ACTIVITY OF SCIENTIFIC INSTITUTIONS IN UZBEKISTAN AT THE END OF THE 19TH CENTURY AND THE 40S OF THE 20TH CENTURY

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Abstract: *This article describes the scientific and organizational activities of Uzbekistan at the end of the 19th century and the 40s of the 20th century. In it, scientific institutions are formed consisting of station, committee, department, museum, library, society, observatory, club, experimental station, department, university, cabinet, committee, council, library, section, scientific research institute and research institute. raised In addition, the establishment of the Science Committee and the activity of the Uzbekistan branch of the Academy of Sciences of the USSR (UzFAN) were analyzed.*

Key words: *Expeditions, scientific societies, Science Committee, Uzbekistan branch, conference, research work, scientific-research institute, observatory, committee, sector, commission, cabinet, station, laboratory, experimental site, park, museum.*

INTRODUCTION

In the 18th and early 19th centuries, Russian tourist expeditions began exploring the territory of Uzbekistan. Russian scientists mobilized to the country seriously began to investigate the geographical and natural world of Turkestan. They worked in scientific content.

In the period from 1867 to 1940s, the formation of scientific institutions in Uzbekistan was significant, especially the activities of the Committee of Sciences and the Uzbekistan branch of the Academy of Sciences of the USSR (UzFAN) are of particular importance. In this way, referring to the history of the conditions created for the establishment of the Academy of Sciences complements the history of the Academy of Sciences and promotes the role of the highest scientific institution of Uzbekistan in the fields of natural, technical and social and humanitarian sciences. The formation of scientific institutions in the minds of today's young generation expands their knowledge and thoughts on the creation of conditions for the establishment of the Academy of Sciences. Since its establishment, the Academy of Sciences of the Republic of Uzbekistan has been the largest, most prestigious and important scientific organization of the country during its scientific activity.

MATERIALS AND METHODS:

The article is covered on the basis of generally accepted historical methods - historicity, comparative-logical analysis, sequence, principles of objectivity. In the initial stages of the establishment of the Academy of Sciences, the scientific potential was mainly formed - advanced scientific schools, many research institutes and a number of unique scientific complexes and objects were established. But academic science in many cases was aimed at solving problems that are not relevant for Uzbekistan. Since its establishment, the Academy of Sciences of the Republic of Uzbekistan has been the largest, most prestigious and important scientific organization of the country during its scientific activity.

The history of the formation and development of the Academy of Sciences of the Republic of Uzbekistan was not fully studied in the research. In particular, because the approach to the problem in the works created during the Soviet era was under the ideological influence of the communist ideology, these issues did not find their impartial interpretation. The history of the Academy of Sciences of the Republic of Uzbekistan is not sufficiently covered even in the studies created in the period of independence in Uzbekistan.

RESULTS

At the end of the 19th century - the beginning of the 20th century, science developed at a new pace in Uzbekistan. Various scientific directions began to be formed in mathematics, astronomy, botany, irrigation, meteorology, geology, regional medicine, history, archeology, museology and other fields [1]. Various reports and articles on the life of the peoples of Central Asia related to scientific and local history were regularly published in "Turkestan region gazeta", "Turkestanskiye vedomosti" newspapers (1870-1917) and other local press. But these organizations served the colonial interests of the Governor General.

The establishment of scientific societies made the development of science somewhat possible. In the late 19th and early 20th centuries, members of the Turkestan branch of the Geographical Society researched the Aral Sea, glaciers, flora and fauna of the country, seismic processes, and discovered mineral deposits. Some expeditions of Russian scientists conducted research on soil science and hydrology [2].

In their time, Jadids wanted to see their people enlightened, sought to be freed from any kind of slavery, superstition, and national pride. At the very beginning of their activity, they offered the people of Turkestan a way to get acquainted with the achievements of world civilization. This path was not to abandon national and religious-spiritual values, but, on the contrary, to gradually move on the basis of them, abandoning outdated beliefs and superstitions that hinder further development and progress[3]. The "cultural revolution" event of the Soviets greatly ideologicalized all aspects of society, especially science and culture, and covered every area of it [4]. Later scientific societies worked in Turkestan. They have done significant work in promotion and promotion of science development. In general, while Russian scientists made a great contribution to the development of natural sciences in Central Asia, their original results were directed to the malicious and unjust

goals of ensuring the victory of the conquering army and appropriating the wealth of the country for the benefit of Russia [5].

Nevertheless, in the period from 1867 to 1940, scientific institutions were formed in Uzbekistan to a significant extent, and the Committee of Sciences and the Uzbekistan branch of the Academy of Sciences of the USSR (UzFAN) took a special place.

If we pay attention to the essence of the activities of scientific institutions noted in this period, scientific research in the middle of the 19th century is connected with the establishment of scientific societies. The establishment of scientific societies enabled the development of science.

Scientific societies mainly operated at the end of the 19th century and the beginning of the 20th century. There were about 15 scientific societies in total. They have done significant work in promotion and promotion of science development.

The establishment of the People's University of Turkestan in Uzbekistan created an opportunity in the field of scientific research in the real sense. A number of research institutes began to operate under him. At that time, the study of the natural resources of Uzbekistan, its climate and soil characteristics, water system, flora and fauna was increasingly expanded, the results of geological exploration and mineral exploration were already available, which made it possible to reassess their diversity and reserves. Some progress has been made in the field of social and humanitarian sciences.

DISCUSSION

All scientific activities and researches in our country were recognized for the first time in 1932 in Leningrad at the conference on the study of production forces of Uzbekistan, where the proposal to establish the Academy of Sciences of Uzbekistan was put forward[6]. During this period, i.e. at the beginning of 1932, 52 research institutes were successfully operating in the republic, 9 of them in plant science, 9 in animal husbandry, medicine, 4 in industry, 6 in geophysics, and 13 in the field of cultural construction.

Since 1932, Uzbek scientists began the work of establishing the Republican Academy of Sciences. The first step in this direction was the formation of the republican committee for the leadership of research institutions of Uzbekistan under the Central Executive Committee on October 4, 1932[7].

From July 1, 1934, the Soviets of the UZSSR, under the jurisdiction of the republican government, adopted a decision "On the establishment of the Republican Committee for the Management of Scientific Research Institutions of Uzbekistan (abbreviated as the Committee of Sciences)" under the Central Committee of the Central Committee of the Republic of Uzbekistan. Under the leadership of the Science Committee, scientific research activities in the republic have become more planned, and the topics of the issues being developed have become more relevant.

From the reports on the activities of the Committee[8] and from the minutes and correspondence of the Committee with the Academy of Sciences of the SSR, we can see the efforts to turn the Committee of Sciences into a branch of Uzbekistan.

The Committee of Sciences under the Council of People's Commissars of the Uzbek SSR acted in accordance with the Regulations approved by the Resolution No. 310 of the Council of People's Commissars of the Uzbek SSR dated March 3, 1938. The Science Committee has 9 buildings with a usable area of 4,700 square meters, which is completely inadequate in terms of the scope of work. It is planned to start the construction of the building of the City of Academics in 1939[9].

As of March 1, 1938, the scientific and scientific-technical staff of the Science Committee:

a). highly qualified scientific staff - 83. Among them: 3 scientists; 7 doctors of science; 15 candidates of science; There were 5 professors and non-academic employees.

b). 56 junior scientific staff.

c). 174 scientific and technical employees.

In addition, the full members of the Science Committee and the experts participating from time to time in the work of the Science Committee include:

Academics 1; 7 doctors of science; There were 7 professors.

As a result of the 4-year work of the team of scientists of the Committee of Sciences, the necessary scientific and material base for the creation of the Uzbekistan branch of the Academy of Sciences of the USSR was created[10].

The following institutions were established and carried out scientific research in the system of the Science Committee[11]:

1. Research Institute of Geology; 2. Institute of Language and Literature; 3. Tashkent Astronomical Observatory; 4. Committee for Protection and Study of Monuments of Material Culture of Uzbekistan (UZKOMSTARIS); 5. Botany sector; 6. Zoological sector; 7. Soil science sector; 8. Hydrology sector; 9. Energy sector; 10. Agroforestry reclamation sector; 11. Economic research sector; 12. Nature Protection Commission; 12. Mathematics office; 14. Geography office; 15. General chemistry cabinet; 16. Applied chemistry cabinet; 17. Kitab latitude station; 18. Seismic station in the city of Samarkand; 19. Solar technical laboratory; 20. Tashkent Zoo;

The following were formalized and equipped from the auxiliary scientific and research institutions:

1. Lithological laboratory (Scientific Research Technical Institute); 2. Chemical laboratory (Scientific Research Technical Institute); 3. Laboratory of soil mechanics; 4. Museum of Geology; 5. Laboratory of soil science; 6. Laboratory of plant physiology; 7. Herbariums of the botanical sector; 8. Tashkent experimental plot of the botanical sector; 9. Guralash[12] experimental site; 10. Guralash juniper reserve; 11. Mining and reclamation station in Sokhok;

In addition, the main library of the Committee of Sciences, Department of Cartography, publishing house, editorial office of the magazine, and the Book Board of the Committee of Sciences operated.

Among the research works[13]:

- Study of the flora and fauna of Uzbekistan;
- Study of soils and geology of Uzbekistan SSR and Karakalpakstan ASSR;
- Study of surface and underground waters of our SSR;
- Determination of energy resources of the republic and ways of their use. (Water, solar and wind resources).
- "Study of oil deposits based on lithological collection materials" and "Lithology of Tertiary deposits of Northern Fergana".

For 1938, the expenses of the state budget of the Science Committee (excluding expenses for postgraduate studies) were as follows (Table 1):

In the work plan of the scientific committee, methodological works had a large share.

The establishment of the Uzbekistan branch of the Academy of Sciences of the USSR is of great importance for Uzbekistan's scientific and research activities, in particular:

1. Establishing close relations with scientific research institutions of the center;
2. Methodological leadership is carried out by the All-Union Academy of Sciences;
3. Assistance will be provided in the training of young scientists;
4. Support is provided in expanding and strengthening the scientific and material base;
5. Forms of cooperative work are used in Uzbekistan on current complex problems of construction;
6. The arrival of academicians and professors of the center of mutual interest in joint work to Uzbekistan is encouraged.

Years	Total for the year	Including				
		About topic	For equipment and materials	For unbuilt technical service	For construction	Note
1933	977005	144680	23500	103825	705000	
1934	2616164	341920	242677	1634701	396855	
1935	2852725	923005	154287	1530906	244576	
1936	3992237	1749514	526910	1400028	315785	
1937	4591405	1522688	65109	2036152	379636	
1938	50110800	1993700	460000	1969700	587400	
	20040416					

Table 1. Expenditures of the state budget of the Science Committee for 1938.

According to the Minutes of the Extended Meeting of the Presidium of July 25, 1936, the Science Committee:

1. That the establishment of the Uzbekistan branch of the Academy of Sciences of the USSR be allowed to be implemented in time;

2. On January 1, 1939, in the city of Tashkent, on the basis of the Committee of Sciences, he asked to submit a proposal to the Presidium of the All-Union Academy of Sciences on the establishment of the Uzbekistan branch of the Academy of Sciences of the USSR.

The tasks of further development of science, elimination of fragmentation and improvement of the quality of work of scientific institutions required new, more advanced scientific and organizational forms of research management. Therefore, the Science Committee, which played its positive role but did not meet the new conditions, was reorganized on January 9, 1940 as the Uzbek branch of the Academy of Sciences of the USSR (UzFAN)[14].

In 1940, there were more than 60 special scientific research institutions of different scope and scope in the republic, which were helping to develop the national economy and culture[15]. The interests of the national economy demanded new forms of organization of scientific work in a way that would ensure interaction with the research conducted by scientists of the whole country under the leadership of the Academy of Sciences of the USSR. Therefore, on January 9, 1940, the Committee of Sciences, which unites the activities of many scientific institutions in the republic, was transformed into the Uzbekistan branch of the Academy of Sciences of the USSR (UzFAN). During the short period of UzFAN's existence (1940-1943), valuable work was carried out on a number of important scientific problems, the scope of research was expanded, and several new scientific institutions were established[16].

During this period, it functioned as the Uzbek branch of the SSR Academy of Sciences. We can cite the following about the activities of this branch until the first half of 1943[17]. During the last years of the Second World War, Uzbekistan, as a republic with the richest production resources, occupied a special place in the general system of the national economy of the USSR. New tasks such as the rapid construction of new energy centers, new plants and factories, the development of many new industries and new branches of agriculture, compensation for the damage caused by the temporary occupation of a number of territories by Nazi Germany, first of all, the Uzbekistan branch of the Academy of Sciences as the scientific center of the republic determined the radical restructuring of its activities.

The activities of the Uzbek branch of the Academy of Sciences of the USSR in this regard were aimed at solving the following main tasks from the beginning of the war, mainly based on the needs of the front[18]:

1. Scientific development of issues of expansion and rationalization of the energy base of the Uzbek SSR; 2. Scientific development of issues of the raw material base of the metallurgical industry of the Uzbek SSR; 3. Use of local raw materials for other sectors of the UZSSR; 4. Regionalization of agricultural crops and specialization of certain areas for plant growing; 5. Development of scientific issues, expansion of the agricultural base of our SSR; 6. Teaching the history of the peoples of Uzbekistan; 7. Study the history of Uzbek

literature; 8. Issues of the Uzbek language and writing; 9. Creation of educational materials from the Uzbek language;

In 1943, the main direction and content of the activities of the Uzbekistan branch of the Academy of Sciences of the USSR, while maintaining their validity, were the above-mentioned issues that determined the content and essence of the work of 1942.

In 1943, the following tasks were included:

10. Work on a collection of materials on the history of the Patriotic War in humanities; 11. Works on the application of mathematical statistics and the theory of artillery fire in the field of physical and mathematical sciences; 12. Works of the physical-technical laboratory in the following departments: radiological, thermoionic, photoelectric phenomena, acoustic and physical-technical control; 13. Works in the field of astronomy; 14. Works in the field of seismology;

In the first half of 1943, the composition of the Uzbekistan branch of the Academy of Sciences of the USSR was 15.

The structure of the branch consisted of:

1. Energy Institute; 2. Institute of Geology; 3. Institute of Botany and Soil Science; 4. Institute of Language, Literature and History; 5. Institute of Chemistry; 6. Physics-mathematics sector; 7. Physical and technical laboratory; 8. Zoology sector; 9. Bureau of Economic Research; 10. Tashkent Astronomical Observatory; 11. Samarkand seismic station; 12. Kitab latitude station; 13. Main library; 14. Department of cartography; 15. Publishing house.

In the period up to the first half of 1943, among the researchers of the Uzbekistan branch of the Academy of Sciences of the USSR, 2 people defended their dissertations to receive the scientific degree of doctor of science, 5 people defended their dissertations to receive the scientific degree of candidate of science, including[19]:

Doctor of technical sciences - 1; Doctor of physical and mathematical sciences-1; Candidate of Philosophy - 1; Candidate of historical sciences - 2; Candidate of economic sciences - 1; Candidate of physical and mathematical sciences -1.

The establishment of the republican Academy of Sciences, which is the highest new form of organization of science, made it possible to solve some issues of science and culture and to prepare and solve complex issues related to the national economy.

Uzbek scientists, combining all their efforts to solve the most important issues of the national economy of the republic and connecting their work with the work of interested institutions, began to put increasingly important issues of science development in the republic before the governments of the Uzbek SSR and the Soviet Union. They began to work out the theoretical issues of modern science, to solve the important issues raised by the growing national economy, to work out the most actual issues of cultural construction[20].

In general, the formation of scientific institutions in Uzbekistan, the establishment of the Science Committee and branches of the Academy of Sciences of the USSR created the foundation for the establishment of the Academy of Sciences.

Scientific institutions: Station, Committee, Department, Museum, Library, Society, Observatory, Circle, Experimental Station, Board, University, Cabinet, Committee, Council, Library, Section, Scientific Research Institute and Research Institutes were formed.

CONCLUSION

In 1920, at the then newly established State University of Central Asia, scientific research institutes created the basis for systematic work on the study of soils, plants, flora and fauna of Central Asia, especially Uzbekistan, as well as research in the sciences of physics, mathematics, geology and mineralogy.

In 1920-1921, the Uzbek alphabet, based on the Arabic script, was changed to the spelling rules of some letters, that is, it was reformed. However, the leaders of the Shura were not satisfied with this revolution. In order to eliminate the Uzbek alphabet based on the Arabic script, they demanded that our people voluntarily or forcibly switch to the Latin or Cyrillic alphabet.

20 scientific and 11 auxiliary scientific-research institutions: scientific-research institutes, observatories, committees, sectors, commissions, offices, stations, laboratories, experimental sites, parks and museums were operating in the system of the science committee.

The tasks of further development of science, elimination of fragmentation and improvement of the quality of work of scientific institutions required new, more advanced scientific and organizational forms of research management. Therefore, the Science Committee was reorganized as the Uzbek branch of the Academy of Sciences of the USSR.

In the pre-war years, great progress was made in the development of various fields of natural and social sciences in all national republics of the Union, including Uzbekistan.

All activities of scientific institutions were carried out on the basis of wartime requirements. Having captured the patriotism of the Soviet scientists, the scientists of Uzbekistan, together with the scientists of the whole country, opened more and more resources of the republic to ensure a successful fight against fascism.

As a republic with the richest production resources during the Second World War, Uzbekistan occupied a special place in the general system of the national economy of the USSR. new tasks determined the radical restructuring of the Uzbekistan branch of the Academy of Sciences.

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8. Own R FA MA Fund 1, list 1, collection 44. Sheet 1.

9. Own R FA MA Fund 1, List 1, Collection 44. Sheet 2.

10. Own R FA MA Fund 1, list 1, collection 44. Sheets 1-2.

11. Own R FA MA Fund 1, list 1, collection 44. Sheets 4-5.

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