The State Policy Of The Republic Of Uzbekistan In The Field Of Science Within The Frame Work Of The Implementation Of Strategy Of Actions

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Abstract. This Article is devoted to researching a modern position of science developments in Uzbekistan. In the article, government activities to further intensify scientific activities and financial support for research centers in recent years in the republic. Also, there were demonstrations about main priorities and development developments of research activities in the Academical Institutes. In addition, there was illumination a government policy directed to develop a new scientific direction and intrude innovative skills to the Uzbekistan's economy.

Keywords: Science, The Academy of science, scientific activities, preparing a personal, Innovative technology

INTRODUCTION

Science and its rapid development in the context of globalization of the modern world remains one of the priority factors of state building. However, in the last decade in Uzbekistan, due to the economic difficulties of the transition period and social problems in society, and subsequently insufficient attention to the development of science and the activities of the Academy of Sciences of the Republic, the development of science began to lag behind the requirements of the time.

As a result, the material and technical infrastructure of research institutes was not updated and outdated, the impact of scientific research reduced, the social status of scientists diminished, national science began to lag behind global trends in the world science.

After the election of Shavkat Mirziyoyev as the President of the Republic, the situation in this industry began to change dramatically. The first meeting of the President of our country as the head of state took place in December 2016 precisely with the scientific community including
academics and leading scientists of the country. At the meeting, many unresolved problems were raised related to the development of science and personnel training, as well as the social protection of scientists.

**METHODOLOGY AND RESEARCH**

For the first time, from January 1, 2017, at the initiative of the head of state, it was decided to pay an annual fee to academics in the amount of ten minimum wages, not taxed on income of legal entities, as well as an annual allowance for attending course the health-improving institutions [1]. Significant work has been carried out aimed at strengthening the material and technical potential and increasing the effectiveness of research activities. A number of new scientific and innovative structures as the Center for Genomics and Bioinformatics, the International Institute of Solar Energy, the Center for High Technologies with the involvement of the University of Cambridge have been created.

With the adoption of the Strategy of Actions for the five priority areas of development of the Republic of Uzbekistan in 2017-2021, where the tasks of further development of Uzbekistan were outlined, a new stage of reforms of all spheres of public life of the Republic began [2].

The Strategy of Actions was based on the conceptual issues of socio-political, socio-economic, cultural and humanitarian development of the country, voiced by the President of the Republic of Uzbekistan Shavkat Mirziyoyev during the election campaign, and numerous meetings with the public, representatives of the business community, as well as government bodies.

The aim of the Strategy of Action is to radically increase the effectiveness of the reforms, create conditions for the comprehensive and accelerated development of the state and society, modernize the country and liberalize all spheres of life.

In particular, 5 priority areas of the country’s development have been identified:

1. Improving state and social construction;
2. Ensuring the rule of law and further reformation of the judicial system;
3. Development and liberalization of the economy;
4. Development of the social sphere;
5. Ensuring security, interethnic harmony and religious tolerance, implementing a balanced, mutually beneficial and constructive foreign policy.

Each of these areas contains specific sections on further deepening
reforms and transformations in the country.

In the priority areas of the development of the social sphere, the action strategy sets out as a separate item the task of developing the field of education and science, where the most important areas are the stimulation of research and innovation, the creation of effective mechanisms for introducing scientific and innovative achievements into practice, and the creation of higher educational institutions and research institutes of specialized research laboratories, and high technology centers technoparks.

In order to solve the accumulated problems in this area, a Decree “On measures to further improve the activities of the Academy of Sciences, the organization, management and financing of research activities” was adopted by the President of the Republic of Uzbekistan [3].

The Decree also paid special attention to stimulating effective scientific activity. For this purpose, the Fund of financial incentives for scientists of the Academy of Sciences was established, which achieved significant outcomes based on the results of scientific research, with the formation of its budget through the allocation of research institutions of the Academy of Sciences in the amount of 10 percent of the net profit from their economic and entrepreneurial activities.

Also, in accordance with the Decree, the State Commission on Science and Technology was created, headed by the Prime Minister of the Republic of Uzbekistan, which was entrusted with the tasks of developing and implementing a unified state policy in the field of scientific and technical activities, and with the functions of identifying priority areas of innovation policy.

The working body of this commission is the Agency on Science and Technology of the Republic of Uzbekistan on the basis of the abolished Committee for the Coordination of the Development of Science and Technology under the Cabinet of Ministers. The agency has been assigned with the formation of government tasks for providing scientific and technical services, in particular, the implementation of fundamental applied and innovative research for economic and social sectors. Another important issue that will be resolved due to this Decree is the creation of the Fund for Support and Development of Scientific and Technical Activities as a legal entity under the State Commission for Science and Technology, the budget
of which will be used for the following purposes:
- creation of fundamentally new research laboratories equipped with modern high-tech equipment in scientific research and higher educational institutions;
- covering the costs of registration abroad of intellectual property rights (patents) created by domestic scientists in the framework of state scientific and technical programs;
- uninterrupted supply of modern laboratories with scientific instruments and equipment through necessary expenses for materials and components;
- covering costs to ensure free access of research and higher educational institutions to the world's leading electronic scientific databases;
- funding short-term scientific internships for young scientists in leading foreign research centers.

There are 93 scientific and educational, 73 higher educational, 63 design, and almost 230 scientific and educational institutions in Uzbekistan, which are organizations, that are enforcing state scientific and technical programs. More than 11 thousand Doctors of sciences and other employees work in these institutions.

In 2017, within the state scientific and technical programs, more than 400 fundamental, and almost one thousand applied, and 370 innovative research projects were implemented. As a result of this, in 2017, the export of scientific productions of the Academy of Sciences constituted more than 3 million 200 thousand US dollars [4].

During 2017-2019, one Act, and 27 Decrees, and Orders of the President were adopted, as well as more than 40 Decisions of the Government, which are aimed at streamlining research activities and further development of the Academy of Sciences [5].

Based on these documents, the activity of more than ten research institutes was restored in the system of the Academy of Sciences, and the quality of work carried out in existing institutes drastically improved. In particular, the Decree of the President of the Republic of Uzbekistan on the further development of mathematics, nuclear physics and seismology was adopted.

According to the Decree of the Cabinet of Ministers “On the radical improvement of archaeological research”, dated September 21, 2019, The National Center for Archeology was created in the Academy of Sciences [6].

The main objectives of the Center were identified:
Scientific and historical guidance of archaeological research conducted in the Republic and the widespread use of modern research methods of the natural sciences in archaeological research;

- Organization of complex archaeological expeditions using innovative technologies in close connection between education and practice;

- Preparation of scientific basis for the conversion of archaeological sites into open-air museums and others.

To increase the effectiveness of research and optimization of the administrative apparatus, the staff of the Academy of Sciences was doubled, and the salary of scientists was also significantly increased.

On the basis of preferential and mortgage loans, young were gifted with housing, which served to attract talented young people to the academic environment. The brain drain of workforce from research institutes sharply decreased.

As a result, certain successes in science have been achieved in recent years. Scientific potential in research institutions has increased. In 2019 alone, 138 doctoral dissertations were defended, which is 15% more than last year and 50% more compared to 2017. The number of defended works on time has increased significantly compared to last year and amounted to 50%. [7]

In addition, to ensure the continuous change of generations of scientists and the goal of attracting young people to scientific activity, starting from 2020, the school of Research Trainees was re-established in research institutes, and 100 young researchers were hired.

In the context of globalization, the development of international cooperation in all areas of modern science is important. When, science plays a decisive role in shaping, the intellectual potential of the nation and the innovative development of the state.

Over the past years, international scientific relations have been significantly intensified and more than 50 cooperation agreements with major research centers and technologies giants have been signed. In particular, agreements were signed with Russia, China, and the Rosatom Academy of Sciences of Belarus, as well as with the Joint Institute for Nuclear Research. During 2019, 113 employees of the Academy of Sciences underwent internships at leading foreign centers more than 500 scientists participated in international conferences and seminars [8].

In the near future, construction of a nuclear power plant will also begin in
Uzbekistan. Uzbekistan’s fast-growing economy needs cheap electricity.

Taking into the account the complexity of the problems and the need for their comprehensive and systematic solutions, it is necessary to attract young scientists and engineering national personnel to the nuclear industry who can ensure the economic development of Uzbekistan. Therefore, it was decided to establish in Tashkent a branch of the Russian National Research Nuclear University MEPhI - in 2019, 100 applicants were selected on the basis of a state grant [9].

At the present time, Uzbek scientists are making a worthy contribution to the development of world science. Uzbek scientists for the first time in the world have developed a technology for producing nanoparticles based on silicon dioxide, which allows to obtaining new innovative materials. 90 new plant species that were unknown in the Asian continent were also discovered. The technology of improving the quality of semi-ferrous metals has been mastered, which will increase the value of the final product.

Archaeologists of Uzbekistan had made a discovery of world significance in the Samarkand during the excavation of the Kofirkal monument. Together with scientists from Europe, Japan, Russia and Kyrgyzstan, a DNA bank of more than 20 ethnic groups of Central Asia and the Caucasus was compiled, which is a great success in the development of domestic science. In addition, the fifth edition of Uzbekistan’s Red Book was prepared with the participation of foreign institutions and scientists [10].

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The successes achieved in the field of science in recent years are of great practical importance in economic and social life. For instance, after the creation of an import-substituting portable ozone generator to fight pests, the efficiency in the disinfection of vegetable bases and greenhouses has increased. After the creation of technology for the production of isotopes in a cyclotron and nuclear reactor for medical purposes, this area has risen to a new level.

Since January 2020, in all state educational and research institutions that are financed through the budget for all scientists, to those with a Candidate of Sciences or Ph.D. degree, salary allowances are paid up to 30%, while for the Doctors of Sciences are up to 60% [11].

A vivid example of ongoing reforms aimed at the development of
science, scientific potential and strengthening ties between the sectors of the economy and science was the Act of the Republic of Uzbekistan “On Science and Scientific Activities” adopted on October 29, 2019[12].

This most important legislative document establishes the main regulations in science, and the authority of the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of Innovative Development, the Academy of Sciences, ministries and departments, scientific institutions, universities, as well as other organizations that coordinate and carry out scientific research.

Particular attention in the Act is paid to issues of comprehensive state support of scientific activity, organization and financing of scientific research. This Act will serve to further enhance the role of science, increase scientific activities and the impact of research made by scientists of the Republic, aimed at sustainable development of the economy of Uzbekistan.

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