

ECONOMIC AND SOCIAL COUNCIL

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IMPLEMENTATION OF THE INTERNATIONAL COVENANT
ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS

Initial reports submitted by States parties
under articles 16 and 17 of the Covenant

Addendum
UZBEKISTAN¹

[14 April 2004]

¹ The information submitted by Uzbekistan in accordance with the guidelines concerning the initial part of reports of States parties is contained in the core document (HRI/CORE/1/Add.129).

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Article 15

Right to take part in cultural life and enjoy the benefits of scientific progress

458. According to article 42 of the Constitution: “Everyone shall be guaranteed the freedom of scientific and technical work, as well as the right to enjoy cultural benefits. The State shall promote the cultural, scientific and technical development of society.”

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497. Historically, Uzbekistan is the heir to universally recognized schools of natural science and humanities that gave the world outstanding scholars whose achievements predetermined for centuries the progress of civilization. Today such schools have enormous scientific potential for solving the complex tasks facing Uzbekistan in the areas of social and economic development.

498. The Presidential Decree of 20 February 2002 on improving the organization of scientific research sets out fundamentally new approaches and organizational methods for fully utilizing Uzbekistan’s scientific and technological potential in close connection with the reforms being carried out in the State administration system, and with the development of democratic institutions and the structural transformation of the economy.

499. An extremely important decision, which brings the level of organization of scientific and technical activity in Uzbekistan into full conformity with the contemporary high demands on science and technology, is the establishment, under the Cabinet of Ministers, of a Coordination Council on Scientific and Technical Development. The Council has created a foundation for financing innovative scientific and technical activities with substantially diversified sources of funding.

500. The Centre for Science and Technology, together with ministries and departments, has established priority areas in the basic research (with funding amounting to 1,991.5 million SUM) being conducted under 20 State scientific and technical programmes (with funding amounting to 5,664.1 million SUM) and 14 State programmes of innovative work (with funding in the amount of 700 million SUM). Over 12 years, thanks to President Karimov's great interest in developing science in Uzbekistan, all of the required funding has been made available.

501. In the area of basic research to be carried out over a long-term period (up to five years), priority is given to financing efforts to increase knowledge and scientific potential, and to support research of strategic importance from the point of view of the future application of the results. Applied State scientific and technical programmes for the medium term (up to three years) are a means of carrying out applied research based on the results of basic research; the aim of the programmes is to develop new techniques and technologies that will lead to a breakthrough in selected priority areas for scientific and technical development. Scientific and technical progress, which has been universally recognized as the most important factor in economic development, is most often associated with innovative development.

502. This is a unique process that combines science, technology, economy, entrepreneurship and administration. The approved State innovation programmes for short-term periods (up to two years) are based on the programme-specific principle and ensure a high degree of continuity in the chain "basic research, applied developments, and innovative projects for mastering technology".

503. For the first time in Uzbekistan, an innovative mechanism has been developed to implement completed applied research; the mechanism is based on the principle of shared financing and the return of resources to the Centre for Science and Technology for reinvestment in new and promising innovative projects. Shared financing by ministries, departments and khokimiyats is a way of guaranteeing that the results of research will meet their needs and be applied in production processes. Shared resources may take the form of equipment, raw and other materials, and sources of energy.

504. In creating its innovative system, Uzbekistan studied the innovative experience of many European countries, the United States of America and the Russian Federation; the system was approved at five international seminars conducted jointly with the Science Committee of the North Atlantic Treaty Organization (NATO) and scientific centres of European countries, with the participation of leading experts in the field of innovation

policy in European countries. In its implementation, the Uzbek system is similar to innovation mechanisms in the United States of America, Italy and France.

505. Uzbekistan has great scientific potential in many of its regions, and an important aspect of State policy in the area of science and technology is the elimination of disparities in scientific and technical potential among the various regions.

506. Uzbekistan's scientific organizations are currently cooperating actively with their counterparts in the United States of America, Europe and Asia; every year, they win grants in scientific-project competitions held by the European Union's International Association (INTAS) and Inco-Copernicus, the United States Civilian Research and Development Foundation (CRDF), the International Scientific and Technological Centre in Ukraine, UNDP and other international scientific organizations and foundations. The overall number of grants allocated for projects and executed in 2003 with the participation of Uzbek scientists exceeded US\$ 7 million. Considering the positive experience of such cooperation, in recent years Uzbekistan has been increasing implementation of joint projects based on shared financing. Uzbekistan has conducted such programmes with CRDF and scientific agencies in such countries as Germany, the Republic of Korea, China and India.

507. Cooperation with the NATO Science Committee plays an important role in Uzbekistan's wide-ranging scientific and technical ties with international and foreign scientific and technical organizations and foundations.

508. One of the most important aspects of such cooperation is the holding of international science seminars. The seminars have played a special role in promoting international cooperation involving Uzbek scientists and in finding an outlet for Uzbekistan's scientific and technical products on the international intellectual property market.

509. In this regard, the meeting of the NATO Science Committee held away from headquarters in June 2003 played a very significant role. A representative delegation headed by the Deputy Secretary-General of NATO visited Uzbekistan in order to participate in a meeting on environmental science issues. The meeting coincided with a seminar on the regional problems of Central Asia. This scientific forum discussed the most important scientific and technical problems of Central Asia, which included such fields as energy, ecology, water problems, seismology, environmental safety, an examination of the current state of and prospects for scientific cooperation among countries members and partners of NATO in joint projects, cooperation among institutes, exchange of specialists, and familiarity with the implementation of joint projects carried out by Uzbek scientific organizations under NATO grants.

510. The seminar will consider issues relating to the security and sustainable development of the Central Asian region, and measures to combat international terrorism.

511. Humankind entered the twenty-first century with great hopes but, unfortunately, also with many difficult problems that must be solved, such as environmental and health

problems, social and regional conflicts, religious extremism and international terrorism. Perhaps one of the most difficult problems is the threat posed by international terrorism to our stability and security.

512. Research is being conducted in the areas of nuclear physics, electronics, biotechnology, molecular biology, genetics, veterinary science and infectious diseases - all of which can be used to combat terrorism. To this end, scientists and specialists who previously worked for the military have been invited to participate in a number of joint projects, particularly projects in the areas of biotechnology, physics and chemical technology. On the basis of these relations, in 2002 the Centre for Science and Technology, together with the United States Civilian Research and Development Foundation, announced a competition involving projects to reduce the impact of terrorist acts on the civilian population.

513. In recent years, the Centre for Science and Technology has been financing and coordinating research with a view to intensifying measures to reduce drug addiction, since the drug trafficking is an integral part of international terrorism. The Centre is financing a project to prevent cultivation of the opium poppy. Field tests were conducted in large opium poppy plantations in Uzbekistan, Tajikistan and Kyrgyzstan; the tests yielded good results. This research was financed by the Centre and the United States Department of Agriculture and the United States Drug Enforcement Agency; overall financing amounted to US\$ 560,000.

514. Together with German scientists, the Institute of Electronics of the Academy of Sciences of Uzbekistan is developing devices to detect drugs in microquantities, in objects and in biological materials. Such a device was developed for the first time in Uzbekistan and has no counterpart in any other country of the Commonwealth of Independent States.

515. The Veterinary Institute of Uzbekistan is conducting major research on the industrial production of vaccines and diagnostic equipment with a view to preventing particularly dangerous infectious diseases in domestic animals and humans. The Centre also finances projects conducted by the Veterinary Institute to monitor particularly dangerous diseases in domestic animals throughout Uzbekistan and in areas bordering Kyrgyzstan, Kazakhstan, Tajikistan and Turkmenistan.

516. Today Uzbekistan is a major scientific centre in Central Asia, with a developed material research base, vast scientific resources and qualified scientific staff whose work has been recognized all over the world.

517. Uzbekistan's scientific research complex comprises 362 academic, higher educational and sectoral institutions, including:

- 101 research institutes;
- 55 research units at higher educational establishments;
- 65 project-design organizations;

- 32 science production associations and experimental enterprises;
- 30 information and computer centres.

518. The core of Uzbekistan's scientific potential is the Uzbek Academy of Sciences, the leading scientific and experimental centre in the region, which has existed for over 50 years. Unique scientific centres have been established within the Academy of Sciences and are successfully carrying out research; such centres include:

- The Institute of Nuclear Physics;
- The Fizika-Solntse science production association;
- The Biolog science production association;
- The complex of alpine astronomical observatories on Maidanak mountain.

519. Some 46,000 persons are active in the field of science, including 2,800 doctors and approximately 16,100 candidates of science. For the first time in Uzbekistan, a higher degree commission has been established; the commission's task is to train young scientific personnel. Highly qualified scientific personnel receive training in 20 fields of science.

520. Scientists in Uzbekistan are currently conducting basic and applied research in many fields of contemporary science. World-class science schools have been established, and research is being successfully conducted in the following fields: mathematics, probability theory, mathematical modelling of natural and social processes, and information and computer technology.

521. Uzbekistan has its own astronomy school, which was founded in the days of Beruni, Ulugbek and Giyasiddin Jamshid. Even in ancient times, the works of Uzbek astronomers who studied the movement of heavenly bodies were world-renowned. Uzbek astronomers were the first to compile an accurate map of the starry sky. Uzbekistan has established a reliable astronomical network for studying the climatology of the region. Along with scientists and specialists from the United States of America, Italy and Japan, Uzbek scientists at the Ulugbek Kitab International Latitude Station, which was built in 1930, are participating in an international study of the movement of the Earth's poles along its surface.

522. Research on patterns of geological processes that lead to the formation of mineral and raw-material resources has industrial applications; research is also conducted in the field of tectonics, geophysics, seismology and other Earth sciences. Uzbek geologists' comprehensive geological, geophysical and geochemical study of the Earth's crust, ore formation in metallogenesis and oil formation have contributed to the creation of an extensive mineral and raw-materials base in Uzbekistan. Scientists and geologists have directly participated in the discovery, study and exploitation of mineral deposits in Uzbekistan and throughout the Central Asian region.

523. Research in the field of molecular genetics, genetic engineering and biotechnology constitutes the necessary basis for ensuring scientific and technological progress in agriculture, the microbiology industry and environmental protection.

524. Scientific schools in the fields of organic and inorganic chemistry, the chemistry of plant matter, biology and genetics, and biotechnology have been established and developed in Uzbekistan. Such schools have developed the theoretical bases and technology for producing new types of highly effective, clean fertilizers, low-toxicity defoliants, new medicinal preparations, plant growth stimulators and plant protectors. Such research involves the comprehensive study of the physico-chemical properties of materials.

525. Basic research in the physics of the atomic nucleus and elementary particles, radiation physics and materials science are particularly well developed in Uzbekistan. A new scientific discipline has been introduced: relativistic nuclear physics. This discipline serves as the theoretical basis for research in the field of nuclear energy and applied nuclear physics.

526. Efforts are being made to develop non-traditional forms of energy: the comprehensive and effective transformation and mastery of solar energy, which is of great importance to the solution of Uzbekistan's energy problems.

527. Social scientists, first and foremost historians, archaeologists, ethnographers, linguists and literary specialists, have made a significant contribution to the development of Uzbekistan's intellectual potential and to the expansion of international scientific and cultural ties. Of particular interest are studies in the area of ethnogenesis and the reconstruction of the objective history of the Uzbek people, and the study of its traditions, way of life and culture.

528. Uzbekistan has ratified and, therefore, acceded to the Rio Declaration on Environment and Development, the United Nations Framework Convention on Climate Change, the United Nations Convention on Biodiversity, the United Nations Convention to Combat Desertification, the Vienna Convention for the Protection of the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques. In addition, Uzbekistan has signed 12 international agreements on cooperation in the field of environmental protection.

529. Uzbekistan is participating with the Earth Council in drafting the Earth Charter. At the beginning of 1999, the national charter project was sent to the Secretariat of the Earth Council.

530. On the initiative of the Government of Uzbekistan, a conceptual framework for solving the problems associated with the Aral Sea and the Programme of Specific Measures to Improve the Ecological Situation in the Aral Sea Basin were developed and

adopted by the heads of State of Central Asia in 1994. These measures formed the basis for the work of the International Conference on the Sustainable Development of the Aral Sea Basin, which was held by the United Nations in Nukus in September 1995. The Conference adopted the Nukus Declaration, which reaffirmed its commitment to the international conventions on the observance of the basic Rio principles and defined a strategy and basic measures to ensure the sustainable development of the Central Asian States.

531. Uzbekistan has developed a national plan of action to protect the environment, a national strategy and plan of action to preserve biodiversity in Uzbekistan, a national programme to halt the use of ozone-depleting substances, a programme of measures to prevent climate change and to combat desertification, a national plan of action for a clean environment, and a transboundary project to conserve the biodiversity of the western Tien Shan in Kazakhstan, Kyrgyzstan and Uzbekistan. Efforts are under way to create and develop national parks, reservations and nature reserves.

532. The overwhelming majority of tasks involving the technological modernization of the basic branches of the economy will be solved when the Government of Uzbekistan implements its Programme to Develop Export Potential and Continue Uzbekistan's Integration into the World Economic Community for the period up to 2005, as well as the special programmes that will be developed as part of the framework for structural changes in the economy for the period up to 2010.

533. The State scientific and technical policy, which is currently being established for 2001-2005 and subsequent years, consists of selective support for scientific research, developments and innovative projects in the following areas:

- Basic research, in cooperation with leading world scientific centres, on the evolution of nature and society, establishment of a system of ethical values in the areas of social and economic development, environmental protection, and development of the biosphere;
- Creation of the technical prerequisites for the environmentally sound increase in the production of fuel and energy and mineral and raw-material resources;
- Development of competitive technologies, materials, designer projects and technology that will contribute to a sharp increase in Uzbekistan's export potential, particularly in high-tech engineering;
- Development and large-scale introduction of basic technologies that ensure a significant improvement in the quality of production, promote environmental safety, reduce production costs and saturate the domestic market;
- Progressive changes in techniques and technology with a view to conserving sufficient resources in order to compensate for the increased cost of raw materials and fuel and energy resources and materials;
- Selection of highly productive strains of agricultural crops and animals;
- Development of new, highly effective and environmentally safe technologies, agricultural production, means to combat diseases in agricultural plants and animals, and effective means and methods of irrigating agricultural lands;

- Creation of highly effective, resource-saving and environmentally pure food-production processes, and of technologies for the processing sector of the agro-industrial complex;
- Development of the scientific bases and recommendations for the gradual formation in Uzbekistan of a socially oriented market economy and its integration into the world economic system, transformation of the social structure and the political organization of society, and improvement of the State system and law in the transition to a market economy;
- Scientific and technical support for measures to achieve Uzbekistan's social goals: development of public health and education, social and cultural regeneration, and environmental protection.

534. The priority areas for scientific and technical development will be implemented through publicly funded State scientific and technical programmes.

535. In the forthcoming period, the State will support the following priority areas of its policy on science and technology:

- Intersectoral activities to create, introduce and disseminate techniques and technologies that will radically alter Uzbekistan's technological base and reduce the impact of industry on the environment;
- Work on major intersectoral scientific and technical projects that require large concentrations of resources and which are beyond the means of individual clients;
- Scientific and technical support for measures to achieve Uzbekistan's social goals (through the development of public health, education, culture, environmental protection, and related infrastructure);
- Research on the creation of a democratic State with strong social guarantees, the conduct of economic reforms, Uzbekistan's integration into the world economic community and solution of problems encountered in developing a fully fledged market;
- Preservation and development of the gene pool of the plant and animal world through the use of museums that engage in scientific research, and State collections of scientific and technical information.

536. Uzbekistan's scientific and technical potential is represented by 296 scientific institutions under ministries and departments with some 25,500 employees, of whom over 3,000 have doctorates and 17,000 are candidates of science. The core of Uzbekistan's scientific complex is the Academy of Sciences (50 scientific institutions), the National Scientific and Practical Agricultural Centre under the Ministry of Agriculture and Water Management (16), scientific and educational institutions of the Ministry of Health (29) and the Ministry of Higher Education Establishments (36), whose activities are supported by the State within the framework of scientific and technical and research programmes.

537. In 2004 alone, 400 developments in various areas of research conducted under the auspices of the Academy of Sciences received grants. For example, scientists in the field

of physics and mathematics and technology are making great contributions to technical progress. In 2003 alone, they introduced 71 new products. Extrabudgetary funds in the amount of 3,745,495,400 SUM were allocated to such activities. Over the past year, products amounting to over US\$ 1,565,000 were exported.