

SEISMOLOGICAL EVENTS IN YETTISUV, PAMIR, AND AFGHANISTAN DURING THE LATE XIX-TH AND EARLY XX-TH CENTURIES

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This article examines the history and impact of seismic activity in Central Asia, particularly in the regions of Yettisuv, the Pamirs, and Afghanistan, during the late 19th and early 20th centuries. Drawing on archival materials, official reports, and historical documents, the study outlines the scale, frequency, and social consequences of earthquakes that occurred during this period. The research highlights how these natural disasters affected local populations, infrastructure, and administrative responses under the Russian Empire and Afghan authorities. The article also reviews early scientific observations and responses to earthquakes, offering insight into how seismic risks were understood and managed in the region at the time.

INTRODUCTION. One of the natural disasters in human history is the earthquake. Earthquakes have occurred throughout history in various parts of the world. Some of them have caused significant damage and loss of life, while others have remained in history as minor tremors. Central Asia is considered a seismically active region. In the late XIX-th and early XX-th centuries, several earthquakes also occurred in this region. Today, there are numerous sources available for studying the history of earthquakes in Central Asia. Among these, archival documents, periodical press materials, official reports, and scientific expedition records hold significant importance. In particular, the National Archive of Uzbekistan currently houses several collections that provide detailed accounts of natural disasters that occurred in Central Asia. These sources primarily consist of correspondence and reports produced by the colonial administration.

Periodical publications of the time regularly included brief information about seismic events that occurred in various parts of the region. Official reports published by the colonial

authorities also contain information about earthquakes, primarily intended to inform colonial officials. Moreover, during this period, several researchers studied earthquakes from a scientific perspective.

On December 22, 1910, a powerful earthquake struck the Semirechye region (Yettisuv), causing the collapse or partial destruction of numerous houses and buildings in the area. The severity of the damage drew the attention of high-ranking officials of the Russian Empire. A. Guchkov, a representative of the State Duma of the Russian Empire, sent a telegram to the Governor-General of Turkestan, A. Samsonov, urging him to provide whatever assistance might be needed for those affected by the disaster.

In response, the Governor-General contacted the Military Governor of the Semirechye region, inquiring about the necessary state support. The Military Governor reported that many towns and villages in his jurisdiction had suffered widespread structural damage, and emphasized that the immediate priority was the reconstruction of these buildings. As a solution, he proposed granting the local population interest-free loans for a period of ten years as the most effective form of aid.

The administration of the Semirechye region requested a loan of 200,000 rubles. However, it became evident that one million rubles would be required to restore the damaged buildings and houses in the city of Verniy. Providing loans was one form of assistance. The Military Governor of Semirechye also proposed a second type of aid. According to him, there were low-income families in the region for whom loans alone were insufficient. He suggested transporting construction materials via railway and building standardized houses for these families. He believed that constructing such houses would be relatively more cost-effective.

A. Samsonov o'z navbatida Davlat dumasiga harbiy gubernatorning taklifi asosida Yettisuvdagi zilziladan zarar ko'rgan aholiga va tashkilotlarga yordam ko'rsatish yo'llarini ma'lum qiladi. Turkiston general-gubernatori birinchi navbatda Yettisuv viloyati uchun 600 ming rubl ssuda ajratish lozimligini ma'lum qiladi.

The Pamir region in Central Asia is considered one of the most seismically active areas. On the night of February 5 to 6, 1911, at 11:15 PM, a strong earthquake occurred in Pamir. The tremors were felt several times. According to some sources, this earthquake slightly altered the region's relief. As a result of this natural disaster, two villages in Pamir were completely destroyed, with all inhabitants and livestock perishing. One of these villages was Usoy, located near the Bartang River in Pamir. The earthquake caused an increase in the speed and volume of water flowing down from the mountains, which washed away the village of Usoy. The second village was Sarez, situated near a lake in Pamir. Due to the earthquake, the lake overflowed, sweeping away the village's residents and livestock.

In addition, several other villages in Pamir, including Pasor, Nisur, Shughnon, Sagnob, and Rukhch, suffered significant damage. At that time, many residents managed to leave

their homes and relocate to safer areas. For example, the inhabitants of Shughnon and Rukhshon were able to move to safer locations following the initial tremors.

The effects of this earthquake were also felt in surrounding regions. For instance, the natural disaster was observed in Kashgar to the east of Pamir. In Afghanistan, the tremors were felt even more strongly, resulting in considerable damage. In the village of Kalay-Yavuy in Afghanistan, 60 houses were destroyed and 240 people died due to the 1911 Pamir earthquake. In Kabul, the damage was even more severe, with 300 houses destroyed and 460 people losing their lives as a result of the disaster. Additionally, in Khanabad, Afghanistan, 70 houses were destroyed and 2 people died, while in Faizabad, several houses were damaged, but no fatalities were reported.

The territory of Afghanistan is considered one of the most seismically active regions in Central Asia. Historically, numerous earthquakes have occurred in this area. Until the 19th century, information about earthquakes in Afghanistan was transmitted primarily through travelers' memoirs. Only from the 19th century onward did official records regarding natural disasters in Afghanistan begin to appear.

On February 21, 1832, an earthquake struck Badakhshan. This event is regarded as the first natural disaster in Afghanistan to be officially investigated and documented. Following this event, more systematic efforts were made to collect detailed data on subsequent seismic activity in the region. These written sources now provide historians with valuable material for studying the history of natural disasters in Afghanistan.

It is appropriate to enumerate the consequences of major earthquakes that occurred in Afghanistan during the 19th century. On February 19, 1842, a powerful earthquake struck Gardez, located between the Alingar Valley and the Jalalabad region. The earthquake had a radius of approximately 900 kilometers and its aftershocks reportedly continued for several months. As a result of this seismic event, several hundred people lost their lives.

Another significant earthquake in Afghan history occurred on October 8, 1874, and is known as the Jabal-Seraj earthquake. This natural disaster caused severe destruction in the cities of Jabal-Seraj, Gulbahar, and Kuhistan.

On December 20, 1892, yet another strong earthquake struck southern Afghanistan. This earthquake caused the ground to shift approximately 75 centimeters from its original position. The epicenter of the earthquake was the town of Sanzal. One elderly local resident, who witnessed the earthquake firsthand, claimed to have experienced three major tremors in his lifetime.

Existing sources and scientific studies allow us to list the earthquakes that occurred in Afghanistan during the second half of the XIX-th century. For instance, seismic events were recorded in the following locations and dates: Kahun on January 24, 1852; Kandahar in June 1857; Jalalabad on August 25, 1858; Quchan on December 23, 1871; Sibi on December 15, 1872; Kohistan on October 18, 1874; Khurum on February 8, 1880; Kabul in June 1889; Mazar-i-Sharif in October 1889; Kabul again in September 1890; Paghman in

June 1891; Chaman on December 20, 1892; Chaman again on February 13, 1893; Quchan on November 17, 1893; and Quchan on January 17, 1895.

In the early XX-th century, numerous earthquakes also occurred in Afghanistan, causing significant destruction and loss. It is appropriate to list these events chronologically by year. Notable seismic events were recorded in the following locations and dates: Loralai on October 17, 1901; Durukhsh on March 22, 1903; Bolan on December 23, 1903; Tejentu on November 9, 1904; Nasratabad on June 19, 1905; Sulaiman on September 26, 1905; Aywazj on October 24, 1906; Kersk on October 23, 1907; Harnai on March 5, 1908; Kachhi on October 20, 1909; Sindh on August 17, 1910; Mazar-i-Sharif on January 1, 1911; Sarez on February 18, 1911; Kunar on August 23, 1912; and Torbat on March 24, 1918.

In conclusion, it can be stated that during the late XIX-th and early XX-th centuries, earthquakes occurred periodically in various parts of Central Asia. Information about these seismic events has been preserved and passed down to the present day through various sources. According to these accounts, the earthquakes instilled fear among the population, as they caused considerable destruction and, in some cases, even resulted in loss of life. On the other hand, during this period, several scientific efforts were undertaken to study and mitigate the impact of earthquakes.

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