

Information Exchange in Science and Technology between the  
European Research Area and Eastern  
European/ Central Asian Countries



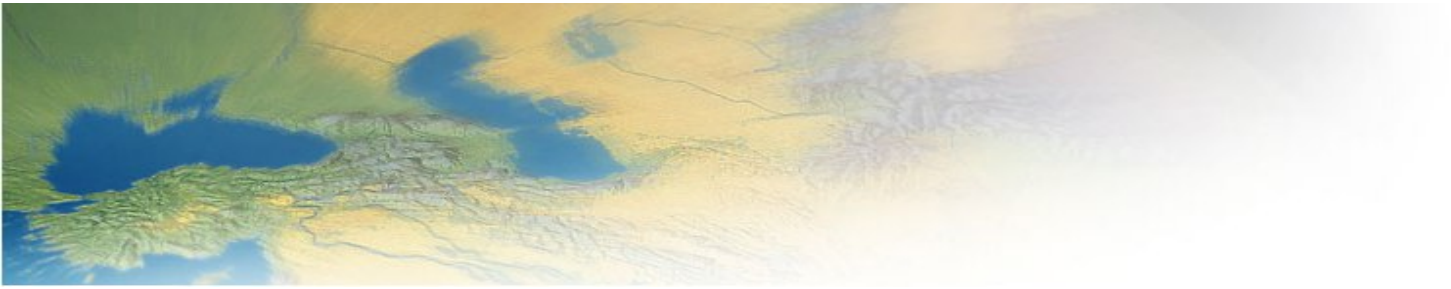
## UZBEKISTAN

### Country Report

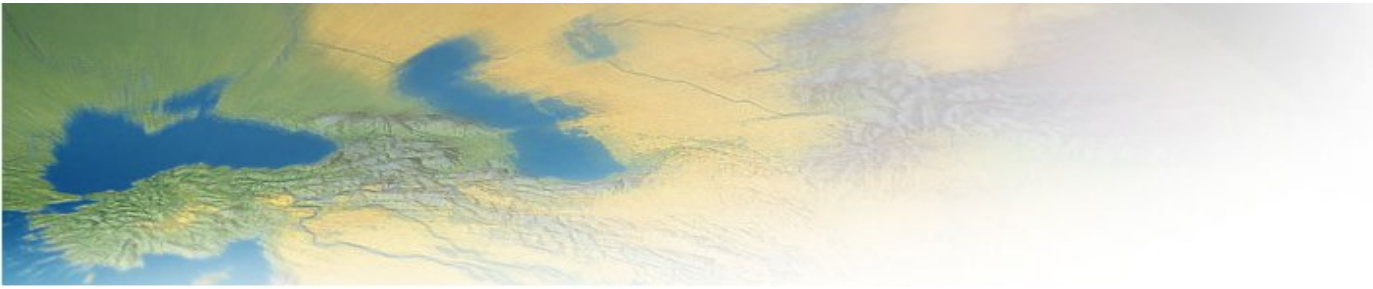
(last updated 12 October 2010, source: **IUCP-T**)

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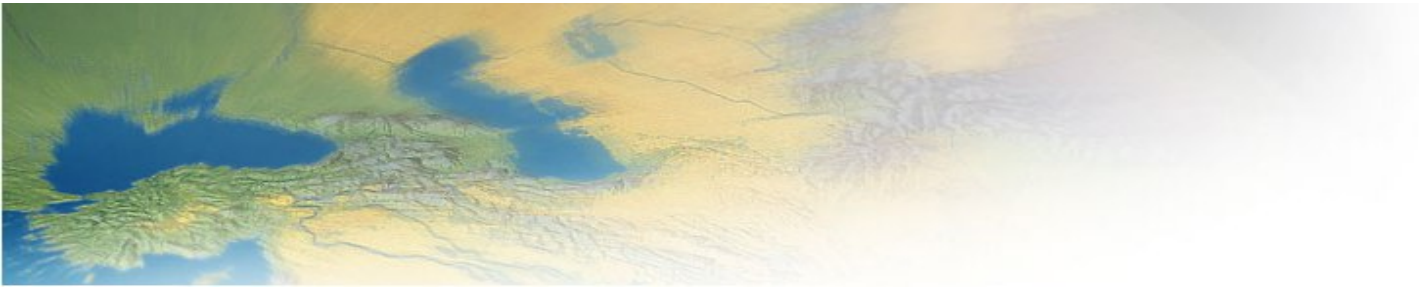


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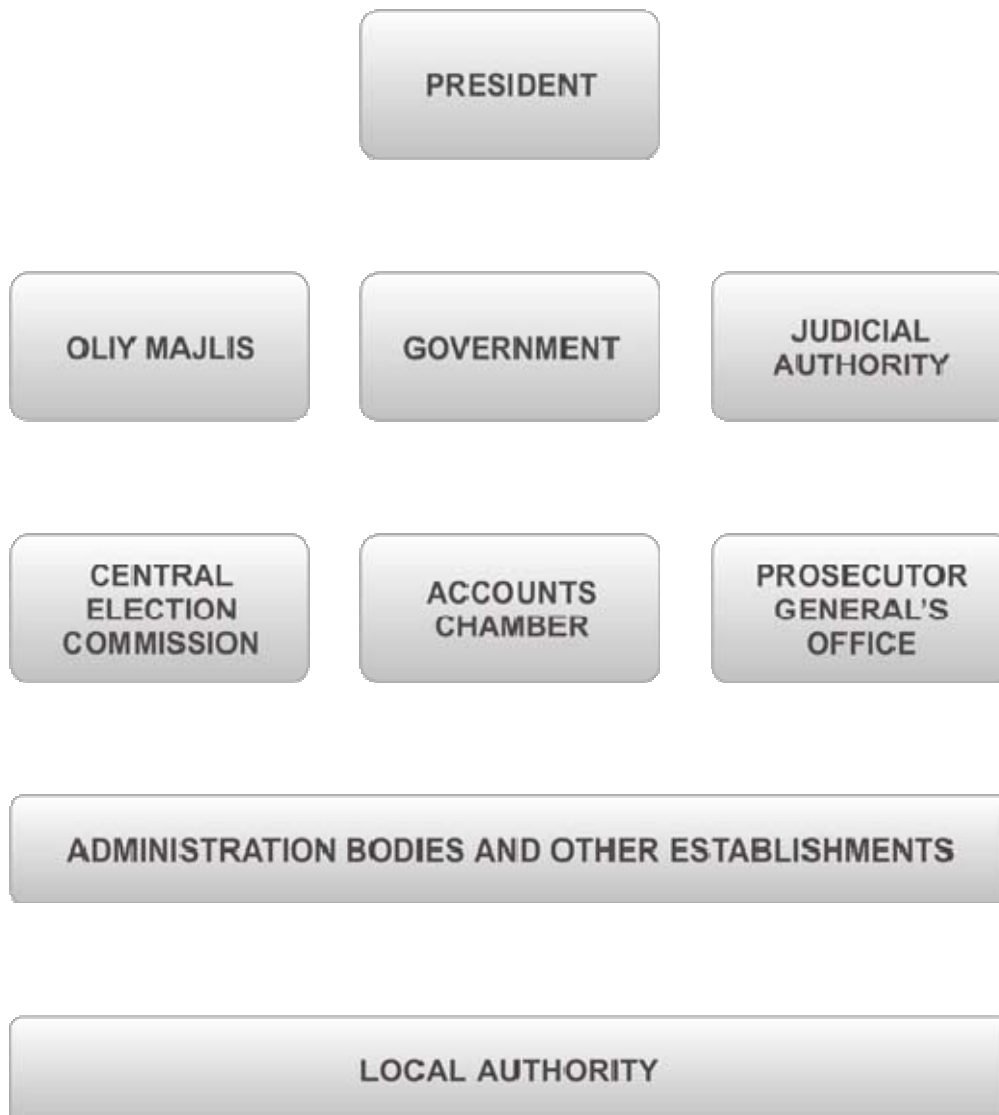


## General information about Uzbekistan:

<b>Official name of the country</b>	Uzbekistan
<b>Population</b>	27,5 million (2008)
<b>Area</b>	Total - 447,400 sq. km.; land - 425,400 sq. km.; water - 22,000 sq. km
<b>Capital</b>	Tashkent
<b>System of Government</b>	Republic; Cabinet of Ministers - The Government of the Republic of Uzbekistan is the executive power body of the Republic of Uzbekistan, ensuring guidance over effective functioning of the economy, social and cultural development, execution of the laws, and other decisions of Oliy Majlis, as well as decrees and resolutions issued by the President of the Republic of Uzbekistan.
<b>Head of Government</b>	Prime Minister - Shavkat Miromonovich MIRZIYOEV
<b>Minister of Higher and Secondary Special Education of the Republic of Uzbekistan</b>	Bakhodir Yunusovich KHODIEV
<b>Parliament</b>	The Oliy Majlis of the Republic of Uzbekistan consisting of two chambers - the Legislative Chamber (the lower chamber) and the Senate (the upper chamber).
<b>Geography</b>	Most of the territory of Uzbekistan is occupied by plains (nearly four fifths of the territory). One of the main plains is the Turanian Plain. In the east and north-east of the country are the ranges Tien Shan and the Pamirs, which is the highest spot in the country. One of the largest deserts of the world, the Kyzyl Kum Desert, is located on the north of the central part of the territory of Uzbekistan.

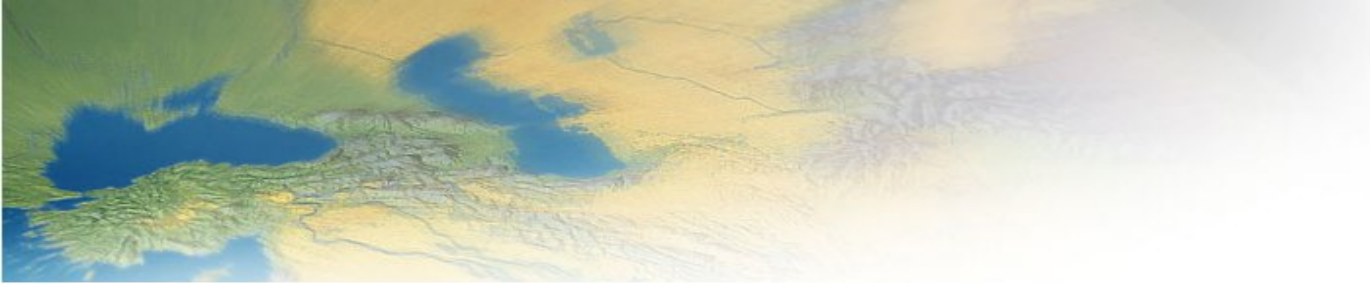


## State authority



## President of the Republic of Uzbekistan

The President is the head of state and executive power, and acts as the guarantor of the observation of rights and freedoms of citizens, the Constitution and the laws of the Republic of Uzbekistan. The citizen of the Republic of Uzbekistan not younger of thirty years old who possesses the state language, living permanently in the territory of Uzbekistan not less than 10 years immediately before elections can be elected as a



President of the Republic of Uzbekistan. One person cannot be elected as a President for two times in succession.

### **Oily Majlis**

The supreme state representative body shall be the Oliy Majlis of the Republic of Uzbekistan that exercises legislative power. The Oliy Majlis of the Republic of Uzbekistan shall consist of two chambers – the Legislative Chamber (the lower chamber) and the Senate (the upper chamber). The term of powers of the Legislative chamber and the Senate of the Oliy Majlis of the Republic of Uzbekistan – five years.

### **Cabinet of Ministers**

The Cabinet of Ministers in its activity is guided by principles collective leadership, democracy and legality, accounting of interests of all nations and nationalities inhabiting the Republic of Uzbekistan. The Cabinet of Ministers shall issue resolutions and ordinances in accordance with the current legislation. This shall be binding on all bodies of administration, enterprises, institutions, organizations, officials and citizens throughout the Republic of Uzbekistan.

### **Judicial authority**

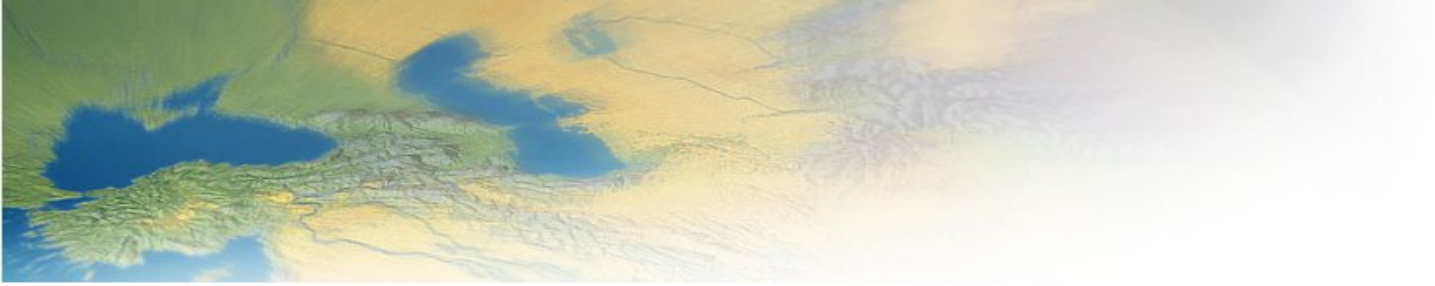
The following types of courts work in the Republic of Uzbekistan: Constitutional Court of the Republic of Uzbekistan, Supreme Court of the Republic of Uzbekistan, Higher Economic Court of the Republic of Uzbekistan, Supreme Civil and Criminal Courts of the Republic of Karakalpakstan, Civil and Criminal Regional (Viloyat) and Tashkent City Courts, Civil Inter-district, District (city) Courts, Criminal District (city) Courts, Economic Court of the Republic of Karakalpakstan, Economic Courts of Regions (Viloyat) and Tashkent City, Martial Courts.

### **Central election commission**

The Central Election Committee of the Republic of Uzbekistan (then — the Central Election Committee) shall be formed to organize and hold the election of the President of the Republic of Uzbekistan, and members of the Senate, deputies of the Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan, as well as referendum of the Republic of Uzbekistan and carries out its activities on a permanent basis.

### **Accounts chamber**

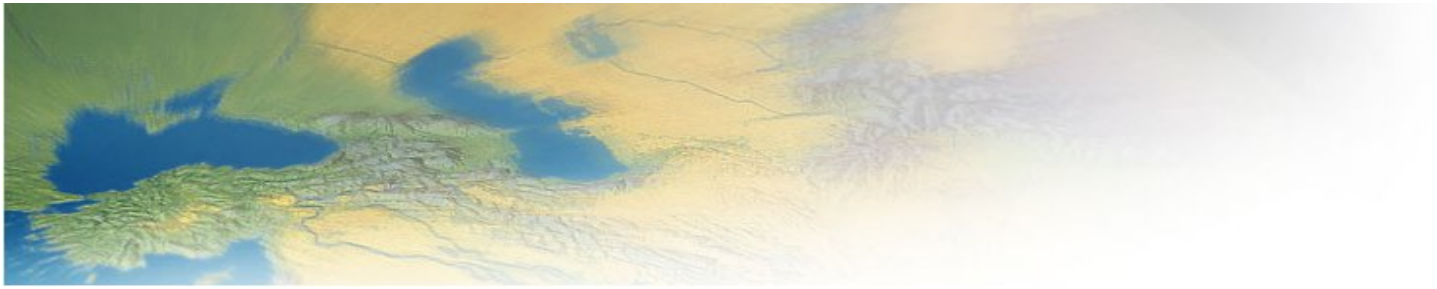
Accounts chamber is the independent supreme body of the financial control that is independent and objective in its estimations, carrying out monitoring and state supervision of target and effective execution of the State budget of the Republic of



Uzbekistan and outside budget target funds, state and movement of actives and passives of the government, reproduction, management and arrangement of golden reserves and external borrowings.

### **Prosecutor General's Office**

Prosecutor General's Office of the Republic of Uzbekistan is a uniform centralized system of bodies of Prosecutor General's Office, headed by the General Prosecutor of the Republic of Uzbekistan. The basic tasks of Prosecutor General's Office bodies of the Republic of Uzbekistan are maintenance of law supremacy, strengthening of legality, protection of the rights and freedom of the citizens protected by the law of society interests and the state, constitutional building of the Republic of Uzbekistan, prevention of offences.



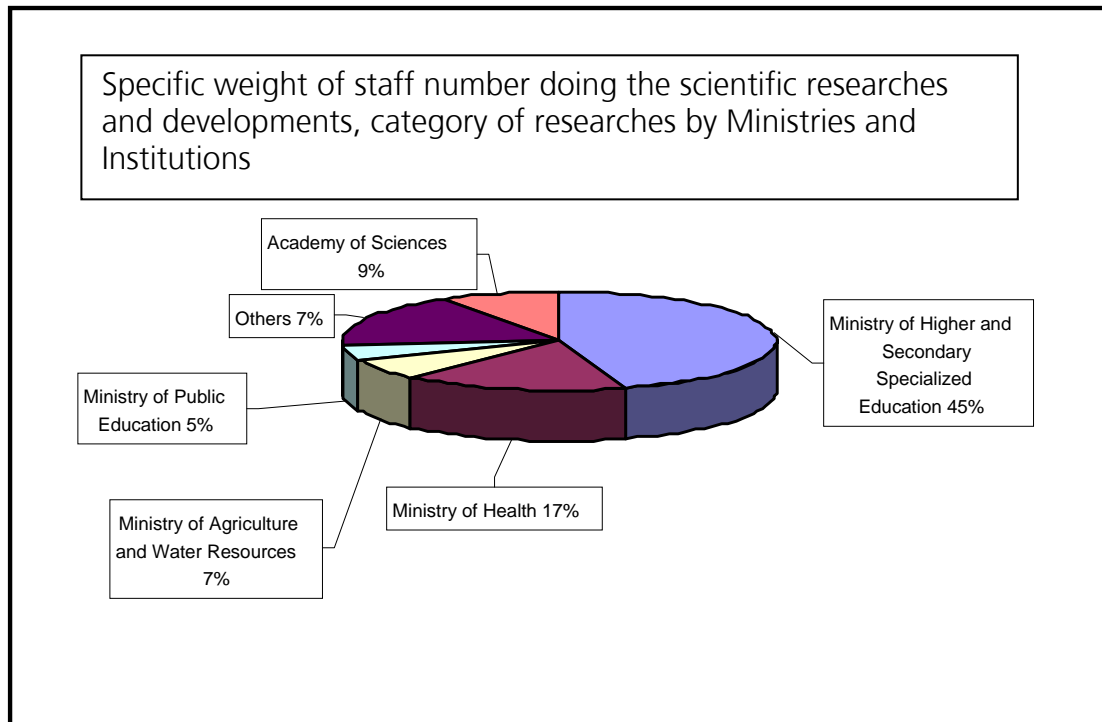
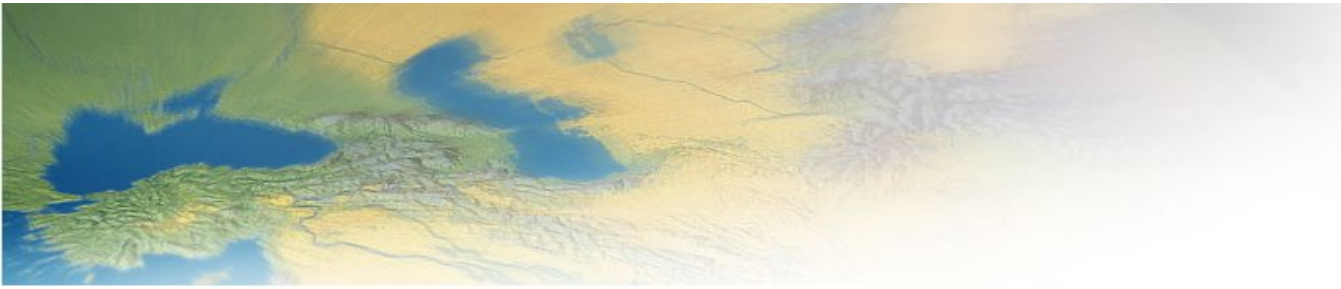
## Research structure

The system of R&D management, accepted in Uzbekistan is based on State support of fundamental & applied researches by awarding grants for relevant projects through their pre-review selection.

S&T priority fields of the country are formed taking into consideration main priorities for socio-economic development, as well as modern trends of the world science development.

Research complex of Uzbekistan includes 361 institutions in academic, high educational, medical, agricultural spheres (202 research institutes, 62 universities, 65 design organizations, 32 scientific & production associations and experimental enterprises).

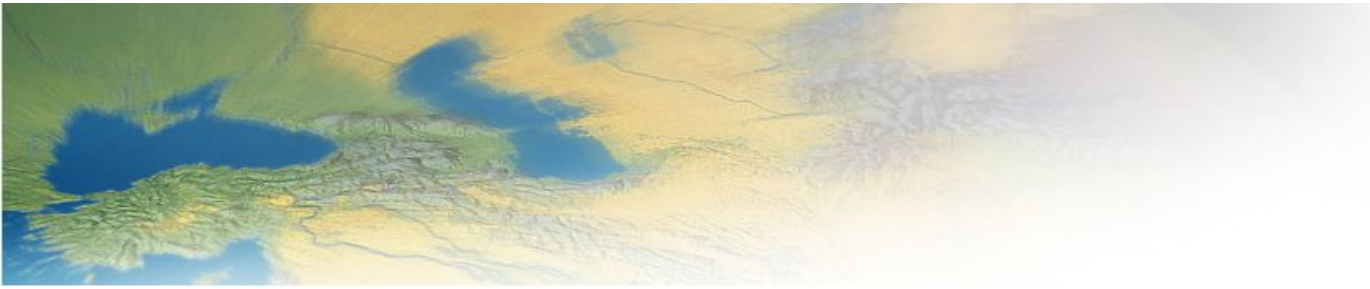
	Personnel dealing with researches						
	Researchers				Technics	Additional personnel	Others
	Total	Doctorates	PhD	Under-graduates			
Academy of Sciences	2421	447	1056	918	1224	1053	89 2
Ministry of Higher and Secondary Specialized Education	11738	996	4526	6216	715	1037	16 2
Ministry of Healthcare	4465	666	1674	2125	105	457	47
Ministry of Agriculture and Water Resources	1833	190	618	1025	344	617	14 8
Ministry of Public Education	1244	69	446	729	4	29	0
Others	4444	353	911	3180	683	550	37 5
Total	26145	2721	9231	14193	3075	3743	16 24



Academy of Science, Ministry of Higher and Secondary Specialized Education, Ministry of Agriculture and Water Resources, Ministry of Healthcare of Uzbekistan are the main ministries, having biggest R&D infrastructures.

The main task of the Uzbekistan Academy of Science is to solve main fundamental and applied scientific problems of country's economy. The Academy has 50 research institutes in all fields of modern science & technologies, including Physics, Chemistry, Biology, Earth Sciences, Material Sciences, Information Technologies, Social Sciences, Humanities, etc.

Under High Education Ministry there are 87 universities and research institutes, having highest research potential (approx. 74% of PhDs and Doctors of Science are working in this system). One more strength of the High educational research infrastructure – it is located not only in the Capital city – Tashkent, but also in provinces: universities of Samarkand, Bukhara, Khorezm, Fergana and Termez have strong research teams and well equipped Labs, which successfully participate not only in domestic research programs, but also in programs & calls of such international organizations as FP7, CRDF, Science Program of NATO, etc.



Scientific & Production Association of Agriculture under Ministry of Agriculture and Water Resources and is the biggest R&D infrastructure of Uzbekistan in the field of agriculture having 12 research institutes. Researches carried out in the Association are directed to solve main S&T problems in agricultural industry (breeding of new varieties of cotton and other industrial crops, resistance of plants to environmental stresses, water saving technologies, new effective fertilizers, horticulture, etc.).

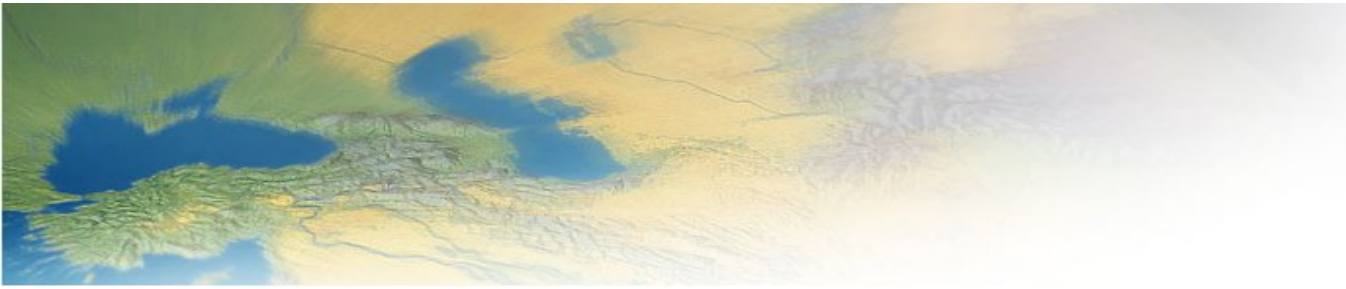
Under Ministry of Healthcare there are 18 research institutes and 6 medical universities. Total number of persons involved in R&D in the field of medicine & development of new effective medical drugs are more than 4500. Medical Scientists of Uzbekistan successfully cooperate with their foreign partners and participate in Programs of WHO, UNDP, scientific funds EU and USA, as well as special programs of S&T cooperation with CIS and Central Asia countries.

In addition to institutes and universities underreported to mentioned ministries, there are another 143 ones, belonging to other ministries and independent entities which also have rather big research potential (approx. 25%). Coordination and financing of R&D activities of these entities are executed directly by CCSTD and these researches cover, practically, all priority S&T fields.

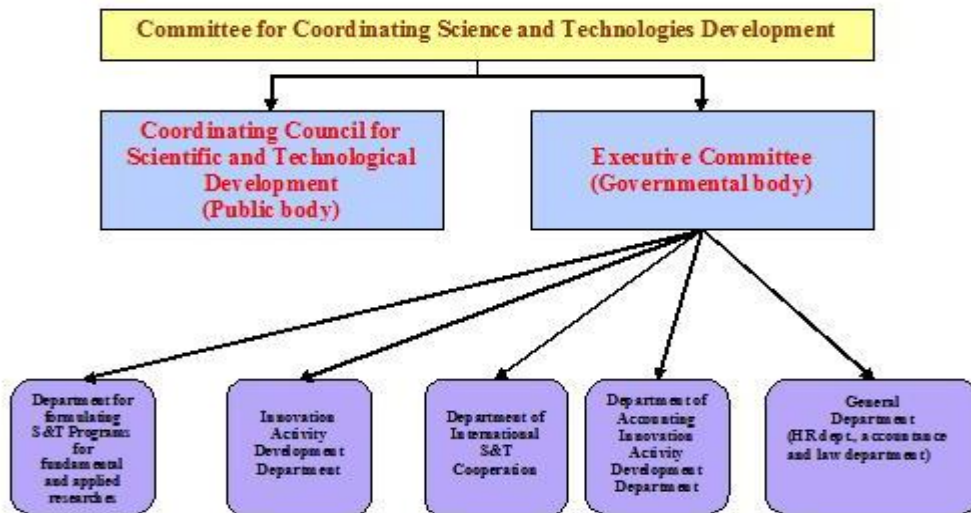
Committee for Coordination of Science and Technology Development under Cabinet of Ministers of the Republic of Uzbekistan (CCSTD) is the main Governmental body responsible for implement of the state S&T policy. CCSTD has been established by the Decree of the President of Uzbekistan No 436 from 07/08/2006.

The main tasks of CCSTD are as follows:

- Working out priority fields of S&T development taking into consideration tasks of socio-economic development of the country and achievements of modern science and technologies;
- Coordination of research programs, innovation activities of ministries, departments, universities, institutes and design organizations on in the framework of the priority S&T fields;
- Monitoring and implement of research and innovation projects, efficiency of using of funds allocated to relevant projects and application of the projects' results in industries;
- Development mutually beneficial international S&T cooperation, involvement of foreign investments in the country's scientific sphere, assistance to research institutes, universities, scientists and engineers of Uzbekistan in widely participation in International S&T Programs.



## Organizational chart of CCSTD

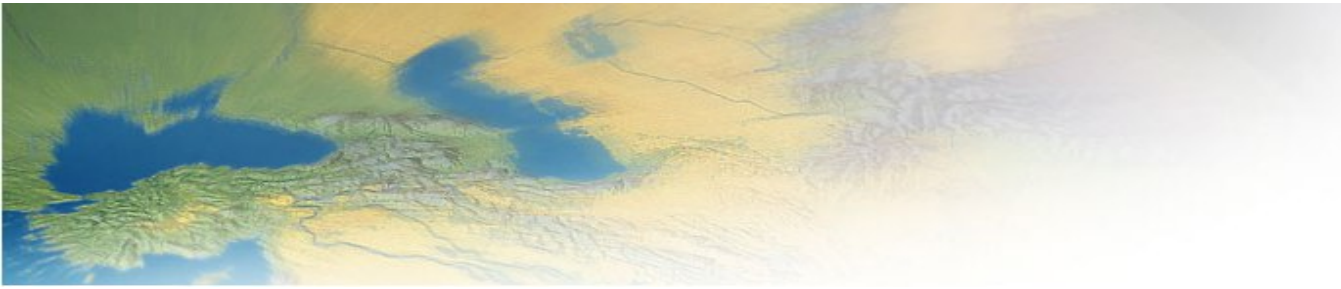


## Main R&D funding institutions and mechanisms

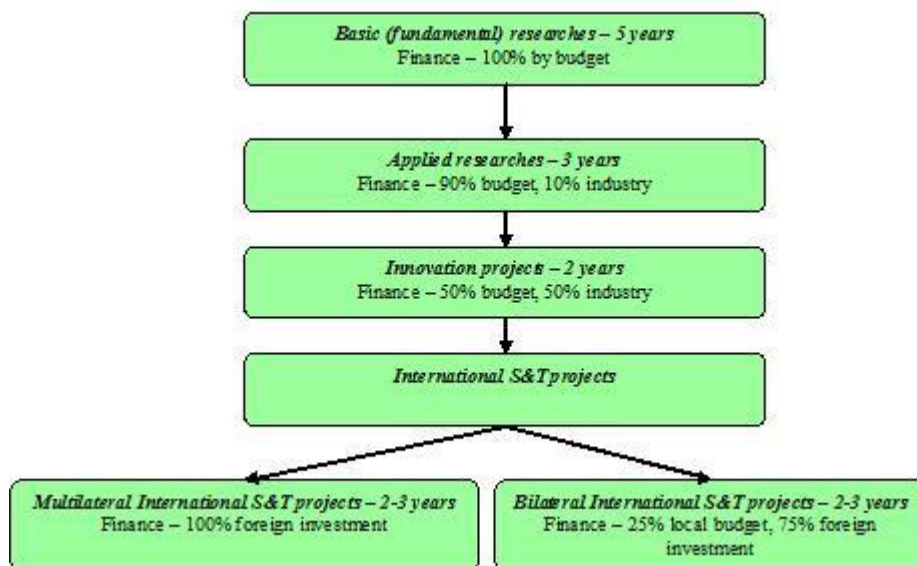
In conditions of realization of economic reforms on transition of the Republic to the market economy the necessity of development of the appropriate principles of regulation of scientific and technical activity is urgently dictated. This is famous in the world experience, the principle of state support for the development of scientific and innovation activity, which assumes the complete orientation to the final scientific and technological results, competitive selection of perspective applied researches and developments, stimulation of competitiveness of intellectual production, effective functioning of economic and legal mechanisms determining the responsibility of the participants of scientific and technical and innovative activity for the results of work and target use of state funds.

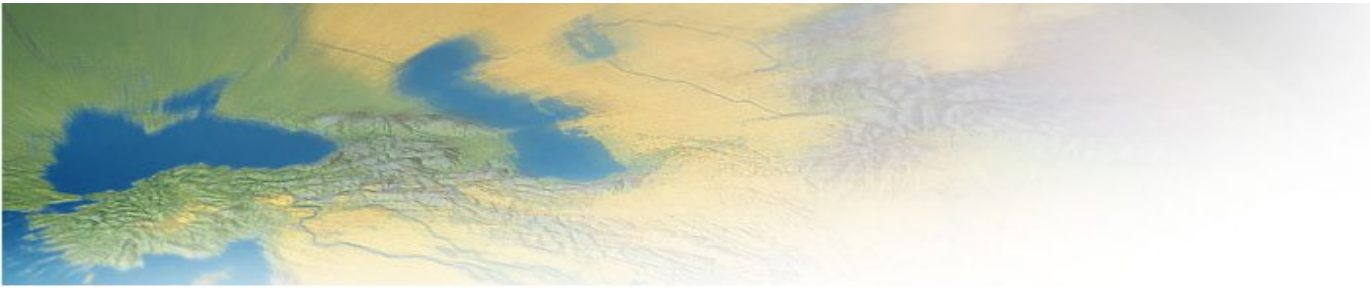
Meanwhile the state support by financial assets and material resources is carried out not for the separate establishments of science and hierarchical structures but concrete programs and projects.

Competitive innovative scientific and technical projects cover, as a rule, a sphere of applied scientific researches and developments in the field of natural and technical sciences, experienced and design and technological works. Meanwhile the developments should be focused on reception of concrete "commodity" result as a trial samples of installations or experimental batches of production proceeding from the purposes and tasks of calls on a basis of significant results, inventions, advanced technologies etc.



State programs of basic and applied researches and international cooperation are developed on the basis of per-review selection of the proposals submitted to Academy of Science, Ministry of High education, Ministry of Agriculture, Ministry of Healthcare, by their underreported institutes and universities and to CCSTD by others. The indicated ministries receive funds for execution of relevant programs from Ministry of Finance.





## Research policy

The deep transformations in all spheres of society that begun from the moment of declaration of independence of the Republic of Uzbekistan, have affected significantly to the character of development of science, techniques and technology. The independence has opened for us new opportunities in revival and augmentation of great achievements and kind traditions, which were collected by our fathers and grandfathers by grains.

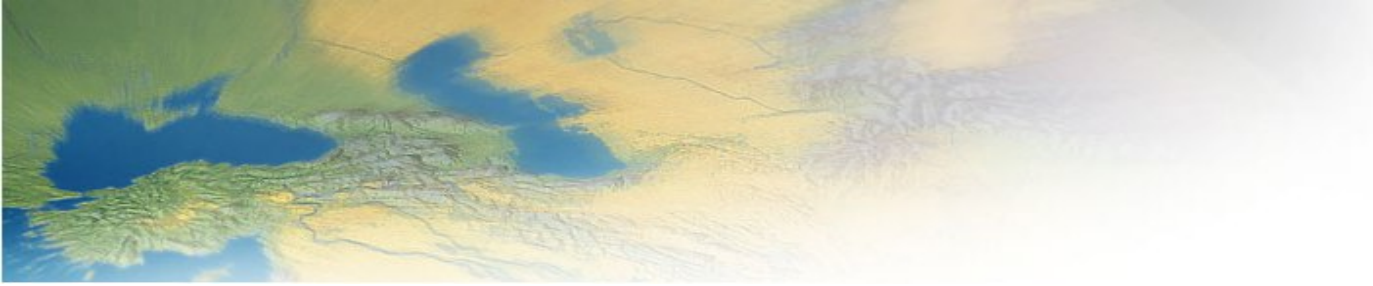
At present the carried out state scientific and technical policy of the Republic of Uzbekistan is directed on concentration of its efforts of available scientific and technical potential of the republic for the solution of socio-economic problems of Uzbekistan in conditions of gradual transition to socially oriented. market economy. The approaches, appropriate to the transitive period, for the development of science and technology have been offered, and the state scientific and technical programs on priority directions of development of science and technologies have been formed and pursued.

The basis of national legislative system of functioning sphere of science and technology has been formed: the laws on legal protection of scientific and technical results and objects of the intellectual property have been approved and put into action, the normative documents regulating the certain fields of state support and stimulation of scientific and technical, innovative activity have been developed.

The National patent system has been formed: State Patent Office was set up; the institute of patent attorneys operates; the republic signed international agreements and contracts in the field of legal protection of industrial property objects; the security documents of the Republic of Uzbekistan on the industrial property objects are issued.

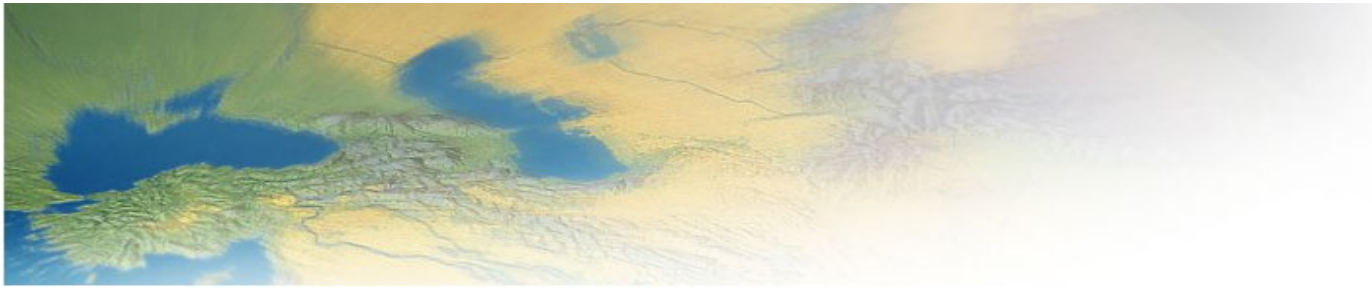
Having the selected best traditions, deeply studying the historical heritage, the scientists of Uzbekistan worthily continue the business of their ancestors.

There are radical changes in educational system allowing to raise it on the level of new time requirements. The important condition of transformations, carried out in educational system, is the formation of perfect system of personnel training on the basis of a rich intellectual heritage of the people and human values, achievements of modern culture, economy, science, techniques and technologies. The National program on personnel training stipulating the realization of national model of personnel training, creation of socio-economic, legal, psychological and pedagogical, and other conditions for the formation of all-roundly advanced person, adaptation to the life in modern changing society, realized choice and subsequent development of educational and professional programs, education of citizens, who are aware of their responsibility before the society, state and family, has been adopted.



The special importance is given to the system of public health services, improvement of health service. The State program of public health services reforming corresponding to the world standards has been accepted, which is taking into account the national features and usual mode of life of Uzbek people, sets before scientists the cardinal tasks on the development of scientific researches in the field of medicine, medicinal preparations, maternity protection, education of healthy generation. The Concept of telemedicine development, providing the creation of uniform telemedical information system, telemedical network of emergency medical aid, continuous training with the use of telematics means has been developed.

Today Uzbekistan is a large centre of science of Central Asia having advanced research base, extensive scientific fund and qualified scientific staff. The scientists of the republic pursue the fundamental and applied researches on major directions of modern science; scientific schools of a world level were created.



## **International co-operation in research, science and technology**

The legislative basis of International S&T cooperation of the Republic of Uzbekistan included more than 50 Interstate and Intergovernmental agreements. Establishment of international scientific links is stipulated by necessity of support of researches carried out in the country, creation of favorable conditions for bringing of Uzbekistan to the world scientific and technological community.

Cooperation with EECA-countries is carried out within the framework of bilateral and multilateral S&T programs.

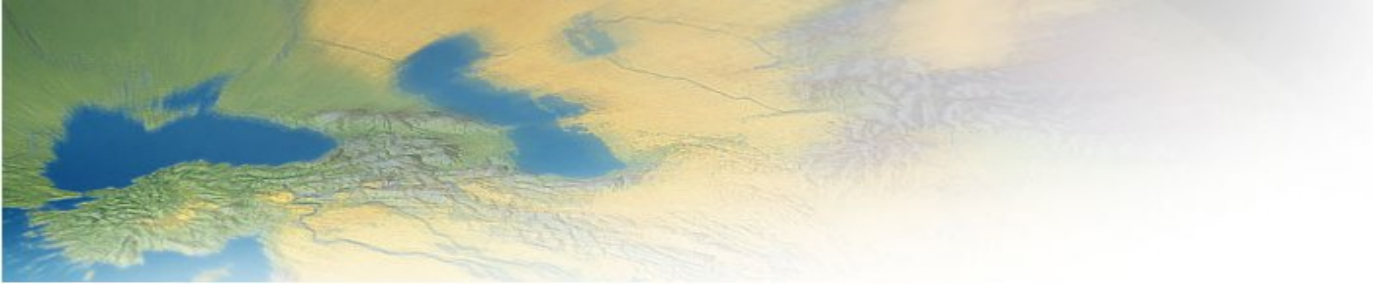
In 2009 two bilateral S&T cooperation calls had been organized within the framework of such programs as "Uzbekistan-Russia' 2008" fundamental research projects, "Uzbekistan –Korea'2008" program of research projects and "Uzbekistan-Ukraine'2008" program of research projects.

By results of realized projects on program of "Uzbekistan-Russia' 2008" fundamental research projects scientists and specialists of Uzbekistan and Russian Federation carried out fundamental researches within the framework of 22 joint projects on such perspective priorities of modern science as solid-state physics and elementary particles, microelectronics, mathematics, astronomy, biology and biophysics, genetics, bioorganic chemistry, advanced materials, power, laser technologies, geology and seismology, medicine.

By bilateral international program of "Uzbekistan –Korea'2008" research projects 3 joint scientific and research projects were carried out in the field of biotechnology, physics and material sciences by scientists and specialists of Institute of Material Sciences SPO "Physics-Sun" and Donetsk Physical and Technical Institute NAS Ukraine.

5 joint research projects in the field of new materials and components within the framework of the bilateral international program of "Uzbekistan-Korea' 2010" applied research projects have begun to be carried out since 2010. The call of "Uzbekistan-CRDF' 2010" fundamental research projects is announced in the field of improvement of ground and water resources use in collaboration with American Fund of Civil Researches and Development (CRDF) in June, 2010.

In addition to it, Uzbek scientists and specialists actively participated in the multilateral international research programs in 2009. It allowed to attract 7 402 300 US dollars for the realization of 59 international research projects for the support of scientific potential of the Republic of Uzbekistan. Grants in the amount of 1 057 445 US dollars for the realization of 12 scientific projects are received under the programs of Scientific



Committee of NATO (NATO), 6 grants in the amount of 1 530 169 US dollars under the programs STCU, 9 grants in the amount of 1 228 899 US dollars under programs CRDF, 5 projects in the amount of 341 000 (443 300 US dollars) under the programs of FP7 EU and 27 grants in the amount of 3 142 487 US dollars under other international programs.

*Source:*

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