though the specific cause of the revolt was determined by various factors, this study suggests there may be correlations between the colonial economic policy of the Russian Empire and the course of the revolt.

Keywords: Turkistan, The 1916 revolt, nomadism, agriculture, irrigation

1. Introduction

This study applies the Geographic Information System (GIS) to historical studies of Central Asia. It uses the 1916 revolt in Turkistan as an example, and specifically investigates the role of the nomads in this revolt. Although the relationship between Russian colonial policy and the revolt of the nomads is important, few historical documents are available on the subject. Nevertheless, research using GIS can clarify more detailed relationships.

This study compares four geographic areas to examine the relationship between the socio-economic situation and the uprisings among the nomadic societies in Turkistan. Nomads had

lived in the region for a long time, and Russian peasants began migrating to nomadic areas mainly after the 19th century. As previous studies show, Russian migration and land expropriation from nomads were important causes of the revolt of the nomads. However, the course of events leading to the 1916 revolt varied according to geographical area.

Section II provides a general introduction and the developments of the revolts. In sections III and IV, this study primarily examines the nomads in Ferghana Province, the Hungry Steppe, and the Tair-Sheikh Steppe⁽¹⁾ from a fact finding level, but it only refers to Semirechie as it has been investigated in previous studies.

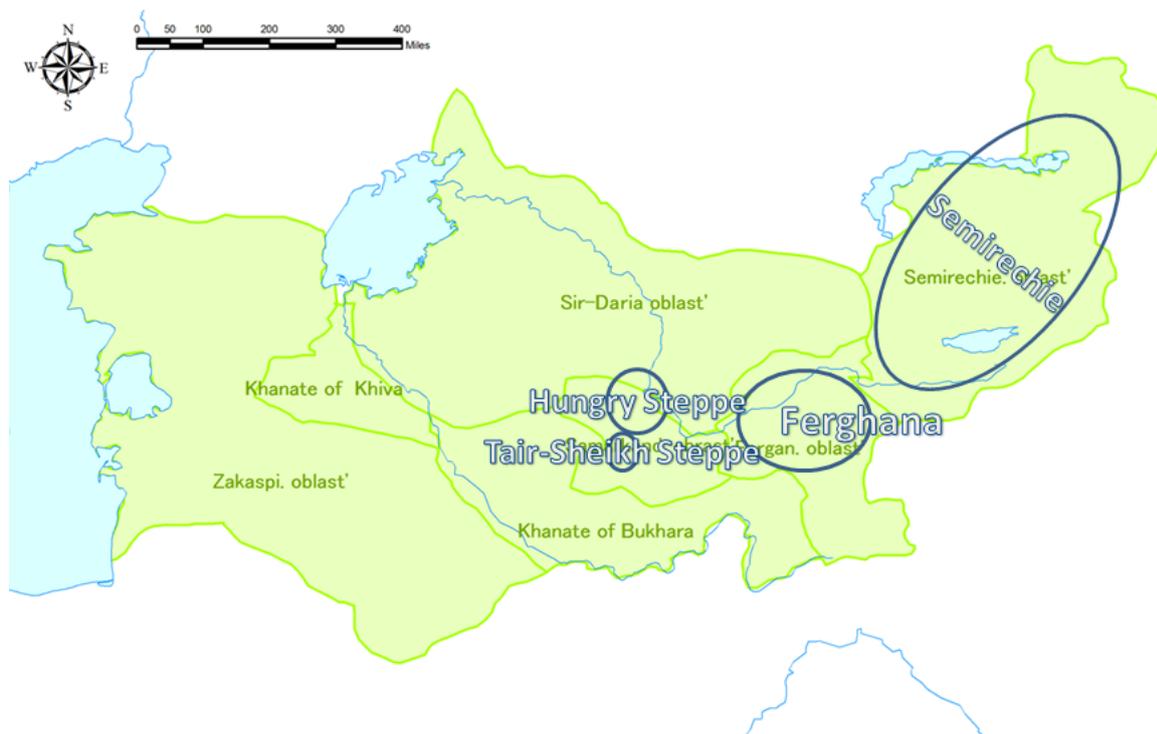


Figure 1 Russian Turkistan.

The nomads of Turkistan

With the annexation of the Khanate of Kokand in 1876, Russia completed its conquest of Central Asia. Russian Central Asia was generally divided into a northern steppe area and a southern oasis area. In the northern area, most natives were of nomadic descent and lived not only in the Steppe provinces but also in Turkistan. In particular, they occupied the foothills and deserts of Turkistan. The historical term “nomads” (кочевник), as it appeared under Russian rule, referred to a category in the country’s taxation system.⁽²⁾ It did not usually imply that the people categorized under this label followed a nomadic lifestyle. Therefore, in this study, the term “nomads” generally refers to the administrative group categorized by the Russian authorities.

Figure 2 shows the characteristics of Russian Central Asia. Most stockbreeders, who were primarily nomads, lived in the Steppe provinces; however, some lived in Turkistan, especially in the Semirechie, Syr-Darya, northern part of Zakaspi, and western part of Samarkand Province. Figure 2 also illustrates the difference in population density between the Steppe provinces and Turkistan. In other words, agriculture facilitated higher population density. The concentrated population in the Ferghana Valley was a notable example of this tendency.⁽³⁾

Regarding the ethnicity of nomads, in Ferghana Province and the southern part of Semirechie Province, most nomads were Kyrgyz, while Kazakh nomads occupied the Hungry Steppe, the Tair-Sheikh Steppe, and the northern part of Semirechie Province.

2. The 1916 revolt

The edict on June 25, 1916, which ordered native males of Turkistan and other areas to work behind the rear of Russia’s

forces fighting in World War I, provoked massive rebellions in Russian Central Asia. The scale and spread of the 1916 revolt were unprecedented.

Soviet researchers have argued that the 1916 revolt was an anti-imperial and anti-feudal mass movement; however, in some areas, reactionaries agitated the masses and provoked them to attack Russian immigrants and officials (Tursunov 1962: 234-235). On the other hand, American researcher R. A. Pierce indicates that most natives regarded the Russians as interlopers (Pierce 1960: 295-296). Japanese researchers Nishiyama and Nishijima examined the differences in Russian policy in the settled and nomadic areas (Nishiyama 1990: 65-106, Nishijima 1994: 24-43).

In Turkistan, the Russian authorities created almost all funds for the land for Russian peasants by sacrificing nomadic pasture lands. In other words, Russian land policies primarily affected nomadic society, and the Russian influence on Central Asian society can be examined by analyzing the revolt of the nomads in Turkistan. However, previous studies of the nomads’ revolt in Turkistan, such as that conducted by Nishiyama Katsunori (1990), only examine Semirechie, where most natives, as in the Steppe provinces, were nomadic Kazakh and Kyrgyz. In Semirechie, a violent civil war broke out between Russian immigrants and Kazakh/Kyrgyz nomads. Before the revolt, Russian authorities strongly encouraged the migration of Russian peasants and expropriation of the nomads’ land on a massive scale (Nishiyama 1989: 42-43, 48-49). After the revolt, Governor General A. N. Kuropatkin recognized that land expropriation from the nomads in Semirechie Province intensified the revolt (Galuzo 1929: 51, 65).

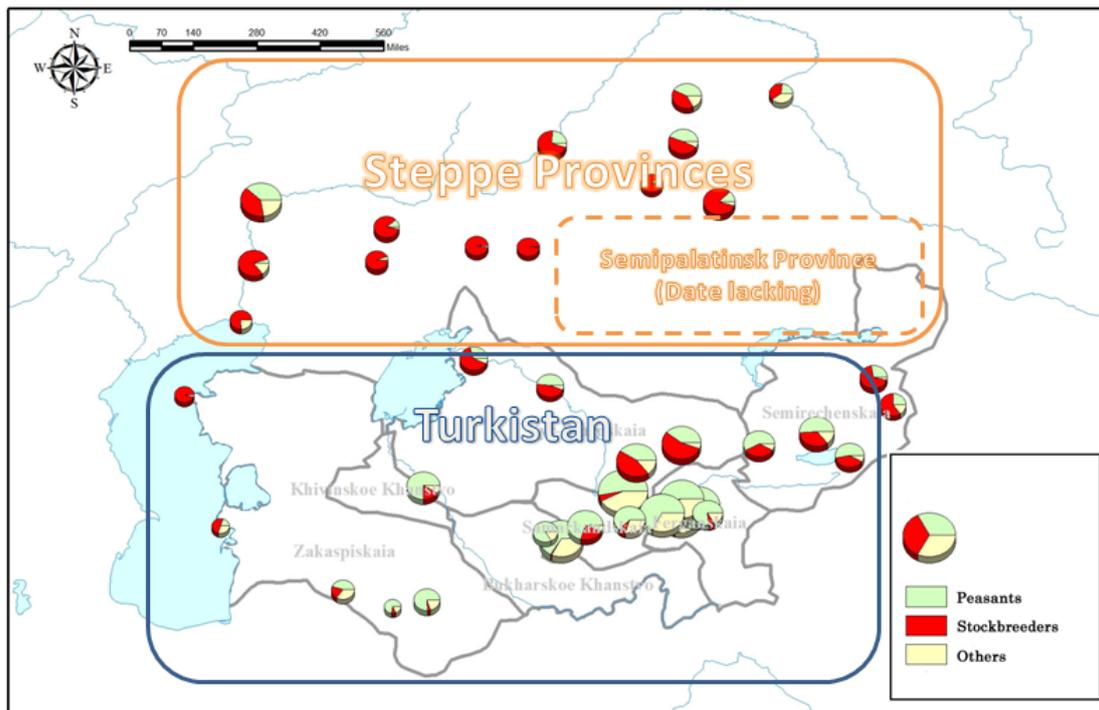


Figure 2 Population of Russian Central Asia in 1897. Source: PVP (1899-1905).

Previous research concerning the nomadic areas in Turkistan where the settled and nomadic groups lived closely, such as Ferghana and the Hungry Steppe, is incomplete. Therefore, this study analyzes Ferghana Province, the Hungry Steppe, and the Tair-Sheikh Steppe, and posits that a number of the processes behind the revolt derived from socio-economic differences, particularly in terms of contradictions in societies and social unrest under Russian rule.

The course of the revolt

The first uprising began on July 4 in the city of Xojant in Samarkand Province and involved urban settled people. Uprisings rapidly spread to other areas in Samarkand and Ferghana provinces. On July 13, unrest broke out in Jizzakh, and 83 Russians were killed by rebels. In Semirechie Province, where Russian settlers had expropriated the land of native Kyrgyz nomads on a massive scale, uprisings commenced on August 6 and rapidly spread throughout the province. Many died, including 2,222 settlers who were killed by the rebels. Russian troops ended the revolt in Semirechie Province in early September. However, the revolt spread to the northern Steppe provinces. In Turgai Province, Kazakh leader Amangeldy Imanov organized the rebels and laid siege to the city of Turgai. He stopped the revolt only after the Russian February Revolution (Zenkovsky 1967: 133-136).

Nishijima (1994: 31-34) noted that the various uprisings across Turkistan had common traits. For example, mass protests against making labor-related lists and conflicts between the native county officials and the masses were common. However, the revolts in each area of Turkistan had local characteristics.

In the cases of Ferghana Province, the Hungry Steppe, and the Tair-Sheikh Steppe, the behavior of the nomads can be described as follows:

In settled areas in Ferghana Province, the Uzbek, Sart, Tajik, and settled Kyrgyz people rebelled by attacking native officials. The uprisings were suppressed by the Russian army in September (IKSSR 2 1986: 337-338, Vosstanie 1932: 62). In nomadic areas, too, rebels attacked native officials (Usenbaev 1997: 67-68, 73-75, 78, Vosstanie 1960: 338-339). Uprisings in the mountain area continued into late October. Many rebels escaped with their livestock to the interior of the Tian Shan mountain range, Semirechie Province, or Xinjiang in China (Usenbaev 1997: 67-68, 73-75, 78, Vosstanie 1960: 338-339).

The southern part of the Hungry Steppe lies in Jizzakh County. In the revolt in Jizzakh County, more than 80 Russians were killed (Vosstanie 1932: 31). The rebels in Jizzakh were primarily the settled Muslim population; the nomads in the Hungry Steppe did not participate in the revolt, in spite of an appeal by the rebels in Jizzakh.⁽⁴⁾ Because of tensions among the nomads in the Hungry Steppe, the Russian chief of police visited the nomadic area in order to assuage them. During his visit, a violent uprising occurred in Jizzakh County; thus, he returned to Jizzakh across the Hungry Steppe escorted by 30 Kyrgyz men (Vosstanie 1960: 117-119).

The Tair-Sheikh Steppe was a part of Kattakurgan County. Here, rebels consisted of both nomads and members of the set-

tled Muslim population. In the village of Mitan in the Tair-Sheikh Steppe, 3,000–4,000 people gathered and prevented the county chief from receiving a message from the chief of police (Vosstanie 1932: 23-25).

In Ferghana Province, the rebels attacked native government officials who had requisitioned materials and labor. Although there were violent uprisings in neighboring areas, uprisings did not occur in the Hungry Steppe. The Tair-Sheikh Steppe, however, saw a mass protest movement against Russian authorities. The following sections reconstruct the socio-economic conditions of the nomads in each area and demonstrate the relationship between the uprisings and the socio-economic situations

3. Ferghana

Information regarding the nomads' uprising in Ferghana Province is limited. Although a comprehensive Soviet study about the 1916 revolt was published in 1962, it did not mention the uprising of the nomads in Ferghana Province (Tursunov 1962). Later, K. Usenbaev published several books containing information about the uprisings of the Kyrgyz nomads in Ferghana Province by not only consulting historical documents but also analyzing oral sources (Usenbaev 1997).

As for the socio-economic change under the Russian rule in Ferghana Province, the population of Kyrgyz nomads doubled, increasing from 72,000 in 1889 to 158,000 in 1914 (SOF za 1889: 47 SOF za 1914: pri. 2.).⁽⁵⁾ During the same period, the total population in Ferghana Province also doubled, from approximately 950,000 in 1890 to 2,200,000 in 1914 (Hedin 1978: 198, SOF za 1914: pri. 2.).⁽⁶⁾

This chapter proposes to look at the economic causes behind this population increase and reexamines the effect of the revolt on nomadic society. In other words, this chapter analyses the effect of the revolt as the collapse of the economic system formed under Russian rule.

Russian authorities encouraged native farmers in Turkistan to cultivate cotton for the benefit of the country's textile industry. Thus, various measures were adopted in Turkistan. First, a tax preference for cotton cultivation was enacted and the Russian National Bank organized credit cooperatives to provide financial support to cotton farmers. The Russian authorities improved the variety of cotton and hastened the popularization of American cotton (upland cotton, *Gossypium hirsutum* L.) in Central Asia. Furthermore, the strict policy on imported cotton aided the organization of cotton monoculture in Turkistan. In 1878, the duty on imported cotton was 0.4 rubles per pud (16.38 kg), but in 1900, that rose to 4.15 rubles per pud. By 1913, Turkistan produced four-fifths of the cotton in the entire Russian empire, and Ferghana Province produced three-fourths of the cotton in Turkistan (Aziatskaia Rossiia 2 1914: 275-298).

The GIS analysis of agriculture (Figure 3) indicates that the cotton monoculture in Ferghana Province occupied the central area of the province, irrigated by canals from rivers such as the Syr-Darya, Sokh, and Isfara. The irrigation system in the Ferghana Valley was expanded during the time of the Khanate of Kokand. On the other hand, at the base of the mountains and foothills, wheat cultivation was common. Here, the only usable

water resources were restricted to small streams in narrow valleys and rainfall. In the climate of Central Asia, cotton and rice can be cultivated only on irrigated farmland, while wheat may be grown on rain-fed farmland. The base of the mountains and foothills are suitable for rain-fed cultivation because the rainfall in this area is greater than in the Ferghana Valley. For example, in the city of Osh (about 1,000 m above sea level), annual precipitation was 333 mm.⁽⁷⁾ Osh was situated in a transitional area between the nomads and the settled Muslim population. The cities in the Ferghana Valley generally had lower annual precipitation; for example, in Namangan (476 m) annual precipitation was only 182 mm; in the city of Ferghana (580 m), it was 171

mm;⁽⁸⁾ and in Andijan (491 m), it was 210mm.⁽⁹⁾ In general, annual precipitation in the Ferghana Valley was about 200 mm or less. In contrast, at the base of the mountains and foothills, annual precipitation exceeded 300 mm.

Other information can be inferred from the GIS map (Figure 3). For example, large rice fields were located in the eastern part of the valley. Compared with cotton, the rice fields were located on higher farmland. Comparing Figure 3 (agriculture map) and Figure 4 (ethnicity map), the GIS analysis suggests that settled Muslim groups such as the Uzbeks, Sarts, and Kipchaks engaged in cotton monoculture.

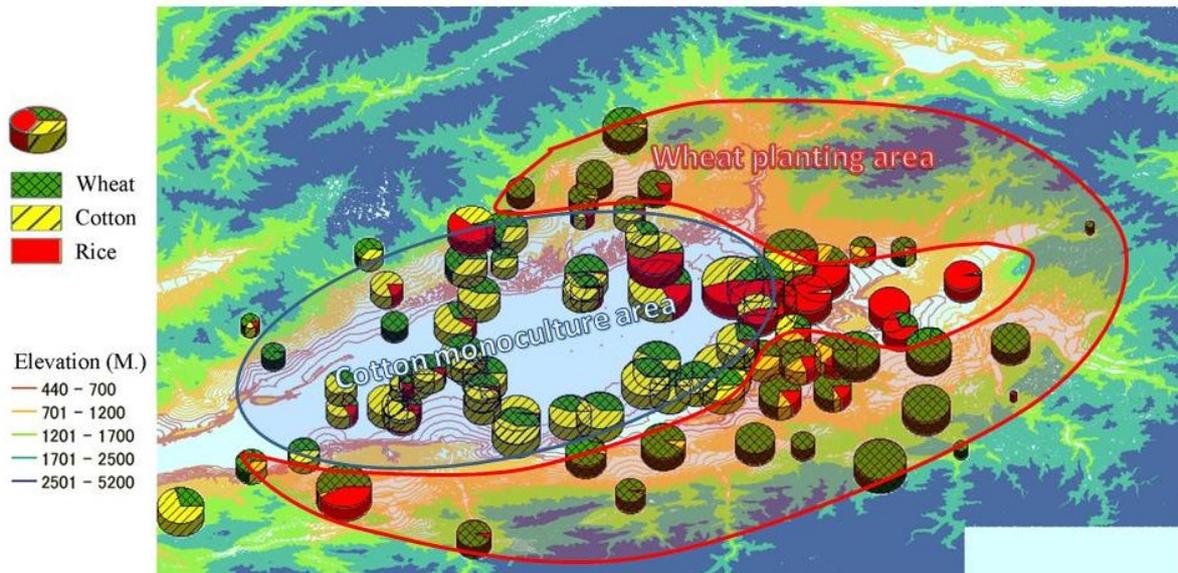


Figure 3 Amount of crop farming (wheat, cotton, and rice) in Ferghana Province from 1890-1904.⁽¹⁰⁾
 Source: MSOF A (1897), MSOF M (1899), MSOF N (1910), MSOF O (1910), and MSOF K (1912).

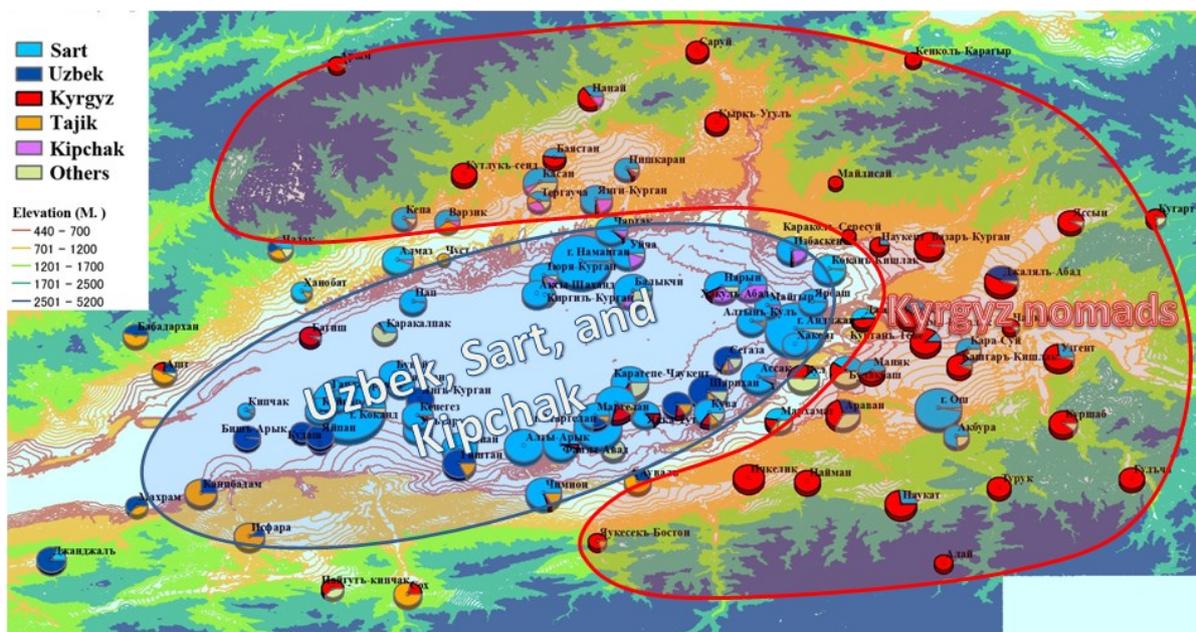


Figure 4 Population and ethnicity in Ferghana Province in 1908.
 Source: SNMF (1909).⁽¹¹⁾

Figure 4 shows the characteristics of ethnicity distribution. The Uzbek nation currently includes former Uzbek, Sart, and Kipchak people. These ethnicities and others were distinguished from each other in the period of the Russian empire. The Soviet Union divided the former Ferghana Province into separate national republics in 1924. After that, Uzbek, Sart, Kipchak and other ethnicities living in the Ferghana Valley were considered as a single Uzbek nation. The former Uzbek, Sart, and Kipchak people each had their own arrival histories in the Ferghana Valley. First, in the Ferghana Valley, the Sart descended from Turkic people who did not yet follow tribalism. The Uzbek and Kipchak were Turkic nomadic tribes that came from the northern steppe to the Ferghana Valley. In the early 18th century, an Uzbek group created the Khanate of Kokand in the Ferghana Valley; the Kipchak had already arrived in the Ferghana Valley in the 17th century. The GIS map shows that the Sart were the overwhelming majority in the Ferghana Valley. The Uzbek were concentrated in districts (волость) in the southern valley near the cities of Kokand and Skobelev (currently the city of Ferghana). The Kipchak were concentrated in the northeast districts in the valley along the upper stream of the Syr-Darya River, near the city of Namangan.

In the Ferghana Valley, the progress of cotton monoculture meant that the proportion of those self-sufficient in grain declined yearly while the price of grain rose rapidly (SOF za 1905: 30). According to records maintained by the authorities of Andijan County, the price of wheat was 0.23 ruble per pud (16.38 kg) in 1889, but it rose to 0.52 ruble per pud in 1892 and 1.23 ruble per pud in 1893 (MSOF A 1897: 41-42). In 1905–1906, the Kyrgyz uprising occurred in Andijan County because of famine, and many merchants' shops were destroyed

(Usenbaev et al. 1973: 96). Generally, the cotton farmers were able to buy expensive imported grain because of their high income from cotton cultivation (SOF za 1906: 19, SOF za 1910: 20).

Regarding the agriculture by nomads, how they engaged in agriculture in spite of moving from one place to another is important. Sowing in the spring was key for the coexistence of nomadism and agriculture, as figures 5 and 6 illustrate. In the spring, nomads sowed seeds in their winter quarters before leaving with their livestock. In the summer, they pastured their livestock in mountain or desert pasturelands. In autumn, they returned to their winter quarters and harvested the crops, primarily wheat and barley (MKZ OSK 1915: 158-159).

Under Russian rule, nomads found difficulty in obtaining grain from the market owing to a rapid rise in price. They expanded grain farming to secure the supply of food. However, irrigation water was limited; as a result, irrigation percentages in the farming by nomads declined, and they primarily engaged in rain-fed cultivation (Ueda 2013: 119-120). In addition, the expansion of farming caused land disputes among the Kyrgyz (MKZ A 1913: 39).

In Ferghana Province, there were close economic links between the nomads and the settled Muslim population. The nomads sold livestock at the market (bazaar), were paid to pasture settled people's livestock, and engaged in transportation. Some of them worked on settled people's farmland as seasonal labor (MKZ A 1913: 62, 78, MKZ OSK 1915: 169-172). These connections protected the nomads from the famine that occurred as a result of unstable crop yields from rain-fed cultivation (MKZ A 1913: 60, MKZ N 1913: 54). The GIS analysis reconstructs

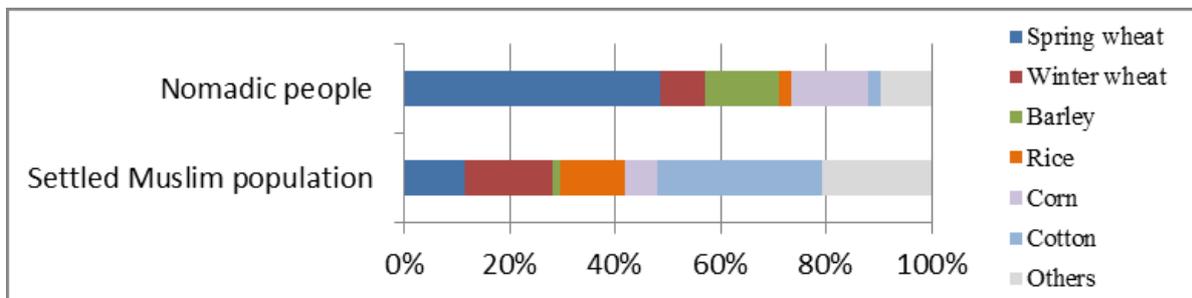


Figure 5 Ferghana Province in 1904. Source: SOF za 1904: 16–17.

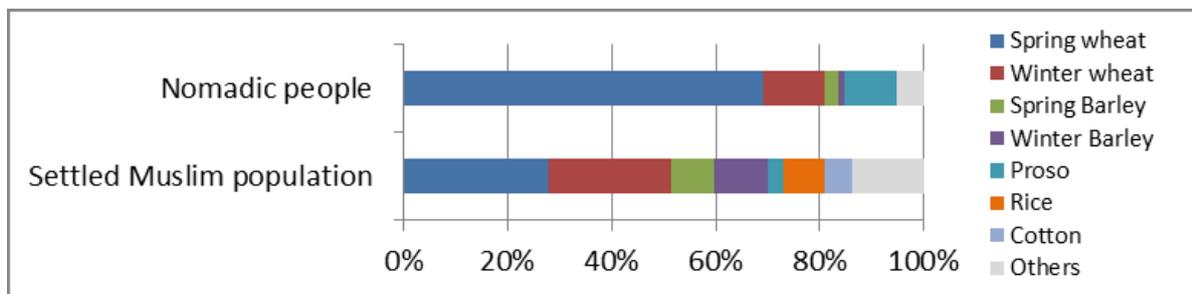


Figure 6 Samarkand Province in 1904. Source: OS (1905: pri. 3–4).

the band of rain-fed cultivation (the yellow band in Figure 7) undertaken by the nomads living near areas irrigated by the settled Muslim population. To the north of this yellow band, the Kyrgyz nomads cultivated crops such as wheat and millet on their farmland, which was irrigated by mountain streams (the blue arc in the upper portion of Figure 7). This agricultural situation was similar to that of the neighboring Semirechie Province.⁽¹²⁾ On the other hand, to the south of the band of rain-fed cultivation, cotton and rice fields spread in the Ferghana Valley (the blue ellipse in the figure). These farmlands were irrigated with a canal irrigation system. This suggests that the nomads' unstable, rain-fed cultivation was supported by their economic

link with the settled Muslim population. Furthermore, their livestock numbers also declined under Russian rule, from 710,000 in 1891 to 570,000 in 1914 (SOF za 1914: 47, SOF za 1891: 14). The nomads in Ferghana Province expanded rain-fed cultivation in the field of agriculture, but reduced the total amount of their livestock in the field of nomadism. The center of economy for the nomads in Ferghana Province had gradually shifted away from livestock to grain cultivation.

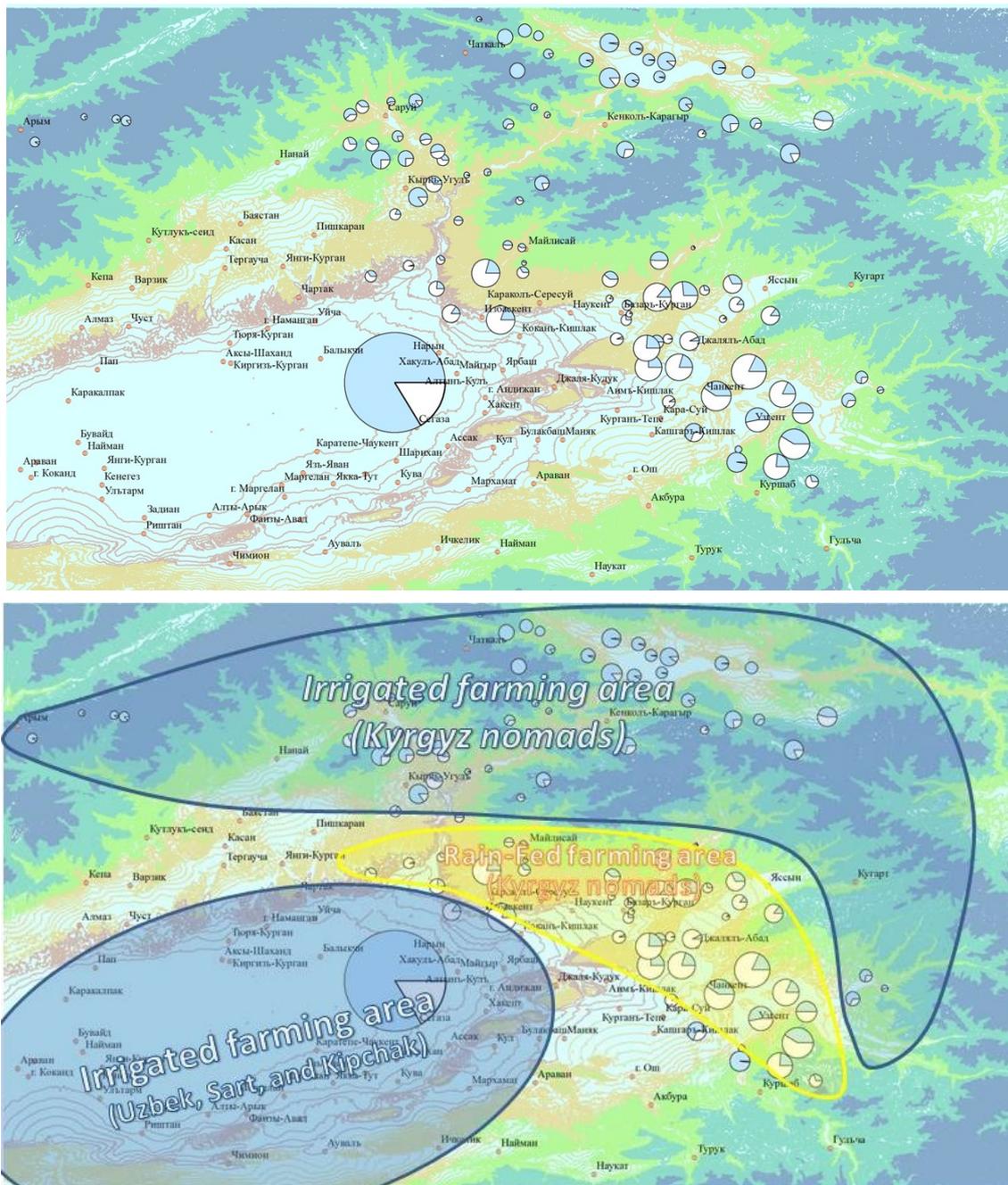


Figure 7 Percentage of irrigated farming by nomads and settled Muslim population in northern Ferghana Province. Sources: MKZ A (1913: 176, 188), MKZ N (1913: 148), MKZ OSK (1915: 200).

Table 1 Ferghana population.

	1914	1917	Changes from 1914 to 1917	
Rural population	1,588,663	1,504,451	-84,212	-5.3%
Rural Kyrgyz population	261,878	235,474	-26,404	-10.1%

Sources: SOF za 1914 and SNF (1924).

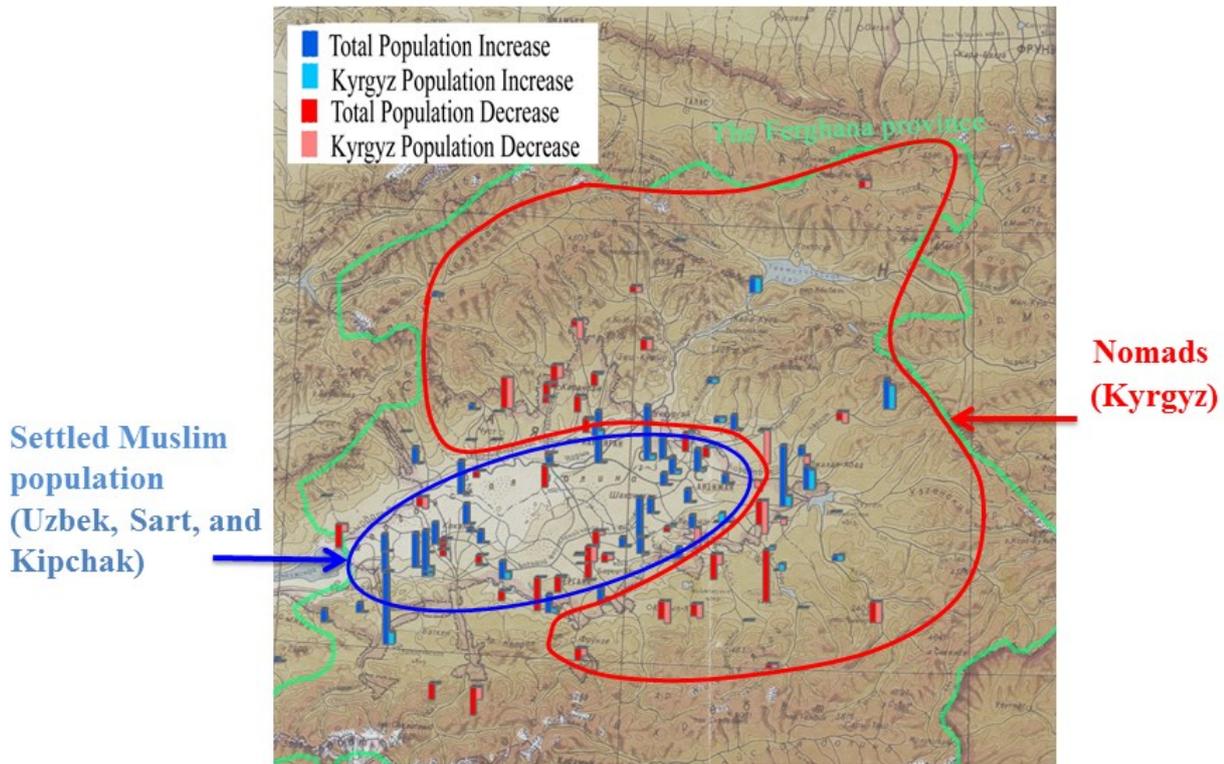


Figure 8 Ferghana population.

There were some Russian immigrant settlements, with a collective population of about 15,000, located on the fringe of the province in which the Kyrgyz lived. Many of the immigrants settled illegally from 1902 to 1911, when the authorities prohibited more Russian immigrants from settling (SOF za 1914: 11–21, SOF za 1907: 10-13, Nishiyama 1989: 41, Komatsu 1986: 598–604).⁽¹³⁾ Russian authorities did not expropriate the nomads’ land to provide land to illegal settlers.

This study examines the degree of the effects of the 1916 revolt using a GIS analysis. Thus, the following GIS analysis reconstructed the changes in population from 1914 to 1917.⁽¹⁴⁾

As the map and table show, the Kyrgyz population, who lived primarily in the mountain areas, decreased by more than 10%. Even though historical sources rarely mention the nomads’ revolt, the GIS analysis clarifies that the population decline of these nomads was significantly more drastic than that of other ethnic groups in Ferghana Province during the revolt. The population decrease in the foothill area, excluding Osh County where the 1917 census could not be conducted, was noticeable. How did this population decline in the foothill area occur, especially regarding Kyrgyz nomads?

As mentioned in Chapter 2, the revolt by Kyrgyz nomads in

the foothill area of Ferghana Province was more prolonged than that in the Valley. In the suppression of the revolt, some Kyrgyz were killed by the Russian army and some of them starved to death during World War I.

Kyrgyz men on a conscription labor list escaped with their livestock into the Tian Shan mountain range or the Pamir. At that time, some of the settlements in these areas were not known by the Russian authorities. The groups of escaped Kyrgyz attacked native officials including county heads and robbed them of their livestock. The leaders of the escaped rebels were poor people, such as Tarasbai Alybaev, who organized the rebels in the Saroi mountain area before they were suppressed by the Russian army (Usenbaev 1997: 67-68, 73-75, 78).

Kyrgyz refugees crossed not only the border of a province but also a national boundary. A report from August 11 stated that 10,000–20,000 Kyrgyz escaped from Ferghana Province to Semirechie Province (Vosstanie 1960: 338-339). Some Kyrgyz escaped into Chinese Xinjiang, and they only returned after the Russian Revolution. During the escape, many children, elderly people, and women were killed and robbed by bandits and Chinese border guards. Kyrgyz refugees also faced difficulties in Xinjiang and some children were sold. Other groups of Kyrgyz

escaped into Afghanistan (Budianskii 2007: 52-60).

At the same time, the economic situation of the Kyrgyz in Ferghana Province was difficult. After the outbreak of World War I, Central Asian natives suffered from increased taxes, expropriation of materials and rapid price rises. Especially, Ferghana Province suffered from food shortages, because this region had exported cotton to the center of the Russian Empire and imported grains from other areas (Nishijima 1994: 28). Unseasonable weather in the spring of 1916 and locusts caused cotton and grain crop failures. 1916 was called “the year of hunger (Qakhatchilik)” (IUSSR 1 1956: 375, 377).

The economic situation for natives in Ferghana Province including Kyrgyz nomads deteriorated until the outbreak of the revolt of 1916. Before the outbreak of the revolt, some Kyrgyz of Namangan County had already started to escape into the steep Tian Shan mountain range to avoid paying heavy taxes. They robbed the rich of their livestock and escaped into the mountain area in early 1916 (IKSSR 2: 336).

This chapter suggests that the negative influences of the revolt on the nomadic society were larger than that on the settled Muslim population. Two major factors caused this situation. First, the revolt in the nomadic area was more prolonged than that in the settled area. In the valley, the revolt by the settled Muslim population was suppressed by the Russian army in a week. In the foothill area, on the contrary, the revolt of the nomads continued from July to October of 1916. A lot of nomads suffered from hunger and fled into Chinese Xinjiang during the prolonged revolt. The second factor was the unstable economic situation of the nomads. The interdependence of nomads and the settled Muslim population made it possible for nomads to expand their rain-fed grain cultivation. World War I ruined the whole economic network of the Russian empire, including the economic interdependence of nomads and the settled Muslim population in Ferghana Province. The collapse of the cotton economy in the valley had a direct effect on the unstable grain supply of nomads.

Moreover, the 1916 revolt began as a protest movement against the edict ordering a labor draft. This is one of the key reasons the nomads in Ferghana Province did not attack Russian settlements that were mainly illegal immigrants and involved a tense relationship with the authorities, but attacked native officials directly engaged in the exploitation of the native population during World War I.⁽¹⁵⁾

4. The Hungry Steppe and Tair-Sheikh Steppe

This study also analyzes two steppe areas in Samarkand Province. Russian settlements were built in both steppes, but their influences on the nomad societies were extremely different. In these steppes, the nomads were Kazakhs.

4.1 The Hungry Steppe (Jizzakh County)

Two primary questions arise regarding socio-economic change in the Hungry Steppe: why did the nomads in the Hungry Steppe not participate in the revolt in Jizzakh and how did the Russian authorities treat them before the revolt?

The development of the Hungry Steppe was one of the most

important issues in Russian economic policy for Central Asia. Although the construction of the canal by the first Governor General, Kaufman (1872-1879), was unsuccessful, Grand Duke Nicholas Constantinovich resumed irrigation work and permitted migration by Russians in 1885 (Bartol'd 1927: 151-156). The Grand Duke wanted his irrigation work to be used by both Russians and Muslims (Peterson 2011: 152). However, the authorities of the Russian Empire planned to expand cotton cultivation by Russian immigrants (Bartol'd 1927: 153-154). In 1898, control of the Emperor Nicholas I Canal was transferred from the Grand Duke to state authorities; furthermore, in 1914, the Russian Empire declared that only Christian settlements would be permitted in the Hungry Steppe (Peterson 2011: 163-164). However, probably under the influence of the Grand Duke, Russian authorities permitted nomads to use irrigation water from the Emperor Nicholas I Canal. This is because the water from old canals, which the nomads previously used, stopped flowing because of the construction of the Emperor Nicholas I Canal (MGS 1914: 45). In 1911, nomads had approximately 960 ha of cultivated land irrigated by the Emperor Nicholas I Canal. It amounted to 7 percent of all irrigated land and 62 percent of irrigated land cultivated by Central Asian natives in the Emperor Nicholas I Canal system area (Karavaev 1914: 53-54, 89-91). It is noteworthy that Russian authorities considered the vested rights of the nomads when the Emperor Nicholas I Canal was constructed. Nomads in this area (the Savat district) cultivated black gram (маш, vignamungo: 31%), wheat (26%), millet (18%), barley (13%), cotton (5%), and other crops on irrigated farmland. In addition, they cultivated cotton on the flood plain of the Syr-Darya River (MGS 1914: 47).

The GIS analysis of the Hungry Steppe (Figures 9 and 10) shows that nomadic groups using water from the Emperor Nicholas I Canal primarily engaged in irrigated farming (MGS 1914: pri. 12-15). In Figures 9 and 10, the indigo blue area was fully irrigated, while the white area contained barely any irrigated farmland. These maps indicate that most well-irrigated areas were located along the banks of the Syr-Darya River, while many inland areas did not have any irrigated land. The proportion of irrigation in nomads' land irrigated from the Emperor Nicholas I Canal was higher than those of other nomadic group's land in the central area of the Hungry Steppe and not less than those of the neighboring nomads' land irrigated by the Syr-Darya River and local canals. This analysis also suggests that the Russian settlements were established near the old, irrigated land of the nomads, which had been irrigated by the Syr-Darya River and existing canals. In October 1913, a new irrigation project was announced. In January 1914, the nomads presented a petition to the authorities demanding the distribution of irrigated land to them in compensation for their land on which new irrigation construction was planned (TsGARUz, ф. И-18, оп. 1, ед. 7385, л. 25а-б.). In spite of the precedent set by the Emperor Nicholas I Canal, some officials opposed this petition, citing a related law (TsGARUz, ф. И-18, оп. 1, ед. 7385, л. 5а-б.).



Figure 9 Proportion of irrigation for the nomads in the Hungry Steppe.
Source: MGS (1914: pri. 12-15).

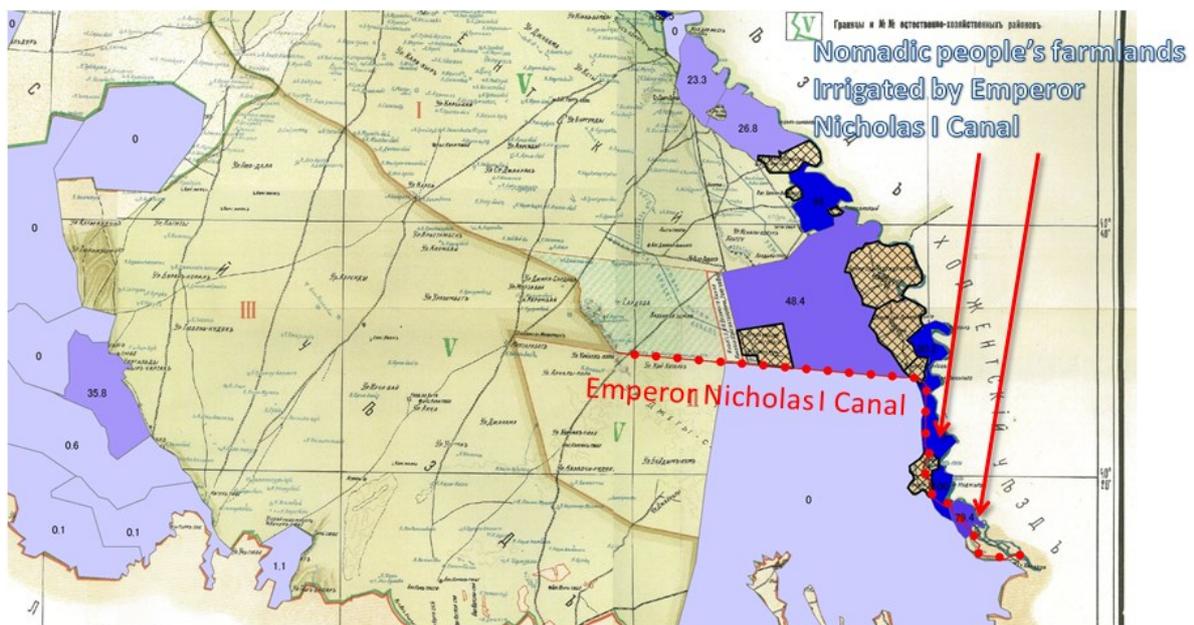


Figure 10 Emperor Nicholas I Canal.

4.2 The Tair-Sheikh Steppe (Kattakurgan County)

Another important question concerns how the Russian authorities treated the nomads on the Tair-Sheikh Steppe before the revolt. Here, the nomads participated in protest movements in the 1916 revolt.

In 1898, on the Tair-Sheikh Steppe, a Russian settlement named “Fedorovskoi” was constructed. This settlement deprived

the nomads of water from the canals. The southern part of the steppe was irrigated by three branch canals; one of them, Begliar, had used most of the water that flowed in the Russian settlement. The native nomads could use water from the other two canals, but the canals functioned only one day a week. Therefore, water to irrigate native nomads’ farmland was scarce.

Thus, the construction of the Russian settlement forced the nomads to engage in rain-fed cultivation and change the types of

crops they grew. Before the arrival of the Russians, the nomads mostly cultivated durra (sorghum, Indian millet) and millet under irrigation. After the arrival of the Russians, the nomads were forced to convert to the cultivation of wheat and barley on rain-fed farmland. The spring rainfall in this steppe occurs between early March and late April. By late May, the nomads sowed the wheat and barley seeds on the rain-fed farmland. The cultivation of durra and millet ceased because of the arrival of the Russians. Moreover, the nomads also reduced their cotton cultivation under irrigation.

The nomads of the Tair-Sheikh Steppe had almost become peasants by 1913. Of them, 88% engaged in agriculture, and 87% of their income came from agriculture. Thus, the change of agriculture significantly influenced the life of the nomads.

Some land disputes regarding rain-fed cultivation occurred between people in the Tair-Sheikh Steppe and the neighboring regions. The people from neighboring villages claimed their right to the land on which the nomads of the Tair-Sheikh Steppe were engaging in rain-fed cultivation (TsGARUz, ф. И-18, оп. 1, ед. 7171, л. 3-4.). In contrast to the case of the Hungry Steppe, the Russian settlement policy on the Tair-Sheikh Steppe disregarded the vested rights of the nomads.

In 1915, in Mitan Village on the Tair-Sheikh Steppe, people refused to work on the irrigation-related labor. They claimed to not be afraid of being arrested (Kovalev 1971: 107). Thus, the nomad resistance had begun in the Tair-Sheikh Steppe before the 1916 revolt.

As this section shows, the authorities' policies concerning the nomads varied between the two steppes in Samarkand Province after the arrival of the Russians. This difference likely influenced the nomads' attitudes toward Russian authorities during the 1916 revolt.

5. Conclusions

This study's historical research using GIS indicates relationships between the Russian settlement policy in Turkistan and the revolt of the nomads. The results of the study are shown in a comparative table below.

In all four geographic areas, Russian peasants settled in nomadic areas, but their influence on nomadic society varied in scale and characteristics. First, in Ferghana Province, some of the nomads' land was expropriated by Russian authorities and given to Russian settlers. It is noteworthy that the number of illegal immigrants was larger than that of legal immigrants, and land expropriation was undertaken only for legal immigrants. Thus, many of the immigrants did not participate in land expropriation from the nomads. The distance between immigrants and

the authorities was larger than in other areas. The Kyrgyz nomads were forced into their lifestyle because of the cotton monoculture introduced by the settled Muslim population, who were strongly encouraged to do so by Russian authorities. The nomads were forced to expand their rain-fed cultivation to obtain food. Nomad rebels in 1916 did not attack the Russian peasants but the native officials who cooperated with Russian authorities to expropriate labor from the Central Asian natives.

Second, in the Hungry Steppe, the nomads were adequately compensated for the Russian immigration. The nomads received sufficient water resources and maintained their irrigated agriculture. The nomads in the Hungry Steppe did not participate in the 1916 revolt in spite of the fierce revolt in Jizzakh.

Third, in the Tair-Sheikh Steppe, the Russian settlement policy deprived the nomads of the water resources they previously utilized. Even before 1916, the nomads were opposed to the authorities regarding the recruitment of irrigation-related labor.

Finally, in Semirechie Province, the number of Russian immigrants that settled in the nomadic area was the largest. Here, Russian immigrants primarily engaged in rain-fed cultivation. The nomads' pastureland was taken for Russian immigrants, while the nomads continued their irrigated farming. The collusion between the authorities' expropriation of land and the Russian peasants' immigration was clearer here. The nomads fought against the Russian immigrants and army in 1916, and several nomads and Russian peasants were killed in the revolt.

The Russian policy regarding the nomads was implemented without principle. Although some nomads could secure profits, most lost their land or water. The socio-economic conditions of the nomads were forcefully changed, and they participated in the 1916 revolt. Although the specific cause of the revolt was determined by various factors, such as rumors and individual leadership, this study suggests there may be correlations between the colonial economic policy of the Russian Empire for handling the nomads and the course of the revolt.

In addition, this study indicated the usefulness of historical GIS. For instance, although historical documents barely mention the revolt of the nomads in Ferghana Province, the GIS analysis of the population change elaborates the scale of damage to the nomadic society in the 1916 revolt. In the field of agriculture, GIS shows clearly the interdependence between the settled Muslim population's economy and rain-fed cultivation by nomads. The relationship between Russian irrigation construction and a local canal used by the nomads in the Hungry Steppe is also shown by GIS analysis. This relationship was disregarded by certain previous studies.⁽¹⁶⁾

Area	Socio-economic situations			The rebellions of 1916	
	Russian settlements	deprivations of land and water	Changes in agriculture during the Russian rule	Revolts	Targets of rebels
Ferghana	○	○	in rain-fed cultivation	○	Native officials
Hungry Steppe	○	-	No change	-	-
Tair-Sheikh Steppe	○	○	in rain-fed cultivation	○	Native/Russian Officials
Semirechie	⊙	⊙	No change	⊙	Immigrants

Figure 11 Results.

Notes

- (1) A steppe is a large area of flat grassland with few trees, generally located in Russia, Central Asia, and Eastern Europe. By the 20th century, nomads were living in the steppe ecological zone. They acclimated themselves to limited water resources and biomass in the Central Eurasian Steppe. Generally, the northern half of Central Asia is known as the Steppe region or the Steppe provinces, and was an administrative district of the Russian Empire. However, a steppe ecological zone is also located in southern Central Asia (Turkistan). For example, the Hungry and Tair-Sheikh Steppes belonged to Samarkand and Tashkent provinces in Turkistan.
- (2) In Turkistan, natives primarily paid two taxes. The settled Muslim population paid a land tax that was based on agricultural income. Nomads paid a tent tax in proportion to the number of households. The authorities surveyed the farmland of the settled Muslim population and observed the prices of agricultural products to determine the land tax on agricultural income.
- (3) Regrettably, this paper could not refer to the 1897 census of Semipalatinsk Province.
- (4) The Hungry Steppe is located in northern part of Jizzakh County, western part of Xojant County, and southern part of Tashkent Province (Vosstanie 1960: 156-158).
- (5) For this study, the 1889 population was estimated from the amount of tax on houses and tents.
- (6) Sergei Abashin pointed out that the statistics of Central Asian demography compiled by the Russian Empire had serious faults. The topic of the demography of Ferghana Province is directly related to this paper's argument. Abashin suggested that the population of Ferghana Province from the 1870s to 1897 might be larger than official statistics. For example, one book published in 1891 suggests that the population of the province might be a million or more, as opposed to official data that put the total at about 800,000. An annual report of Ferghana Province in 1890 also noted that the population of the province would be no less than 1.5 million (Abashin 2012: 131-133.). I want to restudy this problem in another paper. The natural population increase of the province under Russian rule was at least probable, but its actual scale is not clear at present.
- (7) SKSA Ar (1927: 3). This amount of precipitation was the average of 13 years up to 1927.
- (8) SKSA Is (1927: 6). These amounts of precipitation were the average of 25 years up to 1927.
- (9) SKSA Ar (1927: 3). This amount of precipitation was the average of 13 years up to 1927.
- (10) This paper uses elevation data created by the Ferghana Project in the Islamic Area Studies Project. Cf., Komatsu, Goto (2004).

In Ferghana Province, land surveying to determine land tax on agricultural income was conducted in Andijan County from 1890 to 1893 (MSOF A 1897: 31), in Mar-

- giran County from 1894 to 1896 (MSOF M 1899: 2), in Kokand County from 1899 to 1902 (MSOF K 1912: 15), in Osh County from 1903 to 1904 (MSOF O 1910: 2), and in Namangan County from 1897 to 1899 (MSOF N 1910: 2).
- (11) As Komatsu, Goto 2009 and Abashin 2012 pointed out, this source only listed the predominant ethnicity of villages (Komatsu, Goto 2009: 103, Abashin 2012: 143). Nevertheless, this source contains important data about ethnicity distribution in Ferghana Province because of its detailed data sets on village level. In Figure 4, the data were subtotaled to a district (волость) level.
 - (12) The Russian peasants primarily engaged in rain-fed cultivation in Semirechie Province, while the nomads continued with irrigated farming. (Ueda 2013: 115).
 - (13) After 1913, the Russian authorities restarted legal migration (SOF za 1913: 11-24). Some land disputes between Russian settlers or authorities and the Kyrgyz nomads occurred before the 1916 revolt (Usenbaev etc. 1973: 93-96, 138-139).
 - (14) These data do not include information from Osh County due to the lack of census data from 1917. The 1914 census counted both rural and urban populations, whereas the 1917 census counted only the rural population. Therefore, Table 1 compares the rural populations in 1914 and 1917. In Osh County, the Kyrgyz constituted the majority. If the data from Osh County were available, a decrease in the Kyrgyz population would be more noteworthy.
 - (15) To be precise, conflicts between the native population and native officials in country offices were common under Russian rule. When an election of a county chief was held, disturbances often occurred, because county chiefs could arbitrarily use their power at the time of tax collection, etc. (Zima 1959: 67, 71-72).
 - (16) For example, Igambedyev 1965: 22-23.

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