

A NEW STAGE IN THE PLANNING OF SCIENTIFIC RESEARCH IN THE UZBEK SSR IN 1959

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Abstract. By the late 1950s, Soviet science policy in the Uzbek SSR entered a new stage characterized by the integration of scientific research with long-term socio-economic development objectives. In 1959, scientific policy was no longer limited to coordinating research activities but increasingly focused on strategic planning, institutional modernization, and strengthening the relationship between science and the national economy. This article examines the principal directions of science policy implemented in the Uzbek SSR during 1959, including the development of long-term scientific planning, the modernization of the Academy of Sciences, the expansion of scientific infrastructure, the coordination of research with economic planning, and the strengthening of international scientific cooperation. The study demonstrates that the reforms carried out during this period significantly enhanced the organizational and scientific capacity of the republic while simultaneously increasing the dependence of scientific development on the strategic priorities of the Soviet Union.

Keywords: Uzbek SSR, science policy, Academy of Sciences, scientific planning, institutional reforms, Soviet Union, scientific infrastructure, productive forces, research management, international scientific cooperation.

Introduction. The second half of the 1950s marked a new stage in the development of Soviet science policy. Earlier reforms had primarily concentrated on establishing a centralized system for planning and coordinating scientific research, whereas increasing attention was now directed toward integrating scientific activity with long-term economic development, expanding research infrastructure, strengthening institutional capacity, and improving the practical application of scientific achievements. Within this broader transformation, 1959 represented a turning point for the Uzbek SSR¹. During this year, comprehensive measures were implemented to modernize the organizational structure of the Academy of Sciences, improve strategic planning of research activities, expand scientific institutions, strengthen cooperation between science and production, and develop international scientific relations. Unlike previous stages, scientific research was increasingly regarded not only as a source of new knowledge but also as an important instrument for supporting industrial

¹ Отчет о деятельности академии наук УзССР за 1958 год. Издательство академии наук Узбекской ССР. Ташкент-1959. 17-6.



development, agriculture, energy production, geological exploration, and the rational distribution of productive forces². Consequently, scientific institutions became closely integrated into the state's long-term socio-economic planning system. This article analyzes the principal directions of science policy in the Uzbek SSR during 1959, with particular attention to strategic planning, institutional reforms, scientific infrastructure, integration of science with the national economy, and the expansion of international scientific cooperation.

Materials and Methods: This study is based on archival documents, official reports, and normative legal acts related to Soviet science policy in the Uzbek SSR in 1959. The research employs archival analysis and analytical methods based on the principles of historicism, objectivity, and scientific rigor to examine scientific planning, institutional reforms, and the development of the Academy of Sciences.

Results and Discussion. By 1959, Soviet science policy in the Uzbek SSR had entered a stage in which scientific research was closely linked with the republic's long-term socio-economic development strategy. During this period, scientific investigations extended beyond individual academic disciplines and increasingly focused on regional development, the rational utilization of natural resources, and the scientifically based distribution of productive forces. Within this framework, the Council for the Study of Productive Forces (SOPS) under the Academy of Sciences of the Uzbek SSR became one of the principal coordinating institutions responsible for directing comprehensive regional research. Its activities were particularly important in coordinating scientific investigations devoted to the development of Southwestern Uzbekistan. The implementation of these studies involved not only research institutes of the Academy of Sciences but also design organizations, higher educational institutions, and other scientific establishments. More than forty research projects were carried out within the framework of this program. Their findings provided comprehensive scientific assessments of the region's natural conditions and resources and substantiated long-term prospects for the development of energy, industry, and agriculture. The research results further served as the basis for preparing the General Scheme for the Development and Distribution of the Productive Forces of the Uzbek SSR for 1959–1975, developed jointly with the Institute of Economics of the Academy of Sciences³. This document demonstrates the growing strategic importance of scientific research in long-term state economic planning and confirms that scientific expertise increasingly became an essential instrument in shaping development policy.

The year 1959 marked a new phase in the institutional development of science in the Uzbek SSR. Alongside the strategic planning of scientific research, considerable attention was devoted to strengthening the organizational structure of the Academy of

² O'ZSSR Fanlar akademiyasi faoliyati to'g'risida hisobot. O'zbekiston SSR Fanlar akademiyasi nashriyoti Toshkent - 1959 C -26

³ O'ZSSR Fanlar akademiyasi faoliyati to'g'risida hisobot. O'zbekiston SSR Fanlar akademiyasi nashriyoti Toshkent - 1959 C -28



Sciences, expanding its research infrastructure, and improving the coordination of scientific activities. These reforms reflected the Soviet leadership's intention to increase the effectiveness of scientific institutions while aligning their activities more closely with the long-term objectives of state economic policy. One of the most significant developments during this period was the preparation of the first Development Plan for Science and Scientific Institutions of the Academy of Sciences for 1959–1965. For the first time in the history of the Academy, scientific development was planned within a medium-term strategic framework rather than through annual administrative plans alone. During the preparation of this document, priority research fields, the relationship between scientific investigations and the needs of the national economy, and the organizational structure of research institutions were comprehensively reviewed. In accordance with the resolutions of the Central Committee of the Communist Party of Uzbekistan and the Council of Ministers of the Uzbek SSR, twenty-eight new departments, sectors, and laboratories were established within the Academy of Sciences⁴. These reforms substantially expanded the institutional capacity of the Academy and created favorable conditions for the development of new scientific disciplines. The organizational restructuring was accompanied by the establishment of several new research institutions. In 1959, the Institute of Polymer Chemistry and the Institute of Petroleum and Gas Geology and Development were founded to support the rapidly developing chemical and fuel industries of the republic. At the same time, the activities of the Institute of Mechanics were considerably expanded, while the Institute of Nuclear Physics commissioned its first research reactor, providing new opportunities for experimental research in nuclear science. The establishment of the Computing Center under the Institute of Mathematics represented another important milestone in the modernization of scientific infrastructure and demonstrated the growing importance of computational methods in scientific research. Further institutional reforms strengthened the administrative structure of the Academy itself. The establishment of the Karakalpak Branch of the Academy of Sciences contributed to the expansion of scientific research in peripheral regions and enhanced the territorial distribution of scientific potential within the republic. Simultaneously, the creation of the Department of Technical Sciences within the Presidium of the Academy and the introduction of the position of Vice-President for Financial and Administrative Affairs improved the effectiveness of scientific management. Additional measures were implemented to increase the authority and responsibility of the bureaus of the Academy's scientific departments, thereby improving internal coordination and administrative efficiency.

Institutional reforms were accompanied by a substantial expansion of the republic's scientific potential. By 1959, the Uzbek SSR had 109 scientific institutions, employing more than 7,000 researchers, including approximately 200 Doctors of

⁴ Отчет о деятельности академии наук УзССР за 1958 год. Издательство академии наук Узбекской ССР. Ташкент-1959. 20-6.



Science and over 2,500 Candidates of Science. Within the framework of the Seven-Year Plan, state authorities envisaged increasing the number of scientific institutions to 120 and expanding the scientific workforce to 9,000 researchers⁵. At the same time, capital investment allocated to the Academy of Sciences increased considerably, confirming that the modernization of scientific infrastructure had become one of the principal priorities of Soviet science policy in the republic. Statistical indicators also demonstrate the scale of institutional growth achieved during this period. By the end of 1959, the Academy of Sciences comprised 38 scientific institutions, including 23 research institutes. Owing to the establishment of several new institutions between 1956 and 1959, the scientific infrastructure of the Academy expanded significantly. The total number of Academy employees exceeded 5,000, of whom nearly 1,700 were research personnel. During the same period, the number of postgraduate researchers doubled compared with 1956, reaching approximately 500. Government financing of science also increased substantially: allocations to the Academy of Sciences more than tripled between 1956 and 1959, expenditures for scientific equipment increased almost eightfold, while capital construction funding expanded approximately twelvefold⁶. These figures indicate that the strengthening of scientific infrastructure and the training of highly qualified scientific personnel had become central priorities of Soviet science policy by the end of the 1950s. Alongside the institutional modernization of scientific organizations and the closer integration of science with the national economy, 1959 was also marked by a significant expansion of the international activities of the Academy of Sciences of the Uzbek SSR. Although Soviet science policy remained subject to centralized state control, scientific cooperation with foreign countries was increasingly regarded as an important instrument for enhancing research quality, exchanging scientific information, and demonstrating the achievements of Soviet science at the international level. Within this framework, the Academy of Sciences of the Uzbek SSR became more actively involved in international scientific exchanges while simultaneously strengthening its own scientific and technical capacity.

Scientists from the republic participated in numerous international congresses, conferences, and symposia held in Geneva, Edinburgh, Canada, the United Kingdom, France, Poland, and several other countries⁷. Representatives of the Uzbek SSR presented research findings in such disciplines as physics, mathematics, genetics, zoology, geology, and law, thereby increasing the international visibility of scientific research conducted within the republic. Participation in these scientific forums enabled researchers not only to exchange professional experience with foreign colleagues but

⁵ З. И. Иномжонов. "КПСС XXI съезди Совет ижтимоий ва давлат тузумини мустахкамлаш ҳақида". "Қизил Ўзбекистон", "Правда Востока" ва "Ўзбекистон Сурх." Бирлашган нашриёти. Тошкент — 1959. С-41

⁶ О'ЗСРР фанлар академияси фаолияти то'ғ'рисида ҳисобот. О'збекистон ССР Фанлар академияси нашрийоти Тошкент - 1959 С-8

⁷ Отчет о деятельности академии наук УзССР за 1958 год. Издательство академии наук Узбекской ССР. Ташкент-1959. 23-6.



also to introduce the scientific achievements of the Uzbek SSR to the broader international academic community.

International scientific cooperation was further strengthened through the systematic exchange of scientific publications. The Fundamental Library of the Academy of Sciences significantly expanded its cooperation with foreign scientific institutions, receiving nearly one thousand foreign scientific publications through international exchange programs while sending more than four thousand scientific works to research organizations abroad. These activities substantially improved access to contemporary scientific literature and facilitated the integration of researchers in the Uzbek SSR into international scientific communication. The development of international cooperation became even more evident through the growing number of scientific exchanges and visits organized with foreign research institutions. Scientists from the Uzbek SSR participated in international academic missions, while foreign researchers increasingly visited scientific institutes within the republic. Collaborative research projects were established in such fields as botany, genetics, geology, hydrology, and water management, contributing to the exchange of scientific methodologies and research experience. At the same time, the Academy maintained regular publication exchanges with scientific institutions in thirty-two foreign countries, considerably expanding the international circulation of scientific information. These developments indicate that, despite the ideological constraints of the Cold War, scientific institutions in the Uzbek SSR were becoming progressively integrated into the broader international scientific community.

The expansion of international scientific cooperation coincided with a further strengthening of the republic's scientific capacity. By the end of 1959, the Academy of Sciences included thirty-eight scientific institutions, among them twenty-three research institutes. The number of Academy employees exceeded five thousand, including approximately 1,700 research personnel, while the number of postgraduate researchers had doubled compared with 1956, reaching nearly 500. Government investment in scientific development also increased substantially. Between 1956 and 1959, state funding allocated to the Academy more than tripled, expenditures for scientific equipment increased almost eightfold, and capital investment in research infrastructure rose approximately twelvefold. These indicators demonstrate that strengthening scientific infrastructure and expanding the training of highly qualified scientific personnel had become among the principal priorities of Soviet science policy in the Uzbek SSR. Another important feature of science policy in 1959 was the introduction of problem-oriented research planning within the Academy of Sciences. During the reporting period, scientific investigations were organized around ninety-six major research problems encompassing 340 individual research topics⁸. This approach

⁸ O'ZSSR fanlar akademiyasi faoliyati to'g'risida hisobot. O'zbekiston SSR Fanlar akademiyasi nashriyoti Toshkent - 1959 G-9

represented a departure from isolated disciplinary investigations toward integrated research programs addressing complex scientific and economic challenges. Consequently, scientific activities became more closely connected with the practical requirements of industrial production, agriculture, natural resource development, and long-term economic planning. The cumulative effect of these reforms demonstrates that international scientific cooperation in 1959 was not pursued as an isolated objective but formed an integral component of the broader modernization of Soviet science. The expansion of foreign scientific contacts, the strengthening of research infrastructure, and the growth of scientific personnel substantially enhanced the research capacity of the Uzbek SSR. At the same time, these achievements remained closely connected with the centralized priorities of Soviet science policy, under which international cooperation served both scientific development and the strategic interests of the Soviet state.

Conclusion. The analysis demonstrates that 1959 represented a significant turning point in the development of Soviet science policy in the Uzbek SSR. During this period, the emphasis of state policy shifted from the establishment of centralized mechanisms for coordinating scientific research toward the strategic planning of scientific development, institutional modernization, and the closer integration of science with the long-term objectives of economic development. Scientific research increasingly became an essential component of state planning, while the Academy of Sciences of the Uzbek SSR assumed a more active role in addressing the republic's economic and technological priorities. The reforms implemented during 1959 substantially strengthened the institutional foundations of science in the republic. The establishment of new research institutes, departments, laboratories, and regional scientific centers, together with the expansion of scientific personnel, research infrastructure, and state financial support, significantly enhanced the research capacity of the Academy of Sciences. At the same time, the introduction of medium-term development planning and problem-oriented research management improved the coordination and effectiveness of scientific activities.

The expansion of international scientific cooperation further contributed to the modernization of scientific activity in the Uzbek SSR. Participation in international conferences, the development of scientific exchanges, cooperation with foreign research institutions, and the growing circulation of scientific publications strengthened the republic's scientific potential and expanded its participation in international academic communication. Nevertheless, these developments remained closely integrated into the centralized framework of Soviet science policy and continued to serve the broader strategic priorities of the Soviet state. Overall, the reforms implemented in 1959 laid the institutional and organizational foundations for the subsequent development of science in the Uzbek SSR. While they considerably expanded scientific capacity, improved research infrastructure, and enhanced the practical application of scientific knowledge, they also reinforced the centralized



character of Soviet science policy by making the priorities, financing, and long-term direction of scientific development increasingly dependent on all-Union political and economic objectives. Thus, 1959 can be regarded as a decisive stage in the transformation of science policy in the Uzbek SSR, marking the transition from administrative coordination toward a comprehensive system of strategic scientific planning and institutional modernization.

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