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UZBEKISTAN



COUNTRY PROFILE



UNITED NATIONS

INTRODUCTION - 2002 COUNTRY PROFILES SERIES

Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, underscored the important role that States play in the implementation of the Agenda at the national level. It recommended that States consider preparing national reports and communicating the information therein to the Commission on Sustainable Development (CSD) including, activities they undertake to implement Agenda 21, the obstacles and challenges they confront, and other environment and development issues they find relevant.

As a result, in 1993 governments began preparing national reports for submission to the CSD. After two years of following this practice, the CSD decided that a summarized version of national reports submitted thus far would be useful. Subsequently, the CSD Secretariat published the first Country Profiles series in 1997 on the occasion of the five-year review of the Earth Summit (Rio + 5). The series summarized, on a country-by-country basis, all the national reports submitted between 1994 and 1996. Each Profile covered the status of all Agenda 21 chapters.

The purpose of Country Profiles is to:

- Help countries monitor their own progress;
- Share experiences and information with others; and,
- Serve as institutional memory to track and record national actions undertaken to implement Agenda 21.

A second series of Country Profiles is being published on the occasion of the World Summit on Sustainable Development being held in Johannesburg from August 26 to September 4, 2002. Each profile covers all 40 chapters of Agenda 21, as well as those issues that have been separately addressed by the CSD since 1997, including trade, energy, transport, sustainable tourism and industry.

The 2002 Country Profiles series provides the most comprehensive overview to date of the status of implementation of Agenda 21 at the national level. Each Country Profile is based on information updated from that contained in the national reports submitted annually by governments.

Preparing national reports is often a challenging exercise. It can also be a productive and rewarding one in terms of taking stock of what has been achieved and by increasing communication, coordination and cooperation among a range of national agencies, institutions and groups. Hopefully, the information contained in this series of Country Profiles will serve as a useful tool for learning from the experience and knowledge gained by each country in its pursuit of sustainable development.

NOTE TO READERS

The 2002 Country Profiles Series provides information on the implementation of Agenda 21 on a country-by-country and chapter-by-chapter basis (with the exception of chapters 1 and 23, which are preambles). Since Rio 1992, the Commission on Sustainable Development has specifically addressed other topics not included as separate chapters in Agenda 21. These issues of trade, industry, energy, transport and sustainable tourism are, therefore, treated as distinct sections in the Country Profiles. In instances where several Agenda 21 chapters are closely related, for example, chapters 20 to 22 which cover environmentally sound management of hazardous, solid and radioactive wastes, and chapters 24 to 32 which refer to strengthening of major groups, the information appears under a single heading in the Country Profile Series. Lastly, chapters 16 and 34, which deal with environmentally sound management of biotechnology, and transfer of environmentally sound technology, cooperation, capacity-building respectively, are presented together under one heading in those Country Profiles where information is relatively scarce.

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List of Commonly Used Acronyms

ACS	Association of Caribbean States
AMCEN	Africa Ministerial Conference on the Environment
AMU	Arab Maghreb Union
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	The Caribbean Community and Common Market
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
CSD	Commission on Sustainable Development of the United Nations
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECCAS	Economic Community for Central African States
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIDA	Foundation for International Development Assistance
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	Greenhouse Gas
GIS	Geographical Information Systems
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development

IEEA	Integrated Environmental and Economic Accounting
IFAD	International Fund for Agricultural Development
IFCS	Intergovernmental Forum on Chemical Safety
IGADD	Intergovernmental Authority on Drought and Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	Integrated Pest Management
IRPTC	International Register of Potentially Toxic Chemicals
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LA21	Local Agenda 21
LDCs	Least Developed Countries
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NSDS	National Sustainable Development Strategies
OAS	Organization of American States
OAU	Organization for African Unity
ODA	Official Development Assistance/Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Public -Private Partnership
PRSP	Poverty Reduction Strategy Papers
SACEP	South Asian Cooperative Environment Programme
SADC	Southern African Development Community
SARD	Sustainable Agriculture and Rural Development
SIDS	Small Island Developing States
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCCD	United Nations Convention to Combat Desertification
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

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CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES - TRADE

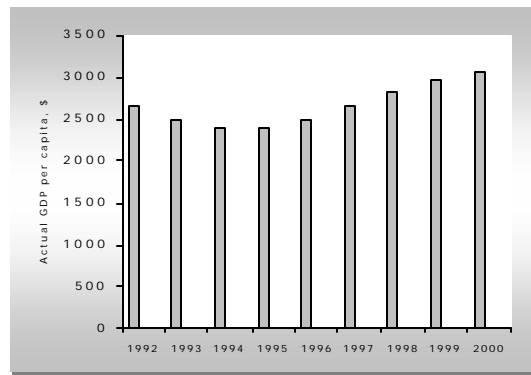
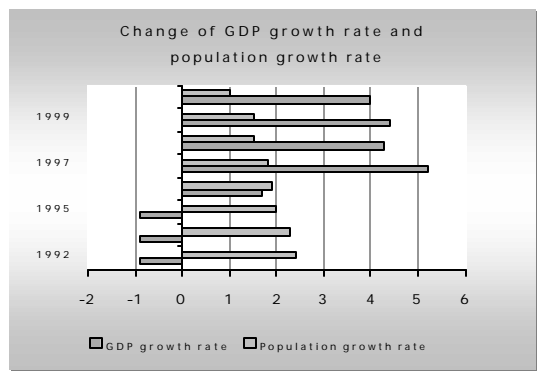
Decision-Making: The Government considers the decision of strategic tasks as a basis of preserving the social political stability, further economic and social development, worthy integration of Uzbekistan into the global economic system, mutually advantageous partnership with other countries and representatives of global business. The development and realization of a complex interconnected programmes/projects on solving the problems, focusing on the specific priorities and tasks, is carried out based on the Government's decision, "About the measures on realization of the programmes on liberalization and deepening of the reforms in political, economic and spiritual spheres of the society, ensuring safety of the country" (2000). In order to ensure the effective work of the General Economic Complex of the republic, increasing responsibility of the ministries and bodies in realizing the priorities and strategic tasks of development and liberalization of the economy, the Government adopted the Resolution "About the measures on increase of the effectiveness of the work of the General Economic Complex of the Cabinet of Ministers" (2000): it determines about 30 concrete tasks for each ministry (the ministries of Macroeconomics and Statistics, and Finance, Central Bank, State Property Committee, Committee on Denationalization and Development of Competition and others) and measures of responsibility of each participant for efficiently achieving the objectives. Current laws and special decisions have been revised. The Government has adopted a range of new laws and resolutions, including: the new language of the Law "On Foreign Economic Activity"; and Resolution of the Cabinet of Ministers "About additional measures on stimulation of the manufacturers of export products." The draft laws "About State Procurement," "About Compensatory Measures," "About Protective Measures," "On Antidumping Duties" and a number of others have been elaborated.

Transition to market economy, internal and foreign policy, directions and depth of international cooperation are defined by the approved at the ŐIV Session of Oliy Majilis (2000), which sets priorities for reforming the economy. The major priorities and tasks are as follows: liberalization in political, economic life, liberalization of the state and public building; further spiritual revitalization of the society; training of the highly skilled personnel; sustainable progress of well-being of the people, strengthening of social protection of the population; structural transformations in the economy; and, ensuring stability, peace, interethnic and civil accord in the society, inviolability of borders and territorial integrity of the country.

In the foreign economic policy the Government adheres to the point of view that according to historical traditions the foreign trade should be based on development of an export potential of the country through developing the export-oriented economy. The measures on import substituting, creation of local productions in the technological chains of the export-oriented production are also undertaken simultaneously. The key elements of the trade policy are: stimulation of export with a stress on its diversification and transfer of a centre of gravity in the structure of export from raw products and materials to final production with high share of added cost (highly technological and scientifically intensive products of various purpose); and, reduction of total volumes of import with simultaneous increase in its structure of highly technological ecologically clean equipment, machines and mechanisms by significant reduction of import of power suppliers and consumer goods. These objectives are achieved through supporting macroeconomic sustainability, carrying out of regular monitoring and introducing necessary changes into the foreign trade regime and currency regulation.

Programmes and Projects: The Government hopes to achieve strategic objectives on expansion and deepening of international cooperation in realizing the development programme of an export potential and deepening of integration of Uzbekistan into the global community up to the year 2005. This programme envisages the following: perfection of the legislation in sphere of foreign economic activity, strengthening of economic stimulus, expansion of production and delivery for export of competitive products; Creation of an infrastructure of promoting export goods of the republic in the external markets; Formation of information systems for servicing of enterprises producing goods for export; Liberalization of foreign economic activity, perfection of the systems of tariff regulation; and, attraction of foreign capital into the economy, especially all direct foreign investments with a stress on creation of joint business. Simultaneously with this programme the specially prepared programme on liberalization of the currency market will be realized; one of its major objectives is the preparation for introducing convertibility of the national currency on the current international operations. See also under **Status**.

Status: After decrease of the Gross Domestic Product (GDP) within 1992-1995 caused by economic reforms the GDP growth has been noted since 1996 (1,7% in 1996; 5,2% in 1997; 4,3% in 1998; 4,4% in 1999; 4% in 2000). The deficiency of the state budget during these years did not exceed 2,5-3% of GDP, inflation rate was 2-3% per month. Macroeconomic and social-political stability and also granting of numerous privileges to the investors have increased the inflow of foreign capital into the economy. If in 1993 the share of foreign capital in the total volume of investments constituted only about 0,1%, then in 2000 this parameter reached the value of 21,7%. The Government pays special attention to the direct foreign investments directed on establishment of joint ventures in the priority branches of the economy. This way is considered as the most effective in relation to technological modernization of manufacture on the base of science-intensive, ecologically clean technologies.



After a noticeable decrease of the GDP and GDP in 1991-1995, since 1996 the country experiences an economic growth; the GDP growth rates exceed the population growth rates. The foreign trade turnover for 1992-2000 has been increased in almost 1,4 times. The aggregate foreign trade turnover of the republic for 2000 constituted more than US\$ \$ 6,2 billion—export 52,5% and import 47,5%, which ensured a positive balance in the volume of more than US\$ 317 mln. The export is carried out to more than 80 countries of the world. The ratio of foreign trade turnover to GDP reached the level of 65% in 2001. The export duties on all kinds of goods and services have been cancelled, the system of licensing and quotation of export has been brought into accord with the international requirements. All quantitative limitations on import have been removed, the maximal rate of duties constitutes as a rule not more than 30%, and the average rate of duties on import of goods and services fluctuates within 4-5% that also corresponds to the norms adopted in the international practice. The external debt is at an acceptable level and makes up about one fifth of GDP; the servicing of the external debt does not exceed 3 month exports of goods and services. Further active development of foreign economic relations depends much on solving existing problems of transit transportation. Uzbekistan is one of the two landlocked countries remotely located from the world ocean, as a minimum by the territories of two states. Therefore the creation of reliable and effective transport corridors is the extremely important task, the solution of which has been actively decided by the Government since the first days of the independence of the republic. Uzbekistan actively cooperates in the projects of TRASECA, “Silk Road - 2000,” RINTO-ESCATO.

So far, the republic has established commercial-economic ties with more than 140 countries. The regime of the most favorable conditions has been reached on mutually beneficial basis with 38 countries. The agreements “On Protection and Mutual Encouragement of Investments” have been concluded with 34 countries. Special significance for sustainable development of the country is the “Agreement on Partnership and Cooperation between the Republic of Uzbekistan and European Union” ratified in 1999. The mutually beneficial long-term relations have been established with USA, Japan, Germany, Great Britain, France, Republic Korea, China and others. At present more than 1,800 joint ventures are in operation in Uzbekistan. The greatest number of such enterprises is established with participation of the firms of USA, then of Great Britain, Germany, Korea, China, Turkey, Russia, and Ukraine. The processes of integration of the countries of the Central Asian region have been developed on the basis of the “Agreement on Creation of the Single Economic Expanse between the Republic of Kazakhstan, the Republic of Kyrgyzstan, the Republic of Tajikistan and the Republic of Uzbekistan – Central Asian Economic Community.” The Strategy of integration development of CAEC for the period of up to the year 2005 has been elaborated.

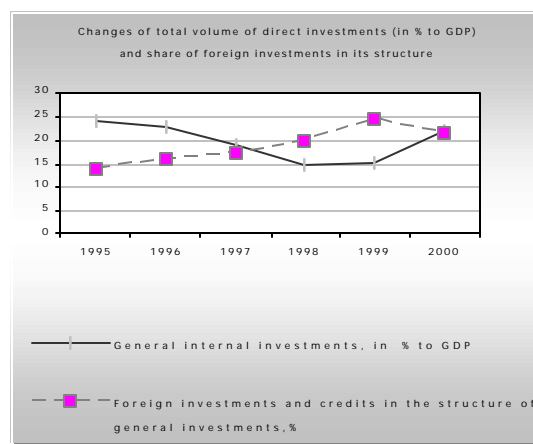
Capacity-Building, Education, Training and Awareness-Raising: Capacity building of the international cooperation has been carried out on many directions, including: establishing mutually beneficial bilateral and multilateral commercial-economic ties at the state level; liberalizing the foreign economic activity and currency regime; and, creating appropriate conditions for attraction of foreign investments with a focus on development of joint business with foreign firms, formation of adequate legal environment and others.

Information: The information on trade, investments and economic growth is accessible to the users of the statistical agencies (the State Department on Statistics, provincial/regional departments of statistics). Information in the republic's foreign economic relations and international cooperation is available at: www.mfer.uz

Research and Technologies: Research works in the sphere of international cooperation, sustainable development, internal policy and commerce have been carried out by the specialized research organizations and scientific centers, which are financed by the Government. These organizations are the Institute of Strategic Researches, Centre of Effective Economic Policy under the Ministry of Macroeconomics and Statistics, Centre of Tax-Budget Policy of the Ministry of Finance, Centre on Monetary Policy of the Central Bank of Uzbekistan.

Financing: Major programmes and projects of Uzbekistan are carried out within the framework of technical and financial cooperation with Japan, Germany, France, Switzerland, Korea, and USA under assistance from UN, World Bank, EBRD, ADB, WHO, USAID, TACIS Programmes, and others. The main directions of cooperation are as follows: development of small and medium sized businesses; perfection of the systems of education and public health care services; development of rural infrastructure and drinking water supply; improvement of ecology of the region and development of transport infrastructure; strengthening of an export potential of the country; institutional development; and, technical assistance to development. The expansion of cooperation is proved by, for example, the 14 projects co-financed by UNDP, Capacity-21, GEF, TACIS, EEC, USAID and ADB: 4 by UNDP; 6 by IBRD; and 4 by EBRD. UNIDO accomplishes an integrated programme on "Sustainable employment and development of entrepreneurship in Uzbekistan," within the framework of which rendering of technical assistance in significant volumes has been envisaged.

Cooperation: By working out concrete measures and actions on reforming of the economy the Government fruitfully cooperates with the international institutions such as International Monetary Fund, World Bank, International Financial Corporation, European Bank for Reconstruction and Development, Asian Development Bank and etc. In 1999 the World Bank in cooperation with the Government of Uzbekistan carried out the Political Review of Social and Structural Reforms. This document -the first of such type of reviews of the policy of social and structural reforms in Uzbekistan – gives a thorough analysis of the economic policy implemented by the Government from the point of view of its efficiency in achievement of the set objectives, formulates recommendations concerning those spheres that require changes, and covers institutional issues of the state management. A lot of recommendations stated in the review were used by the Government in selecting the priorities for reforming the economy and determining strategic tasks of socio-economic development, which after approval at the XIV Session of the Oliy Majilis in 2000 became the programme of actions for the first years of the 21 century. The Government carries out active cooperation with GATT/WTO and implements a systematic work on entering this international organization. In 1998 the Inter-departmental Commission, headed by the Prime Minister of Uzbekistan, was established especially for these purposes.



CHAPTER 3: COMBATING POVERTY

Decision-Making: The social policy is regulated by the Constitution and laws adopted in the country during the years of independence, including: On the state power in the provinces; On self-management bodies of the citizens; On free economic zones; On agricultural cooperative enterprise; On farmer's enterprise; On dekhan's enterprise; Decrees of the President of the Republic of Uzbekistan: On the measures on further deepening of economic reforms, ensuring of protection of private property and development of entrepreneurship (¹ UP-745, 1994); On initiation and stimulation of private entrepreneurship (¹ UP-1030, 1995); On the measures of realization of the programmes on liberalization and deepening of reforms in political, economic and spiritual spheres of the society, ensuring safety of the country (¹ UP-2612, 2000); and also resolutions and others directive decisions of the Government on corresponding directions of the activity. The draft laws, "On state social insurance," "On non-state social insurance," "On non-state pension funds" and resolution of the Government "On the measures of strengthening of financial bases of activity of the bodies of self-management of the citizens" are in different stages of preparation.

Programmes and Projects: The development of human capacity is the basic objective of the Government's strategy on the transition to the market economy in the republic. The Government adopted the Concept of the National Safety, based on which the draft of the Concept and Programme of Social Safety has been worked out. The Government's social policy for the mid term (2001-2005) focuses on increasing minimal social guarantees at the level of not less than a half of minimal consumer budget. Up to 2005 the full scale realization of the reform of social insurance based on accumulative-saving principles, ensuring employment of the population released as a result of re-structuring of the economy, leveling of territorial differentiation in the standards of living and employment of the fit to work population is being envisaged. The following projects is envisaged during this period: financial and organizational support of the minimal guarantees in the field of fixing of payment for work, free-of-charge social services—additional to the minimal guarantees measures will be implemented at the regional level bearing in mind regional peculiarities and financial capacities; the rational policy of taxation, creation of conditions for increase of the tendency of the population to accumulation and investing the incomes, their placing with insurance funds; expansion of participation of the population in financing of social services on the basis of transformation of the budget subsidies into address subsidies allocated directly to the citizens; elimination of monopolism in granting social services, development in this sphere of competitive environment, attraction of non-government funds and organizations to granting free-of-charge social services; creation of institutions of social servicing of the population; realization of step-by-step replacement of the existing system of granting of privileges by compensatory payments; expansion of the sphere of paid social services in education and health care services; and, realization of the system of measures on supporting employment in the regions with a critical situation in the market of jobs through organizing paid temporary public works in close connection with the development of production and social infrastructure. The priority in developing the social infrastructure is a significant growth of the volume of housing-communal services and services of health care. In the rural areas a significant role is given to supply of the population by qualitative drinking water and natural gas. Realization of the consecutive State Programmes, among which is the Programme of Development of Social Infrastructure of a Village till 2000, which is to supply the rural population with drinking water and natural gas for the years 1995-2000 and for 2000-2010, have allowed to provide water of drinking quality by the beginning of 2001 to 72% of the population of rural area, whereas in the beginning of 90-ties only 52% of the population had an accesses to it. By 2005 it is planned to increase the level of coverage of the rural population by drinking water up to 85%, natural gas - up to 82%. The programme of saturating the internal consumption market by products of own production for 2000-2005 envisages a complex of measures on increasing own manufacturing of qualitative and accessible food and non-food products at the expense of modernization, re-equipment and development of processing manufactures and enterprises producing consumer goods, expansion of the sphere of paid services to the population, perfection of organization of trade. The special complex measures on reducing a level of poverty will be realized in the Aral Sea Region. In particular, the use of the grant of the Japanese Fund on reducing the level of families with scarce means under assistance of the Asian Development Bank, the funds of which are directed on rendering social assistance to the needy families in the areas of the Republic of Karakalpakstan most suffered from drought and low water level.

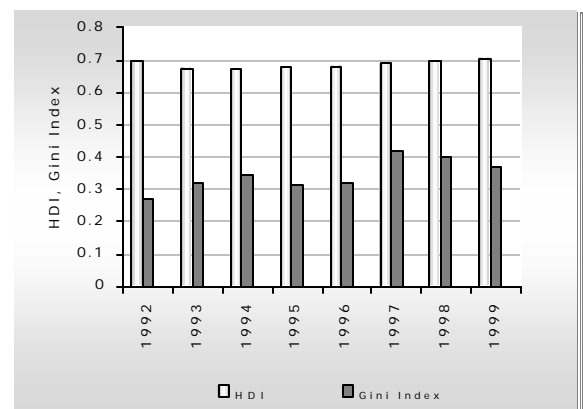
With the aim to form the real conditions for ensuring rational and productive employment of the population directed on increase of a level of the incomes and life of the population the territorial and branch programmes of creation of workplaces on 2001-2005 have been developed. Based on the principal new approaches the National Programme on Personnel Training has been developed meeting the modern requirements. See also under **Status**.

Status: Despite possession of natural resources, and positive results of reforming agricultural and industrial sector, Uzbekistan still encounters challenges in its development. One of them is the low standard of living of the population. Uzbekistan gives a unique example in many aspects of the standards of living and poverty. Despite a low enough average level of the incomes per capita in comparison to the international standards, the poverty, in its classical understanding as an exhaustion and death of the people from starvation, absence of the access to the socially important goods and services, does not practically exist in Uzbekistan.

At present the layers of the population with scarce means have acquired specific social features. According to the definition of both official research works and missions of international organizations the socially vulnerable layers of the population are considered: families with many children in urban and, especially, rural areas, lonely pensioners, widows or widowers with minor children, families with disabled children, families where one or both parents are disabled, persons with chronicle illness, with partial loss of being fit to work, families where both parents are missing and there is a child in the custody of the relatives, families where one or both parents are registered at the labour exchange as looking for a job. Criterion of poor people: low average income per capita, bad dwelling conditions, absence of expensive durable objects and items of luxury, absence of a land plot, poor nutrition, low educational level, poor condition of health, inability of the adult members to take care of the family. The indicative factor is that the families with scarce means, for example, consist of more than six persons, whereas in the families with average income the number of members is, as a rule, less than five persons. The opportunity of receiving of at least secondary education is not considered as unusual by the families with scarce means.

Positive tendencies in prevention of “making the population poorer” are ensured by: socially-oriented strategy of the Government, the main pivot of which is the system of social protection based on ensuring social guarantees in the sphere of growth of the income, effective employment, social insurance, availability of the services of public health care and education; realization by the Government of Uzbekistan of the programmes in the health care and sphere of education, which also, in the final analysis, are directed on support of the layers of the population with scarce means; presence of features of the national mentality expressing in the family, neighbors’ support of joint household running, cultivation of land plots bringing additional incomes, material support of the families with scarce means by the close relatives. That is the principle on which the system of the social protection “Makhallya” is being built. As a result of the taken by the republic address measures the ratio of the sizes of incomes among the population with high incomes and low incomes was defined within the limits of allowable values – on 7.5 - 8.8 times. Besides gradual reforming has helped avoid during the first years of independence some social shocks, to weaken the factors of social risk connected with the changes of a level and quality of life of separate groups of the population, which took place in other countries of the former CIS.

The priorities of social policy at the initial stage (1991-1994) of the economic reforms were: maintaining the incomes of the population in connection with liberalization of the prices and growth of inflation level; and, protection of the internal consumption market. The characteristics of this stage was weak state control over the incomes, presence of the state subsidizing of the expenses of the population, the new sources of incomes of the population were formed and legalized and supported (for example, personal subsidiary enterprises, development of private entrepreneurship in the sphere of services and etc.). On the initial stage of reforms the absolute employment of the population in Uzbekistan had a tendency of some decrease. During the next period the deepening of market transformations has created the preconditions for elimination of leveling distribution of the privileges, removal of the state subsidizing of the cost of socially significant consumer goods and types of services, granting to the citizens of the country of an opportunity to ensure independently for itself and members of the family a worthy standard of living. By 1996 the growth of the money incomes per capita in relation to the previous year



became 114.5 % and in comparison to the decrease on 31.6% in 1992 to the year 1991. Real GDP per capita constituted US\$ 2,510 in 1993, \$ 2,670 in 1997, \$ 2,994 in 1999. GDP growth rates exceed population growth rates that promote the increase of a standard of living in the country.

As the result of expansion of the spheres and opportunities of using labor in the non-state sector, increase of the scales of informal employment, the growth of labour and economic activity of the fit to work population has been observed since 1995. In the result there was a sharp change of the proportions of employment in the sectors of economy: in 1991 the public sector counted 60% of employed population, at present-30%. The programme on employment and creation of workplaces is in the progress of implementation. The specific weight of the rural population makes up 54.7%, urban - 45,3%. The reforms, which have been carried out in the agriculture, promote active process of formation of a class of owners. Since 1998 the mechanism of long-term renting of land with the right of succession and mortgage has been in effect, 27% of cultivated land has been allocated for development of the farming activity, the agricultural technologies, mechanisms of management and others have been perfected. In 1999 7.8% of total volume of investments was directed on development of the agriculture. The development of rural infrastructure has been going rapidly. The misbalance of provision by social conditions has been reduced: water, gas, education, health care services and etc.

The conditions for accelerated development of small and medium sized businesses (SME) have been formed. The share of SME in the total volume of GDP makes up 14-16%. The aggregate incomes in the families of entrepreneurs and farmers are in 2 times higher, than in the families of the employees and workers.

On a background of inflationary processes and decrease of production the actual salaries and pensions remain relatively stable. Contrary to the general tendency of delay in allocating of the earned funds to the population in the countries of CIS, the salaries and social payments in Uzbekistan are paid in time. For 2000 the monthly average wages on the republic constituted 13,3 thousand of Soums that is on 50, 5% more than for 1999, and the growth of actual wages has made up 120.5%. According to the results of 2000 the monthly average salaries in the financial-credit sphere and in the industry exceed average republican level. The lowest salary level is noted in the agriculture (48% of the average republican level), health care services (76%), and education (85%). The tendency of an advancing of the rates of income growth per capita over the rates of growth of average salaries is preserved, that is caused by decrease of a share of payment of work in the incomes of the population and increase of a share of personal consumption of the products produced in the dekhana and home facilities/enterprises.

In the structure of monetary expenses the specific weight of expenditures on purchase of the goods and services makes more than 85%. The overwhelming part of the consumer expenditures goes on purchase of food products, the share of which constitutes about 60%. The share of expenditures on purchase of non-food goods made up about 30%. The biggest specific weight of expenditures on purchase of non-food goods is on the families of entrepreneurs - 33.4%. The mechanism of realization of social protection works while rendering various types of help, such as benefits, transfers, pension payments. In 1997 the expenditures for these purposes constituted 16% of GDP. The benefits are paid to the families and vulnerable layers of the population as social assistance. The pension system is built on deductions of the employed part of the population for covering of current pensions.

A distinctive characteristic of the national system of social protection is the system "Makhalya." Through this self-management body of the citizens the distribution of transfers and benefits to the families with scarce means are carried out in accordance with the incomes within one province, city, and makhallya. This mechanism has been developed in accordance with the Decrees of the President "On the measures on strengthening of social protection of the families with scarce means" (August 1994) and corresponding resolution of the Government.

The measures undertaken during 1996-1999 have ensured a certain growth of well-being. The decrease of poverty level is connected with the concentration of assistance from the state to the families with scarce means. By the end of 2000 about 338 thousand families from the number of the needy families received material help that makes up 5.7% of the total families living in the republic. The total sum of payments constituted 2.8 billion Soums. By this the average amount of the material help in comparison with 1999 has increased on 50% and made up 4,168 Soums. The social benefits were received by 1,458 thousand families (31.6 % of total families) having children up to 16 years old. The average size of the benefits in the year 2000 has increased in comparison with 1999 by 40 % and made up 3,270 Soums. On a background of positive achievements in the economic development certain indicators demonstrate that the effect of undertaken measures on improvement of well-being is still weak. Between 1991 and 1996 the actual money incomes of the population had fallen to 47%, and purchasing power of an average salary had decreased to 40% in comparison with the period before reforms. The income per capita in 1996 made up only half of its level in 1991 in the actual value. The share of money incomes in GDP reduced in 1.6 times, the share of

savings in the banks reduced in 15 times. In July 1999 the average monthly income per capita constituted 8 thousand Soums, from which approximately 5 thousand Soums were received from the officially registered sources. Despite a certain progress in the distribution of social assistance and rationalization of the state expenditures, the aspiration of the state to create conditions to the working population so that they render material support to themselves by creation of new workplaces and enterprises, turns out to be less successful. The problems connected to disproportion in the standards of living at the regional level between urban and rural population, stratification of the society on incomes, increase of dependence of certain categories of the population from social payments, outflow of the qualified labour force and specialists from the base branches remain. Thus, for example, in 1998 the consumption level per capita in Tashkent was seven times higher than in the most vulnerable regions, one of which is Karakalpakstan. Four territorial sectors with different level of incomes of the population are distinguished. Karakalpakstan and Namangan province are included into the sector with the lowest level of average incomes per capita. The second, where average incomes per capita are lower than the average republican level, includes the Republic of Karakalpakstan, Andizhan, Dzhizak, Surkhan-Darya, Syr-Darya, Fergana, Khorezm provinces. The third sector includes Bukhara, Navoi and Tashkent provinces with the incomes of the population exceeding the average republican level. Tashkent city is distinguished for the significant excess over the average republican level of incomes of the population and is included into the fourth territorial sector. At a big difference in the incomes of the population, there is a moderate difference of the indices of cost of a standard "grocery basket" that dictates the necessity of redistribution of budget social transfers from the regions with relatively high level of life to the regions distinguished by high specific weight of the population with scarce means.

The Government's social policy for the future (2005-2010) is envisaged to achieve a qualitatively new level of social protection of the population by means of creation of reliable social guarantees and social support of the population. In this period the transition from the system of redistribution and consumption of the national income will be carried out to the system, which is based on the principles of economic self-activity of a person, solidarity of the citizens, their responsibility for the growth of their well-being, to the system exempted from subjectivism in redistribution of means and leveling.

Capacity-Building, Education, Training and Awareness-Raising: The role of makhallya committees in solving social internal family problems is being propagandized by mass media. With the purpose of strengthening of social status of makhallya committees the draft of the governmental decision "On the measures of strengthening of financial bases of the bodies of self-management of the citizens" has been prepared. At the meetings of committees the issues on rendering assistance to the families with scarce means are jointly considered.

Information: As the indicator of equal distribution of the incomes as a whole on the country we may give the national index Gini, which grew from 0.26 in 1991 up to 0.32 in 1996 and 0.42 in 1998. See also under **Status**.

Research and Technologies: TACIS of EU under assistance of the German Council on Technical Development (GTZ) carried out the research works of home facilities (economies) in Karakalpakstan, Fergana provinces and Tashkent city. This research work was implemented at a more limited number of home facilities (economies) in comparison with the survey of a family budget carried out by the State Department on Statistics. Having applied the level of poverty based on existing minimal salaries, it was determined that the ratio of the families with scarce means made up 10% in Tashkent, 28 % in urban and 47% in rural areas--in Fergana province, and also 50 % in urban and 70% in rural areas in Karakalpakstan. As an alternative, the preliminary results of similar research works of the family budget which were carried out in 1998 in the Fergana valley with assistance of GTZ, TACIS and World Bank, showed the coverage of the *independently determined level of poverty* (i.e. carrying out by a family of an independent assessment of insufficiency of money funds for purchasing of the food products and medicines) in the amount of 30-70% depending on location. In this research work the people determined themselves as very poor, in case they had no means to support themselves or whether they were homeless and simply poor, when they had enough means for livelihood, but could not afford to buy meat and meat products. The middle class consisted of those who could allow themselves to buy enough meat, meat products and clothes. The following categories included those who identified themselves as having an average income, rich people – who could purchase such goods as auto-cars, and very rich – who acquired real estate and items of luxury.

Financing: Uzbekistan's social policy is carried out with the active state financial support. The programmes of social assistance comprise special benefits. *The Social Insurance Fund* is available to: a mother giving birth to a child; mothers with children up to two years old; the people who lost a supporter; and the disabled at birth. *The Unemployment Fund* is available for the unemployed. *The Fund of Social Transformations* provides assistance to create conditions for supporting employment and increasing the income, improving well-being of the people, developing SME, etc. With the aim to decrease a share of the state budget funds on social payments and increase volumes of social assistance to the population, the Government uses more actively the off-budget sources of financing to the social help. The fiscal difficulties, which appeared during the first years of independence, have predetermined differentiated approach to various groups of the population. In rendering social help, the private enterprises, state institutions as well as charitable and other non-state structures are being attracted. Basic elements of the new approach are as follows: social protection of poor and families with many children by means of regular payments of benefits; material support to the temporary unemployed, including benefits on unemployment; free-of-charge re-training with payment of the stipendiums and 10% allowance per each member of family; regular increase of minimal pension and salaries with periodic revision of salaries in the budget organizations; progressive taxation depending on income growths; this principle is elaborated in the Tax Code that is in effect since January 1, 1998. The Pension Fund for accumulating and distributing contributions made by organizations has been established; an enterprise contributes 36% from the fund of salaries and 0.5% from general proceeds, and each employee contributes 1.5% from the salary for payment of pensions to the previous generations of the pensioners. The realization of national social policy promotes financial address loan funds in the volume of more than US\$ 200 mln. received for improvement of water supply, sanitary condition of the cities and villages from the International and European Banks for Reconstruction and Development. The similar address projects are in the course of preparation to the total amount of US\$300 mln. The deepening cooperation with the World Bank, Asian Development Bank, UNDP, GEF, and TACIS Programme promotes growth of the volume of financial resources at the expense of investments of the international donors. A large package of the projects on development of social infrastructure has been implemented. The Asian Development Bank provides financial support and assistance in: ensuring of the basic skills in the field of preschool development, assistance to development of the human factor among children; development of the skills focused on the market (through financing of rural areas); development of the agriculture through development of opportunities for earnings in a village; and, improvement of provision of the population by an urban infrastructure. With assistance of the Asian Development Bank the financial funds in the form of grants of the Japanese Fund are allocated on rendering of social assistance to the families with scarce means in the areas of the Republic Karakalpakstan most suffered from drought and low water level. See also under **Cooperation**.

Cooperation: The expansion of the scale of the international organizations engaged in the decision of problems on social protection of the vulnerable population is being envisaged. As the experience of other countries shows the use of various subsidies as the interest-free credits and grants will help realize the following projects: development of small and medium sized businesses, especially in the regions with low level of incomes of the population; creation of the schemes of guaranteed employment of the rural population with high level of open and hidden unemployment and low incomes of the population; reduction of poverty and prevention of various negative social and ecological consequences. By means of own loan and non-loan programmes the World Bank solves a wide spectrum of issues concerning water supply, health care, sanitary treatment, development of cities, strengthening of social protection and provision of social services. The key operational priorities of the European Bank for Reconstruction and Development include support to entrepreneurship, expansion of private and strengthening of financial sectors. In 1999 the Japanese International Cooperation Agency (JICA) opened its regional office in Tashkent, leading to the programme on provision of grants on medical equipment, and training. USAID actively supports the development of private sector and small enterprises in the agriculture and the improvement of the system of health care; In order to support the development of private entrepreneurship USAID has established the Central-American Fund, which grants loans to the enterprises of small and medium sized businesses and thus promotes creation of additional workplaces. National Programme of Reforms in the Social Sphere is assisted by the German Government, which provides sustainable technical assistance and training on private entrepreneurship.

CHAPTER 4: CHANGING CONSUMPTION PATTERNS

Decision-Making: The implementation of the national objectives on sustainable, ecologically acceptable socio-economic development, including the achievement of the rational consumption structure, has been accomplished within the framework of special procedures of elaboration of the decisions, including the forming of public opinion, strengthening of the legislation, preparation and approval of the governmental decisions.

Having launched the reforming of economy and political structure of the state, the goal of which is to construct of a democratic society based on the right of law and civil society with sustainable social orientation to market economy, the Government from the first days of obtaining of independence takes significant efforts directed on: support and forward growth of living standards, effective protection of the layers of the population with scarce means; and, rationalization of consumption of resources in all branches of economy. The main attention by this is given to the economy of fuel and energy resources, reduction industrial wastes, which to the greatest extent influence negatively on the environment. By this all arsenal of means is used, where it is possible to apply it on each concrete stage of realization of reforms.

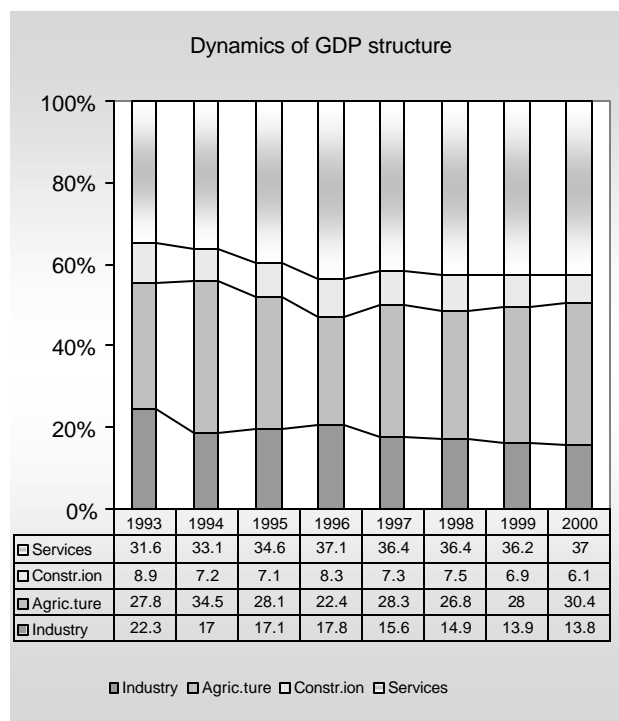
The following major priorities of further reform of the economy and strategic tasks on creation of new, effective, ecologically acceptable model of consumption, which were approved by the Oliy Majilis in 2000 and on realization of which the Government works at present, were determined as follows: further spiritual revival of the society; preparation of the highly skilled personnel; sustainable forward growth of well-being of the people, strengthening of social protection; and, structural transformations in the economy.

Programmes and Projects: The model (structure) of consumption is formed depending on the development of: branch structure of economy; technical base of production; incomes and preferences of the population; existing restrictions on use of natural resources; and, production activity and home economies, and also their influence on environment, established in the legislative order. Therefore the programmes and projects, which are implemented or envisaged for realization, and which to some extent will affect rationalization of the consumption model, are described in the corresponding chapters of this document.

Status: From the moment of obtaining independence the economy of Uzbekistan with its unbalanced branch structure and low enough level of used technologies had highly intense model of consumption, which had been formed during the decades in the conditions of command-administrative system of management by the state during the Soviet period. Changing of such model of consumption, its optimization in the conditions when material well-being of the population remains at a low enough level is one of the difficult social and economic problem requiring significant financial resources and long period of time.

The economy of Uzbekistan in the result of the formed during the past decades branch structure and imperfect nature of technological base still remains extremely resource-intensive. Power-intensive production of power and thermal energy, cement and even of freight transportation by automobile transport (due to deterioration and irrational structure of the park on carrying capacity) is in 1,2 - 3 times higher of the similar parameters in the developed countries. The power-intensity of gross domestic product is in 2-3 times higher of the level achieved in the developed countries of the world.

The proper living standards of people are reached by means of valuable contribution of each citizen to social development, protection and transformation of lands, on which they live, protection of traditions of the national culture. The economic re-structuring occurs so that to: ensure rational use of natural resources of Uzbekistan and



human resources capacity; lower consumption of resources in the gross domestic product; and, introduce new highly technological methods of production and improve the consumption

Capacity-Building, Education, Training and Awareness-Raising: The requirement of strengthening of potential in this area is predetermined in Uzbekistan by the necessity to solve acute economic and social problems with strict observance of legal restrictions on the issues of environment on economic activity during transition period. At the same time the undertaken actions guarantee political, economic and social rights of a person, with special important attention to management and improvement of the condition of environment and living conditions of a man.

Information: All information concerning the consumption model is formed at the State Department on Statistics, provincial (regional) departments and in accordance with the Law “On the State Statistics” and may be provided to the interested organizations.

Research and Technologies: The researches in the field of rationalization of the consumption model are carried out at the Centre of Effective Economic Policy under the Ministry of Macroeconomics and Statistics. Financing of these works is carried out from the state budget.

Financing: Financing of the programmes and projects, which to some extent predetermine or directly influence the rationalization of the consumption model, are described in the various chapters of this Profile.

Cooperation: See under the heading **Cooperation** in the various other chapters of this Profile, especially chapters: **4-Energy; 4-Transport; Industry; and Sustainable Tourism.**

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CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY

Decision-Making: The Commission on Economy of Fuel and Energy Resources under the Cabinet of Ministers under the chairmanship of the Deputy Prime Minister was established to work on increasing efficiency of use of fuel and energy resources in all sectors of economy. The significant financial resources were directed to the power sector, the front of geological-prospecting works was extended the laws “On Subsoil,” “On Economy of Fuel and Energy Resources” were passed. Power independence was achieved by the year 1996. By that time the import of power resources practically had been stopped. With the purpose of implementing large-scale technical modernization and due to necessity of attraction for this of the credit foreign investments the Government has launched the realization of structural and institutional reforms in the power sector.

Programmes and Projects: The programme on developing small power engineering is being implemented, which was adopted by the resolution of the Cabinet of Ministers in 1995. The programme of development and reconstruction of generating capacities in power engineering of the Republic of Uzbekistan for the years 2001-2010 was prepared in 2000 and launched at the beginning of 2001, envisaging: reconstructing generating capacities with introduction of modern highly economic steam-gas units; attracting into the power branch of foreign investments ensuring increase of production of electrical and thermal energy; expanding the use of alternative sources of energy: solar collectors and wind-power units; introducing independent power supplies in the remote and distant places; developing and using new categories of thermal insulation covers for power equipment on the basis of mineral-fibrous insulation materials allowing to lower the losses of energy and influence of power engineering on environment; and, modernizing and perfecting the system of accounting energy ensuring constant monitoring for production and consumption of all types of energy, introduction of highly effective devices of illumination allowing to lower significant consumption of electric power on these needs. On the decision of the Government the preparation of the project of gradual transfer of the branches of economy and social sphere to the modern resource-saving technologies will be completed in 2001. The preparation of the project development of geological-prospecting works on oil and gas was completed in the 1st quarter of 2001, which provides the substantiation of the economic mechanism of attraction of foreign investments in this sphere of activity along with the basis of concrete directions of search and technical modernization of exploration works, including by means of transfer to concession of deposits and enterprises for processing power raw material. See also under **Cooperation**.

Status: Forming a new power policy became a constant concern of the Government, as the condition of power sector, its dependence on external deliveries, represented a real threat to political independence. Therefore all efforts of the Government were directed on reorganizing the power of the country to achieve power independence within the shortest terms. In 1992 the concern “Uzbekneftegaz” was restructured into the National Corporation of Oil and Gas Industry reorganized after six years in 1998 into the National Holding Company “Uzbekneftegas” with a control package of shares (51%) in the state ownership. Since 1997 the privatization of the thermal networks has been launched based on the Government’s decision. At the end of 2000 the Ministry of Power and Electrification of the Republic of Uzbekistan was transformed into the State Joint-Stock Company “Uzbekenergo,” into the composition of which the coal extracting Joint Stock Company “Ugol” was included on the terms of a trust management. Despite the positive structural shifts in the industry of the last five years, the share of total power complex of industrial production of Uzbekistan in 2000 remains high and makes up 23,5%. The power sector itself consumes about a quarter of all power resources. 90% of electric power in the country is produced by thermal power stations, the emission into atmosphere from which makes more than 30% of general emission of greenhouse gases from stationary sources. The situation has been mitigated by the fact that in the general consumption of primary energy the consumption of gas makes up about 81%, oil - about 16% and coal – a bit more than 2%. See also under **Programmes and Projects**.

Capacity-Building, Education, Training and Awareness-Raising: The engineering-technical specialists in the field of power and power engineering are trained in many educational institutions of Uzbekistan and the leading of them is the Tashkent State Technical University. Annually about 2 thousand engineers of various specializations are prepared, who will deal with production of electro- and thermal energy, operation of electrical and thermal networks, power equipment, extracting, processing and transportation of power raw material. Recently the Tashkent

State Technical University has begun preparation of the experts on “Saving of energy and power servicing.” In 2000 about 40 such specialist were trained See also under **Cooperation**.

Information: Information on power and power engineering facilities is formed at the State Department on Statistics, provincial/regional departments and according to the Law “On the State Statistics” may be provided to the interested organizations. Besides the informational field is formed on the basis of development of internal branch statistical base, which also in the order established by the law may be claimed and be transferred to the appropriate structures.

Research and Technologies: R&D in power, exploration, extraction and processing of raw material are carried out by power companies and scientific-research institutes of the Academy of Sciences of Uzbekistan and research laboratories of higher educational institutions of the republic. The State Joint-Stock Company “Uzbekenergo” has two major design and survey institutes: “Electrosetproekt” and “Gydroproekt.” The National Holding Company “Uzbekneftegas” has two oldest in Uzbekistan scientific-research institutes: “NIPI Neftegas” and IGIRNIGM. In the Academy of Sciences of Uzbekistan R&D in non-conventional sources of energy (solar, wind) are carried out by the Institute of Power and Automatics, and the fundamental researches in the geology and exploration of minerals – by the Institute of Geology. R&D in a geological profile is accomplished by the Institute of Mineral Resources under the State Committee on Geology of Uzbekistan. Large volume of research works is carried out by the specialized research laboratories of higher educational institutions: National University; Tashkent State Technical University; Samarkand State University; Karshi Engineering Economic Institute; Fergana Polytechnical Institute; Karakalpak State University; Navoi Mining Institute; Tashkent Chemical Technological Institute.

Financing: The total investments into power sector of the Uzbekistan’s economy constituted 88,5 billion of Soums in 2000; it is almost 23% of the investments into the industries. In 1991, the year of political independence, the investments in this sector of the economy was only 7,8% of total investments into production building. This share constituted 15,1% in 1992; 22,9% in 1993; and in 1996, when the issue of achievement of power independence was solved, the investments into oil and energy complex made up 25,8% of total investments into production building.

Cooperation: The realization of programme in the power sector would be impossible without wide cooperation with the European Union, foreign credits and first of all the credits of EBRD. EBRD provided credit in the volume of US\$ 90 mln on realization of the project of reconstruction of the Fergana oil refining factory in 1997-1999, which included promotion of modernization and commercialization of this factory by means of installation of desulphurization unit, including protection and clearing of production and institutional support necessary for commercializing the activity. Based on the credit agreement with EBRD, the arrangements on improving the environment and modernizing the accounting system and financial reporting of the JSC “Uzbekneftepererabotka” have been completed. This bank also opened the credit line in US\$ 27,8 mln. for the realization of the Project on Reconstruction of Syr-Darya Power Station in 1997-2001. The European Union allocated many grants on technical assistance in the power sector of Uzbekistan, including: Programme “Development of Infrastructure of Power Sector” (1997-99) is directed on training of the experts of Uzbekneftegas and Uzenergo, support of the sector of electric system and creation of the expert group; Grant “Power Engineering Management Training” (1999-00) envisages creation of the course on training on management of power engineering and presentation of a new educational material; Grant “Branch Assistance by Electrification” (1997-99) - preparation of the strategic plan for electrical sector, recommendation for development of the decisions on future capital investments, assessment of potential on exchange by electric power between Uzbekistan and neighboring countries, introduction of modern methods of accounting and experimental information control system; Grant “TC Uzbekneftegas”—assistance to Bukhara NPZ and NC “Uzbekneftegas” in the establishment of JV; Grant “Efficiency of Power Consumption by Dwellers” (1997-99) —installation in the building provided by the Ministry of Communal Services of various power efficient and not causing pollution of environment variants and technologies, control of energy use and power efficiency, definition of the most effective systems or combinations of systems, assistance in organization of the appropriate link for co-production of selected equipment in local conditions, and etc.

CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT

Decision-Making: The development of transport communications within the country and creation of transport corridors with the vent to seaports with the least transport costs became one of the main tasks of the Government. The Decree of the President “On the measures on denationalization and shareholding of the railway transportation” and the Resolution of the Cabinet of Ministers “On perfection of organization of management of the State Railway Company “Uzbekistan Temir Yullari” were passed in March 2001. In accordance with them the National Railway Company becomes open joint-stock company. The principal decisions are taken in the sphere of liberalization of transportation on automobile transport. The President of the Republic of Uzbekistan signed the Decree “On denationalization and perfection of management in the sphere of automobile transport” (June 2001), the realization of which will ensure creation of competitive environment in the market of transport services. See also under **Programmes and Projects**.

Programmes and Projects: One of the first major actions of the Government was to initiate and participate in the realization of the project of a railway road Meshhed-Seraeh-Tedjen of 320 km length, connecting the railway networks of Iran and Turkmenistan and ensuring through movement of trains from Europe to China through Central Asia and Kazakhstan. Uzbekistan takes an active part in creation of another transport corridor TRASECA. In 1996 Uzbekistan, Azerbaijan, Georgia and Turkmenistan signed the “Agreement on Coordination of the Activity of Railway Transportation” and “Agreement on Cooperation in the Sphere of Regulation of Transit Transportation Between the Countries.” Taking political steps was required for full realization of potential of this route, the initiator of which became the Government of Uzbekistan. In the result of this a separate integration group of the countries of GUUAM functions since 1997, which consists of: Georgia, Ukraine, Azerbaijan, Moldova and Uzbekistan, the tasks of which include maximization of effectiveness and ensuring of safety of Transcaucasian transport corridor. In 1997 there was reached an agreement between the official experts of Uzbekistan, China and Kyrgyzstan on launching of automobile communication, on joint designing, reconstruction and use of automobile way Osh-Saritosh-Irkeshdam. The following agreements were signed in this year in Tashkent on the results of the international meeting “The Great Silk Road: Development of Transport Communications”: tripartite Agreement on joint designing, reconstruction, construction and operation of the highway Andijan-Osh-Kashgar and Memorandum on joint carrying out of researches and design works on construction of railway on the same route. In 1998 the Intergovernmental meeting of the delegations of Uzbekistan, China and Kyrgyzstan was held and the Agreement on international automobile communication was signed, which serves a legal basis for creation of the interstate automobile highway Tashkent-Andijan-Osh-Irkeshdam-Kashgar. This route is the shortest vent for Uzbekistan to the Eastern ports of China. The Government considers the issue on development of the State Address Programme “Uzbekistan’s Roads in the XXI century.” The feasibility study on construction of the highway Andijan-Tashkent-Nukus-Kungrad has been worked out at present, which will be a part of transcontinental highway connecting Europe and Asia. On a site of the highway Angen-Pan, connecting Tashkent with the Fergana valley, the tunnels through the passes “Kamchik” and “Resak” have been built and handed over in operation. At the same time the design and construction works on completion of this road are held at the same time, as well as its continuation on the site Kungrad-Banyu. The negotiations on attraction of foreign investments to complete this project are being carried out. See also under **Cooperation**.

Status: The development of internal automobile and railway networks is accomplished bearing in mind their integration into the world transport networks. The major precondition of wide development of integration processes on transport the Government considers in deepening of liberalization of transport services, use of market instruments of managing on transport.

The transport system of Uzbekistan, as well as of all Central Asian region, had been developing during the Soviet period into Northern direction, on which the exported cargoes, mainly cotton fibre, was directed on the lengthy routes; to the West to the Baltic Sea through Kazakhstan, Russia, Belorussia and the Baltic countries, and to the Black Sea through Kazakhstan, Russia, Ukraine; and to the Eastern direction through Kazakhstan, Russia, China, ports of Nakhodka and Vladivostok.

After disintegration of the USSR and appearing of new customs territories the transport costs on export-import transactions of Uzbekistan have increased sharply, that became a heavy burden for the economy of the new

independent state of Uzbekistan. Therefore since the first years of independence the Government has been accomplishing a purposeful policy on search of new, more economic transport corridors and first of all into the Southern direction. Now Uzbekistan uses 6 various directions of export-import transportations in comparison to 3 in the beginning of 90-ies. In the result the average distance of all transport routes used by the Uzbek companies was reduced from 5,200 to 3,700 kilometers. Among the new routes actively used since 1997 are: Tashkent - Farap (Turkmenistan) - Turkmenbashi (Turkmenistan) - Baku (Azerbaijan) - Poty/Batumi (Georgia)/Mersin (Turkey); and, Routes in the direction to the ports of Bandar - Abbas, Bandar – Imam Khomeyni (Iran), Djebel - Ali (UAE). During 1999 - 2000 the use of the corridors into the northern direction on the territories of Kazakhstan and Russia, basically to the ports of Latvia, and also through the ports and boundary stations of Ukraine has considerably decreased. Due to huge expenses on transportation of cargoes on the territory of Russia the Uzbek exporters have refused to use the Far Eastern port Nakhodka in favor of the Iranian port Bandar-Abbas.

The attraction of transit freights re-located between the countries of South Asia and Persian Gulf and the countries of Eastern Europe has been launched. It is envisaged that the freights will be directed up to the Iranian port Bandar-Abbas and then on the railway roads of Iran, Turkmenistan, Uzbekistan, Kazakhstan and further. The reconstruction of the automobile communication on the route Andijan-Osh-Kashgar between Uzbekistan, Kyrgyzstan and China are in the process, and the possibility of construction of the railway road between these countries has been considered. The development of internal automobile and railway networks is subordinated to the solution of the task, which consists of two components - development of productive forces of internal regions and creation of reliable interstate transit corridors. The railway line Navoi-Uchkuduk-Sultanuizdak-Nukus (the working movement has been already open in the part of Navoi-Uchkuduk-Miskin) will connect in the shortest way the Northern-Western part of Uzbekistan with the Central one, without passing the territory of Turkmenistan. This railroad passes through the territory of Navoi, Bukhara, Khoresm provinces and the Republic of Karakalpakstan, the total area of which is more than 320 thousand sq. km (72% of territory of the country) where more than 5 mln. people live. The new railway Guzar-Baysun-Kumkurgan, ensuring the independent network of the communication facilities of the territories of the Southern region of Uzbekistan, has the extremely important significance for development of production forces of Kashkadarya and Surkhan-Darya provinces and development of foreign economic relations with Tajikistan and Afghanistan.

The total length of the main railroads of general usage reached almost 3,800 km in 2000, including those supplied with electricity - about 619 km. The network of automobile highways for the period of 1994 -2000 has increased on 15,4% and made up 6,1 thousand km. The total volume of freight transportation has reached almost 795 mln. tons, that is in 2,6 times more than in 1994. The main freight flows are provided by automobile transport, the volume of transportation of which constituted 691,4 mln. tons in 2000 in comparison to 229,3 mln. tons in 1994 (the growth is in 3 times). The specific weight of freights transported by automobile transport constituted 87 %, railway - 5,3%, pipe-lines (oil, gas) - 7,7%, aviation - 1,9% and by water - 2,4 % in the year 2000. Automobile transport prevails in the transportation of passengers. The passenger turnover made up 30,1 billion of passenger-km in 2000 or 74,4% of total volume of passenger turnover. The total number of automobiles in operation exceeds 1,1 mln. pcs. However it is weak with regard to brand types and in the result the specific power-intensity of automobile transport is on 15-20% higher than in the European countries. A big number of vehicles were imported at the end of 80-ies, and in 2000 91% and by 2002 97% of cargo auto-transport will exhaust its amortization resource. Auto transport consumes fuel on 25-30% more for the reasons of not only deterioration of engines and transmissions, but also due to weak repair base. 77% of vehicles work on petrol, 18% - on diesel fuel and only 5% on condensed gas. Emissions into the atmosphere of greenhouse gases from transport continue to remain high. A locomotive facility of the railway transportation has been operated practically without replenishment for more than 20 years (when the term of amortization of locomotives is 30 years).

Capacity-Building, Education, Training and Awareness-Raising: Uzbekistan has the largest educational centers in Central Asia, whereby the experts in the field of transport and road construction are trained. It is the Tashkent Automobile Institute, which prepares about 800 young experts per year, and the Tashkent Railroad Engineering Institute - more than 400 young experts. Besides a wide range of technical specialties these educational institutions prepare the experts in management and marketing on transport.

A great number of the experts engaged in railway and automobile transport is trained at the seminars, which are carried out within the framework of technical assistance to Uzbekistan on reforming and development of transport. For example, the advisers of the company RADECO rendered assistance (including training of the personnel) in

acquainting the Council of Road Economy with the procedures of the international competitive tenders, principles of support of necessary legal base, accounting management, compensation of production costs, optimization of development of institutional opportunities and human resources in the sector on the grant of ADB in 1998-1999.

On the other grant of technical assistance of the same bank the advisers of Italian Railways in cooperation with the Transport Research Associates (USA) prepared feasibility study of the investment project in the field of railway transportation acceptable to external financing, on modernization of priority sites of the railway highway (in particular Samarkand-Khodjadavlet) and etc. in 1999-2000 and trained the local experts.

Information: On the instruction of the Government the information on all types of transport is formed at the State Department on Statistics, provincial (regional) departments and in accordance with the Law “On the State Statistics” it may be provided to the interested organizations.

Research and Technologies: Researches in the sector of transport are carried out by the scientific laboratories of the Tashkent Road and Tashkent Transport Institutes, and also by the Republican Design and Survey Institute on designing of highways (Uzyulloyiha). Such research works are financed by the state budget on the line of the State Committee on Sciences and Techniques of the Republic of Uzbekistan.

Financing: Financing of the development of transport systems and modernization of locomotive facilities of the railroads is accomplished from various sources of financing: budget, foreign credits, own funds of economic subjects. In 2000 the capital investments into the transport and communications sector became 105,5 billion of Soums that is 27,3% in the total volume of investments into industrial construction. In 1994 this share constituted only 11,9%.

Cooperation: Multilateral and bilateral cooperation with many countries of the world has been developing in Uzbekistan in the sphere of transport development, especially in the creation and development of transport corridors with a vent to various seaports. See under **Decision-Making** and **Status** for more information.

Cooperation on development of internal transport communications has been realized through attraction of foreign credits and foreign contractors. In 1996-1999 the firm Lang Alarko Marubeni implemented the project of modernization of three airports in the cities of Samarkand, Bukhara, and Urgench on the credit line opened by the Japanese Bank of International Cooperation. The objective of this modernization of three airports was to improve opportunities for satisfaction of the requirements of safety and efficiency. In the result these airports have received the status of the “international airports.”

The project of improvement of railway passenger transport has been implemented on the credit line of the same bank since 1996, the tasks of which include construction of carriage repair plant with the programme to repair 450 pcs. of carriages per year, acquiring 25 passenger carriages and spare parts to them, and also rendering of consulting services. The general contractor of this project is the corporation MARUBENI, term for completion of the project is June 2001. The Project of Reconstruction of the Tashkent Airport (1997-2001) and the Project on Replenishment of the Park of Locomotives and Management of this Park (1999-2003) have been implemented on the credit line from EBRD; the Project of Rehabilitation of Highways (1999-2003) has been implemented on the credit line of ADB.

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CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

Decision-Making: The Ministry of Labor coordinates the work in the provinces on demographic development. The Employment Promotion Fund has been established in the Republic. In 2001 the Expert Council was formed on the issues of demographic growth, development of labor market and rational employment. Monitoring of demographic processes is carried out by the Ministry of Macroeconomics and Statistics. The Council of Ministers of the Republic of Karakalpakstan, Khokimiyats of the provinces and Tashkent city have worked out and approved regional programmes of creation of workplaces and provision of employment in the medium term perspective. The basic directions of demographic policy are determined by the Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan ¹ 517 (2000) and ¹ 42 (2001). Due development was given to the legislative and normative base: the Law on Employment of the Population, Labor Code were adopted as well as the number of legislative acts regulating the issues connected with labor activity. In 1995 the Government of the republic adopted the resolution, which provides equal rights to private and state enterprises and facilitates registration procedures and removes restrictions on a number of employees in private firms. The implementation of measures on provision of the rational employment is carried out by the bodies of the state management in the provinces, ministries, departments, enterprises, establishments and organizations.

Programmes and Projects: The positive demographic processes are promoted by the realization of the State programmes, "Healthy Generation," "Strengthening of women's role in family, state and public building," "A mother and a child." Demographic pressure on labor market is mitigated by the realization of measures envisaged in the National Programme on Personnel Training. The basic results of the implementation of the programme for 1997-2000 are as follows: introduction of the State Educational Standards into the training process; preparation of the sets of methodical manuals and recommendations for preschool establishments, comprehensive schools, academic lyceums and professional colleges; printing of the textbooks of new generation; provision of children entering the first classes with textbooks at the expense of the state budget; introduction of qualification requirements to the heads, pedagogical and engineering-pedagogical staff of the secondary and special education; introduction into the practice of education of modern pedagogical methods and technologies; introduction of rating system of evaluation of knowledge of the pupils and students; construction since 1997 of 518 school buildings for 188 thousand student's places; and, increase of provision of school establishments by computers on 6%.

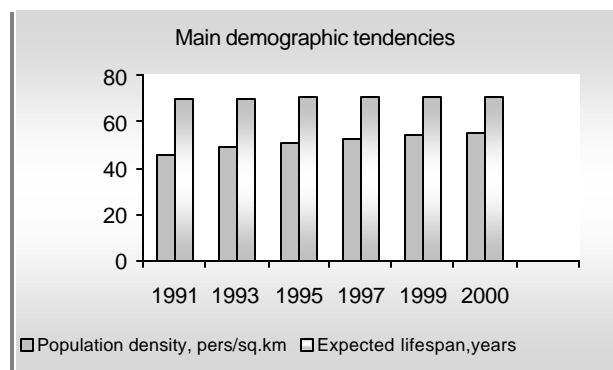
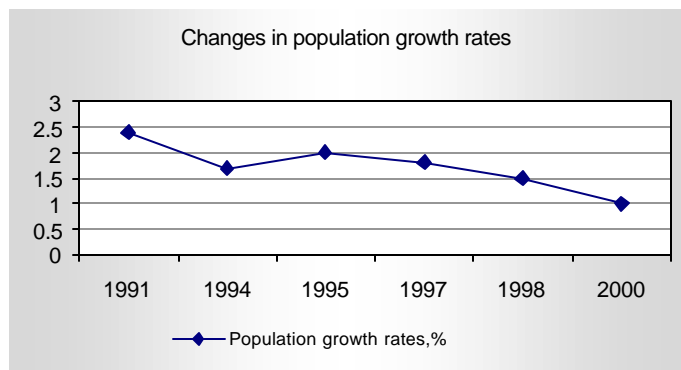
The programme of guaranteed employment is an integral component of the strategy directed on encouragement of renewal of growth and development of human capacity. The perspective directions of the policy ensuring employment are determined as follows: investing and creation of new workplaces, especially in the areas of great labor forces with undeveloped industrial infrastructure and critical situation in the labor market, with attraction of the resources of the Employment Promotion Fund, state budget assignments, and also the resources of the off-budget funds; non-admitting of employment caused by presence of hidden unemployment and inefficient use of working hours; provision to the employees of the restructured ministries and departments by payments of temporary compensations of losses in salaries; ensuring special measures on employment of noncompetitive in the labor market categories of the population; further development and realization of the guarantees on maintaining the incomes of the unemployed as payments of benefits on unemployment; provision of conditions for professional training, retraining and improvement of professional skills, provision of free-of-charge services on professional orientation; and, realization of measures directed on increase of motivation in labor.

Status: Uzbekistan has a number of advantages to ensure sustainable economic development: great human and natural resources, formed system of infrastructure and obligations of the Government of the republic on maintaining sustainable social development. Demographic growth influences significantly to the labor market and employment level. According to the elaborated in the republic strategy of transition to market, employment was included gradually and consistently into the system of market relations, the infrastructure of labor market has been created, the measures on provision with personnel have been taken.

The demographic development in the republic undergoes under the influence of the following factors: implementation of consecutive policy on non-admitting of interethnic disagreements and conflicts; reproductive objectives and realized orientation of the population to have a family with average number of children; development and realization by the Government of measures directed on increase of the level of social servicing;

medical provision is considered as a basic direction of the undertaken measures; development of the process of strengthening of a role of family in the society; increase of values of family relations; growth of the number of marriages by low level of divorces, especially in the rural areas. General economic improvement has started from the beginning of 1996 and ensures the growth of employment. The average annual rate of the employment growth in the economy makes up 1.3% per year. This is substantially promoted by implementation of the State Programme on Employment. Annually on the average 200 thousand of people find jobs. In the result of structural transformations the employment moves from the public sectors to private one. With completion of the small privatization, development of banking and insurance sector, the employment growth has been accelerated in the banking sector, trade, public catering.

Powerful demographic capacity proves to be true by the fact that the republic has young, fast growing population with high qualitative potential. By the beginning of 2001 the population constituted 24.8 mln. people, on 4.6 mln. people more in comparison with 1990 and almost twice more in comparison with 1970. The tendency of decrease of the population growth rates has been noted during the first years of the transition period. The decrease of the population growth rates has been observed in all regions of the republic, except for the Tashkent province and capital of Uzbekistan. The decrease of annual population growth rates first of all was affected by decrease of the birth rate. To some extent this factor is influenced by propaganda of giving birth and education of healthy children owing to increasing the periods between giving birth to children, choosing for giving birth to children of optimal age periods for women, wider use of the means of contraception. The average rate of the population growth during 1970-1979 constituted 3,0%, 1980-1989, 2,6%, and for 1990-2001, 1,9%. Positive consequences were improvement of health of a mother and a child, decrease of demographic loading - on 1000 persons of fit to work age it has decreased on 40 persons in comparison with the years of 80-ies, on 98 - in comparison with 70-ies. The birth rate has been stabilized at the level of 23-21 per 1,000 persons that is an optimum for the country, since it reflects new demographic tendencies and national traditions of having many children in the families.



From the total population of the republic - 9.2 mln. persons (37.2%) live in urban area, 15.6 mln. persons (62.8%) live in rural settlements. If in the years of 80-ies the urban population growth exceeded the rural population growth rates, then in 90-ies the situation changed completely and this tendency will be preserved in the following years. Labor forces growth in rural area is more than 70 % of total growth. The solution of the problem of a relative surplus of labor forces in rural area is one of the priority ones in the conditions of implementation of the economic reforms. The realization of the territorial programme of increase of employment has ensured expansion of the sphere of using labor. Till the year 2005 it is necessary to create not less than 3 mln. workplaces, which is in 1.5 times more than it was created during 1996-2000. An insignificant increase of the urban population growth rates from 1 % in 1991-1995 up to 1.2 % at present is noted, in rural area it correspondingly decreases from 2.8 % to 2.2 %. Despite of decrease of the rural population growth rate, it still remains higher than the rate of urban population growth. The tendency of a gap in the number of urban and rural population is preserved. The growth of the number of population of the republic occurs, basically, owing to the natural movement, i.e. preservation of a relatively high level of birth rate. Undoubtedly a qualitative shift in the demographic development is the tendency of decreasing of the population mortality, which is 6.3-6.4 per 1,000 persons. The ratio between born and died persons ensures in Uzbekistan a high enough natural growth of the population (16 per 1000 in 2000 according to the preliminary data). In the structure of the population the fit to work age group (52%) prevails, as well as children and teenagers till 16 years old (40%). The average age of the population of the country is 24.4 years old, including rural one - 22.9 years old, urban - 26.9 years old. Therefore according to the international demographic classification Uzbekistan may be

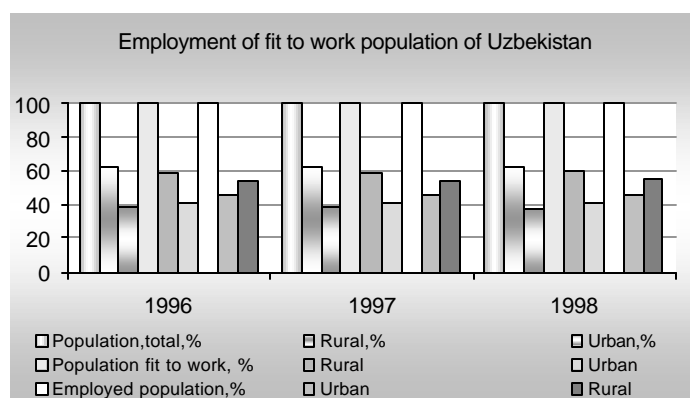
considered as a “young” country. 570-550 thousand of infants are born annually, though total coefficient of birth rate has decreased from 34-33 per 1000 in the 80-ies - beginning 90-ies up to 23-21.5 at the end of the century, that is an optimum for Uzbekistan since it reflects not only new demographic objectives, but also many-centuries traditions to have many children in a family which is preserved with a certain group of the population. The coefficient of birth rate was significantly reduced in rural area in the year 2000 and constituted 23.7 per 1,000 in comparison to 39.9 (per 1,000) in 1991. The total co-efficient of birth rate, i.e. the number of children born on average by one woman during the whole reproductive period, has decreased from 4,81 in 1980-1981 to 4,07 in 1990 and to 2,8 in 1998. Such reduction of the level of birth rate has appreciable positive consequences from the point of view of: health of a mother and a child; and, an economic situation - reduction of demographic loading (by children and persons of pension age, in the structure of such loading the share of children constitutes more than 85%) on the fit to work population. According to the calculations the modern loading per 1,000 persons of the fit to work population has decreased on 40 persons in comparison with the 80s, and 98 persons in comparison with the 70s.

The size of migration and its structure play a double role in the national economy: on the one hand the negative balance of migration promotes restraint of the population growth; from the other – educated and fit to work population migrates from the republic. The greatest negative balance of migration Uzbekistan has with Russia, Kazakhstan, Ukraine and foreign countries.

Capacity-Building, Education, Training and Awareness-Raising: *In the sphere of reproductive health and high level of birth rate:* The propaganda of harmonious development of a family takes a special place. An explanatory work on reproductive health and building of a health family is carried out through TV, radio, and especially the programmes for youth and in the schools. So far makhallyas of each province carried out from 30 up to 50 meetings of the specialists on explanation of the role of men in protection of reproductive health of women and formation of healthy family. More than 2.5 thousand lectures and more than 18 thousand discussions and speeches were given on this theme among the studying youth. At the urban and regional Registry Offices of Civil Marriages the permanently working courses on training of young people for creation of a family, with attraction of the specialists in jurisprudence, national education and health care, are organized in the territory of the republic. The Ministry of National Education has prepared necessary documents on creation of children’s movement “Shunkor,” and the Scientific Olympiad and Conference on the theme “Iktidorli Bolalar” have been held. A before marriage medical examination of young people uniting into a couple was organized, informing an optimum interval between births, as often births without observing and inter-genetic interval between them were the basic reason for growth of birth rate, and the increase of inter-birth interval promotes birth of healthy infants from healthy mothers.

In the sphere of employment development: The regional divisions of the Ministry of Labor gather the information on availability of market opportunities and spheres of application, which is directed to development of entrepreneurship in the republic. Besides the business press, mass media provide databank to the businesses. A complex of measures is being accomplished directed on propaganda and organization of temporary public works, promotion of employment of the socially vulnerable groups of the population, informational provision in mass media on forthcoming trainings, courses on retraining and improvement of professional skills of personnel. With

the purpose of legalizing the informal labor market, increase of awareness of the population about taken measures, the Centers on organization of one time works have been organized in Tashkent and Samarkand cities. The regional divisions of the Ministry of Labor organize training, retraining and improvement of professional skills of the citizens who do not have work and who will get outstripping training to replace the ones planned to be released from work. This ensures a significant part of the works on professional retraining on the basis of professional colleges of a new type on a contractual basis.



Information: The basic informational base on the issues of demographic development, employment of the population is formed by the State Department on Statistics of the ministries of: Macroeconomics and Statistics, and, Labor and Social Protection. The information is published in the statistical bulletins.

Research and Technologies: In 1997 the World Bank carried out a research work in the field of development of the national private sector for the Report on Global Development. The researches were carried out on the issue of key obstacles in development of private entrepreneurial sector and business activity of the population. The result of the research was a determination of the negative influence of certain strategic decisions, tax regulation, regulation of inflationary processes, currency operations on development of private business in the republic, and hence the reasons constraining the expansion of employment of the population in the country.

Financing: The arrangements on provision of regulation of demographic processes, promotion of employment are financed, mainly, at the expense of the state resources with the attraction of the resources of the Employment Promotion Fund, and also the resources of the off-budget funds. General expenditures on health care in percentage of GDP for 1995-1999 constituted 4.3 - 3.3%, and those on education 7.4-7.8%.

Taking into account the tendency of exceeding growth of the rural population, and also with the purpose of prevention of mass unemployment the Government of the republic allocates budget finances on development of employment in the rural area. To ensure the attractiveness of life in the rural area and to reduce migration to the cities, the state increases state investments into rural health care and education, finances provision of services in the villages, such as supply of rural residents by clean drinking water and gas.

Cooperation: Within the framework of the preparation and realization of the projects directed on solving demographic problems, the cooperation with the international organizations has been formed.

Thus, for strengthening of the National Employment Service in the field of developing of strategy and carrying out of retraining of the personnel according to the requirements of market economy, the EU renders assistance to the Employment Department of the Ministry of Labor. With the help of missions of the international organizations there were established the Centre for Business Communication, Agency on Small and Medium Sized Businesses Development.

In 1993-1995 the experts of the International Labor Organization provided consultations on the strategy in the field of employment and social security.

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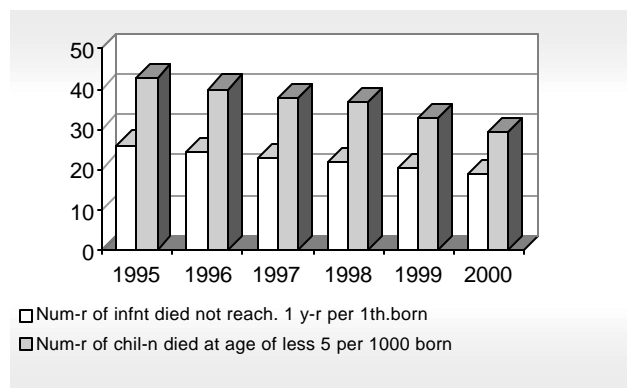
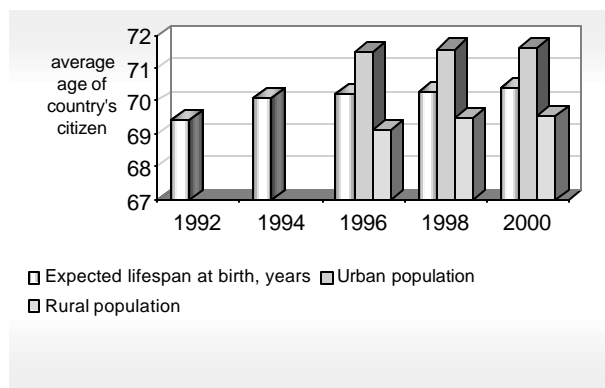
CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

Decision-Making: Further development of human capacity is an immediate task of the Government of Uzbekistan in the field of health care. Despite limited budget funds, the expenditures on health care are protected in the relative parameters. The reform of the health care envisages reorganization of the system, transfer from the old model of health care to more effective from the cost point of view primary and ambulatory services. The right of the population to receive qualified medical servicing is consolidated by the Constitution of the Republic of Uzbekistan. The main laws regulate the development of health care in the republic: On protection of health of the citizens, On medicinal and pharmaceutical activity, On prophylaxis of HIV infection (AIDS), and On drugs and psychotropic substances. At present the drafting of the laws on health care is being completed: “On protection of the population against tuberculosis and anti-tuberculosis help,” “On psychiatric help,” “On donating blood and its components,” “On the State Sanitary Supervision,” “On forced treatment of the sick with alcoholism or drug abuse,” and also the Concept on transfer to medical insurance with the appropriate normative documents. The Decree of the President of the Republic of Uzbekistan dated November 10, 1998 ¹ UP-2107 “On the State Programme of Reforming the System of Health Care of the Republic of Uzbekistan” launched the process of bringing the system of health care into accord with the carried out in the country transformations. In order to develop it further there were adopted 38 resolutions, 25 orders, and 2 decisions of the Cabinet of Ministers explaining the activity of the sectors and departments on protection of health of the population of the republic. According to the adopted governmental decisions: the state guarantees provision of free-of-charge medical servicing within the framework of a certain volume of medical-sanitary services, including rendering of emergency medical aid, preventive inoculations against a number of infectious diseases, rendering of medical aid, examination and treatment of the teenagers, persons of call-up age, treatment of disabled persons, rendering of obstetric services; new rural ambulatory-treatment centres have been created; priorities in medical services are focused on primary medical servicing and the best world practice; the system of emergency medical aid becomes stronger; the market of medical services and insurance medicine are being created; the normative-legal base of reforming of health care becomes stronger; financial base of health care is being perfected; the process of preparation, retraining, improvement of professional skills of medical employees, system of medicine provision of the population are being developed; and, the international cooperation on attraction of foreign investments and technologies into the branch is being expanded. The successful decision of these tasks requires: the transfer from the cost norms to distribution of funds on regions per one person; to raise flexibility while spending funds at the level of medical establishments; to rationalize establishments of health care; the assess to the viability of medical insurance—a legislative model has been formulated with regard to it; and, raised efficiency of interaction of various levels of medical servicing by means of gradual transfer from the old division between primary, secondary and tertiary medical servicing.

Programmes and Projects: The Government coordinates the realization of the following programmes: *Screening of a Mother and a Child*, organizing centres for early revealing of hereditary and inherent illnesses with newborns; “Healthy Generation” directed on strengthening of a role and responsibility of the state for birth of healthy children in the country, formation of intellectually developed, physically strong personality---For solving of the faced tasks the best specialists practically from all spheres of activity of the republic, including various funds (“Makhallya,” “Kamolot,” Centre “Manaviat and Marifat”), have been involved; the project *Health* was elaborated to implement the Resolution of the Cabinet of Ministers ¹ 43 “On effective use of the Japanese grant allocated by IBRD on preparation of the project of reforms in the health care of the Republic of Uzbekistan” (2000). The first component of the project promotes creation in the sphere of a network of modern medical stations (MMS), which are being equipped by engineering, equipment and medical personnel in accordance with the international standards. The structure and functions of MMS are being perfected, the system of provision to the population of the basic means on emergency aid has been established; the project, *Equipment of the service of emergency medical aid with treatment-diagnostic equipment*, is in the course of realization. During the course of realization of the project the condition of the existing base of establishments rendering such aid, their equipment by medical equipment have been analyzed; the need of the population for organization of emergency medical aid, condition of preparation of medical staff have been scrutinized; In Tashkent the pilot work has been implemented on educational-health improvement programmes *Jozibadortabassum* on prophylaxis of dental diseases with children and *Balogat Davri* on physiological-hygienic problems of transitional age among the pupils. These programmes are realized in

Samarkand, Bukhara and Andijan. Scientific programmes, which prevent and reduce the cases of tuberculosis, hepatitis, AIDS, oncologic and other non-infectious diseases, are being worked out. The principles for creating private sector and market relations in medical servicing, developing competition between organizations providing treatment and prophylaxis services are being formed. A package of documents on medical insurance has been prepared.

Status: Uzbekistan's health care system is comprehensive and large-scale with widely accessible services rendered mainly free-of-charge. Medical services of hospitals and other medical establishments cover the population widely and comprehensively. Some parameters in connection with realization of timely launched reform have been considerably improved. During the years of financial difficulties in 1992-1996, in order to preserve strong positions in this sphere, the republic launched reforms, which were directed on reduction of the quantity of rendered services, preservation and improvement of the quality and efficiency. The reforms were directed on rationalization of management and financing of the system of health care, shifting the service from hospitals to polyclinics, decentralization of the decision making process and perfection of distribution, availability of medical equipment and medicines. By shifting the servicing from hospitals to polyclinics between 1991 and 1997 about 41% of all beds in hospitals and 25% of stationary establishments were closed.



The basic parameters of health of the population are rather good. For example, in 1996 the lifespan on average in Uzbekistan was 70.2 years old (in urban area - 71.5 and in rural area - 69.1 years old), in other countries of Central Asia it corresponds to 68 years old, and if to compare with the countries, where the level of incomes of the population is lower than average (Uzbekistan is one of them), it is equal to 67 years old. The ratio of infant mortality is 32.5, 43 and 41 (per 1 mln. of newborn), maternal mortality 12, 79 and 165 (per 100 thousand of births). The basic criterion of health condition is the expected lifespan, which is kept sustainable - 70.3 years old. During 10 years the lifespan of men has been increased considerably from 66.1 in 1991 up to 68.2 years old in 1999, the index of maternity death has been reduced from 33.3 to 14.6, and general mortality – from 6.1 to 5.3. Health improvement of women and children is a special care of the state. On the initiative of the President of the country the year 1998 was announced to be the “Year of Family”, 1999 – “Year of Women,” 2000 – “Year of Healthy Generation.” During these years an extensive development of the programmes on health improvement of women, treatment and prophylaxis centres was ensured. General ratio of fertility has been reduced from 4.2 to 2.8.

Realization of the programmes on supply of the population by drinking water, treatment structures and system of sewerage, gas fuel are the components of the complex of actions on provision of favorable social conditions, preserving health of the population. During 1991-1999 the bacteriological parameters of the quality of drinking water were improved practically in two times, chemical - almost on 20%.

At the same time, there is a range of problems in the sphere of health care, which are as follows: low system effectiveness; imperfect nature of existing mechanism of distribution of budget funds, when rational use of resources at the level of medical institutions is not encouraged; outdated schemes of treatment; and, insufficient attention to preventive measures, primary medical servicing. Among the basic changes in the system of health care one may state: transition from multilevel system to developing system of local (especially rural) health care; growth of the number of centres of ambulatory surgery (from 84 up to 259); development of paid medical servicing - 59 private hospitals on 15 thousand beds, which function on the principles of self-cost, have been established, 3000 physicians have licenses for running of private practice.

Despite positive results of the first stage of reforms of the health care system, the complex measures should be undertaken during the coming years in accordance with the State Programme on Reforming of Health Care (1998) for: development of pharmaceutical industry and system of distribution of medicines; decrease of high level of incidence of the population with infectious diseases, especially in rural area - up to 15 thousand cases of tuberculosis (the highest indices are noted in Karakalpakstan, Navoi province and Tashkent) are revealed annually; prevention of development of the number of risk groups subject to drug and toxic substances abuse the Law «On drugs and psychotropic substances» was adopted in 1999; increase of the volumes of financial and technical resources of the system of health care – IBRD provided a loan for realization of the project “Health”; increase of the level of training of the specialists; formation of favorable environment of living - to ensure full scale realization of the National Action Plans on protection and hygiene of environment; and, perfection of the institutional structure of organization and management of health care.

Capacity-Building, Education, Training and Awareness-Raising: The educational work on informing the people on necessity of increasing intervals between deliveries, at least up to 3 years, emphasizing, that the age from 20 till 30 years is the most safe for a mother and a child, and also on increase of using contraceptive medicaments by the women of fertile age, especially suffering from gynecological diseases have been implemented. By today the use of contraceptive medicaments increased from 21% in 1990 to 42% by today. The role of local khokimiyats, committees of women, religious organizations and mass media has been strengthened on the issues of family-marriage relations and sexual education. In the republic the development of physical culture and sports, as a basis of a healthy way of living, is widely propagandized. The Ministry of Health has developed and introduced into the curriculums of the academic lyceums and professional technical colleges a 12-hour programme, “Basics of medical knowledge.”

Information: The basic information base on the issues of development of health care and condition of health of the population has been formed by the State Department on Statistics of the Ministry of Macroeconomics and Statistics, and also by the Ministry of Health, Ministry of Labor and Social Security. The information is published in the statistical bulletins, national Report on Human Development for corresponding years placed in the Internet.

Research and Technologies: The role of prophylaxis research works has been increased. In the consultative polyclinic of the Scientific Research Institute on Obstetrics and Gynecology the technology of early determining of a child's gender has been introduced. Together with the above-mentioned medical establishment the pilot research work of the level of alpha-fetoprotein in the blood of pregnant women on various terms of gestation is being carried out. The purpose of research is to reveal zonal norms as markers of syndrome of trisomy and defects of nervous tube with a fetus

Financing: Development of health care in the republic is carried out basically at the expense of the state funds. The expenditures on health care constituted 4,8-3,3% of GDP. Financial problems have become aggravated in connection with reduction of the state expenditures. The level of the expenditures on health care has decreased approximately from 4.6% of GDP in 1992 to 3.3% in 1997. Starting from 1994 the actual expenditures per 1 person for these purposes were reduced in comparison with the level of 1990 to 50%. At the same time, the expenditures on solving of priority tasks of the sphere in a broad sense still remain.

Cooperation: Cooperation with international organizations is being expanded in the sphere of health care. The US Agency on International Development renders technical assistance on introducing new models of financing the establishments of the primary link in Fergana province. From September 1998 the fund “Know-how” from Great Britain provides technical assistance on training of teachers of general practice. TACIS renders technical assistance in the issues of prophylaxis health care. At present the contacts with the WHO, UNICEF and other international organizations are being expanded. Cooperation with such organizations includes forming and realizing programmes of scientific researches and practical activity on fighting of a range of infectious diseases, including provision by vaccination and preventive measures, hygiene and protection of a mother and a child.

CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

Decision-Making: In 1999 the Coordination Council UZKHABITAT was established on the decision of the Government of Uzbekistan headed by the Deputy Prime Minister. This Council became the national coordinator on the problems of the settlements development. The Council includes the heads of financial, economic, city-planning, nature protection bodies, bodies of health care, education, culture and public organizations.

The National Strategy of regional and local initiatives of transition to sustainable development is based on the principle of complex social and economic development of local and regional zones promoting achievement of sustainability of the settlements. For legal provision of this policy the corresponding legal base has been created. The degree of sustainability of any settlement, as it is known, is determined, first of all, by the condition of ecology, availability of permanent (sustainable) sources of the worthy income, provision of dwelling spaces, availability of complete set and quality of social services, and also by the fact to what extent the operating systems of protection of health satisfy the basic needs of the population in drinking water, healthy food and sanitation. The solution of these problems became a daily care of the Government since the independence. See also under **Programmes and Projects and Cooperation**.

Programmes and Projects: Uzbekistan from the first days of the independence pays significant attention to the issues of social protection and support of the population. The main priorities of the state in this sphere are: ensuring protection of the socio-economic rights of an individual; securing the rights of an individual and his/her legal protection; creation of conditions for realization of the cultural, spiritual and intellectual interests of people.

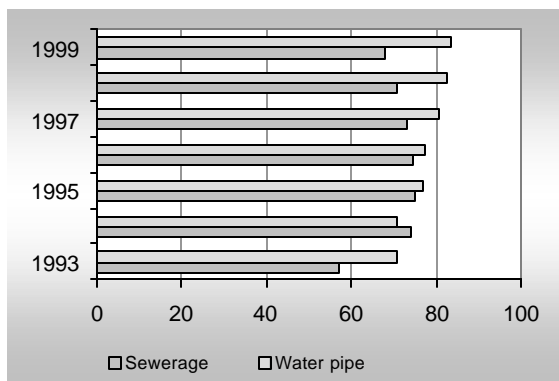
With the assistance of UNDP, World Bank, European Union the national action plans and programmes on environmental protection, combating desertification, conservation of biodiversity and other have been elaborated. During the last decade the Government has been solving the complex and important problems. With respect to the acute problem of drinking water supply to the population, which is very important for Uzbekistan located in the arid area, the Government has launched special programmes at the end of the 80's. The first national programme of water supply and gasification of the settlements was approved by the Government in 1990. After its implementation and the obtaining of feasible results (see under **Status**) on improvement of drinking water supply and reduction of emissions of greenhouse gases from the sources of home facilities, the second similar programme was adopted and implemented in 1995. "The Programme of Provision of the Rural Population by Drinking Water and Natural Gas" was approved in 1998 and implemented by the end of 2000. In 1999 the next programme was approved for the period of up to 2010. The credits of the World Bank, loans of the governments of Germany, France, Switzerland, Japan, and, Kuwait are used for implementing these programmes. The development of a water strategy in the Aral Sea Basin, general principles and criteria of watershed, rational water use and protection of water resources are carried out. The network of the health care facilities and the system of health services are being develop, the new industrial facilities are being built, the agricultural land plots are being restored, and the situation in the cities and settlements is being improved. In 1999 the Government and personally the President of the Republic of Uzbekistan initiated and actively promoted the approval of the large-scale project "Water Resources and Environment Management in the Aral Sea Basin," the main sponsor of which became the UN Global Ecological Facility.

At present a range of the State Address Programmes, which directly or indirectly promote sustainable development of the cities and settlements, have been developed and are being implemented in Uzbekistan, which include: Investment Programme for 2001-2003; National Programme of Personnel Training till 2005; Concept of deepening of economic reforms in the system of communal servicing up to 2005; project on reconstruction of water distribution networks in Nukus and Urgench; and the programmes of: complex development of the enterprises of chemical industry of Uzbekistan for 1998-2002; provision of the agricultural production with modern highly efficient technology for 1996-2000; measures on the state support of production of construction materials; of reforming of agriculture for the period of 1998-2000; deepening of market reforms and acceleration of socio-economic development of Khorezm province for 1999-2001; providing the rural population with drinking water and natural gas for 2000-2010; development of export potential of Uzbekistan for the period of 2000; privatization and development of the small sized businesses till 2005; of development of tourism for the period of up to 2005; development of the social infrastructure of a village till 2005; reforming of the system of health care of Uzbekistan till 2005; localization of production of goods and materials on the basis of local raw material for the period till

2005; development of telecommunications; deepening of market reforms and acceleration of socio-economic development of Namangan province for 1998-2000; development of passenger and freight transportation on the railway transport till 2010; and, development of soil improvement of lands for the period till 2010. There also exist the territorial programmes of: development of export potential for the period of 2000 – 2005; and, attracting foreign investments for establishment of joint ventures up to 2005.

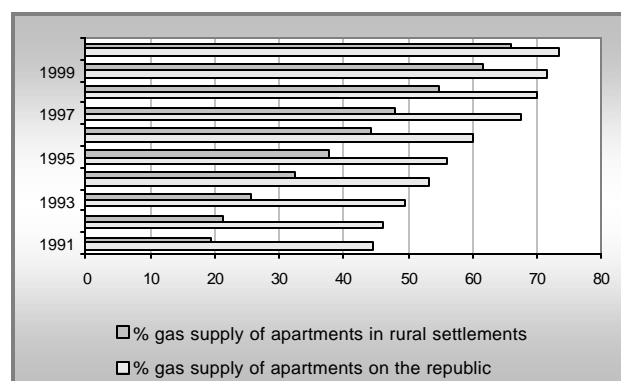
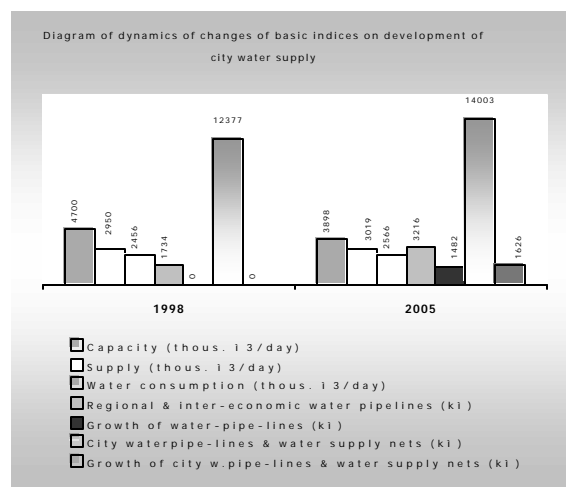
Along with the national programmes, the local authorities since 1993-1994 have been developing and implementing 2-3 year territorial programmes of creating new workplaces and employment of the population, development of the social infrastructure of a village, directly or indirectly aiming at increasing sustainable settlements, accelerating the industrialization of the economy, and ensuring more full use of potential of the natural and human resources of the country. And all these are considered to be new sources of sustainable incomes and growth of the living standards of the population. The important initiative of the local authorities will be preparation and ensuring of realization of the territorial programmes “Agenda for the XXI century” for the period of up to 2010, which will substantiate the selection of directions and indicate concrete measures on provision on a corresponding territory of ecologically rational, socially fair economic growth in systematic reduction of the power-, material- and water intensity of production, prevention of deterioration and consecutive improvement of the conditions of land, air and water, preservation and achievement of reproduction of forests and diversity of the forms of life. With the participation of financial institutes the programmes on improvement of urban water supply of Bukhara, Gulistan, Djizak, Karshi, Samarkand, Aral Sea territories and a range of other territories have been implemented. Since 2001, the project “Capacity Building for Sustainable Development” has been implemented with the assistance from UNDP and Fund Capacity-21 to promote: the creation of the basis for implementation of the national Agenda for the 21 century; development and strengthening of the national and local human capacity for sustainable development; preparation of the local Agendas bearing in mind specific peculiarities of development of the regions of Uzbekistan and their practical working out on pilot areas of the republic; involvement of national and local NGOs, civil communities into the practical activity on sustainable development, participation in decision making on these problems. This project is considered as continuation and supplement to other programmes, directed on increase of the capacity of the local bodies of authority in the processes of decentralization in decision making on socioeconomic problems with wide participation of the public, development of democracy.

Status: As the result of the programmes of development of water supply and gasification in 1990-2000, in the rural areas 21.3 thousand km of water pipe lines and 49.4 thousand km of gas networks have been put into operation; their total lengths in comparison to the Soviet period has increased in 2.6 and 5.9 times, correspondingly. By the end of 2005 it is envisaged to increase the level of provision of the rural population of the republic with drinking water up to 85%, and natural gas up to 82%.



In the last decade the overflow of water to the Aral Sea has increased in 3-4 times.

The population of Uzbekistan was 24,8 mln. on 1 January 2001, an increased from 1990 of 22,7% or of 4,6 mln. people; 15,6 mln. people or 62,8% of the total population



resides in 11844 rural settlements; the rest of the population, 9,2 mln., are concentrated in 120 cities and 114 urban settlements. Of the 120 cities of the republic, 89 are small with the population of less than 50 thousand; 14 medium-sized cities with from 50 up to 100 thousand; 13 big cities with from 100 up to 250 thousand; 3 major cities with 250 up to 500 thousand; and the biggest one, Tashkent city, with about 2.2 mln. The specific weight of the rural population during the last decade has increased on 3 points due to the economic difficulties of the transition period, which has slowed down the outflow to the cities of the rural population and the changes in migration processes. The peculiarity of the model of location of the rural settlements is their concentration around regional centres, which are considered, as a rule, as small cities and urban settlements. The regional centres bear the main loading on administration, organization and services, covering all village settlements, which are included in their jurisdiction. This type of settlements, in the essence, is a skeleton of the system of arranging the location of the population of the republic. In the conditions of the transition period to the market the concrete measures of the state support and stimulation of location of production forces in the regions of Uzbekistan are: transfer of the functions of operative management by development of the territories to the local bodies of authority, with preservation by the state of only regulation functions; construction of infrastructure facilities with attraction of the state funds, creation of attractive conditions for foreign investments; granting of privileges while crediting construction of the facilities; provision of territorial nature resources (land, water, mineral-raw and etc.) on privilege terms; preparation of the personnel for the new enterprises at the expense of the state funds; and, prohibition or limitation of placing industrial enterprises taking into account the requirements of ecology and rational nature use.

As the result of active social policy during the years of independence, positive shifts in the sphere of increase of the well-being of the population have been achieved: the normative basis ensuring reliable constitutional protection of human rights, social guarantees and social support of the population has been formed. The basis of it is the Constitution of the Republic of Uzbekistan, laws on: employment of the population; the state pension provision of the citizens; and, education and others; and, the formed economic processes have positively influenced the level and structure of the incomes of the population. Despite of the decrease of production during the first years of reforms the actual money earnings of the population have been increased during the period of 1991-2000 in 1.2 times. Changing of the structure of earnings occurred due to the appearance of the new sources – incomes from entrepreneurial activity and acquiring property. Dependence moods of the main mass of the population have been changed to the active position in the new market relations. Only for 2000 the production of consumer goods increased by 7.7%, retail turnover – 7.8%, volume of sale of paid services to the population – 14% (in a comparable prices); the significant growth of actual earnings promoted the transition of the population of the republic to the full payment for the services on maintenance and operation of dwelling spaces. The provision by dwelling spaces increased from 12.2 to 13.7 sq.m per person; formation of the national model of the labor market has been launched and is in the process of implementation, which is called to combine harmoniously individual needs of the employees with the needs in labor forces. Nowadays about 80% of fit to work population are employed in different branches and spheres of activity; the effective system of social protection of the population based on the address support of needy and vulnerable layers of the population has been created and is in operation that gave an opportunity to increase the volume of financial support on more than 3 times. Regular increase of minimal and average level of incomes in connection with liberalization of prices and growth of the inflation level has been carried out in a centralized manner, including at the same time the revision of the minimal amount of the salaries, pensions, stipends, and rates on deposits of the population in the savings banks. The social protection of the rural population was ensured by allocation of land plots to the population. During the years of reforms for expansion of personal land plots more than 550 thousand hectares of irrigated lands have been allocated to reduce the level of unemployment, increase the actual earnings, significantly strengthen private sector, ensure the population with the food products, and, expand significantly the scales of individual dwelling construction in the settlements. In cities favorable conditions are also created for individual constructors, including privilege crediting of construction of dwelling spaces, introduction of dwelling certificates; great attention is being paid to increasing the quality of human capacity. 27% of the whole population study at comprehensive schools, and secondary and higher educational establishments. On each 1,000 persons of the population 142 have higher and incomplete higher education, 199–secondary general, 127–incomplete secondary, and the quarter of the unemployed population has higher and secondary special education. The programmes of “Soglom Avlod Uchun,” “Screening of a mother and a child” have been successfully implemented. Significant attention is paid to the creation of the principally new system of rendering emergency medical services, which is organized in all provincial centers.

Despite the measures undertaken by the Government the acuteness problems of sustainability of the settlements still remain. Economic difficulties of transition period and connected with it chronic deficiency of investment resources constrains the decision of many problems of sustainability, which have accumulated during a number of decades.

Capacity-Building, Education, Training and Awareness-Raising: The sustainable development of urban and rural settlements comprises many aspects: ecological condition, the scales of nature protection, structural and industrial policy, education and training of personnel, protection of health and medical servicing of the population, income policy and material support of the needy layers of the population and etc. Thus issues of capacity building for sustainable development of human settlements have been discussed in the various chapters of this Profile.

Information: The information on the sustainability of the development of the cities and settlements is formed at the State Department of Statistics, provincial/regional departments and, according to the Law “On the State Statistics,” are accessible to interested organizations. Also a large block of analytical information is gathered, and provided to the authorities of the republic (for decision making officials) in the process of monitoring the implementation of programmes and projects, which are carried out within the framework of the state financing, grant funds and loans.

Research and Technologies: Complex research works on sustainability, socio-economic development, including the issues of sustainable settlements development are carried out by the Centre of effective economic policy under the Ministry of Macroeconomics and Statistics, and in the field of architecture and city-planning at the Scientific-Research Institute of the City Planning under the State Committee on Architecture and Construction. Such research works are financed by the state budget on the line of the State Committee on Sciences and Techniques.

Financing: The programmes, which directly or indirectly influence on the increase of a degree of sustainable development of the cities and settlements, are financed by the funds of the state and local budgets. The movement towards the sustainable development is supported also by businesses, funds of the enterprises and private investors. At the same time the limitation of the state funds and foreign investments in the weakly developed regions lead to the growth of inter-regional contrasts. Lack of stable sources of profit and growing non-payments have led to weakening of the economic activity in the depressive regions (Djizak, Surkhandarya, Khorezm provinces). The Government of the country and local authorities take effective measures on solving the problems of complex development of the settlements, increase of the role of the state, non-government, international structures in support of the settlements, especially located in the depressive areas as Djizak, Surkhandarya, Khorezm provinces. See also under Programmes and Projects.

Cooperation: The necessity to act extremely operatively forced the progressing at that time ecological crisis in the Aral Sea basin, the intense ecological situation in many industrial centres and agricultural areas, low level of incomes and personal consumption of a significant part of the population, that in the initial phase of the reforms represented a real threat of occurrence of social shocks. Therefore in 1993 the Heads of the states of Central Asia at the meeting in Kyzyl-Orda decided basic organizational administrative issues on interstate coordination of the actions in the Aral Sea region. At the Nukus (1995) and Almaty (1997) meetings the declarations on sustainable development of the region were adopted.

Uzbekistan also cooperates actively with: the UN Centre on Settlements, the global coordinator on the problems of settlements all over the world; the UN Commission of Sustainable Development; International Labor Organization; World Health Organization. The Coordination Council UZKHABITAT has been established in the republic, which comprises financial, economic, nature protection bodies, bodies of health care, education, culture, labor and public organizations. Fruitful cooperation is being accomplished at the administration level of the cities with the cities of foreign countries, most of which is based on the “sister-cities” arrangements.

CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

Decision-Making: Basic directions of solving socio-economic and ecological problems through satisfying the needs of present and future generations were formulated by the President of the Republic of Uzbekistan in the Report “Uzbekistan aspired to the XXI century,” which received their development in the National Programme documents - Concept (1998) and National Strategy of Sustainable Development (1999), the Project of the Agenda for the 21 Century for the Republic of Uzbekistan (2000), was prepared under the guidance of the NCSD with wide participation of the state, branch, non-governmental structures and organizations.

The Nukus Declaration, adopted by the Heads of five Central Asian countries in 1995, declared about support of the international Conventions and Agreements on the problems of environment and sustainable development, dedication to the necessity of transition to sustainable development by each country and achievement of sustainability in the region, and creation of national and regional institutional structures on sustainable development was acknowledge necessary. In accordance with the recommendations of the UN Conference on Environment and Development (Rio-92), Nukus Declaration, obligations taken by Uzbekistan in connection with the Conventions on environment, the Republic has launched the formation of the appropriate structures: National Commission on the problems of climate change, on conservation of biodiversity, on combating desertification, on termination of use of ozone destroying substances. In 1997 the Government made the decision on formation of the National Commission of the Republic of Uzbekistan on Sustainable Development (NCSD, Resolution of the Cabinet of Ministers as of 12.11.97, ¹ 510). Creation of these structures was an organizational measure on provision of effective participation of the Republic in solving the issues of sustainable development of the region and the world community, perfection of the interdepartmental coordination of actions in implementation of the plans and practical actions on solving ecological problems and achievement of sustainability.

The Law “On Nature Protection,” adopted in 1992, became the basic document in the formation of the policy in the field of environment protection. The concept, establishing scientifically-proved and legal mechanisms on use of nature resources in the Republic of Uzbekistan, was approved by the Cabinet of Ministers in 1996, and in 1997 the decision to develop the State Programme on Environment Protection and Rational Use of Natural Resources was adopted by the resolution of the Oliy Majilis (Parliament) of the Republic of Uzbekistan. Under the support of the World Bank the National Action Plan and Programme of Measures on Environment Protection for 1999-2005 were developed and approved by the resolution of the Cabinet of Ministers in 1999.

Programmes and Projects: In the last five years, the Government have developed and adopted the following programmes: the national action plans on: nature protection; environmental hygiene; conservation of bio-diversity, and combating desertification; the programme of measures on reduction of use of ozone destroying substances; National Messages on possible consequences of climate change and recommendations on adaptation of the economic complex to possible changes; and, the Strategy on reducing the emission of green-house gases. These provide the directions of actions on solving of ecological problems, which are considered through a prism of socio-economic development, which is the basic approach in the decision-making process on transition to sustainability. At the Second European Conference on Environment and Health (Helsinki, 1994) Uzbekistan was nominated as a pilot country for formulation of the national action plan on environmental hygiene. It was envisaged that the document prepared by Uzbekistan would be taken as a basis for the recommendations to the countries of Central Asia and Caucasian region. The work was coordinated by the State Committee on Nature Protection and Ministry of Health of the Republic of Uzbekistan.

Status: Since the obtaining of independence in 1991 Uzbekistan has begun to develop the national approaches on transition to sustainable development. But the recognition of imperative character of ecological component in sustainable development is connected with the necessity of taking into account such “frame conditions” as available and potential water and land resources, prospected reserves of mineral raw resources.

From 1992 the state organizations, responsible for management by natural resources and environment protection, carried out the following initiatives: step-by-step preparation and passing of the laws and normative documents, methodological documents and documents on management on transition to the payment for the use of natural resources; improvement in preparation of monitoring and informational base for assessment of harmful influences on environment; development and passing on to the Government of the action plans and coordination mechanisms,

accepted by the ministries and departments on implementation of the sector and regional programmes on environment protection.

Capacity-Building, Education, Training and Awareness-Raising: Guided by the Law “On the basis of the state youth policy of the Republic of Uzbekistan” and the state programme on education in the field of environment protection for the perspective up to 2005, a special attention is given to formation of ecological outlook and especially to growing up generation. The ecological lyceums, schools and the chairs of environment protection in the higher educational institutions of the republic have been created. The competitions, scientific-methodical conferences on the issues of provisioning of ecological education and up-bringing of the population are carried out annually. During the conferences the basic directions and stages of improvement of ecological education, the ways of wide use of national traditions and creative heritage of the ancestors in the process of education of growing up generation in the spirit of careful treatment of the environment are being planned.

In Uzbekistan there are 4 Universities, more than 20 special educational establishments, lyceums and colleges have ecological educational programmes, and training of personnel by the Universities of the Republic on a new direction “Environment Protection” (on branches) mainly by the Technical Universities is planned. Every year the students are enrolled to the Universities on the specialty of “Ecology and Nature Use.” In 1994 49 students were enrolled in 3 Universities; in 1995: 120 students in 6 Universities; in 1996 104 students were educated on this specialty.

Information: In the Republic of Uzbekistan the information field on the condition of environment and nature protection activity is formed on the basis of such information blocks as: *National statistics*—The package of statistical forms contains the information on the condition of environment and undertaken actions on protection of all natural spheres (except for the water resources); *State Department on Statistics*—Information on the supervision over the condition of water and land resources, atmosphere (including Cadastre of green-house gases) is formed at the Main Hydrometeorology Department and State Nature Protection Committee; and, the blocks of departmental information of ecological orientation (including Cadastre on appropriate nature spheres) are formed at the State Nature Protection Committee, Ministry of Health, State Land Committee, State Geology Committee, branch Ministries and Departments.

Information on development of nature protection activity, condition and problems of environment is provided to the public by means of special radio and TV-programmes, in the daily information programmes “Akhborot,” “Davr,” “Poytakht,” in the publications, special economic, scientific, ecological editions.

At present 28 NGOs are engaged into the issues of ecology in the republic. Their potential is used not only for development of information-educational activity, but also for increase of efficiency on solving ecological problems.

Research and Technologies: No information available.

Financing: In Uzbekistan the activity on nature protection is financed by the state budget, local budgets, funds of the enterprises, and off-budget funds.

Cooperation: Development of negative processes of harmful changes in the eco-system is not an exclusively national problem, as they also have effect for the neighboring countries. Accordingly, in solving the problems connected with nature protection Uzbekistan pays a special attention to joint efforts with the Central Asia countries and international organizations basically in connection with the improvement of ecological situation in the Aral Sea Basin.

As the result of joint initiatives of the World Bank, United Nations Development Programmes (UNDP) and other international organizations, the programmes and measures on combating the crisis of the Aral Sea have been implemented since 1993. Other bilateral and multilateral agreements concerning environment protection and use of nature resources were signed. For example, Asian Development Bank (ADB) has declared the intention to provide with the technical assistance in order to improve organizational structures on environment protection activity.

CHAPTER 9: PROTECTION OF THE ATMOSPHERE

Decision-Making: The State Committee on Nature Protection is responsible for the control and observance of legal and normative documents on nature protection, and also monitoring of sources of emissions of polluting substances at the enterprises and transport. The Department of Automobile State Inspection of the Ministry of Internal Affairs carries out monitoring of emissions from auto-transport vehicles. The Ministry of Health accomplishes monitoring of physical influence and radiation influence on the environment. The Main Department on Hydrometeorology under the Cabinet of Ministers is responsible for monitoring the surface layer of the atmosphere. In October 1995 the Government created the National Commission on the problems of climate change and determined its functions. The representatives of more than 30 ministries and departments, scientific centres constituted the composition of this Commission. In 1999 on the decision of the Cabinet of Ministers the Commission was dissolved and its functions were transferred to the Main Department on Hydrometeorology. The working group on protection of ozone layer, consisting of the representatives of the appropriate ministries and departments, since 1995 has been working over the implementation of the National Programme on protection of ozone layer.

In 1996 the Oliy Majilis adopted the Law “On Protection of Atmosphere,” which took into account both national experience in this area and international requirements.

Programmes and Projects: The complex measures on protection of the atmosphere against pollution and its improvement are envisaged in the National Programme on Termination of Use of Ozone Depleting Substances, the Strategy and Programme of Measures on Reduction of Emissions of Greenhouse gases, and the programmes on: extraction and recycling of cooling agents; climate change; development and modernization of monitoring of the atmospheric air and sources of its pollution for the period of up to 2005; development of the national obligations on eradication of lead from ethylated petrol; and actions on protection of the environment in the Republic of Uzbekistan for 1999-2005.

Within the framework of the Programme of the State Committee on Sciences and Techniques “Elaboration of the scientifically proved approaches and decisions of the problem of environmental protection and rational nature use” is being carried out on 40 assignments and treated in themes.

In the developed State Power Programme up to 2010 the opportunities of use of unconventional types of energy use will be envisaged. The programme on development of small Hydroelectric Power Stations (HPS) was adopted by the resolution of the Cabinet of Ministers in 1995. These programmes have important significance for improvement of atmospheric air of the cities and rural settlements. See also under **Capacity-Building, Education, Training and Awareness-Raising and Cooperation.**

Status: The transition to the new market relations accompanied by decrease of production has promoted the improvement of the quality of surface layer of the atmosphere. Emission from the stationary and mobile sources into the surface layer of the atmosphere has decreased from 3.8 in 1991 to 2.2 million tons in 2000. The period between 1991 and 2000 is characterized by dynamics of reduction of the emission volumes of polluting substances in the atmosphere, which is connected with: the process of branch restructuring and reduction of the share of ecology-intensive productions; some reduction of volumes of industrial production and auto-transportations; and, implementation of the nature protection measures. The complex index of pollution of the atmosphere (API_s) in the majority of cities and industrial centres is within the limits of the norm, except for the cities of Navoi, Tashkent and Fergana, where the index is from 5 up to 8. The efficiency of catching of harmful emissions makes up 67,4%.

The composition of emissions emitted by the enterprises of various branches is varied: dioxide of sulfur—46%; hydrocarbon – 15%; solid substances – 14%; oxide of carbon – 13%; oxide of nitrogen – 8%; and, also hydrogen sulphide, ammonia, chloride compound, phenol, formaldehyde, heavy metals and etc. The majority of these compounds are extremely toxic for a human being and environment.

By burning all types of fuel more than 90 mln. tons of greenhouse gases are formed, which influence negatively on climatic changes. The basic source of emission into the atmosphere of dioxide of carbon (95,2%) and methane (73,3 %) is the fuel and energy complex.

The major pollution from emissions from the stationary sources is caused by the enterprises of Tashkent, Kashkadarya, Fergana, Bukhara and Navoi provinces.

Uzbekistan is exposed to the transboundary air pollution from the neighboring states. Thus, for example, the emissions of the Tadjik Aluminium Factory influence negatively to Surkhandarya province. Gaseous and dust fluorine compounds emitted in significant amounts into the atmospheric air in the process of obtaining of a metal aluminium create a threat to ecological safety of the region, health of people and animals.

Emissions of automobile transport, the composition of which consists of oxide of carbon, oxide of nitrogen, hydrocarbon, aldehyde, lead, make up more than 60 % in total volume of harmful substances emitted into the atmosphere. The most polluted by transport emissions are the cities of Tashkent province, Fergana, Samarkand, Karshi, Andijan.

Capacity-Building, Education, Training and Awareness-Raising: According to the laws “On Nature Protection,” “On Protection of Atmospheric Air” and “On Ecological Expertise” the NGOs and the major layers of the population participate in realization of public ecological expertise, which bears a recommendation character. The representatives of the NGOs and public are engaged as the experts in working out of the projects and programmes in the field of protection of the environment and rational nature use, and also in decision making process.

Having been guided by the Law “On the basis of the state youth policy of the Republic of Uzbekistan” and the State programme on education in the field of protection of the environment for the period of up to the year 2005, the special attention is given to formation of ecological outlook, especially of the growing up generation. The chairs on the issues of environmental protection at the higher educational institutions have been established, as well as ecological lyceums and schools have been opened. The competitions, scientific-methodical conferences, seminars with participation of the representatives of NGOs, enterprises, educational institutions and public are carried out annually on the issues of ecological education and upbringing. The information of the burning aspects of ecological problems is provided to the population by means of television and radio programmes and mass media. At present there are more than 60 NGOs in the republic, out of which almost half is engaged in solving the issues of ecology.

Information: The evaluation of the quality and condition of protection of atmospheric air are carried out once in two years, the results of which are published in the National Report on conditions of environment and use of natural resources in the Republic of Uzbekistan. Annually all enterprises, emitting into the atmosphere polluting substances, submit to the state departments of statistics the appropriate forms of statistical reporting (2E “air” and 2E “transport”), in which they specify the list of sources of pollution of the atmosphere, quantity of emissions from stationary and mobile (auto-transport) sources (amount and on certain toxic compounds), equipment of the sources of pollution by treatment units and carried out air protection arrangements. The Main Hydrometeorological Department issues Monthly Information Bulletins and Annual Reviews on the condition of pollution of atmospheric air, besides the results of surveys reflecting the background pollution of the atmosphere in the largest industrial centres are published in the daily bulletins, which are provided on the arrangement to all interested structures. The State Inspection of Analytical Supervision of the State Nature Protection Committee has quarterly information on the results of monitoring of the sources of pollution of the atmosphere. The State Nature Protection Committee jointly with the Ministry of Health and Department of the State Auto-Inspection of the Ministry of Internal Affairs informs on the results of the operation “Clean Air” carried out once in two years, in the process of which the emissions of the polluting substances in the worked out gases of vehicles are checked. The inventory of sources and drains of greenhouse gases for 1990 and 1994 was carried out. The updated variant of the inventory is being prepared for release.

Research and Technologies: The research works in the sphere of protection of the atmospheric air are carried out in accordance with the State Scientific and Technical Programme. As a result of realization of this programme the following has been elaborated: catalyzation and sorption methods of treatment of gaseous industrial emissions from toxic compounds; researches of the spatial-time structure of ozone-sphere above the mountains of Central Asia have been accomplished for the first time; levels of specific non-infectious illnesses connected with the environmental pollution have been determined; the methods of reduction of cancerogene emissions of the industrial enterprises have been worked out; methodical recommendations on determining of an actual aero-gene loading of 3,4-benzaperen on the population; levels of pollution of the atmospheric air of 16 industrial cities of the republic and their interrelation with general illness of the population have been established; assessment of the climate change of Uzbekistan up to 2005 under influence of natural and anthropogenous factors, and as well as the change

of the climatic characteristics of the Aral Sea region under the influence of shrinking of the Aral Sea; maximum admissible concentrations of fluoride hydrogen, oxide of nitrogen and sulfur in the atmosphere for vegetation (Phyto-MAC (Maximum Admissible Coefficient)). The Scientific-Research Institute "Atmosphere" of the State Nature Protection Committee accomplishes research works directed on reduction of emissions of polluting substances to the atmosphere and improvement of ecological parameters of technological processes, develops devices, which intensify the processes of burning of fuel and combustible organic wastes. The testing industrial units on treatment of emitted gases (from anhydride sulphide and oxides of nitrogen) of the power, chemical and metallurgical branches have been designed. The method of catching of anhydride sulphide while burning of highly sulphide fuel has been designed and is being introduced on the thermal electric stations. Simple and effective method of neutralization of mercury containing lamps has been designed and is being introduced.

Financing: The nature protection activity, including protection of the atmosphere, is financed by: own funds of the enterprises and organizations; local and state budgets; funds of the international organizations-donors received as grants, loans, credits, technical assistance; funds of private firms; and also local and republican nature protection facilities (in a small volume). The system of economic levers and stimulus of nature use (payment for emissions into the atmosphere, regime of the economic sanctions for exceeding the norms, tax and credit privileges etc.) has been perfected. The economic methods of management of the nature protection activity and regulation of nature use are widely used on the basis of the principles "that pays who pollutes" and "that pays who uses."

As a whole the expenditures on carrying out of the nature protection measures are formed from the expenses on capital contributions (investments) on construction, reconstruction, technical re-equipment of nature protection facilities and current expenses for overhaul of the main facilities on nature protection (maintenance in a normal operational condition of the nature protection equipment).

Thus the current expenses, which make from 41 up to 84% from total expenses for protection of nature, are incurred in full at the expense of the funds of the enterprises. The efficiency of formation and realization of nature protection measures are affected by the fact that they are planned basically on a "residual principle" and a principle of an "end of a pipe."

Cooperation: As a part of development of the international cooperation on protection of the atmosphere Uzbekistan signed the UN Frame Convention on Climate Change (FCCC) in 1993, and in 1999 it ratified the Kyoto Protocol to this Convention. In 1995 the Vienna Convention on protection of ozone layer, Montreal Protocol on substances destroying ozone layer and the London and Copenhagen Amendments to the Montreal Protocol were signed.

The international donors finance realization of the projects and national programmes and reports. In cooperation with the Global Ecological Facility (GEF) and UNDP the project "Uzbekistan – country survey on climate change" (1997-1998), the project "Elimination of the barriers to power efficiency in municipal heating and hot water supply" (1999-2000), and the project "Capacity Building on Technologies Transfers" (2001) were implemented. With the financial support of the World Bank/Government of Switzerland the project, "Survey of the National Strategy of Uzbekistan on Reduction of Emission of the Greenhouse Gases," was implemented in 1998. In 2000 the consultative-financial support was rendered by the Government of Switzerland for the project "Uzbekistan: Capacity Building on the Mechanism of Clean Development."

The heads of the countries of Central Asia carry out regular meetings connected with the problems of the Aral Sea basin. They approved the Nukus (1995) and Almaty (1997) Declaration. The measures on restoration of the environment in Central Asia and forms of participation of the world community in this process, and also the issues on provision of sustainable development in the region of the Aral Sea were discussed at the international seminars of OSCE "Restoration of Environment" (Tashkent-Urgench in October 1995 and Tashkent in October 1996).

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CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

Decision-Making: The management of land resources is accomplished by the state in the centralized order. The state approach to management ensures the most rational use of all land fund of the country, development of the land relations on the basis of the acts of the land legislation. In the land resources management system, closely interconnected functions of management are distinguished; that is, relatively solitary parts of the administrative activity on organization of the rational use and protection of lands. This control constitutes one of the basic sets of functions of land-resources management. Its ultimate goal is to ensure legality of land tenure, correctness and efficiency of realization of all arrangements on protection and rational use of lands. The effective solution to the land-management requires coordinated realization of all functions of the management of land tenure.

The following organizational-economic principles are the basis of land resources management: unity of the state, economic, ecological and technological approaches to management of land resources; complex decision of the issues of rational use of lands and other natural resources; accounting of zone distinctions in locating and using land resources; taking into account the peculiarities of functioning of land in various branches of economy; and, priority of the agriculture on land. The first above-mentioned principle is derived from the need of elaboration of the state policy while making decisions on economic tasks. A complex approach is obligatory for organizing rational nature use. It is predetermined by the objectively existing interrelation and interdependence of the elements of biosphere as an integrally complete system. Only one break in links of the interconnections, for example in organization of land tenure, can result in irreversible consequences for the system as a whole. The issues of land use can not be solved economically correctly without coordination with the decisions on rational use of other natural resources.

Protection and rational uses of land have received in Uzbekistan an importance of the constitutional status. The Article 55 of the Constitution states, "The Earth, its subsoils, waters, flora and fauna and other natural resources are the national wealth, are subject to rational use and are protected by the state."

Land relations the Republic of Uzbekistan are regulated by the land legislation and other normative-legal acts with the purpose of ensuring the interests of the present and future generations of scientifically-substantiated and rational use and protection of lands, reproduction and increase of fertility of soils, conservation and improvement of natural environment, creation of conditions for equal development of all forms of managing, protection of the rights of legal entities and physical persons on land plots, and also strengthening of legality in this sphere. Land legislation is based on the following basic principles: preservation of the land fund, improvement of quality and increase of fertility of soils, as a major natural resource and basis of vital activity of the citizens; ensuring of rational, effective and address use of lands; ensuring special protection, expansion and strictly address use of lands of the agricultural purpose, first of all irrigated lands; rendering of the state and other support in accomplishment of arrangements on increase of fertility of the agricultural plots, improvement of amelioration condition and protection of lands; prevention of causing a damage to land and the whole environment, ensuring ecological safety; variety of the forms of ownership and use of lands, provision of equal rights to the participants of land relations, protection of their lawful rights and interests; payment for the land use; and, provision of full and complete information on the condition of lands. At present the legislative and law basis of regulation of the land relations has been basically established. It constitutes of the adopted in 1998 by the Oliy Majilis of the Republic of Uzbekistan of the Land Code of the Republic of Uzbekistan, laws of the Republic of Uzbekistan "On the State Land Cadastre," "On Agricultural Cooperative Society (Shirkat)," "On Farmers' Enterprises," "On Dekhans' Enterprises" and other acts of the legislation regulating land relations.

The major legislative document determining the main directions and principles of regulation of the modern land relations is the Land Code of the Republic of Uzbekistan, which is from the very beginning till the end is filled with the spirit of necessity of the maximum safe, thrifty attitude to land, overall protection and its rational use in all branches of economy. The Land Code has been in force since 1 July 1998. Land issues are also regulated by a number of the laws and legal acts regulating land relations. The principle priority of the agriculture on land consolidated in the Land Code is determined by that economic role, which is played by the land in the agriculture, as the main means of production. The priority right of the agriculture on land is predetermined by the limitation of lands, which can be used for production of the agricultural products. It requires allocation of fertile lands first of all to the agriculture, re-cultivation and return of the lands to it which were broken in the result of mining, construction and other works connected with breaking of a fertile layer, obligatory compensation to the agriculture of the losses

from withdrawal of a part of its lands from the agricultural turnover, implementation of the arrangements on sustainable increase of fertility of soils and overall protection of agricultural lands. At the same time their further elaboration and perfection is required in order to provide in full the system of land resources management by the normative and legal acts on regulation of the land relations. See also under **Status**.

Programmes and Projects: In the land resources management system a special place belongs to designing - drawing up and implementing of the appropriate Projects and Programmes, such as the Programme of deepening of economic reforms in the agriculture for the period of 1998-2000 approved by the Decree of the President of the Republic of Uzbekistan on 18 March 1998, Concept of the National Programme on improvement of use and protection of lands, conservation, increase and restoration of soils and others.

The system of basic functions of management of land tenure consists of the following: Study and mapping land resources; Maintaining the cadastre of land resources; Forecasting of land resources; Planning of the rational use and protection of land resources; Designing of the rational use of lands; Ensuring economic incentives of rationalization of land tenure; Control of the use and protection of lands; and, Settlement of land disputes.

Special attention is paid to protection of the lands of agricultural use. The actuality of the problem of rationalization of land use and increase of feedback of each hectare raises more in connection with the necessity to implement the "Programmes of deepening of the economic reforms in the agriculture for the period of 1998 - 2000," approved by the Decree of the President of the Republic of Uzbekistan on 18 March 1998. Thus, the task of organization of scientifically substantiated, effective land use is one of the most important state problems. This strategic task is the main one for the state management of land resources. See also under **Decision-Making, Status**, and **Research and Technologies**.

Status: According to the Land Code the land in the Republic of Uzbekistan is the state ownership - national wealth, is subject to rational use, is protected by the state and is not subject to sale and purchase, exchange, gift, pledge, except for the cases stipulated by the legislative acts of the Republic of Uzbekistan. In accordance with the Code and other acts of the legislation: legal entities may have land plots on the right of permanent possession, permanent use, emergency (temporary) use, rent and property; physical persons may have land plots on the right of inherited for life possession, permanent use, emergency (temporary) use, rent and property: *The property right of the legal entities and physical persons to land plots* arises in the order established by the legislation, by privatizing the facilities of commerce and sphere of servicing together with the land plots, on which they are located; *The property right to land plots of diplomatic representations* and equated to them international organizations accredited in the Republic of Uzbekistan arises when selling to them in the order established by the legislation of buildings or parts of buildings used for premises of representations, including a residence premises of a head of a representation, together with the land plots on which they are located, and also land plots for construction of buildings of these representations; and, *The property right of foreign legal entities and physical persons on land plots, of the employees of the diplomatic corps, representatives of mass media* accredited in the Republic, employees of permanent representations of the firms, companies and international organizations, persons working on a permanent basis at the enterprises with foreign investments, and also persons permanently residing in the republic and having a residence permit, arises when selling to them in the order established by the legislation of dwelling premises together with the land plots on which they are located.

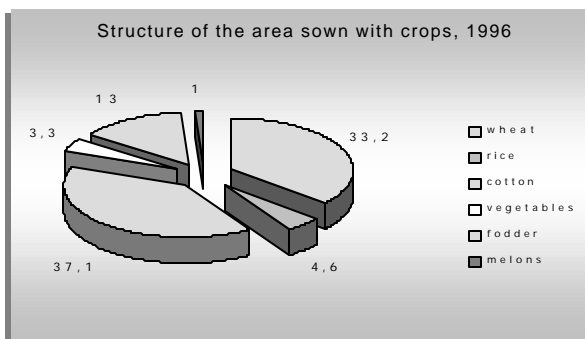
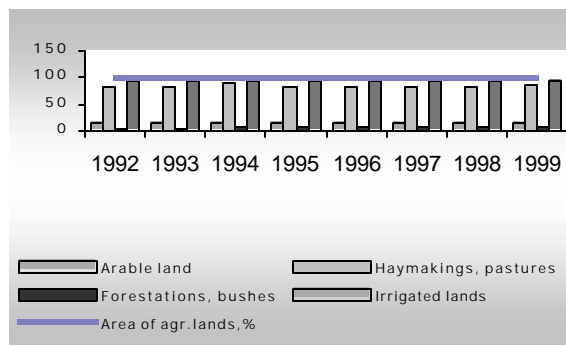
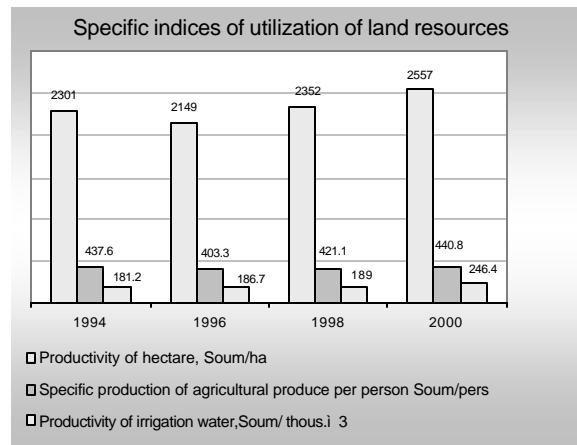
Management of land resources in the modern conditions is a system of the closely interconnected economic, technical, organizationaleconomic and legal arrangements of the state directed on regulation of land relations, organization and provision of effective utilization of lands and their protection in the interests the whole society, and also certain land-owners, land users, proprietors and tenants, which includes study and mapping of land resources, maintaining of the land cadastre, forecasting, planning and designing of rational use of lands, ensuring economic incentives of rationalization of land use and control of use and protection of lands.

Land functions in all branches of economy. However, its meaning for different branches is not equal, which predetermines certain distinctions in carrying out the land management, which are shown, in particular, in the specificity of land organization, land cadastre and etc. Therefore taking into account the peculiarities of functions of land in various branches of the agro-industrial complex (AIC) and the economy as a whole are considered as an obligatory for its rational use. With the aim of ensuring rational use of the land fund the complex of necessary arrangements on its study, various types of surveys, shooting, dividing to rayons of the land fund and classification of lands, mapping are being carried out. The tasks of organizing and carrying out of monitoring of lands are topical.

In the process of radical changes in all structures of the national economy, the special attention is paid to deepening the economic reforms in agrarian sector and providing efficiency of agricultural production. In solving these tasks an important significance has skilful and rational use of our main property: land, increase of its feedback and safety. The mechanism of regulation of land relations should be considered in interrelation of three aspects - economic, political and legal (law). They do not influence in isolation from each other on development of land relations, but in indissoluble unity, close interaction between each other. However, the priority of the mechanism of regulation of land relations belongs to the economic laws.

Any management, including that of land resources, assumes the presence of an objective, which is predetermined by a goal of the market economy and is subordinated to it. As such, the initial long-term objective of management of land resources can be determined as provision of a maximum efficiency of use of a single land fund in the interests of all national economy, its branches and certain land users. The management of land resources according to its initial objective faces important national economic tasks, which are solved in the course of its process. The main ones of them may be formulated as follows: permanent perfection of land relations; creation of the best conditions for location; development of production forces of the society both from the point of view of the present and future; provision of the optimum in the time and expanse distribution, redistribution of lands on the categories of the land fund, branches of economy, land users and land plots; ensuring extended reproduction of land resources, growth of soil fertility; and, provision of the most rational use of each land plot according to its address designation. The function of economic stimulation of rationalization of the land tenure takes an important place in management of land resources. The basic tasks of economic stimulation to the rational use of lands may include: ensuring full use of the allocated lands for use; and increasing efficiency of use of each land plot in accordance with its special purpose; strengthening of the regime of economy, thrift of lands while withdrawing for non-agricultural needs, ensuring introduction into the practice of land tenure of resource-saving technologies. The Government has passed a range of legal and normative acts meant to solve the main issues of land tenure in the modern conditions to implement the followings: the adopted laws; programme of deepening the economic reforms in the agriculture for 1998-2000; formatting a class of the real owners on a village; creating necessary legal conditions; and increasing the role of dekhans' and farmers' enterprises in the production of the agricultural products. Significant attention should be paid to forecasting and planning of land resources. Complex planning of natural resources, including land, should become the basic means of their rational use. The complex development of the nation-wide plan (scheme) of use and protection of land resources as a strategy of rational use of lands in the perspective is extremely topical. The availability of such plan balanced in its entire links, coordinated with development of sciences and engineering, agricultural and forest economy, industry, power, transport and settlements, capital construction, will serve as the major instrument of land resources management, scientifically-substantiated programme of their rational use and protection at all levels.

Sustainable operation of the agrarian sector has become the most important factor of stabilization of the society, basic source of currency proceeds of the state (annual figures: about 3,0-6,0 mln.tons of raw cotton is produced annually with the yield of 21-24 centner/ha, about 1,5 mln. ha is sown; 3,3-3,8 mln.tons of grain crops are obtained from the sowing area of about 1,5 mln.ha, including about 456 thousand tons of rice on the sowing



area of 150-180 thousand ha). In this connection the problems of reforming of the agrarian sector have predetermined much the strategy of transition of the national economy to the market economy.

The results of comprehensive survey and mapping of lands serve as a basis for maintaining the state land cadastre containing the set of authentic and necessary data on natural, economic and legal situation of lands. The components of the land cadastre are the registration of the rights on land plots, accounting of the quantity and quality of lands, valuation of soils and cost assessment of lands.

Capacity-Building, Education, Training and Awareness-Raising: The head establishments on preparation, retraining and improvement of professional skills of the executives of the bodies of authority and management, experts of economic and agricultural structures is the Academy of the State and Public Building under the President of the Republic of Uzbekistan.

In Uzbekistan there is a developed logistic base of all branches of the national education, especially of the comprehensive schools. At present there is an extensive network of the educational establishments in the republic - 59 higher educational institutions, 258 secondary educational institutions, out of which 75 are colleges. The network of establishing the national education constituted 9,507 comprehensive schools and technical training colleges in 1996. The perfection of organization of the national education and training of personnel is carried out on two directions: on the one hand the system of national education is being improved by its computerization, reconsideration of educational plans and programmes, introduction of more perfect methodology of training; on the other, new forms of training are being introduced. In particular, gymnasiums, lyceums and colleges are being established. Thus in the republic the tendencies of qualitative transformation of the national education, including rural area, have been clearly determined. The quality of training of personnel in the system of higher education is rising, which is connected with the increase of quality of the secondary education, and with more careful competitive selection of those who wish to continue training in the higher and secondary special educational institutions. A modular principle has been introduced into education at higher educational establishments for increase of quality of training, which is based on constant monitoring of knowledge and training of the students.

Since 68% of total number of the pupils of the country study at the comprehensive schools of rural areas of the republic the problem of strengthening of the logistic base of rural schools is one of the most urgent. Bearing in mind that solution of this problem is the major factor of human development in the rural area, prevention of poverty, the Government made the decision on inclusion into the special programme of development of the infrastructure of a village for the period of 1996-2000 of the arrangements on strengthening of logistic base of rural comprehensive schools, improvement of the conditions of training and education of the pupils. The orientation in the education of the specialists of industry, construction, and agriculture and non-production sphere has been shifted from the center to the provinces.

With the transition to the market economy and the expansion of the production with private forms of ownership, the perfection of the secondary vocational training system has become acutely necessary, especially in the rural area. To assist the development of the small and private businesses on a village, attraction of rural youth to the active entrepreneurial activity, radical reorientation of the activity of professional colleges and secondary special education establishments located in the rural area has been implemented since 1995. The educational centers of entrepreneurship, professional lyceums, business-schools, and colleges on training of the personnel for the small and medium sized businesses, farmers' enterprises, servicing spheres of the population have been established on their basis in the rural area. The core of the system of education for the agricultural system are the largest university centers well known outside the republic - Tashkent and Samarkand State Universities, Tashkent Economic University, Technical University, Agrarian University, Tashkent Irrigation Institute, a number of technical higher educational institutions located in all regions of the republic.

Information: Information on complex management and sustainable use of land resources is compiled and disseminated by the State statistical bodies and bodies of the State Committee on Land Resources. The state statistical and departmental reporting on protection and use of lands - "recultivation," has been established

Modern condition and development of the society and the states require the uniform complex state approach to planning and management of land resources together with the local bodies of the state authority, clearly built system of measures directed on improvement of use of the land fund, preservation, increase and reproduction of the fertility of soils. Among these measures the major one is introduction in the whole territory of the Republic of Uzbekistan of the state land cadastre. The state land cadastre represents a system of the necessary and reliable data

and documents on nature, economic and legal regime of lands, on their categories, qualitative characteristics and value, about location and sizes of the land areas, distribution of the land plots to owners, land users, tenants and proprietors. The state land cadastre is the basis of the state and branch cadastres of natural resources, which are included into the single system of the state cadastres of the Republic of Uzbekistan. The state land cadastre, which is the basis for determining of a cost value of land, is intended for providing of the Cabinet of Ministers of the Republic of Uzbekistan, local bodies of the state authority, interested legal entities and physical persons by the data on land with the purpose of regulation of land relations, organization of rational use and protection of lands, land organization, substantiation of the sizes of payment for land, assessment of the economic activity. The data of the state land cadastre is subject to obligatory application while using and protecting the lands, granting (realization) and withdrawal of land plots, determining of the sizes of payments for land, carrying out of land organization, evaluation of the economic activity and accomplishing other arrangements on the use and protection of lands.

Research and Technologies: Maintaining of the state land cadastre is ensured by carrying out of the topography-geodesic, cartographic, soil, agro-chemical, geo-botanical and other surveys and research works, accounting and assessment of lands, registration of the rights on land plots of the land owners, land users, tenants and proprietors. Procedure of maintaining of the state land cadastre is established by the Law of the Republic of Uzbekistan “On the State Land Cadastre” and the Regulation “On the procedure of maintaining of the State Land Cadastre” approved by the Resolution of the Cabinet of Ministers on December 31, 1998, ¹ 543 “On Maintaining of the State Land Cadastre in the Republic of Uzbekistan”. The basic principles of maintaining of the State Land Cadastre are: covering of the whole territory of the republic; application of the single system of the spatial coordinates; unity of the methodology and continuity of development of land and cadastre information; and, reliability and profitability of the land-cadastre information.

At present the necessary conditions for realization in practice of the above-mentioned principles of maintaining of the state land cadastre are being created, the volumes of land-cadastre works are growing, the tendency to cover by them of the significant territory and their continuity is shown.

The number of the executed land-cadastre works include the updating of the plan and cartographic basis (77 rayons), adjustment of the soil maps and valuation of lands (102 rayons), cost evaluation of the lands of agricultural commodity producers on the whole territory of the Republic, clarification of the borders of land tenure and land ownership, geobotanical inspection and inventory of pastures of certain agricultural enterprises, publishing of the cartographical material, inventory of non-successful for amelioration lands; a significant part of the normative-methodical documents has been worked out ensuring creation of the mechanism of realization of the land legislation; appropriate documentation connected with the transformation of the agricultural enterprises into shirkats’ and farmers’ enterprises has been elaborated; the National Programme on improvement of use of the land fund, conservation, increase and reproduction of fertility of soils is being developed for the first time.

Maintaining of the monitoring of lands is essential for duly revealing of changes of the land conditions, their assessment, forecast and development of the recommendations on prevention and elimination of the consequences of negative processes. All lands of the Republic, irrespective of the types of ownership on land, address purpose and character of use are the objects of monitoring.

The automated land data system (ALDS) must promote the successful solution of the set tasks, creation of databank on quantitative and qualitative condition, distribution and use of land resources, and also operative control of their use and protection. Modern land-cadastre information provision assumes wide use of computer technologies.

The automated land data system will enable to execute not only accounting and assessment calculations, but also to analyze operatively the use of land resources and those changes, which have taken place in their structure and distribution, and will be the basis for calculation of a land tax, rent payment and other operations with land. ALDS will allow to gather, process, systematize and to store the land-cadastre information, and will ensure free access to the interested legal entities and physical persons to this information.

First of all the creation of the ALDS models (pilot projects) is expedient to create at all administrative-territorial levels with obligatory display of graphic information on electronic digital cards, after which their introduction into the cadastre production should be started for operative management of land resources of the territories.

In accordance with the “Programme of deepening of economic reforms in the agriculture for the period of 1998 – 2000” approved by the Decree of the President of the Republic of Uzbekistan on 18 March 1998 the basic direction in the field of land resources management for the nearest perspective must be solution of tasks including the creation of the spatial conditions ensuring rational functioning of the agricultural production, introduction of the

progressive forms of labor organization, perfection of the structure and allocation of the land plots, agricultural crops, system of seed growing and pastures turnover.

In this connection it is obviously necessary to carry out the nature-agricultural dividing of the lands into rayons - division of the territory of the Republic with a view of natural conditions and agro-biological requirements of the agricultural crops. This will help to substantiate scientifically the allocation and specialization of the agricultural production, to organize correctly the cadastre accounting of the agricultural lands on their quantitative and qualitative structure, to calculate objectively the rates of a land tax and other economic parameters.

The zone specialization of branches of the agriculture with distinguishing of the main branches must be established: cotton production, grain, gardening, rice production and cattle-breeding. Taking into account the soil and climatic peculiarities of Uzbekistan it seems expedient to locate new industrial plantings of long-lived plants at the foothill areas of the Republic. This, alongside with releasing of the valuable watering lands in the zone of cotton growing, will allow to use more rationally, without development of erosion processes, in the agriculture of the foothill lands and to increase security of the water-collector territory by long-lived plantings. The areas, which may be used for planting of the many-years plants, at the mountain-foothill zone of the Republic constitute about 40 thousand ha.

In the northern area of Karakalpakstan where there is a lack of the sum of effective temperatures for obtaining of the higher yields of cotton, it is necessary, besides the soil improvement conditions and quality of soils, to exclude gradually from the structure of the sowing fields of cotton with simultaneous expansion of the areas of fodder cultures, lucerne for seeds and partially of rice. The changing of the specialization of the enterprises of the northern area of the Republic of Karakalpakstan, from cotton to cattle-breeding, will not be connected with huge expenses. The main problem here will be connected with creation of a network of the processing enterprises and employment of the released labor forces, which must be used on the profound processing of the cattle-breeding production.

Development of farmers' and dekhans' enterprises, cooperative and other forms of the agricultural enterprises, will make for the nearest perspective many-layer structure of the agrarian economy of the Republic. In the process of perfection of the labor organization, within the limits of these enterprises, the new organizational-economic structures with high level of independence of the primary labor collectives appear. Such scheme of allocation of lands in the very beginning has been already tested by life as the land is allocated for many years on the rights of internal economic lease to the families, leasing collectives and farms.

With the purpose of granting lands into rent to the farmers' enterprises, agricultural cooperative societies, citizens for running of dekhans' enterprises, gardening companies, the formation of special reserve land fund seems to be expedient. The reserve land fund can be created for the account of inefficient and not used in the agriculture lands. Revealing of the non-used and irrationally used lands must be accomplished regularly, in the process of inspecting the observance of the Land Code, maintaining of the land cadastre and other land organization works.

It is required to form the system of use of lands envisages rational organization of territories of cooperative, farmer and other agricultural enterprises. The development of the system of arrangements on conservation and improvement of natural landscapes, re-cultivation of the broken lands, soil improvement of inefficient plots, protection of lands against erosion, landslides and torrents, secondary salinization and swamping, pollution by industrial wastes and chemical substances, desertification, overgrowing of the agricultural plots with weeds and prevention of other negative phenomena. The substantiation of the project decisions must be accomplished on soil and ecological and economic parameters.

The system of rational use of lands includes also development of dekhans' enterprises. It should include the issues of the scientific provision of running of small commodity agriculture in various zones of the Republic, social organization, cadastre and economic assessment of the allotments, their accounting and protection, and also other issues connected with the development of the infrastructure small commodity productions of the agricultural production.

With the purpose of protection of especially valuable productive irrigated lands the information on the legal status, quantitative and qualitative characteristic, agricultural, economic, and ecological and other values will be reflected in the state land cadastre. For this purposes it is planned to determine in the established order the borders of the territories of the especially valuable productive irrigated lands within the limits of which the special regimes of use and protection must be introduced according to their legal status.

It is necessary to consider the problem on a temporary withdrawal from irrigation and transfer of other categories of a part of strongly salinized ineffective lands, where small yields are obtained by way of huge material and water expenditures.

The important role in the prevention of water erosion of soils, ravine formation and washing-out is plaid by protection of water collector territory. The main water collector territories in the Republic are the basins of the rivers of Kadarya, Naryn, Karasu, Akhangaran, Chirchik, Surkhandarya, Tupalangdarya, Kashkadarya, and Zarafshan. Depending on the quantity and frequency of atmospheric precipitation, concentration of run-off of the surface waters in the narrowed places of water collector territory there is a destruction of soil, formation landslide flows. Grazing of a big number of cattle and other economic activity of the human being condense the structure of soil, thus promoting occurrence here of water erosion of soils. In this connection the basic task in management of water collector territory should be: carrying out of the inventory of lands of the water collector territory with the soil and geobotanical characteristic, revealing of the plots with erosive processes on a degree of their revealing; carrying out of the analysis of the reasons of soil degradation and scheduling of measures on their restoration; conducting of land monitoring of water collector territory on the basins of the rivers; study of the economic activity of a man, social infrastructure of rural settlements on the water collector territory and implementation of the comprehensive analysis of influence of the conditions of living standards of the population on the environment, vegetation cover and structure of soils; drawing up of a scheme of the nature-agricultural dividing to rayons of the water collector territory, distinguishing priority directions of running of the agricultural production (grain, cattle breeding, gardening, bee-keeping), restrictions of the industrial activity on broken by water erosion land plots; development and realization of the projects on liquidation of the reasons and restoration of the soil and vegetation cover on the land plots being in the most critical condition. All above-mentioned problems must be solved in a general complex of tasks on rational use of land resources, preservation and increase of fertility of soils.

Financing: The agrarian sector of the republic always had a leading significance in the economy, especially the branches connected with processing of the agricultural raw material. It constitutes more than 1/4 of the gross domestic product (10,1 billion of Soums in the prices of 1983), it provides with workplaces more than 1/3 of all number of the working people in the national economy and many branches of the national economy of the republic depend on its efficiency.

Consecutive reforming of the agricultural complex and transition to the new principles of financing in the Republic of Uzbekistan has resulted in the certain shifts in the investment sphere. The objective of these transformations is provision of food independence of Uzbekistan, expansion and strengthening of its export opportunities, increase of independence and responsibility of the organizations of agricultural-industrial complex in the development of material base, more complete satisfaction of various needs of the population and the whole national economy in production of the agriculture and processing branches.

Promoting of a range of address republican programmes financed at the expense of the republican budget, thorough selection of the facilities for financing in the process of formation of the investment programmes have allowed to concentrate the state financial resources on the priority state programmes, the most vital perspective directions, to prevent dispersion of funds and their non-address use.

The investments for rural development are still at the centre of attention of the state, however during realization of a consecutive course to the reforms the state support of the agricultural complex is being reduced, thus increasing the financing owing to the funds of the enterprises and organizations, local budget and funds of the international organizations-donors received as grants, loans and credits.

Cooperation: Deepening of cooperation with the World and Asian Banks, UNDP, GEF promotes growth of the volume of financial funds at the expense of the international donors and creditors. The allocated funds are directed on restructuring of the enterprises of the agriculture, improvement of irrigation and drainage systems, introduction of new technologies in the field of producing of agricultural products, provision of the agricultural enterprises with commercial credits. Strengthening of administrative and managerial capacity of the national and regional structures on sustainable development is accomplished and the educational programme on the problems of sustainable development is carried out, the special attention is given to sustainability of the land and water resources.

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CHAPTER 11: COMBATING DEFORESTATION

Decision-Making: The state management of the activity on the realization of the policy in the field of use, restoration and protection of forests is accomplished by the Cabinet of Ministers, Department of Forest Economy of the Ministry of Agriculture and Water Economy and the State Nature Protection Committee with participation of the local structures of management. The Main Department of Biological Control of the State Nature Protection Committee accomplishes the control over the implementation of the protection, restoration and rationalization of the forest use.

The state control of forest protection in Uzbekistan is carried out stemming from the requirements of observance of the principle of rationality and sustainability of use of forest resources. Forest protection, as a component of land tenure, is built in accordance with the legislative and normative documents, guidelines and recommendations on running of the forest economy in Uzbekistan. These documents are based on the scientific standards and profound assessments of possible anthropogenous influences on forest eco-systems. The state management of forests is based on the special legislation, the basic documents of which are the laws: “On Nature Protection” (1992), “On Especially Protected Natural Territories” (1993), “On Protection and Use of Flora” (1997), “On Forest” (1999), the Land Code (1998). The directive documents of the Government provide the procedure of regulation of the regime of the non-exhaustive use of forest resources, and establish the rules of responsibility for causing damages to flora. The national policy of forest resources management is based on the concept of sustainable development of the forests, which is reflected in the strategy and national plan of actions on conservation of biodiversity. According to the Land Code of the Republic of Uzbekistan all forests constitute the state fund. The legislation does not stipulate possession of forests on the rights of private property.

The National Programme on Sustainable Development of Forests contains the principles of their sustainable development, which are developed in accordance with the policy priorities on nature protection.

This direction of activity has the advantage and direct benefits from participation of the local bodies of authority and population in realization of the measures on protection and restoration of forest resources. The decisions on forest protection and use of forest resources are taken on the basis of the resolutions of the Government of the republic and boards of the State Nature Protection Committee of the Republic of Uzbekistan and the Main Department on Forest Economy of the Ministry of Agriculture and Water Economy which is the main forest fund manager, as well as decisions of the local bodies of authority and management (khokimiyats) which have been entrusted with the management of some nature reserves since 2001.

Programmes and Projects: The National Programme on Sustainable Development of Forests has been worked out on the principles of the interdepartmental decision of problems. Therefore a focus is put upon implementation of measures that will give positive results for the agriculture, use of lands and water, development of industrial potential, protection of the environment of the cities, prevention of desertification, and decision of social issues.

The programme on combating deforestation contains the following components: provision of sustainable use of forests as a fundamental basis for conservation of biodiversity and development of forest eco-system; development of the plans of management of forest economy and regulation of cutting down of forests; and, monitoring of execution of measures on forest protection and observance of the legislation.

Since 2000 the complex measures stipulated by the National Action Plan on Environmental Protection and the programme of measures on its realization till 2005 is being carried out. A number of nature protection programmes have the components that are focused on withdrawal of unreliable in the ecological aspect practice of forest management, which can destroy the environment and biodiversity, and its replacement with modern ecological technologies of use of forest resources.

The complex programme “Forest of Uzbekistan,” developed for the period of 1991-2005, determined the directions for running the forest economy and measures aimed at preservation of forests, accelerated reproduction of forest resources. Based on the worked out priorities the forest economic enterprises develop annual production plans of works, which are approved by the Main Department of Forest Economy under the Ministry of Agriculture and Water Economy.

The programme on provision of the rural population by natural gas (1990) with its development (1999) up to 2010 promoted the reduction of anthropogenous loading on forests, especially in the deserted area in connection with the

illegal cuttings down, as it led to increase the supply of the rural population by natural gas from 19.3% in 1991 to 65.9% by the end of 2000. See also under **Cooperation**.

Status: The direct economic importance is not significant, because for the major part the existing types do not have industrial meaning. However ecological importance of forests for provision of sustainable development is constantly increasing, as the functioning of forests corresponds to protection of environment and serves for improvement of ecological conditions, and also protection and reproduction of biodiversity.

Uzbekistan is the country with a rare forest cover, the total area covered by forests constitutes 8,050.4 thousand hectare or 18,2% of total area of the country. Nevertheless, forests have significant economic importance and their role has increased in the result of deterioration of ecology of the region. Forests are considered as powerful and irreplaceable factor for improvement of the environment, since they have protective, security, medical and restoration role, and also promote regulation of the climate and provide the living environment for fauna.

The forests located in the territory of Uzbekistan are subdivided into three groups: first – the forests with protective function (protection of water resources, anti-erosion and sanitary); second – forests that bear protective function and are of limited use (forests in the regions with high density of the population and with a network of transport roads); and, third – dense forests having industrial importance.

Wild flora of the republic is constituted of more than 3000 types of the highest plants, among which there are a lot of endemic and relic ones. The areas of sandy forests, located in the deserted zones of the republic, cover the territory of more than 6,8 mln. ha (84,5% of forest massifs). In the mountain forests occupying the area of about 1,2 mln. ha and located in the area with a strict regime of use there are nature reserves and national parks occupying 1,14 mln. hectare (14.2% of forest areas). Water-meadow forests, earlier bushy jungles of endemic turang poplars and various bushes, have been reduced to the area of about 75 thousand hectare (less than 1 % of forest massifs).

For the last 10 years 5,542.9 thousand ha have been transferred from the category of lands of the agricultural purpose to the category of lands of the forest fund. It has allowed to increase the area of lands of the forest fund in 3,2 times and to create conditions for prevention of soil digression and economic cutting down of forests.

Nevertheless the modern condition of forests causes anxiety and concern. The basic problems predetermining negative condition of forest massifs of the republic are: Exceeding of pasture loading and illegal cutting down of trees and bushes in mountain and plain forests; Decrease of the speeds of natural restoration in plain forests, their drying up due to non-regulation of the run-off of the rivers. Critical situation on the forest massifs in the North-West of the republic is connected with the development of the ecological problems in the Aral Sea Basin; Low efficiency of the method of artificial forest restoration and forest planting. Increase of the forestation of the republic owing to forest cultivation production is very limited. For example, the seed material for growing up the plants is of low grade because the forest enterprises do not have special forest-seed plots and the seeding material is growing in the temporary unsuitable nurseries; and, Imperfect nature of the system of management of economic and nature reserves territories, violation of the regime of rational use. The republic has a great potential of wild growing medicine and food plants and the demand on the raw material was always high. However, due to the fact that the regulation of the regime and volume of gathering was introduced only in 1992 there appeared a shortage of natural resources (liquorice, barberry and others).

Capacity-Building, Education, Training and Awareness-Raising: Within the framework of implementation of the strategy on biodiversity the elaboration of the programme of concrete actions on solving each of the facing problems is being envisaged in order to increase the potential of forests as an integral component of the national natural resources.

A range of governmental documents on the procedure of regulating and provision of the non-exhaustive regime of the stocking up of valuable medicine raw material has been adopted.

The mechanism of legal and economic regulation of use of forest resources is being created on the basis of the adopted laws on protection of flora and fauna that promotes preservation of flora, increase of ecological sustainability and efficiency of natural vegetative communities.

The thematic sections considering the role and importance of the forests for Uzbekistan are introduced to the programmes of the schools, higher educational establishments and enlightening establishments as a compulsory component. Annually the higher educational establishments enroll the students on the speciality of “Ecology and Nature Use.”

Ecological NGO, mass media attract the interest of the public to the problem of preservation of forests for maintaining of the sustainability of the nature balance.

Information: With the aim of monitoring the activity on forest protection and establish a certain structure of the information field on this subject, a set of the interconnected indicators proposed by the international organizations has been accepted. The set of indicators, reflecting condition of forests, is formed on the basis of the national statistical data; the guidelines on development of the forecasts and programmes on development of forests and formation of policy of forest management are used. The Department of Statistics of the Ministry of Macroeconomics and Statistics of the Republic of Uzbekistan disseminates the information on the activity in relation to forest protection and sustainable development. According to the Law “On the State Statistics” it is accessible to the local bodies of authority, management and control, interested scientific organizations.

Research and Technologies: The basic directions of researches carried out by the academic institutions, research centres, laboratories of nature reserves and educational institutions are: development of recommendations on selection of the optimum variant of development of plant-growing of the Republic of Uzbekistan on the basis of economic-mathematical modeling; pilot-experimental works on selection of salt- and drought-resistant plants for phyto-amelioration works on the key plots of the dried up bottom of the Aral Sea; drawing up of maps and schemes of agro- and zoo-climatic division to rayons of the pastures of Uzbekistan; and, surveys on restoration of flora and fauna (in Chatkal Biosphere Nature Reserve and eco-center “Djeýran”).

Financing: Protection of the forest resources and arrangements on their reproduction are carried out at the expense of the funds of the state budget allocated to the Main Department of Forest Economy of the Ministry of Agriculture and Water Economy. A range of ecological projects and programmes, which are prepared or in the process of implementation with participation of donor funds (for example, GEF-UNDP, with participation of the German Union on Nature Protection NABU and etc.), have the component on preservation of the forests resources.

Cooperation: Uzbekistan does not have an agreement on cooperation with the Intergovernmental Expert Groups on Forests (IPF), but the regional programmes of actions on conservation of the forest sector of the republic have been elaborated. United efforts of the countries of Central Asia on preservation of forest resources are implemented through the projects of the regional level “Preservation of biological diversity of the Western Tyan-Shan,” “Regional cooperation in the field of sustainable development of mountain territories of Central Asia,” which are fulfilled with the donor assistance of the international organizations.

In 1997-1999 the projects “Deforestation of the Drying up Bottom of the Aral Sea” and “Creation of the Nuratau-Kyzylkum Biosphere Reserve as a model of preservation of bio-diversity in Uzbekistan” were prepared with the assistance of the GEF-UNDP and participation of the German Union on Nature Protection (NABU), which are now in the process of approval and implementation (correspondingly).

With the purpose of coordination of the actions undertaken in the republic on implementation of the obligations taken within the framework of the Convention on Biodiversity the National Commission was established in Uzbekistan in 1998. Recognizing that the condition of biodiversity is one of the main parameters of ecological safety, stability and hence sustainability of development, the National Strategy and Action Plan on preservation of biodiversity were worked out and approved (Resolution of the Cabinet of Ministers in 1998, ¹ 139), which are the integral components of the National Action Plan on Nature Protection.

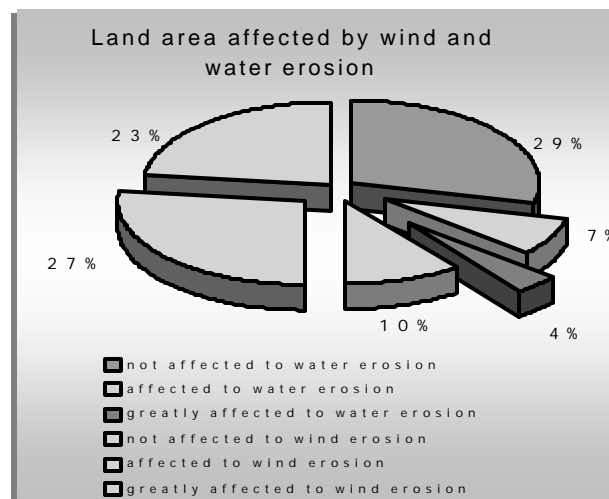
According to the arrangement with UNEP on rendering advisory assistance to Uzbekistan on the issue of working out of the financial mechanism of implementation of the National Strategy and Action Plan on preservation of biodiversity the first phase of the project has been completed: training seminars in a number of the ministries accomplishing nature protection activity were held, methodical materials were presented, project proposals of GEF prepared together with UNDP on creation of Kyzylkum-Nurata Biosphere Nature Reserve were approved.

CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

Decision-Making: The National Commission on Combating Desertification and Drought has been established in Uzbekistan to coordinate the actions of the ministries and departments, the activity of which relate to fighting with desertification and drought, including implementation of the UN Convention and informing of the population on the accomplished work in these areas. General coordination of the actions of this area is carried out by the Cabinet of Ministers of the Republic of Uzbekistan. For overcoming the consequences of drought in the lower Amu Darya the special Governmental Commission has been established, the functions of which include provision of sustainable water supply of the population, monitoring of the condition of sanitary and epidemiological situation. The Governmental Commission on development and implementation of the Programme on soil improvement carry out governmental measures on liquidation of the consequences of drought. The institutions interested and promote the activity in this are: the ministries of Macroeconomics and Statistics, and Agriculture and Water Economy, State Nature Protection Committee, Main Hydrometeorological Department, State Land Committee, and other bodies, local bodies of power and management, scientific institutes and a number of NGOs, local civil communities.

Programmes and Projects: The Government approved the National Action Programme on Combating Desertification, envisaging implementation of practical actions on the following directions: assessment of the economic and social consequences of development of desertification; implementation of the works on combating desertification– anti-erosion, agro-technical, soil improvement, hydraulic engineering organization-economic arrangements, forest-phyto-improvement, sand fastening; carrying out of research works in the field of biotechnologies on fastening sands; creation of the system of supervision and control of the condition of environment - scientific researches on the problems of desertification and droughts, introduction of modern methods of monitoring; provision of the rational water use by means of development of the system of mechanisms of the paid land and water use; development of fundamental scientific and priority scientific and technical programmes; and, preparation of pilot project proposals and projects of the regional execution. A number of the State Programmes are implemented, envisaging arrangements directed on mitigating the processes of desertification. Among them are the programmes of: measures on protection of environment for 1999-2005; improvement of provision of the population by natural gas; measures on liquidation of consequences of drought in the Aral Sea region; and, soil improvement of the irrigated lands for the period of up to 2010. The National Action Programme envisages 16 project proposals for implementation of concrete measures on combating desertification in various areas of the country. The realization of these projects will allow new experience on combating desertification, on mitigation of the influence of drought, and disseminate it in the Central Asian region.

Status: The deserts and semi-deserts occupy about 4/5 of the territory of Uzbekistan. Almost all crops are grown on the irrigated lands. There are more than 6,8 million hectares of deserted forests and 25 million of deserted pasturable lands. Thus, desertification and drought are extremely important for the national economy. Drying up of the Aral Sea leads to intensive processes of desertification. In the result the shrinking of the sea bottom became 33,400 km². About 73% of farmlands have been subjected to wind erosion. About 800 thousand ha of farmlands have been subjected to water erosion. Erosion takes out up to 80 ton per season of the most fertile upper layers of the ground from a hectare. Now the arid area of Uzbekistan constitutes more than 1.5 million of ha of deserted territories, which are subjected to the secondary salinization.



Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: According to Article 26 of the Convention to Combat Desertification and Drought Uzbekistan will present the reports on its realization in accordance with the form and time-table for presenting the information.

Research and Technologies: In accordance with the State Scientific and Technical Programme the following researches and works have been implemented: the optimum variant of the perspective development of the basin taking into account the ecological requirements on conservation and protection of the Aral Sea region have been developed; the works on the selection of salt- and drought- resistant plants for phyto-amelioration works on the key sites of the dryad up bottom of the Aral Sea are carried out; the maps-schemes of agro- and zoo-climatic division to rayons of the pastures of Uzbekistan have been prepared.

Financing: The works on combating desertification in Uzbekistan are financed: from the state budget; by the international organizations and countries-donors; from public funds of organizations, industrial enterprises and commercial organizations.

The state budget finances all expenses for maintenance and technical perfection of the irrigated and soil improvement systems, watering of the pastures and water supply to the rural settlements. The loans of the World Bank, Asian Development Bank and other international financial investors have been attracted under the guarantees of the Government.

Cooperation: The UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa was ratified by Uzbekistan on 31 October 1995.

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CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

Decision-Making: The decisions determining directions of development of the activity are made at the level of the Government. The control of realization of the decisions is carried out by the State Nature Protection Committee and by especially authorized bodies.

The strategy of actions directed on ensuring sustainable development of mountain areas has been developed as a component of the National Strategy on Biodiversity Conservation, National Action Plan on Environment Protection, National Strategy of Sustainable Development. The legislative and legal regulation of the activity envisaged in this sphere is being ensured by the laws: On Nature Protection; On Especially Protected Nature Territories; On Subsoils; On Protection and Use of Flora and Fauna. A number of the governmental decisions have been adopted: On the measures of strengthening of protection of wild animals and plants and regulating their use, On approval of the regulation on the procedure of maintaining of the state cadastre of the especially protected nature territories and etc.

Programmes and Projects: The programme of measures on provision of sustainable development of mountain areas has been elaborated within the framework of the Action Programme on Protection of Environment for the Period of 1999 – 2005, and the National Action Plan on Biodiversity Conservation, envisaging: the development of mountainous territories stemming from the principles of no sphere preparation and development of eco-systems; implementation of concrete actions on forest-amelioration improvement of water-collector areas; protection; and preservation of natural resources of mountains. At the first stage of works the evaluation of the landslide and mountain torrent danger through elaborating the evaluation methodology of landslide risk and principles of indicating on the maps of the landslide danger, drawing up maps of the most dangerous mountain territories of Tashkent, Kashkadarya, Surkhandarya areas, highway Osh-Tashkent, have been accomplished; monitoring of pollution of underground and surface waters, dangerous exogene processes, emergency situations; limitation of the economic activity within the limits of the ecological requirements, especially in the national parks, water protection zones, nature reserves; provision of conditions for employment of the population of mountainous areas in the spheres not damaging the environment; and, implementation of the programme of development of small water-power engineering on the small rivers with the purpose of provision of the local population and industrial objects by the electric power.

Status: The high mountains occupy only a small part of the Republic of Uzbekistan. Nevertheless, the mountainous areas are extremely important due to potential of natural resources of the foothills for formation of the rivers' run-off. The specific features of mountainous areas in a various degree influence the socio-economic development of Andijan, Namangan, Fergana, Tashkent, Surkhandarya and Kashkadarya provinces. 3-5% of the total population of the country lives in these provinces. These regions are distinguished also by high density of the population that necessitates the accelerated economic development of the foothills and mountains. Arid climate of the country makes mountain areas especially important because of run-off formation of the rivers.

The most acute problems for the mountainous areas and foothills are the following: erosion and washing away of salts in the foothills; about 20% of lands are subject to harmful influence. These processes have natural reasons, but also occur due to anthropogenous activity, including: use of imperfect methods of irrigation; degradation of the pasturable lands as a result of noncontrollable grazing of cattle; pollution of the rivers and underground waters by toxic chemical substances and industrial, agricultural and household wastes; reduction of transboundary water resources at the regional and national levels, difficult natural conditions, substantially rough relief and irregular precipitation with the periods of pouring rains, causing unusual conditions for formation of surface waters and extremely dangerous natural conditions, such as landslides and torrents.

Monitoring of possible radioactive pollution of underground waters and surface transboundary flows from the areas of burial places of industrial wastes by neighboring countries and dumps at mines is being established. One of the most difficult problems is the establishment of the social and industrial infrastructure in mountain areas with creation of additional workplaces guaranteeing rational structure of employment and full use of their natural resources and human capacity.

Capacity-Building, Education, Training and Awareness-Raising: A certain role in sustainable development of mountain areas is played by local bodies of authority and local bodies of self-management, regulating at the local level the use of natural resources in mountain eco-systems.

Information: See under **Status** .

Research and Technologies: No information available.

Financing: The implementation of the programme measures on the conservation and development of mountain eco-systems is carried out at the expense of the funds: of the state budget (within the framework of nature protection activity of the State Nature Protection Committee and Main Department on Forest Economy under the Ministry of Agriculture and Water Economy, scientific research works accomplished on the line of the Academy of Sciences), international donor organizations - World Bank, GEF, UNDP.

Cooperation: International organizations play an active role in the implementation of the programmes connected with development of mountains. In 1994 the Heads of the Central Asian states adopted in Nukus the programme of concrete actions on the problems of the Aral Sea basin. Such cooperation is carried out on the agreement between the states of Central Asia on joint measures on solving the problems of the Aral Sea and neighboring areas, and improvement of the ecological condition of the region and socio-economic development.

The high priority of ensuring sustainability of the mountain ecosystems for the Central Asian region has caused the necessity of making joint efforts of all countries. The participants of realization of the project "Protection of biodiversity of the Western Tyan-Shan," the financial support to which is rendered by the World Bank and GEF, are Kyrgyz Republic, Republic of Kazakhstan and Republic of Uzbekistan.

The Republic of Kyrgyzstan, Republic of Kazakhstan, Republic of Tajikistan and Republic of Uzbekistan, and also Sintsyan-Uygur Autonomous Region of the Peoples Republic of China participate in the implementation of the international project of ADB RETA ¹ 5878-REG.

The project "Creation of Nuratau-Kyzylkum Biosphere Reserve" has been prepared and is being implemented with the participation of GEF and UNDP.

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CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Decision-Making: The Ministry of Agriculture and Water Economy, Association of Farmers and Dekhans' Enterprises, which are the state bodies responsible for agriculture, represent the interests of the agricultural enterprises in the structure of the bodies of state management.

The agricultural activity is regulated by corresponding normative acts. In Uzbekistan the legislative and normative documents directly influence on the issues connected with land and water, and that's why the agriculture establishes the requirements concerning allocation and use of lands, rational use of resources and protection of lands and water sources from pollution by fertilizers and pesticides. The most important documents are: Decree of the President "On the measures of the state support for agricultural production" (1996), laws: "On Land" (1990), "On Nature Protection" (1992), "On Small Private Farmers' Enterprises" (1992), "On Property" (1990), "On Land Lease" (1991), "On Water and Water Use," "On Especially Protected Natural Territories" (1993) and etc.

With the purpose of improvement of the work of the agricultural enterprises in the modern conditions the following has been worked out and adopted: Land Code, laws "On Agricultural Cooperative Societies (Shirkats)," "On Collective Farmers' Enterprises," and "On Dekhans' Enterprises."

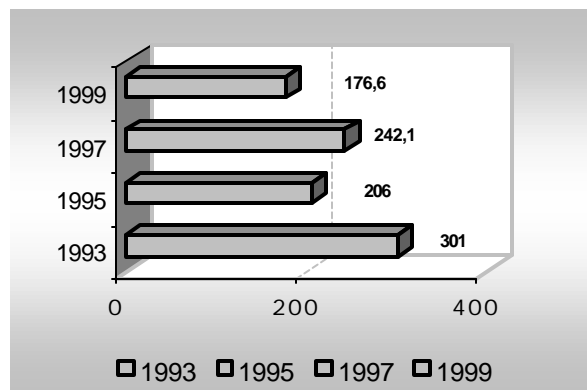
The issues of improving the supply to the consumers with ecologically clean food products and achieving food independence are related to the national priorities of Uzbekistan. With this purpose the Concept of development of agriculture and fishery for the long-term period has been developed, which will determine the opportunities of the reform and development of effective and sustainable agriculture in the market system. The system of the state regulation and serious support of agricultural complex of the country is being formed. The agriculture together with other economic sectors undergoes the process of widespread reforms. The basic objectives of the reform are to guarantee the reserves of foodstuffs, expand export potential, and increase the production efficiency.

Programmes and Projects: The programmes of sustainable development of rural infrastructure have been worked out and approved by the Government, the most important of which are: programme on development of agriculture, deepening of economic reforms in the agriculture for 1998-2000; and, Programme of development of the infrastructure of a village, development of non-government sector of agriculture, farmers and dekhans' enterprises. The agriculture of the country along with all other branches of economy is in the process of development and deepening of the reforms, the basic objectives of which are provision of food safety, expansion of export potential, increase of production efficiency. These objectives will be achieved by means of solving a complex tasks, the main of which are: creating an effective system of many-layer economy and a class of owners by means of realization of institutional transformations on a village bearing in mind multiple possible organizational-legal forms of agricultural production; expanding the rights and economic independence of the agricultural enterprises; forming and developing industrial, social and market infrastructure; increase of culture of land cultivation and fertility; ensuring rational and effective utilization of available potential of land and water resources; and, developing domestic system of selection and seed growing, improvement of breeding in animal husbandry.

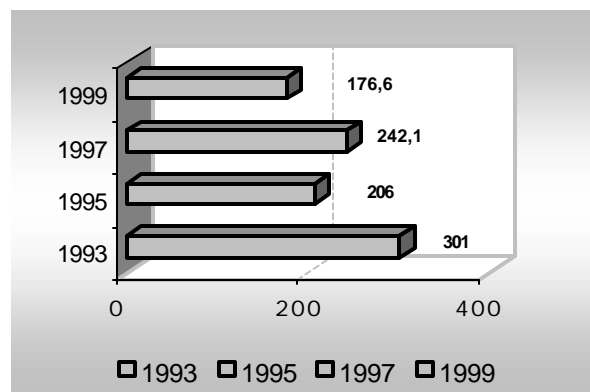
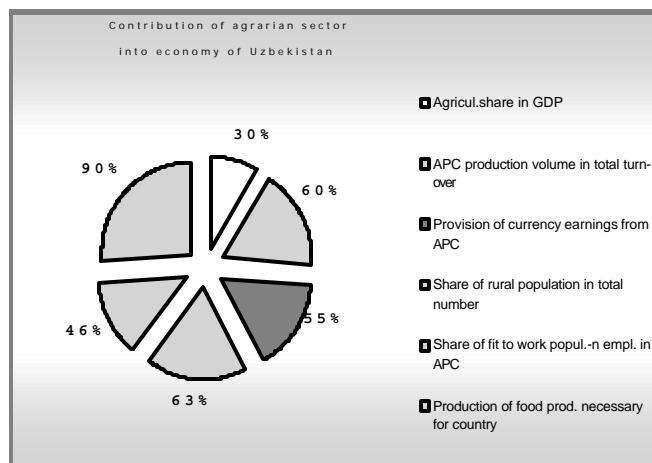
The cultivation of new lands, improvement of their amelioration condition is carried out under the state support.

Status: One of the most burning problems in the process of formation of the conditions for sustainable development of the agriculture is the problem of land degradation caused by deterioration of the condition of the irrigation and drainage systems, use of the outdated equipment and irrational use of water. In order to solve this problem the measures on reconstruction of irrigation systems are carried out, as well as technical and institutional preventive measures are fulfilled, and the efforts for changing the attitude of the people for water and land as to free-of-charge natural gift are undertaken.

The agricultural sector of the country provides 62,3% of the total number of the population of the country, and more than 44% of employed population is engaged in the agricultural production. The years of reforms in Uzbekistan have considerably changed the structure of the agriculture. Almost



all state and collective farms were transformed into joint productions or small private farmers' enterprises. By the beginning of 1997 about 19,800 small farmers' enterprises have been registered on 308,200 hectares of irrigated lands. Non-government sector produces 97% of gross agricultural product.



Large-scale reforms have been launched in the agricultural sector as well. The methods of land management have been considerably changed during the process of privatization. Since 1992 the major part of the state economies was transformed into joint ventures and joint-stock companies, and the number of the state economic organizations has been decreased from 1,061 in 1992 to 53 by the beginning of 1999.

At present 502 joint enterprises were restructured into agricultural cooperatives. During the transition to new market conditions the agriculture of Uzbekistan is considered as the factor of stabilization of the national economy as the most sustainable sector. The stabilization of the agricultural development has ensured the rural and urban markets with products for a low price. According to the general situation in the country the agriculture and its market of food products are still in a very difficult situation. In connection with this it is necessary to develop the mechanism of pricing for fuel and power resources, agricultural products, and to ensure development of the legal and normative base, to form institutional structures, to ensure the inflow of investments for sustainable development of the agriculture.

Capacity-Building, Education, Training and Awareness-Raising: The Association of Collective Farmers' Enterprises ensures monitoring of the activity on training the farmers to the issues of agricultural production in the conditions of realization of market reforms. The training programmes for the specialists and workers involved into assessment of the subsequent activity are developed annually. Special newspapers and magazines are issued for the agricultural workers.

Information: The state system of monitoring of the condition of nature systems, and also the schemes, list, periodicity and terms of presentation of the operative information for decision making are used in Uzbekistan. On the basis of complex monitoring of meteorological, hydrological and agro-meteorological factors the ecological assessment of lands is carried out. Distance methods with the use of the satellite data of the system NĪĀĀ for assessment of various changes in hydrometeorological and agrometeorological conditions have been developed and are widely used. The information is used for preparation of the forecasts of the conditions of development and efficiency of the basic agricultural crops (cotton, grain crops, vegetables, melons and etc.), and also growing of pasturable vegetation. The system of monitoring, using settlement assessments on the average monthly temperature, amount of precipitation and expenditures of water in the rivers during vegetation period, provides with forecast data various groups of the interested persons engaged in the agricultural business for development of actions in case of a drought or other adverse conditions. Now the statistical information on industrial and financial activity of enterprises, their prices for products and in the sales markets, became accessible to the organizations in the sphere of agro-business, enterprises, complexes and companies. For monitoring and assessment of the practice of sustainable development of the agriculture in the country the system of indicators, including economic, social, ecological, and technical and others, is used.

Research and Technologies: The Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan developed the Complex Scheme of protection of agricultural crops, the main objective of which is to determine effective ways of reduction to a half of the use of pesticides, thus increasing the application of biological methods and using precautionary methods for neutralization of the agricultural pests, and also expanding joint preparation of complex actions against the agricultural pests and processing the seeds before sowing with the purpose to increase the energy of germination and resistance to illnesses. According to the Decree of the President of the Republic of Uzbekistan the Governmental Programme on acceleration of economic reforms in the agriculture for the period of 1998-2000 was elaborated. The fourth part of this programme, "Complex development of pure-strain stockbreeding," determines the actions and approaches necessary in relation to increase of fertility of the fields, including the variants of cultivation of fodder crops after gathering of the main harvest and the use of repeated crops. The scientific and research institutes specially working for agricultural production and farmers' enterprises have developed the recommendations on rational crop rotation, normative use of organic and mineral fertilizers, considering the conditions of soils and agricultural plants, and also effective biological and chemical practice in relation to the agricultural pests and diseases.

Financing: In order to increase the efficiency of the irrigated lands and to increase sustainability of the agriculture the Government carries out the policy of the state support of the irrigated agriculture. Within the framework of the regularly developed state programmes, at the expense of the funds of the state budget, the reconstruction of the irrigated lands is carried out, as well as their amelioration condition and technical improvement of irrigation systems, and the arrangements on provision of sustainable operation of the hydraulic engineering structures, reservoirs and pump stations. Operational expenses for inter-economic structures are also covered at the expense of the funds of the state budget. In 1991-2000 the reconstruction and soil improvement of lands on the area of 550,1 thousand hectares was accomplished. The investments in the projects connected with restoration and support of efficiency of watering lands, implemented in 1991-2000, are estimated for about 4,0 billion Soums (in the prices of 1991).

Cooperation: The main directions of development of cooperation are worked out in the Republic within the framework of the adopted bilateral and interstate agreements with the countries of CIS and countries of Central Asia and are realized by means of the plans and Programmes of joint actions. The high priority of the problem of water supply for the countries of Central Asia has predetermined the formation in 1993-2000 of such structures of the regional level as the International Fund for Saving the Aral Sea (IFAS), Interstate Commission on Water Coordination (ICWC), Interstate Commission on Sustainable Development (ICSU), Regional Ecological Centre (REC), which are created with the purpose of elaboration of the decisions and realization of joint practical actions directed on achievement of sustainability of the development of the region. The Government of Uzbekistan strengthens cooperation with the International Bank of Reconstruction and Development (IBRD), Asian Development Bank (ADB) and TACIS Programme. The cooperation is directed on realization of reconstruction of the agricultural organizations, their provision by commercial credits, improvement of irrigation and drainage systems and application of new special technologies for agricultural production.

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CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

Decision-Making: The national policy in the field of conservation of biodiversity has received profound development after joining of Uzbekistan to the Convention on Biological Diversity in 1995. The State Committee on Nature Protection of the Republic of Uzbekistan has established the Interdepartmental Coordination Council (Supervision Committee) to organize the tasks of implementing the taken obligations. The Government elaborated and approved the National Strategy and Action Plan on conservation of biological diversity in 1998 (Resolution of the Cabinet of Ministers ¹ 139, 1998). This Resolution also approved the establishment of the National Commission on Conservation of Biodiversity. In 2000 the Government made the decision on transfer of the functions of the Commission to the competence of the State Nature Protection Committee. The management of the protected territories is assigned to the State Nature Protection Committee, having in its composition the State Inspection on protection of flora, fauna and reserves, Department on Forests under the Ministry of Agriculture and Water Economy, Concern “Uzryba” (Uzbek Fish), “Uzbekohotrybolovsouz”, and State Geology Committee. The responsibility for regulation of the use of biological resources according to the laws and resolutions, for fixing the quota in accordance with the expert opinions of the Academy of Sciences and issuing of their main licenses on use of biological resources, is entrusted to the State Inspection on protection of fauna, flora and reserves under the State Committee on Nature Protection of the Republic of Uzbekistan. The basic directions of protection of biological diversity are determined also by the National Strategy of Sustainable Development (1998), National Action Plan on Environmental Protection (1999). The strategy envisages achievement of three basic objectives: conservation of biodiversity; non-destroying use of its components; and optimization of opportunities of use of the genetic resources and received benefits from its use.

Programmes and Projects: With the purpose of rendering support in the protection of vulnerable and unique biological communities located in the territory of the Western Tyan-Shan, the Central Asian Transboundary Project on Conservation of the Biological Diversity of the Western Tyan-Shan has been worked out. Within the framework of the programme of scientific-research, normative-methodological works, nature protection and organizational measures financed at the expense of the resources of the Republican Fund on Nature Protection, the following has been carried out: publishing of the *Red Book of the Republic of Uzbekistan* (Volume 1- Flora, Volume 2 - Fauna), album, *Rare and Disappearing Types of Insects of Uzbekistan*, *Manual of Fishes of Uzbekistan*, works on the reserves of Uzbekistan, and booklet-poster *Nature Reserves of Uzbekistan*; scientific-research works (for example, on determining of the type composition and dissemination of the poisonous spiders in Samarkand province, Rules of preparation of wild medicinal and food plants and etc.); works on development and maintaining of the nursery of wild animals “Sayhun” and Gissar State Nature Reserve; elaboration of the General Scheme of development and location of especially protected natural territories; preparation of the State Programme of scientific researches in especially protected natural territories is being completed. See also under **Status**.

Status: Biological diversity of Uzbekistan is presented by more than 27 thous. types, including more than 15 thous. types of fauna, and, about 11 thous. types of flora, mushrooms and algae. By today the level of endemism in the Republic constitutes 9.2%. Endemic species of flora is relatively not high - 8%: mammals—15%, and reptiles—up to 52%. Biodiversity is more effectively preserved on the especially protected territories – nature reserves, national nature parks, reserves and other protected areas. At present there are 9 state nature reserves, 2 state national parks and 9 state reserves in Uzbekistan. The total area of lands allocated to nature reserves and national parks makes more than 20 thous. sq.km or 4,6% of the territory of the republic. Biodiversity is more effectively preserved in the especially protected territories. On Uzbekistan the total area of such zones makes up 20586,4 sq. km. or 4,6% of the territory of the republic, whereas in 1991 the protected area constituted 2,5% (in accordance with the international recommendations the territory of these areas should make about 10% of all territory of a country).

The policy conducted by the former Soviet Union influenced negatively on the country’s ecology, and a special burden was experienced by the Aral Sea region. To stop the processes of profound degradation of the ecological system in such territory is very difficult. Now the countries of the Central Asian region have to make every effort to liquidate the unbalance which already exists in order to restore and to protect natural ecosystems.

Capacity-Building, Education, Training and Awareness-Raising: The republic has a prepared legislative base for solving the faced problems on conservation of biodiversity. After the Conference Rio-92 the following laws were passed: “On especially protected territories” (1993); “On subsoils” (1994); “On protection of atmospheric air” (1996); “On protection and use of flora”; “On protection and use of fauna; and “On rational use of energy” (1997), “On forest” (1999). The proposals on introduction of changes”; and amendments into the Law of the Republic of Uzbekistan, “On especially protected natural territories” and to the Code of the Republic of Uzbekistan “On administrative responsibility” have been prepared. The works connected with realization of the obligations on Bonn and Ramsar Conventions, as well as on the Convention (CITES) about international trade by the types of wild flora and fauna under the threat of disappearance, have received their development. The most active participation in protection of biodiversity comes from “Uzbekohotrybolovsoyuz” (Uzbek Hunting and Fishing Union), public organization uniting the amateur hunters and fishers. By means of cooperation of the Academy of Sciences, public organizations of the ecological orientation with mass media the propaganda of the ideas on protection of nature and biodiversity is being ensured, information on carried out research works of the modern condition of biodiversity in the republic has been prepared and disseminated.

Information: In accordance with the Law “On the State Statistics” elaboration of the package of the forms of the state and departmental reporting on protection, use and reproduction of flora and fauna in the republic has been implemented. Within the framework of the National Strategy and Action Plan on conservation of biodiversity the measures on development of monitoring system have been taken, the databank on modern condition of the types, communities and landscapes has been formed. This information is used during the decision-making process and for informing of the public on the problems of conservation of biodiversity.

Research and Technologies: In the result of carrying out of the research works on nature protection theme in accordance with the State Scientific-Technical programmes: the scientific bases of rational use of hunting-trade types of fauna of the irrigated lands of the Southern Aral Sea region have been worked out; the works on selection of salt- and drought resistant plants for phyto-amelioration works on the dryad up bottom of the Aral Sea have been continued; the elements of the concept of the general state complex monitoring of the environment, conservation and restoration of flora and fauna have been elaborated; the changes of flora and fauna of the Southern Aral Sea region due to transformation of the ecological conditions of the places of location and structure of vegetative layer of the dried up bottom of the Aral Sea have been revealed; and the cadastre of the ground spinal animals has been drawn up, monitoring of rare and valuable types of fauna of Uzbekistan has been carried out, the new data on biology of rare and disappearing types of ichthyological fauna in the lower Amu-Darya river are obtained.

Financing: Financing of the works connected with biodiversity is accomplished at the expense of funds of the state budget, funds of assistance received from the Global Ecological Facility (GEF) and UNDP. Financing of the arrangements on protection and reproduction of flora and fauna is envisaged also at the expense of the resources of the Funds on Nature Protection. Financial resources for performance of programme works on conservation of biodiversity are allocated from the state budget on maintenance of the state reserves and national parks, corresponding structural divisions of the State Nature Protection Committee, Department on Forest Economy of the Ministry of Agriculture and Water Economy, as well as on carrying out of the scientific researches of the Academy of Sciences.

Cooperation: Uzbekistan joined the Convention on Biodiversity, which was ratified by Oliy Majilis in 1995. Based on the agreement with UNEP on rendering consultative assistance to Uzbekistan on the issue of working out of the financial mechanism for realizing the National Strategy and Action Plan on conservation of biodiversity the first phase of the project has been completed: training seminars in a number of the ministries carrying out nature protection activity have been conducted, methodical materials have been presented, project proposals of GEF on creation of Kyzylkum-Nurata Biosphere Reserve have been approved and prepared jointly with UNDP. During the period of 1993-2000 the business contacts with such international structures and donor organizations as the UN Department on Economic and Social Affairs, UN CSD, UNDP, UNEP, TACIS, Earth Council, Secretaries of Conventions, World Bank, GEF, rendering advisory and financial-technical support in building and development of the activity of the national institutes ensuring coordination of works on implementation of the taken by the country obligations on the global documents of the Agenda for the 21 century, have been strengthened.

Within the framework of realization of the obligations of the Convention on Biodiversity the issue on joining to Kartahen Protocol on Biosafety has been under consideration, the realization of the transboundary projects (on GEF and TACIS programmes) on conservation of biodiversity of the Western Tyan-Shan has been carried out. A certain volume of works is being accomplished on bilateral and multilateral agreements

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CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Decision-Making:

Technologies: No information available.

Biotechnologies: No information available.

Programmes and Projects:

Technologies: The overwhelming majority of the tasks on technological modernization of the basic branches of economy will be solved in the process of realization of the programmes initiated by the Government. The programmes on development of export potential and deepening of integration of Uzbekistan into the global economic community of the period of up to 2005 address projects which will be developed within the framework of the Concept of structural transformation in the economy for the period of up to 2010.

Biotechnologies: No information available.

Status:

Technologies: The introduction of modern ecologically clean technologies is a determining important for Uzbekistan since the formed raw material orientation of the structure of economy, high level of moral and physical deterioration of the used equipment and technologies in many branches of economy, influence greatly on environment. The Government of the republic envisages expansion and deepening of equal external economic cooperation both on the line of attraction into the economy of foreign investments and creations of joint productions, opening an access to new and effective ecologically safe technologies, and on the line of building partner relations with the international organizations and governments of highly developed countries, which could render technical assistance in the improvement of qualification of technical experts engaged in all branches of economy, as well as development of administrative skills in creation of ecologically clean productions.

Biotechnologies: The problem of ecologically clean management of biotechnology also becomes rather essential. Therefore it is necessary to ensure development of the legal and normative base, which may promote to form the policy in the sphere of biotechnologies. This area of biotechnology represents scientific and practical interest for Uzbekistan first of all in the part of cultivation of a number of agricultural crops, especially cotton and vegetables. Through gene engineering one may obtain the grades of cotton resistant to the climate change and various diseases, to harmful insects. Biotechnologies are used, basically, against the agricultural pests and diseases of plants. This approach is used, approximately, on 5.6 million hectares. The biological methods of protection of forest against agricultural pests and diseases are used more then on 20 thousands hectares.

Capacity-Building, Education, Training and Awareness-Raising:

Technologies: No information available.

Biotechnologies: No information available.

Information:

Technologies: No information available.

Biotechnologies: See under **Status**.

Research and Technologies:

Technologies: No information available.

Biotechnologies: As foreign experience shows the use of genetically modified products can have negative consequences and cause various allergic and virus diseases. In this connection the following is envisaged: Expansion of the scientific-research and experimental works on biotechnology by the scientific-research institutes of the Academy of Sciences of the Republic of Uzbekistan; and, Study of an opportunity to import transgene agricultural crops bearing in mind their adaptation in the conditions of Uzbekistan, location and use of the food products, including assessment of a potential threat to local and regional ecosystems due to their introduction.

Financing:

Technologies: Financial resources for development of modern technological base are formed from the budget allocations, which are provided to the institutes and laboratories of the Academy of Sciences, and also for research works carried out in the higher educational establishments (technical institutes and universities).

Biotechnologies: No information available.

Cooperation:

Technologies: With the purpose of development and strengthening of technological capacity of the country the Government envisages further expansion and deepening of equal foreign economic cooperation as on the line of attraction into the economy of foreign investments and creation of joint productions opening an access to the international organizations and governments of highly developed countries that could render technical assistance in the improvement of qualification of the technical experts engaged in all branches of economy, as well as development administrative skills in creation of ecologically clean productions.

Biotechnologies: See above, under *Technologies*.

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CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES.

Decision-Making: At the national level the executive bodies on water resources management of the Aral Sea Basin are: the Ministry of Agriculture and Water Economy; State Nature Protection Committee (organization of actions on realization of the policy in the sphere of nature protection; state control and monitoring of the sources of pollution and quality of surface and ground waters); Ministry of Macroeconomics and Statistics (development of water resources balance, maintaining of statistical reporting); Main Department on Hydrometeorology (monitoring of quality of surface waters); and State Geology Committee (monitoring of reserves, usage and quality of underground waters).

The issues of protection and use of water resources are regulated by the laws: “On Nature Protection”; “On Water and Water Use”; “On Especially Protected Natural Territories”; and, “Code on Administrative Responsibility.” In order to further develop these documents a range of the governmental decisions was adopted and an appropriate legal and normative base was formed.

With the aim of implementing practical actions, the following establishments have been set up: International Fund for Saving the Aral Sea (IFAS) with the Executive Committee (EC) – for financing and crediting of joint practical actions and long-term programmes, projects on saving the Aral Sea and Aral Sea region as a whole taking into account the interests of all states concerned; Interstate Commission on Water Coordination (ICWC) – for regulating the issues of joint management and use of resources of the Aral Sea Basin in the interests of all countries and with the view of ecological requirements; and, Interstate Commission on Sustainable Development (ICSD) – for solving the issues on protection of the environment and sustainable development in the countries of the Aral Sea basin.

Programmes and Projects: The priority issues requiring urgent solution in the process of development of the local, nation-wide and regional programmes are: shortage and bad quality of drinking water; drawbacks of medical servicing; recession of economic activity and unemployment; and, continuation of environmental degradation.

With the assistance of UNDP, World Bank, European Union the National Concepts on combating desertification, conservation of biodiversity, on environmental protection have been worked out. The works on formation of the regional water strategy in the Aral Sea basin, development of general principles and criteria of water distribution, rational water use and protection of water resources have been carried out, on the basis of which the projects of the interstate legal, normative and legal acts regulating the issues of joint use and protection of water must be prepared. Having deeply realized the forming situation and possible consequences, the President of the Republic of Uzbekistan initiated and ensured the approval in 1999 of the GEF project, “Water Resources and Environment Management in the Aral Sea Basin,” the main executor and donor of it has become the UN Global Ecological Facility. The objective of the project is to render technical and financial assistance to the states of Central Asia in organization of the long-term programme of strategic actions in the Aral Sea basin, the main direction of which is the rational use of water and decrease of its consumption, improvement of the ecological conditions in the region and creation of the resources for sustainable development of the countries of Central Asian region.

Under the UNDP assistance the project, “Aral Sea Basin Capacity Development” had been implemented in the region during the previous five years, the basic priorities of which were: promotion of increase of effective use of water resources, including development and introduction of the national and regional strategies on rational use of water resources, including combating with salinization of lands and creation of national reserves of water resources for sustainable development of the countries of Central Asia and solving the problems of crisis of the Aral Sea; organization of monitoring of waters in the basins of the rivers of Amu-Darya and Syr-Darya and with these purposes equipment of a number of hydro-posts by devices for metering and determining the quality of water.

See also under **Cooperation**.

Status: Ecological balance preserved till the beginning of 60-ties in the basin of the Aral Sea started to be destroyed due to irretrievable withdrawal of river waters for increase of irrigated areas. The Aral Sea received only a half of the formed earlier river run-off. But even this quantity was enough for maintaining the sea level on a mark of 53 m. However, in the result of especially agrarian orientation of development of the economy of the region with excess escalating of the areas of irrigated lands and volumes of irretrievable water consumption and in the situation

of occurrence of droughts during the last several years, the inflow of water to the deltas of the rivers Amu-Darya and Syr-Darya was sharply reduced. By today the volume of the Aral Sea has reduced in five times, and the measurements have shown the decrease of the sea level on 18 meters. The bottom became visible on the area of more than 40,000 sq. km, covered richly by salts, which now are carried frequently away by blowing winds. The process of degradation and desertification in the deltas of Amu-Darya and Syr-Darya rivers has been aggravating simultaneously. More than 60 highly productive lakes have been dried up completely in the delta of Amu-Darya river, which occupied the area of 60,000 hectares. Ecological, social and economic conditions in the Republic of Karakalpakstan and in Khorezm province located around the drying up sea have considerably worsened. The level of infant mortality in Karakalpakstan is higher as a whole than on the average on the country (30,8 against 26 per 1,000 of alive born infants in 1995), though the mortality level has been lowered for the last 5 years. Restoration of the Aral Sea will require the considerably changed economic structure with the changes in relation to the sectors, which are not water-intensive, and by complete excluding of irrigation of the dekhans' enterprises. From the point of view of limited economic opportunities for the countries of the region such changes seem improbable in the nearest future. However the work carried out at present on rational water use gives already the results, and for the last years the flow of water in the rivers of the delta and to the sea itself reached 15-20 cub.km, slowing down the falling down of its level.

At present more than 50% of irrigated lands in the Aral Sea Basin are subject to salinization and this problem aggravates. In the areas of irrigation concentration located in the lower and middle currents of the Amu-Darya and Syr-Darya rivers the degree of salinization fluctuates from the average to a strong one and for the last 25 years it has increased twice. During a dry season and annually from October to April, when the rivers have a very small run-off, the peak level of salinization in the delta reaches more than 2 g/l, that exceeds a maximum level of the content of salts in drinking water in 1,5 g/l, recommended by the World Health Organization and European Union. The annual losses caused by salinization are estimated in US\$ 2 billion (about 5% of GDP produced in Central Asia).

Despite all difficulties in solving the Aral problem the efforts of the states of the region with wide international support made possible to fulfill a number of constructive actions. In the result there was reached the increase of water overflow in the Aral Sea region and Aral Sea from 3 - 4 cub. km in the beginning-end of 80-ties up to 10 - 15 cub.km and more during 1992-1998. The major water pipe line Tuyamuyun-Urgench-Nukus was built for provision of the population of the Aral Sea region by drinking water. A network of health care facilities and the system of medical servicing have been developing. The work on fastening of mobile sands in the coastal area of the Aral Sea has been launched. However difficult nature-climatic changes – low water level and drought, developing during the last two years in the Aral Sea Basin, have resulted in a rather negative and heavy social-ecological consequences.

Capacity-Building, Education, Training and Awareness-Raising: The strategic goal of the state on mitigation of the crisis in the Aral Sea region consists in realization of transition to more balanced and scientifically substantiated system of agriculture, increase of efficiency of irrigation on the basis of use of modern technologies of irrigation and environmental protection by full-scale application of economic methods of regulation of the use of water and perfection of the system of management of natural resources of the region. Realization of the strategy is envisaged in three stages: first-expansion and development of already launched actions on elimination of the admitted deformations in the use of nature-resource potential and socio-economic rehabilitation of the region; second - stabilization of development of the economy and rational nature use; third - creation of the conditions for sustainable development of the Aral Sea region. The implementation of the adopted in 1994 Programme on realization of the Law “On the basis of the state youth policy in the Republic of Uzbekistan,” in which the special attention is paid to the issues of ecological education and upbringing of the youth, has been carried out. The basic objectives and tasks of this programme are directed on: creation of the system of continuous ecological education; satisfaction of the needs of the state and society in the ecologically competent and intelligent citizens having an active life position; use of spiritual heritage of the Uzbek people in development of ecological culture of youth. The arrangements on teaching of the course on “Environmental Protection” and “Ecology” in the curriculums of all types of educational establishments, creation of necessary logistics and scientific-methodical provision have been elaborated and are implemented.

Special courses on improvement of qualification of the specialists in the sphere of ecology have been created on the basis of the institutes of the system of the State Nature Protection Committee and Ministry of Health.

Information: The monthly republican magazine *Ecological Bulletin of Uzbekistan*, newspapers *Narodnoe Slovo*, *Tabiat va Insoni*, *Pravda Vostoka*, in the series of republican and regional TV and radio programmes report such topics as the course of implementation of the republican programmes “Clean Water,” the results of the implemented arrangements on a month of forest, garden and planting of trees, the competitions on the best publication in a newspaper, national and regional ecological problems, decisions and actions undertaken for their elimination, with the purpose of realizing the Law “On Nature Protection” in the part of provision of the publicity in solving the nature protection tasks (Articles 4 and 30), creation of the system of ecological education and upbringing (Article 9), on the rights of access of the citizens to the information with regard to the condition of environment and measures taken on its protection (Article 12).

Research and Technologies: As a result of carrying out of the research works on nature protection in accordance with the State Scientific and Technical Programmes the following has been accomplished: the dependence of the level of illness of the population of the Aral Sea region on the quality of drinking water have been revealed; the optimum variant of perspective development of the Aral Sea Basin has been developed taking into account the ecological requirements on its protection and preservation; the scientific basis of the rational use of the hunting-trading types of fauna of the irrigated lands of the Southern Aral Sea region have been worked out; the works on selection of salt- and drought-resistant plants for phyto-amelioration works on the dried up bottom of the Aral Sea are being continued; the evaluation of the climate change of Uzbekistan up to 2005 under the influence of the natural and anthropogenous factors has been carried out, as well as change of the climatic characteristics of the Aral Sea region under the influence of drying up of the Aral Sea; the changes of fauna and flora of the Southern Aral Sea region due to transformation of the ecological conditions of location and structure of vegetation of the dried up bottom of the Aral Sea have been revealed; the cadastre of ground spinal animals was compiled, monitoring of rare and valuable types of fauna of Uzbekistan was carried out, the new data on biology of rare and disappearing types of ichthyofauna in the lower Amu-Darya river have been obtained; and, the regional peculiarities of ecologo-hygienic situation and condition of health of the population in the Aral Sea region have been revealed.

Financing: See under **Programmes and Projects** and **Cooperation**.

Cooperation: The countries of Central Asia play a special role in solving the ecological problems of the Aral Sea and Aral Sea region. In order to solve the tasks of improving the ecological conditions in the Aral Sea region it is necessary to: restore delta ecosystems; organize pond facilities by developing fishery, poultry farming and breeding of animals for their fur; carry out agro-forest-amelioration of the Aral Sea bottom, as well as the coastal collectors and reservoirs; purify collector-drainage waters from pollution by pesticides, nitrogen and heavy metals; and, use lightly mineralized overflows for watering the crops.

The meeting on this issue was held at the level of the heads of the states of Central Asia in Tashkent and Kyzyl-Orda in 1993, in Nukus – in 1995, in Tashkent and Nukus in 1996. The heads of the Central Asian states decided main organizational-administrative issues on interstate coordination of actions at the meeting in Kyzyl-Orda in 1993. On the subsequent regularly Summits the bases of the strategy on realization of the key measures of water and ecological policy have been determined which are reflected in the Agreement on joint actions on solving the problem of the Aral Sea and Aral Sea region and the programme of concrete actions on improvement of ecological condition in the Aral Sea Basin. The Declarations on sustainable development of the region were signed at the Nukus (1995) and Almaty (1997) Conferences. The concept of conservation of the Aral Sea and programme of concrete actions for the following five years was approved at the meeting of the heads of the states in Nukus in 1994, on which the regional and international cooperation was organized. During the last years in order to preserve the Aral Sea as a natural object the cooperation at the international and regional levels was established with such organizations as United Nations Organizations, World Bank and others. In 1997 the first technical meeting organized by the Fund for Saving the Aral Sea and World Bank was held in Uzbekistan, where the issues of implementation of the Programme of international cooperation on the Aral Sea problems were discussed with the participation of the countries-donors.

CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES.

Decision-Making: The executive bodies responsible for water resources management is the Ministry of Agriculture and Water Economy, the State Nature Protection Committee (formation of the policy in the sphere of nature protection, state control and monitoring of the sources of pollution, quality of surface and underground waters), the Ministry of Macroeconomics and Statistics (calculation of the balance of water use and reporting), the Main Department on Hydrometeorology (monitoring of the quality of surface waters) and the Ministry of Health (monitoring of the quality of drinking water), and the State Geology Committee (exploration, management, monitoring of the quality of underground waters). The Interstate Commission on Water Coordination (ICWC) has been established with the task of resolving the issues at the interstate level, which is one of the structures of the International Fund for Saving the Aral Sea (IFAS). At the regional level the decisions on the use of river waters and release of waters to deltas of the rivers and the Aral Sea are taken at the regional level, which are obligatory for all states of the Central Asian region. The executive bodies of this Commission are Basin Water Economic Organizations are BWO "Amu-Darya" and BWO "Syr-Darya." Besides the formation of the regional water policy are considered by the Interstate Commission on Sustainable Development of the states of the Central Asian region. In accordance with the Law of the Republic of Uzbekistan "On Water and Water Use" (Article 8) the specially authorized state bodies of management on regulation of water use are: the bodies of water economy (surface waters); the State Geology Committee (underground waters); and the State Supervisory Committee on safe works in industry and mining supervision (thermal and mineral waters). All mutual relations on water issues within the Republic of Uzbekistan are accomplished on the basis of the above-mentioned documents and by drawing up of the appropriate contracts on water supply.

The national policy of water resources management is formed on the basis of: the laws: "On Water and Water Use"(1993); "On Nature Protection"(1992); and, "On Especially Protected Natural Territories"(1993); Code on Administrative Responsibility and the Constitution of the Republic of Uzbekistan (1992); Resolutions of the Cabinet of Ministers: "On approval of the Regulation on water protected areas of water reservoirs and other reservoirs, main channels and collectors, and also the sources of drinking and household water supply, of medical and cultural-health improving purpose in the Republic of Uzbekistan"(1 174, 1992); "On the measures on further strengthening and ordering of the use of underground waters and their protection from pollution and exhaustion" (1 179,1992); "On limited water use"(1 385, 1993); "On approval of the Regulation on the procedure of development and maintaining of the State Water Cadastre of the Republic of Uzbekistan"(111, 1998); "On approval of the Regulation on the procedure of maintaining of the State Cadastre of the especially protected natural territories of the Republic of Uzbekistan"(1 104, 1998); "On the Action Programme on Environmental Protection of the Republic of Uzbekistan for the period of 1999-2005"(1 469, 1999); "On introduction of the norms of payment for emissions, discharge of polluting substances to the environment"(1 554, 1999), and other normative and legal acts on this issue. There are the following normative documents connected with the management and use of water: "Water protected areas, water reservoirs and other economic objects, rivers and main channels and collector networks, and the sources of drinking, medical and mineral water in the Republic of Uzbekistan"(1993) and "Restriction of using water in the Republic of Uzbekistan"(1993).

All interstate water mutual relations of the Republic of Uzbekistan are based on the Constitution of the Republic of Uzbekistan, Law "On Water and Water Use" and other legislative acts on water issues and are regulated by the appropriate interstate, intergovernmental contracts and agreements, protocol decisions. The basic documents in the interstate water resources management are two documents: the first one is the coordinated with all states (before obtaining of independence) basin schemes of complex use and protection of water resources; and, the second one is the Agreement between the Republic of Kazakhstan, Republic of Kyrgyzstan, Republic of Uzbekistan, Republic of Tajikistan and Turkmenistan on cooperation in the sphere of joint management of use and protection of water resources of the interstate sources, adopted on 18.02.92 (after obtaining of the sovereignty). The first document, in the drawing up of which participated the appropriate design-survey and scientific-research organizations of all five republics, determines the principles and physical volumes of water distribution in the region. Probably these principles or physical volumes of distribution of water resources may not suit someone now because of some parameters. But nevertheless all of them were duly substantiated with necessary calculations and have passed a

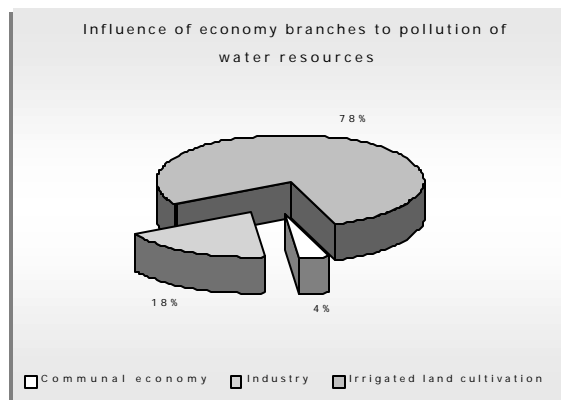
strict expert examination. While drawing up of the above-stated “Schemes...” all conditions and terms connected with the use of water resources were carefully analyzed and various variants of placing and development of production forces in the region were elaborated. Besides, the demographic peculiarities in the whole region and republics were taken into account. The second document adopted after formation of the sovereign states (the Agreement dated 18.02.1992) confirms about necessity of observance by all parties of the decisions of the previously adopted documents on distribution and use of water resources taking into account the formed conditions. Also there is a range of the bilateral and multilateral contracts, agreements and protocol decisions: on the basin of the river Syr-Darya, small rivers of the Fergana valley, on the basin of the river Amu-Darya and others. All these documents are also adopted not at once, but after long-hours disputes, making appropriate calculations and holding numerous meetings of the experts. The Republic of Uzbekistan first of all confirms acknowledgement of all previously adopted documents, which were prepared in the view of the formed real conditions in the region. It is possible that certain documents (previously adopted) cannot meet the requirements of the new legislative acts of certain states, but it is necessary to consider that in the beginning 90-ties (when the majority of the interstate documents have been passed) the region stated the fact of exhaustion of water resources and by that time the water resources were already distributed not only between the republics, but also between the branches of the national economy and all existing nowadays industrial and social infrastructure was built on the available water resources and their distribution. Therefore any slightest deviation from the earlier coordinated decisions would result in misbalance of the situation not only in one of the states, but also in the whole region, and that requires the weighed and thoughtful approach to these issues. See also under **Status** and **Cooperation**.

Programmes and Projects: Protection of quality and reserves of the fresh water sources, management and use of water resources are the priority issues in the process of development of the local, nation-wide and regional programmes. At present the national strategies and programmes on combating desertification, conservation of biodiversity, on protection of the environment have been developed. The works on formation of regional water strategy in the Aral Sea basin, development of general principles and criteria of watershed, rational water use and protection of water resources are being carried out, on the basis of which the drafts of the interstate legal, normative and law acts regulating the issues of joint use and protection of waters should be prepared. Since 1999 the GEF project “Water Resources and Environmental Management in the Aral Sea Basin” has been implemented and the implementation of a pilot analogue project is envisaged as well. The purpose of the project is the development of a long-term programme of strategic actions directed on protection of the quality and rational use of water resources in the Aral Sea Basin and improvement of the ecological conditions in the region.

The concrete strategic actions on protection and rational use of water resources for the nearest period and long-term perspective are determined in the National Action Plan on Environmental Protection (NAPEP), National Strategy of Sustainable Development of the Republic of Uzbekistan. Their implementation is accomplished in the process of realization of: the State Programmes; and pilot projects. The organizational works on implementation of the project “Programme on Aral Sea Basin” (ASBP) are carried out. The project is directed on effective utilization of water resources, including development and application of the national and regional strategies on rational use of water resources, combating salinization of lands and creation of national reserves of water resources, monitoring of waters in the basin of the rivers of Amu-Darya and Syr-Darya. The main objective of these projects is the formation and application of the complex approaches on management and use of water resources, preservation of quality and reserves of the fresh water sources. See also under **Status**.

Status: Water is the most valuable natural resource in the Aral Sea basin. The main water channels of the region are the rivers of Amu-Darya and Syr-Darya. The use of water resources of these rivers should be regulated to take into account regional and national interests, and also the clashing interests of economy and ecology.

The main reason of the ecological crisis in Uzbekistan and on the most part of the territory of Central Asia was the authoritarian principle of management in the Soviet planning. The primary development of cotton production led up to monoculture that resulted in extravagant use of the limited water



resources and occurrence of the Aral Sea crisis. During 1965 and 1990 the water consumption in the Aral Sea basin had been increased more than twice, and irrigated territories increased almost on 35%, resulted in not only an exhaustion but also pollution of water and land resources and deterioration of the living conditions of a dozen million of people. With the purpose of solving these problems, the heads of five states of Central Asia adopted in January 1994 the programme of concrete joint actions on improvement of the situation in the Aral Sea basin. This programme took into account not only qualitative aspects of water resources of the region, but also envisaged the formulation of the principles of management and use of water resources. The special attention was paid to reduction of all types of pollution and taking effectual measures for prevention of discharge of the polluted effluents to the rivers and other water sources of the Aral Sea basin. In 1992 the states of Central Asia decided to keep the existing schemes and principles of watershed, having established the right of the state ownership on water flowing on their territory. Taking into account the international practice of the interstate cooperation and water resources management the effort of five republics of the region is necessary to direct on the establishment of the complex multilevel ties on the problems of water and power resources, their mutually advantageous use.

The first attempts to mitigate the consequences of the Aral Sea crisis and restoration of the ecological balance in the Aral Sea basin were undertaken at the end of 80-ties, when the decision of qualitative aspects of water resources was taken into account and formulation of the principles of water resources management was envisaged. In the region the large-scale development of new irrigated lands had been forbidden, significant capital investments were directed on introduction of capital-intensive water protection and water saving techniques and technologies. Within the framework of the centralized planned economy each republic of Central Asia was strictly limited in relation to the use of water resources and they had the tasks on reducing the specific water consumption in the irrigated land cultivation. The realization of the large-scale projects of development and improvement of drinking water supply of the population was launched. However, in connection with disintegration of the Soviet Union the undertaken measures did not give the expected outcomes. Besides they bore a palliative character and were not directed on elimination of the root causes of the crisis, which were hidden in the structural policy of the centralized state. This policy required running of water-intensive monocultural agriculture and did not envisage radical changes of the structure of the regional economy.

One indisputable conclusion was made in the course of discussion held on the issue of the Aral Sea problem – it could not be solved immediately and by isolated efforts of the countries of the region. The situation was aggravated by deep distinctions in the assessment of the situation and interests of the countries of the region after obtaining by them of the independence. By forming five independent states in Central Asia there appeared the problems with coordinated management of the resources of transboundary rivers of the basin of the sea and regime of their use. It is quite clear that the interests of Kyrgyz and Tadjik Republics, located in the upper reaches of the rivers in the area of formation of water resources, are very far from the problems of the Aral Sea, which are faced by Uzbekistan, Kazakhstan and Turkmenistan. Besides in the territory of the first two countries there are reservoirs of many-years regulation built earlier in the interests of irrigation use, whereas the main irrigated massifs are located in the territory of the rest three countries. This circumstance has caused contradictory approaches of the countries of the region to the regime of use of reservoirs. Kyrgyzstan and Tajikistan work out the water reserves during the peak power consumption in the winter period, therefore the other countries feel water deficiency in the period of watering of the agricultural crops. Accumulation of such contradictions has served as additional stimulus for search of the mutually acceptable decisions on the way of achievement of the balance of political and economic interests, requirements of conservation of the environment.

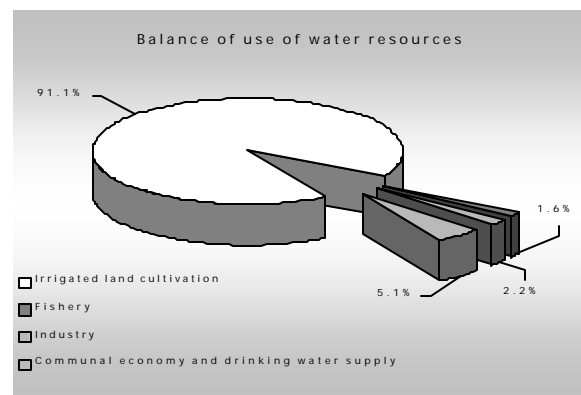
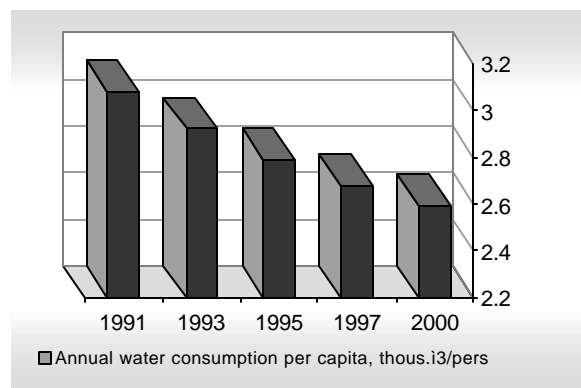
The meeting of the heads of the states of Central Asia in Kyzyl-Orda (Kazakhstan) in March 1993 became the first step to organize the regional cooperation in solving the problems of the Aral Sea. During this meeting the Agreement on joint actions on solving the crisis of the Aral Sea was signed. The Interstate Council on the Aral Sea Problems and the International Fund for Saving the Aral Sea with executive bodies were established as the instruments of practical realization of this Agreement. Practically and simultaneously the governments of these countries decided to establish the Interstate Commission on Water Coordination, the main function of which was to determine the limits of water use by the republics of the region from transboundary rivers. The members of the Commission became the ministers of water economies of all countries of the region. The previously formed principles of water distribution and proportions of the use of the river resources were preserved. The adopted by the Commission decisions are accomplished by the basin water-economic organizations “Amy-Darya” and “Syr-Darya.” The logic development of cooperation in the sphere of water economic activity is envisaged within the framework of the created at present Water-Power Consortium. The interests of power with the purpose of

achievement of the balance of interests of various branches of economy in water demands will be represented. At the second meeting of the heads of the states in Nukus (Uzbekistan) in January 1994 the Concept on solving the problems of the Aral Sea and Aral Sea region was approved and the programme of concrete actions on improvement of ecological conditions in the basin of the Aral Sea in the nearest 3-5 years was adopted, which took into account the socio-economic development of the region. This decision for the first time in the history of the regional cooperation united together the problems of economy and ecology; as a matter of fact it became the first attempt of integration of ecological priorities in the political and economic decisions at the interstate level. The programme envisages the solution of the following issues: rational water use and protection of water resources in the basin of the sea; introduction of the single for the region unified system of accounting of the water resources and their use; improvement of quality of water for agricultural needs; and, development of measures on creation of artificial water ecological systems in the territories of deltas of Amu-Darya and Syr-Darya and the sites of the dried up bottom of the Aral Sea; implementation of the interstate programme "Clean Water and Health of the Population" for provision of the good-quality drinking water and improvement of the sanitary-epidemiological conditions; znc, introduction of the automated control system of the basins of the rivers of Syr-Darya and Amu-Darya.

Owing to the coordinated actions of the states of Central Asia on water resources management of the rivers of the Aral Sea basin the active measures on saving water resources and provision of the guaranteed volumes of water supply to the Aral Sea have been undertaken during the last years. If in the middle of 80-ties the run-off of the rivers to the Aral Sea has been practically stopped, than starting from 1992 it was increased up to 21,7 cubic km per year that has allowed to maintain ecological balance in the region and deltas of the rivers and to stop further decline of the level of the Aral Sea. Only in 1998 the inflow in the sea and deltas of the rivers constituted 31,3 cub.km, in 1999 - 11.92 cub.km, in 2000 - 5,6 cub.km.

The drinking water supply in the Republic of Uzbekistan is provided on 80% owing to the underground waters (UW). General forecast assessment of the UW reserves on the Republic is about 17 cub.km per year. Total average annual withdrawal makes about 10 cub.km/year, including for economic-household needs - more than 3 cub.km/year. The water supply is provided on contract basis not only to all water users, but also among the water economic organizations on the borders of provinces, regions and between separate subdivisions. As a rule, the volume of water run-off on the border of corresponding neighboring state is indicated on the basis of the interstate agreements. Accounting and reporting of water intake, water supply and use of water resources are carried out in accordance with the approved procedures. The daily accounting of drainage and expenditure of water resources on 18,150 hydroposts on intereconomic systems, including on 17,703 water dividers by means of two times measurements, is carried out. The major hydrounits are tele-mechanized. At present the UW suitable for drinking water supply are practically absent in the territory of the Republic of Karakalpakstan, Bukhara, and Navoi provinces. The shortage of the fresh UW is experienced even now and will increase in the nearest future in the territory of Dzhizak and Kashkadarya provinces. The resources of drinking water supply of these areas are formed owing to the surface run-off and fresh UW transported to the large distances. The water used for drinking consumption is frequently of sub-standard quality, since its mineralization constitutes 1.5-3 g/l and more. In the other provinces of the republic the fresh UW resources are still enough, though their reserves are reducing.

Uzbekistan has 4,298 thousand hectares of irrigated lands of which about 2306 thousand ha require restoration. From the point of view of the limited natural resources in the region the main measure for provision of the increasing water consumption for the irrigation needs is the restoration of lands, intereconomic and internal-economic channels, collector systems, drainage arrangements, and base planning of land organization. Besides the importance for increasing of irrigation water supply has the use of underground and collector drainage waters. The quality



and quantity management of water is necessary to accomplish at all levels of water management in the river basin.

Capacity-Building, Education, Training and Awareness-Raising: The Executive Committee of the International Fund for Saving the Aral Sea prepares regular reports, summarizes the results of the accomplished works on the projects and informs on the results in mass media. See also under **Information**.

Information: There are regular announcements in the newspapers “Narodnoe Slovo,” “Pravda Vostoka,” “Tabiyat va Insoni,” and the magazine “Ecological Bulletin,” on the republican and provincial TV and radio about the course of implementation of the republican ecological programmes connected with formation and use of water resources, the ecological problems are highlighted broadly as well as decisions and actions undertaken on their elimination. The Scientific Information Center of ICWC accomplishes information provision, international exchange, preparation and implementation of technical and scientific programmes of the regional importance, and manages the regional database on water use and ecological sustainability.

Research and Technologies: No information available.

Financing: Water resources management is financed by the state budget, budget of the regional khokimiyats allocated on operational activity, funds of the enterprises, foreign investments of banks’ loans and credits.

Cooperation: It is necessary to note a positive role of the Frame Agreement between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan about use of water-power resources of the basin of the river Syr-Darya, signed on 17 March 1998, on mitigation of a tense situation in the region, which was formed due to the transfer of the working regime of the Toktogul water reservoir to power regime. Owing to the Agreement on interstate water mutual relations of three states of the basin of the Syr-Darya river the certain balance has been achieved and all states are making attempts to fulfill the decisions, though with difficulty, by signing annual working agreements with the indication of concrete volumes, terms of flows, releases and deliveries. One of the main initial legal documents on distribution of water resources of the river Amu- Darya after the “Basin Scheme” is the Protocol of the Scientific and Technical Council of the Ministry of Amelioration and Water Economy of the USSR ¹ 566 dated 10 September 1987, where with participation of the representatives of all states the limiting volumes of water intakes by the states were determined (protocol of the “united republics”) and on the basis of this document the bilateral agreements on water economic issues between Turkmenistan and Uzbekistan have been made.

The major event and stimulus for further development of the regional cooperation became the International Conference on the Aral Sea Basin Capacity Development under the aegis of UNDP, held in September 1995 in Nukus city. This meeting meant a transition to a new, international level of cooperation, because for the first time there was attracted attention of the world community to the problem of the Aral Sea. The Nukus Declaration, adopted by the heads of the Central Asian states on the outcomes of the Conference, confirms the obligations of the countries to engage in regional cooperation on the basis of mutual respect, good neighborhood and determination to continue the work on overcoming the consequences of the ecological crisis. The measures on development and realization of the strategy of sustainable development were determined on the basis of complete support of the international conventions and agreements on these issues.

The most important tasks of increasing the efficiency of the regional cooperation for the near future as follows: preparing and implementing the programmes and joint projects of the regional importance; preparing the International Convention on the Aral Sea Basin Sustainable Development and creating the mechanisms of its realization; organizing interaction of the interstate and national institutions in achievement of general objectives; and, involving into regional cooperation of non-government and public organizations. Although one cannot say that development of regional cooperation on the problems of the Aral Sea is going on smoothly, there is a political consent, a valuable experience of solving the problems of multilateral and bilateral interactions, as well as decisions are made on complex problems and mitigation of the disputable situations. The capacity of the interstate organizations has been developed and the mechanisms of cooperation are being worked out. See also under **Decision-Making and Status**.

CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS.

Decision-Making: The coordinating bodies in this area are the State Nature Protection Committee and corresponding divisions and structures of the ministries of: Health; and Agriculture and Water Economy. The basis for making decisions on the use and storage of toxic and dangerous chemical substances in the territory of Uzbekistan is the related national legislation and standards, including: the laws: “On Nature Protection”(1992); “On Subsoils”(1994); “On Protection of the Agricultural Plants Against Pests, Diseases and Weeds”(2000); and, “Land Code”(1998); Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan on introduction of the payment for emissions, discharge of polluting substances to the environment and locating the wastes in the territory of the Republic of Uzbekistan, effective since 1 January 2000; and, “Regulation on the State Commission on the Means of Chemical Treatment and Protection of Plants”(1999). Observance of the laws and directive documents is ensured by such legal and normative acts as: regulation on registration of tests and registration of pesticides; package of methodological documents of the State Nature Protection Committee and the Ministry of Health on carrying out of ecological expertise; and, biological, toxicological assessment of the chemical means of protection.

Approval of the decisions of the international level and improvement of the mechanism of interactions proceed from the obligations taken by the republic on Vienna and Basil Conventions. The specified documents are used as instruments for making decisions on limiting harmful influence of various categories of dangerous substances (wastes, means of protection and etc.) on the environment and health of the population. See also under **Status**.

Programmes and Projects: The programmes of the environmental protection for 1999-2005 define the following strategies on the problem of toxic chemical compounds: approval of the nomenclature of products subject to ecological certification and state regulation; provisions at the local and national levels of safety measures connected with the use of toxic chemical substances; reconstruction of the facilities intended for storage of toxic substances; attraction of foreign investments and “know-how” in this sphere; and, development and perfection of the monitoring system of the use, gathering and storage of toxic substances. With the purpose of reducing the ecological risk connected with the use of toxic chemical substances within the framework of these programmes, the following is implemented: inventory of the outdated, forbidden or unclaimed toxic chemical substances, which is carried out by appropriate divisions of the State Nature Committee with the participation of the ministries of Health and, Agriculture and Water Economy, and Association “Uzchimprom” under the advisory support of UNEP—the search for the investment projects on their processing and destruction according to the international experience of the use of ecologically safe technologies will be organized; development of the networks of bio-laboratories and bio-factories to protect crops from agricultural pests by biological means on all area, strengthening of entomological services; and, perfecting the monitoring system of the use of toxic chemicals in collaboration with UNITAR of the National Register of Emissions and Transfer of Contaminants (RETC).

Status: The national register of potential toxic compounds is filled in. The list of toxic chemical compounds permitted for the use in the agriculture is compiled. The State Nature Protection Committee participates in the work of the intergovernmental committee elaborating the document, which will be legalized (a status of a convention), with regard to management of a range of chemical compounds and pesticides; the document will increase responsibility of the countries-producers, importers and exporters.

The basic volume of toxic chemical substances is used in the agricultural production as pesticides and mineral fertilizers. The list of the substances allowed for use has 150 names. At present the preparations of 4-5 generations with high biological efficiency (10-50, 200-300g/ha) are used that require considerably smaller specific doses of applying, which decompose quickly in the environment. For the period from 1991 to 2000 the volume of use of pesticides (without significant reduction in yield) was reduced from 85,6 thousand t/year to 18,5 thousand t/year for the account of their more ordered application, strengthening of the state control over the application, transportation and storage. The decision making on these issues is within the competence of the State Chemical Commission under the Cabinet of Ministers. The volume of use of biological means of protection of plants has been considerably increased. Nevertheless, due to the large scales of application and high persistence of certain substances (for example DDT, its metabolites) there are still their residual amounts in the soil exceeding MAC

(Maximum Admitted Coefficient) in 3-5 times, but they bear a local character. The significant contribution to pollution of soils, surface and underground waters is made by the mineral fertilizers, since only 35-40% of substances containing nitrates and 15-20% of phosphorus containing preparations are assimilated by plants. The remaining part is washed away by drainage waters to the sources of water or is accumulated in the drainage waters or soil. In this connection the problem of pollution and poor quality of food products does not abandon its acuteness. The dangerous factors are the facilities of petrochemical, metallurgical complexes, other branches. In the republic there are more than 100 facilities having significant stocks of strong poisonous substances.

Capacity-Building, Education, Training and Awareness-Raising: Such organizations as the State Nature Protection Committee, the ministries of Health, and Agriculture and Water Economy, academic, scientific and educational establishments, as well as their corresponding structural subdivisions - laboratories, services, design divisions, are the obligatory participants in regulating actions on provision of safety while using toxic chemical substances. The economic subjects of various branches of industry, power authorities and management in the provinces also play an important role in realizing the programmes and actions undertaken for the same purposes.

Information: With the purpose of exchanging the information on dangerous chemical compounds the State Nature Protection Committee closely cooperates with the International Register of Potential Toxic Chemical Compounds of the UN Programme on Environmental Protection (UNEP/IRPTC). The Committee is the body responsible for introduction of the London Manual on Information Exchange on Chemical Substances in the International Trade. The national register of potential toxic compounds is filled in. Besides, the list of toxic chemical compounds permitted for their use in the agriculture is compiled. The information is accessible to organizations participating in a synthesis of new toxic compounds or in their production, and also to the consumers of this production. Besides the bodies, which carry out monitoring of movement of such substances and control of their influence on the environment and a man, have the access to the information as well.

Research and Technologies: The Action Programme of the State Committee on Sciences and Techniques of the Republic of Uzbekistan on the section "Ecology" envisages the works with attraction of 36 scientific-research organizations (14 academic institutions, 11 higher educational establishments, 11 branch institutions). The following researches and developments have been carried out: indices for ecological divisioning to rayons of the Republic of Uzbekistan on the basis of establishing ecologo-hygienic norms of the potentially dangerous factors of the environment; scientific and technical bases and a complex of measures on protection from pollution by poisonous chemicals, radio-nuclides and heavy metals and rational use of the natural resources; ecologo-hygienic specifications of the potentially dangerous factors of the environment; thematic ecological maps on geological, hydrological, agricultural and nature protection orientation have been compiled; the sample of the mini-system for water treatment from radio-nuclides, heavy metals, pesticides, phenols has been designed, tested and certified in the USA; and, catalytic and sorption methods of treatment of the gaseous emissions of the industry from harmful and toxic contaminants have been developed.

Financing: For implementing the provision of safe use and prevention of negative influence of toxic chemical compounds, the financial resources of various sources are used: toxicological norming and testing of ecological safety are accomplished on the contract basis of the participants of the procedure; the works on inventory of the availability of toxic substances are carried out within the framework of the state budget under the support of local structures of management; scientific researches on a synthesis of the new chemical compounds for replacement of highly toxic compounds used in the economic complex are carried out within the framework of the academic budget programmes; and, creation of productions on processing and destruction of dangerous chemical substances as the most effective approach to solution of the problem is supposed with participation of the international donors.

Cooperation: The Basel Convention, to which Uzbekistan has joined in 1996, is the basis for improvement of the mechanism of interactions at the regional and international levels. The issue on joining to the Rotterdam Convention "On the procedure of preliminary substantiated consent with regard to certain dangerous chemical substances and pesticides in the international trade" is under consideration.

CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES.

Decision-Making:

Hazardous Wastes: The regulation of the relations connected with safety of the use of dangerous chemical substances, storage and processing of industrial and household wastes, assumes participation of the representatives of such organizations as the State Nature Protection Committee, Ministry of Health, Ministry of Agriculture and Water Economy, Main Department on Hydrometeorology, economic subjects of various industries, scientific and design divisions, bodies of authority and management in the provinces. To realize the arrangements, specialized design and construction organizations have been also involved into the process. The implementation of the works is supervised by the State Nature Protection Committee and the Ministry of Emergency Situations of Uzbekistan. Ecological oriented NGOs, the structures of self-management of the citizens in urban and rural settlements take an active participation in decision making process on corresponding aspects of these problems.

Strategies of reducing the ecological risk from the use and accumulation of dangerous, solid and radioactive wastes are provided in the National Action Plan and Programme of Measures on Environmental Protection for 1999-2005, National Strategy on Sustainable Development, and other ecology-related programmes: the projects of local, national and regional level on rehabilitation, conservation (or liquidation) of the objects connected with formation of dangerous, solid and radioactive wastes; reconstruction and modernization of industrial facilities through technologies eliminating the formation of dangerous wastes; realization of measures on ordering their storage and processing; development of cooperation for stimulating the processes of attraction of "know-how" and foreign investments; strengthening of influence of the economic mechanism in the process of locating all types of wastes; organization and introduction of the state cadastres on industrial wastes; and, development and perfection of the monitoring system of the use, formation, accumulation of dangerous, solid and radioactive substances and wastes.

The work on creating and improving the legal and normative base regulating the procedure of decision making on the issues of use and treatment with solid, dangerous and radioactive wastes has been continuing in the republic, based upon the laws, "On Nature Protection"(1992), "On the State Sanitary Supervision"(1993), "On Subsoils"(1994), "On Radiation Security"(2000), "Land Code"(1998), and, Resolution of the Cabinet of Ministers, "On introduction of the norms of payment for emissions, discharges of polluting substances to the environment"(1999). The draft law "On Wastes Treatment" has been worked out. The decision making at the international level and improvement of the mechanism of interactions proceed from the obligations taken by the republic on Vienna and Basel Conventions. The specified documents are used as the instruments for decision making on limiting harmful influence of various categories of dangerous substances (wastes, means of protection and etc.) on the environment and health of the population. Besides the decision making mechanisms on the issues of movement of various categories of wastes have been worked out in the Agreement, which was signed by the member states of the Commonwealth of Independent States, complemented by "Regulation on control over transboundary transportation of dangerous wastes and their disposal in the Republic of Uzbekistan," Resolution of the Cabinet of Ministers on gathering and storage of wastes containing mercury (1992).

Solid Wastes: Uzbekistan focuses on development of legal and normative base for accomplishing of the investment measures on processing and use of wastes. The work on improvement of the system on organization of gathering and disposal of industrial and household wastes is being continued. The draft law "On Wastes Treatment" has been worked out. See also above, under *Hazardous Wastes*.

Radioactive Wastes: Realization of the laws and directive documents is ensured by the legal and normative acts elaborated in 1998-2000 (sanitary norms and rules of radiation safety and treatment of radioactive wastes and etc). Radiological service of the national health care and epidemiological system are the organizations responsible for the state supervision of the equipment using the ionizing radiation sources. Institutes and enterprises using radiation equipment and sources of ionizing radiation have official control and protective services. The division of the Main Department of Hydrometeorology is responsible for monitoring of the radiation background. The industrial company "Uzkyzyltepageologia" carries out monitoring of radioactivity in the public places, cities and settlements.

Programmes and Projects:

Hazardous Wastes: Management of wastes of various types and categories is ensured through the plans and programmes depending on the scales of the necessary or required actions. In accordance with the Agreement of the

countries of CIS the Programme of concrete measures ensuring safety of actions undertaken by executing party is being elaborated with regard to arising of the necessity of importation, transboundary transportation (transit) and burial of dangerous (or other categories) wastes. The programme of measures directed at reducing volumes of industrial, household and radioactive wastes, developed as a component of the National Action Plan on Environmental Protection, envisages: creating and maintaining the state cadastres on industrial wastes; developing the local programmes and projects on minimization of wastes with the use of foreign investments and technologies; creating facilities for processing and burial of wastes (particularly, in Tashkent and Yangiyul cities); creating installations on de-mercuring of the used lamps in Navoi and Andijan; strengthening the measures of economic influence; and, accomplishing re-cultivation works on former mines and sites of burial of radiation wastes. In realizing these projects, which are undertaken at the local or branch levels, the short-term plans of actions in the structure of complex schemes of development of the territories and branches are being elaborated.

Solid Wastes: See above, under *Hazardous Wastes* and **Status**.

Radioactive Wastes: See above, under *Hazardous Wastes*.

Status: *Hazardous Wastes:* In the process of consideration of such complex ecological problem as management of wastes it is necessary to take into account specific peculiarities caused by a range of natural factors, which predetermine complexities of its solution. Significant area of formation of huge volumes of wastes from industrial manufactures is represented by mountain and foothill territories, which may also be subject to influence of the natural calamities (earthquakes, landslides, torrents). Due to this there is always a threat of ecological catastrophe that complicates the solution of the problem of wastes management both in relation to the plan of the faced technical tasks and financial resources necessary for their solution. The existing situation with dangerous wastes requires immediate actions and creation of a network of special places for burial of toxic wastes and treatment facilities on their destruction or placing.

Solid Wastes: The problem of accumulation, processing and liquidation of solid industrial and household wastes requires a special attention. The basic mass is represented by solid components of power, mining complexes and household sector, suspension, slag of the processing and chemical branches. For example, in the non-ferrous metallurgy due to low content of metals in the ore not more than 5% of extracted mass from the subsoils turn to be useful. This led to accumulation in the dumps of Almalyk, Navoi mining combinats and open pits of more than 1.25 billion cub.m of overburden rocks and 1.3 mln.tons of the wastes of enriched ores. The main wastes formed in the chemical production of the enterprises of major industrial cities are: phosphogypsum - volume of accumulation is up to 70 mln.tons; lignin—about 15 mln.tons; and, liquid wastes— up to 10 mln. cub.m. The speed of formation of household wastes is higher than of industrial ones. Annually urban settlement dumps gather up to 30 mln.cub.m of household wastes. During the last 3- 4 years the process of arranging the places of gathering the garbage, equipping them with special containers, auto-transport vehicles has been launched.

Radioactive Wastes: Radioactive wastes determining the level of pollution on certain areas of the republic are presented by uranium ore, certain pieces of coal of radioactive rocks, ashes with high content of uranium and radio-nuclides, radioactive paint that is applied to covering certain devices and etc.

402 sites of radiation pollution have been de-activated by present out of the registered 719 sites of radiation pollution on the republic, where the surveys are conducted on the level of radiation background. As a whole on the republic the radiation situation is within the limits of the norm (10-30 mR/hour). However, on certain sites, and especially on trans-boundary ones, there is a tense situation. These are the territories of dumps of the worked out deposits of Yangiabad, Chorkesar and Navoi ore fields, the Republican burial station of the radioactive wastes (Tashkent province). The trans-boundary radiation-dangerous areas are located in 30 km from the Uzbek-Kyrgyz border (valley of the river Mayluu-Suu, tailing dumps, ore dumps). In case of arising of a torrent process and freshet phenomena there can be partial or complete destruction of some tailing dumps, washing away of dumps that will cause a risk of increase of radiation pollution.

The ecologically tense situation forming in the zone of accumulation of dangerous, solid and radiation wastes, and the problems of wastes management are caused by a number of reasons which are the following: Absence of technologies on processing and disposal of dangerous chemical substances; Imperfect nature of the system of monitoring over the use and storage of all types of dangerous wastes; Undeveloped system of storage and technological base on processing of household wastes; Incompleteness of formation of the system of legal, economic and normative conditions ensuring the increase of volumes of use of the production wastes being formed and the strengthening of economic levers of influence on placing of wastes; Undeveloped nature of the scientific

and technical and industrial base of recycling and processing of wastes on the basis of clean technologies; Shortage of the areas of special fields, vehicles and technical equipment and etc.; and, Financial difficulties of the transition period did not allow during the past years to realize technically expensive arrangements ensuring safety of the contents of wastes, their liquidation and (or) processing.

Capacity-Building, Education, Training and Awareness-Raising:

Hazardous Wastes: The higher educational institutions have special faculties, chairs and programmes on training the specialists on development of new technologies and technological equipment (Technical and Chemical-Technological Universities).

Solid Wastes: Academician scientific and design institutions work on corresponding thematic programmes.

Radioactive Wastes: Training is available on the methods and devices of control over the level of radiation (National State University).

Information:

Hazardous Wastes: See below, under *Solid Wastes*.

Solid Wastes: The State Department of Statistics of the Ministry of Macroeconomics and Statistics carries out gathering and data processing on formation, accumulation and movement of industrial and household wastes. The information on this theme in accordance with the Law "On the State Statistics" is passed on to the appropriate national and local bodies of authority for making decisions, and also is accessible to scientific-research and design institutions.

Inspection of the condition of tailing dumps, collectors and special sites, as well as taking measures with regard to the infringers of the nature protection legislation, is in the competence of the bodies of the State Nature Protection Committee and the Ministry of Health.

During the last years an active interest of the public organizations and mass media is noted in relation to the works on reduction of negative influence of all types of wastes on the condition of health of the population and environment. The newspapers have published series of articles on the accomplished independent journalistic investigations on this problem. The operative information is provided to the population by means of displaying corresponding materials in the daily information programmes as "Akhborot," "Khaftanoma" and video-channel "Marifat" reporting about the burning aspects of the ecological problems.

Radioactive Wastes: See below, above *Solid Wastes*.

Research and Technologies:

Hazardous Wastes: See below, under *Solid Wastes*.

Solid Wastes: The basic efforts of the scientific divisions, along with researches, are directed on the creation of a databank of industrial wastes and normative base for their gathering, warehousing, storing and recycling.

The following works on the programme of the State Committee on Sciences and Techniques have been fulfilled: development of theoretical substantiation and methods of recycling of household and industrial wastes with the purpose of the use of secondary resources and reduction of ecological loading; development of scientific and technical bases and complex of measures on protection from pollution by poisonous chemicals, radio-nuclides and ions of hard metals and rational use of natural environments; and, elaboration of the ecologo-hygienic specifications of the potentially dangerous factors of the environment. Special research works have been carried out on the mining facilities (Uchkuduk, Yangiabad) and the working projects have been elaborated, according to which the re-cultivation of the territories is carried out.

The majority of the cities and settlements of Uzbekistan is located in the foothill areas and on valleys of the rivers that are flowing down from the mountain structures of Tyan-Shan. Within these areas on the surface of the ground or in the immediate proximity from it there are radical rocks, which are quite often presented by granite, and other rocks enriched by uranium and thorium. The research works have established that the background concentration of radon in the soil air in the territory of Uzbekistan fluctuates from 1-2 up to 15-20 thousand. Bk/cub.m.

Radioactive Wastes: No information available.

Financing:

Hazardous Wastes: See below, under *Solid Wastes*.

Solid Wastes: The work on improvement of the system of organization of gathering and processing of wastes is financed both from the state budget and from the local budgets in the form of financing of the programmes of local level. For example, re-cultivation works, arrangements on strengthening of the burial places and tailing dumps, disinfection of the territories, organization of the places of gathering and storage of household wastes are carried out at the expense of the funds of the ministries, departments, economic subjects, republican and local budgets; the works on inventory are carried out within the framework of the funds of pilot projects, with the assistance of the local authorities; the creation of productions with the use of "know-how" is envisaged with the participation of the international donors. The expenses for the arrangements on recycling and processing of wastes of production and consumption, neutralization, burial of toxic wastes on Uzbekistan constituted 259484,5 thousand Soums in 1999 (0,11 % of total expenses on nature protection) and 549412,0 thousand Soums in 2000 (0,25 % of total expenses on nature protection).

Radioactive Wastes: See above, under *Solid Wastes*.

Cooperation:

Hazardous Wastes: Regional cooperation is being developed within the framework of the Agreement of the Central Asian Economic Community (CAEC) in accordance with which the Programmes of works on provision of rehabilitation of the areas of wastes on the trans-boundary territories of the countries of the region are implemented. The states-members of the CIS have signed the agreement regulating trans-boundary transportation of dangerous wastes and their burial. According to this agreement the parties are obliged to undertake measures regulating import of wastes on their territory, and also transit of dangerous and others wastes through the territory of the countries. The international cooperation on ensuring safety of the use of dangerous chemical substances is being developed within the framework of implementation of the obligations taken by Uzbekistan in accordance with the Vienna Convention on protection of ozone layer, Basil Convention on control over trans-boundary transportation of dangerous wastes and their disposal.

Solid Wastes: No information available.

Radioactive Wastes: No information available.

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CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

Women: Decision-Making: In 1996 Uzbekistan ratified the Convention on Elimination of All Forms of Discrimination of Women (CEDAW). Adopted in 1998 "Family Code" establishes equal personal and property rights of men and women in conjugal relations. Women on equal basis with men have the right to defend the rights in a court and to appeal against illegal actions taken in relation to them in the administrative order. Fair consideration of complaints of women is guaranteed by the Law "On applications of the citizens," which was adopted in 1994. Equal rights with men on receiving education and also on physical development and going in for sports are established by the laws "On Education" and "On Physical Culture and Sports." The Law "On Employment of the Population" defines legal and social guarantees of realizing equality in receiving of a job in the conditions of market economy. The labour legislation of the republic provides for a range of privileges for pregnant women and those who have children up to 3 years old. The normative acts of the ministries on labor and health care coordinated with the Council of Federation of Trade Unions of Uzbekistan establish the types of unfavorable working conditions, where it is forbidden to apply female labor. Infringement of the laws on labor is considered as a criminal offence (Clause 148 of the Criminal Code of the Republic of Uzbekistan).

Programmes and Projects: The long-term Complex Programme of health improvement of women of fertile age has been implemented in Uzbekistan since 1991. All women of this age group pass medical examination annually. The women prescribed to have health improvement course are treated in the obligatory order at corresponding treatment and health improvement establishments. On the initiative of the President of the Republic of Uzbekistan the year 1999 was announced to be the "Year of Women," during which on the special decision of the Government there were carried out mass arrangements on improvement of the status of women in the society and domestic life. And the year 2000 was announced to be the "Year of Family." The arrangements approved by the Government for this year became a logic continuation of the "Year of Women." Status: Level of literacy of men and women in the age above 25 years old is 98% and 96% correspondingly, which is an extremely high index even in the highly developed countries of the European Union. Girls constitute 50% of pupils at high schools; 54% at professional educational institutions; and, 40% at higher educational institutions. 44% of labour force employed in the branches of economy and social sphere are women. Women make up 43% in the sciences and arts; 64% in education; 74% in health care and 77% in the sphere of culture. About 30% of women are engaged in management. During the years of independence in Uzbekistan about 40 women NGOs have been organized. The largest of them is the Association of Business Women of Uzbekistan, which has 14 territorial branches. The main activities of the Association are rendering assistance to women in the sphere of business through accomplishing special training courses and seminars, increasing professional skills, re-training with the purpose of obtaining new specialties in demand at the labor market. The Association has 14 regional branches, issues its own informational bulletin "Sanam," supports the relations with other women organizations, including foreign ones. At the same time, like in the majority of the countries of the world, the problem of achievement of equality between men and women is still far from its resolution. Making 51% of all population of Uzbekistan, women represent less than 18% of administrative employees and managers and less than 10% of the deputies of Oliy Majilis. The women are concentrated basically in the sectors with rather low level of salaries. Even in the branches where women are mainly engaged their salaries are lower on average than men. In 1998 the difference in salaries between men and women constituted: 7% in the banking sector; 15% in the agriculture; 19% in the industry. Cooperation: The Government actively cooperates with the UN Population Fund and German Agency on Technical Cooperation. A series of international seminars on the issues of a role of women in the society is envisaged to be held in Uzbekistan. After that it is planned to prepare the national action programme with participation of the experts of UN and Germany, "Promotion of gender development, increase of a role of women in the society, expansion of their opportunities and abilities."

Children and youth: Decision-Making: The Law on Principles of the State Policy in relation to youth was passed in November 1991. It became one of the first laws adopted by the new independent state Uzbekistan since September 1991. By this Law the state undertook an obligation to guarantee the youth safe future, an opportunity to receive education, spiritual and physical development, and education of high morals. The laws "On Education" and "On Physical Culture and Sports" have been soon passed. The National Programme on Training of Personnel received the status of the Law of the Republic of Uzbekistan in 1997. The Government regularly improves the mechanisms, which allow the youth to take part in developing major decisions in the sphere of economic and social

life of the society. Programmes and Projects: “The National Programme on Personnel Training,” “Programme of Creation of New Workplaces for 2000-2005,” “Programme of Stimulation of Development of the Small and Medium Sized Businesses and Private Entrepreneurship,” which directly touches the interests of the youth in receiving proper education and employment, have been implemented successfully. In order to strengthen the work on upbringing of active life position, morals, high ideals of goods and humanism, and also ensuring more involvement into sports with the youth the preparation of the “programmes of spiritual, moral and physical development of growing up generation, activation of the youth organizations’ activity” is being completed on the decision of the Government. Status: The youth up to 35 years old constitutes 60% of the population of Uzbekistan. The youth makes the basic core of more than 2,300 NGOs and associations. The organization “Kamolot” functions as purely youth organization. In the course of reforming of the bodies of state management they have become significantly younger both at the republican and local levels. The overwhelming majority of the employees engaged in the small and medium sized businesses are youth. Cooperation: In the course of realizing the National Programme on Personnel Training Uzbekistan actively cooperates with many foreign countries. In order to develop a network of professional educational institutions the Asian Development Bank (ADB) has provided the Government of Uzbekistan with US\$50 mln. The same bank provided credit for US\$40 mln. for purchasing new textbooks for schools. The German Agency on Technical Assistance provided a grant for the project “Assistance in the sphere of professional primary training” with the budget of US\$1,030 thousand. USAID grant with the budget of US\$800 thousand for the years of 2001-2003 was directed on promotion of development of the Regional network of business and economic education. More than 20 grants of EU, Governments of USA, Japan, Germany, France, and Sweden are utilized at present in the sphere of assistance to education and training of personnel.

Indigenous People: Decision-Making: The institute “Makhallya” as a public organization is consolidated by the Constitution of the Republic of Uzbekistan. The Law “On the bodies of local self-management” was passed in 1993. Programmes and Projects: See under Status. Status: Uzbekistan is a multinational state inhabited by the representatives of 100 nationalities and nations. The basic nation is the Uzbeks and constitutes about 80% of all population of the republic. One of the values of the original culture of the local population are the territorial public associations of the people on residence – makhallya (inhabited district), which was created by many centuries experience of public relations as a middle link between Family and the State. Having a long history of preserving culture, resolving local conflicts and maintaining links between generations, and also performance of important public functions of cooperation in decision of many socio-economic tasks and household problems, “Makhallya” bears significant potential for ensuring of sustainability of human communal living, solving of complex ecological problems. The system of social help “Makhallya” and corresponding fund created on the initiative of the Government during a number of years ensures effective address support of socially vulnerable layers of the population. In comparison with many countries experiencing transitional period the use of the institution “Makhallya” in Uzbekistan has appeared to be the most successful way of realization of address social protection of the population during difficult period of realization of the reforms (now this model is studied by many countries with transitional economies). Makhallya committees render assistance for improvement of social infrastructure and development of small business in their territories. There are more than 10 thousand of makhallyas at present, they cover all territory of the republic and are the important link in formation and development of the civil society.

Non-governmental Organizations: Decision-Making: The Law “On Public Associations of the Citizens” was passed during the first months after the independence in 1991. The Law “On Freedom of Beliefs and Religious Organizations” was adopted in 1998, which was extremely important for the republic. With the purpose of the most complete involvement of the public organizations into the decision making process on major political and socio-economic problems, the Government regularly works on perfection of the decision making procedure. The leaders of major political parties and NGOs join the governmental delegations conducting regular meetings of the countries of Central Asia at the level of the Heads of the Governments on the problems of the Aral Sea basin and preparation of the important governmental decisions. Programmes and Projects: The working out of the Concept of gradual transfer of functions of the state bodies to the bodies of self-management of the citizens and non-governmental public organizations is in the process of completion. One of the components of this concept is the mechanism of strengthening of financial base of the bodies of self-management of the citizens. The arrangements on development of the principles and forms of self-management of the citizens and measure on strengthening public control over the executive power will become an integral component of the programme being developed on realization of the

Concept "From the strong state to the strong civil society." One of the programmes fulfilled in the republic with the participation of the NGO International Fund "Ecosan" was the Interbranch Programme "Ecology and Health" (1994-1995) approved by the Cabinet of Ministers. A complex of arrangements on protection of atmospheric air and water basin, flora and fauna, rational use of lands and water resources was accomplished within the framework of this programme. In order to release the tension of the situation in the ecologically unsuccessful regions the IF "Ecosan" implements the project "Health Trains." The objective is to render qualified medical assistance and deliver humanitarian aid to the population living in the Aral Sea region and other regions of the country. The programme "Days of Ecology and Health," which is carried out annually since 1994 on the initiative of the IF "Ecosan," has an objective to improve moral and spiritual upbringing, formation of ecological outlook of the population.

Within the framework of the programme the special extra-working days are carried out, the earned funds from which are directed to the social and ecological and charitable purposes. The Project of Ecological and Regional Assistance to Women and Children of the Aral Sea region "ASPERA" was worked out on the initiative of the IF "Ecosan" and UNICEF in 1995. It was directed at reducing the influence of the deteriorating conditions of the environment to the health of children and women, as well as at improving of social, ecological and infrastructural changes and promoting increase of their living standards. Despite of the other projects of international organizations and donors oriented to the solution of technical aspects of the Aral Sea crisis, this project was directed on development of the human factor. The project was implemented in 1995-1998, the cost of which constituted US\$ 3.12 mln. With the purpose of attracting the funds for realization of the social and ecological arrangements "Ecosan" jointly with the foreign partner established the joint venture "Ecolot" in 1995. Its activity is connected with the issuing of lotteries, the main part of profit from the sale of which goes to solving of the social-ecological problems, protection of health of the population, humanitarian and charitable actions. For detailed survey of the ecological situation in the provinces, making decisions on improvement of the ecological situation the IF "Ecosan" forms and sends to the provinces joint missions of scientists, ecologists, experts, representatives of the embassies and international organizations. The first mission took place in 1994. The aim was to study the reasons of deterioration of the ecological situation in the oasis of the Fergana valley, bordering the place of burial of unconditional ores and wastes on the territory of the Republic of Kyrgyzstan. The materials of the results and outcomes of the carried out research works were handed over to the UN Representation in Uzbekistan, governmental bodies and Parliaments of the Republic of Uzbekistan and Republic of Kyrgyzstan for making decisions. Analogous mission were organized to the Republic of Tajikistan, where the problems connected with the negative influence of harmful emission to the atmosphere of the Tadjik Aluminum Factory to the health of the population of the bordering with the factory regions of Uzbekistan and its eco-system were researched. In total IF "Ecosan" directed 20 international missions to the area of the Aral Sea. In 2001 the mission of the IF "Ecosan" was in the Federative Republic of Germany, the main aim of which was to attract attention of the public of this country to the ecological problems of the Aral Sea basin.

Status: 2,300 NGOs, including 70 cultural national centres, 20 funds and charitable organizations and more than 40 women organizations have been established after obtaining independence by Uzbekistan. Some of these organizations have been created on the initiative of the state, and the majority of them – on private initiative of the citizens. The formed in Uzbekistan complex ecological situation connected with drying up of the Aral Sea and other factors has predetermined establishment of ecological-oriented NGOs, such as "EcoFergana", "Union of Protection of Aral and Amu-Darya," "Chirchik Darya", ECO "Aral Sea Region" and etc. The dominating role among them is played by the International Fund of Ecology and Health "Ecosan". It was established in 1992. The founders of the Fund became the Academy of Sciences of the Republic of Uzbekistan, scientific-research institutes, major industrial enterprises and associations, key ministries and state committees. The goal of the Fund is a comprehensive assistance in elaboration and practical realization of the territorial, regional, interstate and international programmes and projects directed at restoration and support of the ecological balance in the nature, protection of the environment and health of the population, rational nature use, which are the integral components of sustainable development. For practical realization of own tasks the Fund has 14 regional and more than 200 rayon and city branches. At the enterprises, organizations and educational establishments more than 15 thousand initial organizations "Ecosan" have been organized, where there are 2.5 mln. supporters of the Fund. The branches of the Fund have been established in a number of foreign countries (USA, Germany, Japan, Switzerland, Pakistan, CIS counties). There is the Tashkent Club "Ecosan" under the Fund (like a branch of the famous Rome Club), as well as association of journalists, veterans, and youth, press-center "Ecosaninform". The important direction of the

Fund's activity is studying of the international experience of introduction of modern nature protection resource saving technologies, creation of the mechanisms of their realization.

The Fund aspires to establish partnership relations with the state bodies, international organizations, foreign firms, banks and other structures in order to solve the above mentioned tasks. The main partners of the fund are the bodies of local self-management of the citizens and fund "Makhallya." The sponsors of the fund are also industrial associations and businesses. The activity of the Fund "Ecosan" during these years was directed at promoting implementation of the documents and ecological conventions adopted in Rio. In doing so, the public hearings are held regularly to review the progress achieved after UNCED, when the heads of the leading ministries, legislative and nature protection structures of the republic, representatives of the international organizations and financial institutions (UN, UNESCO, WHO, World Bank and Asian Development Bank) and the representatives of the diplomatic corp present their reports. During the last years, the following international conferences and meetings were held: "Uzbekistan: Ecological Safety in the XXI Century," "Ecology and Global Warming," "Central Asia: Problems of Ecologization of the Economy"; "Uzbekistan: 10 years on the way to sustainable development"; "Health of a mother and a child in the ecological dimension"; "Ecological culture as an important factor of the world's culture and safety"; and, scientific and practical conferences and meetings dedicated to the World Day on Combating Desertification and Drought, International Day on Ozone Layer Protection, International Day of Water. The project of the Earth Charter was discussed not once. International eco-forums on the themes "Youth and Earth Charter," "A Woman and Environment" were held, as well as eco-festivals "Independence, Ecology and Health," "Population, Development and Environment." As a result, many conferences were shared with the interested state bodies and international organizations. It is expected that in realizing the above mentioned programmes on development of the civil society, the number of active NGO will grow. NGOs of political, ecological nature and in the other important spheres of economic, social and cultural life of the society will appear.

Local Authorities: Decision-Making: The National Commission on Sustainable Development of the Republic of Uzbekistan was established in 1997 on the Government's decision, under support of the UN CSD. The structure of the Commission, along with the heads of the republican bodies, consists of high officials of local authority representing the interests of their regions in decision-making process on sustainable development at the national level. Programmes and Projects: The development of the programme of realizing the Concept "From the strong state to the strong civil society" is in process, which alongside with other aspects envisages the mechanisms of transfer of a part of functions from the republican bodies to the local authorities. Expansion of powers will allow local authorities to influence more actively on the processes of market transformations and taking multilateral initiatives directed on consecutive realization of the ideas of sustainable development. Status: The local authorities actively prepare the territorial programmes "Agenda for the 21 Century" for the period of up to 2010. These programmes, stemming from the general national objectives, will substantiate the selection of the directions on provision of ecologically rational, socially fair economic growth on a corresponding territory. The measures ensuring regular reduction of power-, material- and water-intensive production, prevention of deterioration and consecutive improvement of soil condition, air and water, preservation and achievement of reproduction of forests and variety of the living forms will be envisaged. The local authorities undertake additional efforts to achieve common consent and support of the population with regard to economic reforms and necessity of achievement of sustainable development. The constant consultations with the public, bodies of self-management of the citizens (makhallya, village gatherings) and businesses, and often with clergy, are being carried out; this creates good preconditions for consolidation of the nation and will help solve the complex problems faced by the society.

Workers and Trade Unions: Decision-Making: The Law "On Professional Unions, Rights and Guarantees of Their Activity" was passed in 1993 to develop the Article 34 of the Constitution of the Republic of Uzbekistan, which grants the employees and workers the right to unite into professional unions. Programmes and Projects: The Government with participation of the leaders of trade-union movement prepares the programme of measures to active trade-union movement and increase the role of workers and trade unions in achieving sustainable development; accordingly, the legislative acts will be passed, which will regulate the forms of participation of trade unions in the formation of the employment policy, incomes, professional training and retraining of the population, protection and observance of the rights and interests of the workers and employees. Status: Now in Uzbekistan there are more than 7,3 mln. employees and workers, who are the members of trade unions. There are about 60 thousand primary trade-union organizations, which are united into large branch organizations. Besides branch ones

the Federation of Trade Unions of Uzbekistan unites 12 regional and one Tashkent City Association of Trade-Union Organizations. There are 123 provincial and 738 city branch trade-union organizations. The supreme body is the Congress, which is convoked not less than once per 5 years. The last Congress of professional unions of Uzbekistan was held in 1999. The next Congress is planned to be held in February 2002.

Business and Industry: Decision-Making: The important direction of the state economic policy is the increase of efficiency of the use of resources. The Government regularly works on solving the problem of the most effective combination of market mechanisms and administrative levers for stimulation of business on creation of cleaner productions, rational use of natural resources, including their secondary use and reduction of wastes per item of a product. Status: A number of enterprises and organizations with participation of the bodies of ecological supervision have adopted programmes on sustainable development. However the economic difficulties of the transition period force many enterprises to face the problem of surviving, and climate and ecology have not become as priority ones for them yet. Cooperation: The majority of grants on technical assistance, provided to businesses and industry by foreign NGOs and the governments of USA, Germany, Japan, France and others, as a rule, contain a component on training of the personnel to modern methods of achievement of sustainable development.

Scientific and Technological Community: Decision-Making: The Government undertakes certain measures on activization of the activity of the scientific communities. Programmes and Projects: The preparation of the long-term project on scientific and technical and innovation policy was completed in the mid 2001. Status: The State Committee on Sciences and Techniques renders direct assistance to conducting of the republican and international scientific and scientific-technical symposiums, conferences, meetings and seminars on the problems of sustainable development. The state system of the scientific-technical information provides complete and open information exchange on the issues of sustainable development among the scientific, technical specialists, heads of all levels, non-governmental organizations and interested part of the population. The scientific and technical community of Uzbekistan will soon launch the elaboration of the code and guiding principles, by means of which the coordination of the needs of a human being in his development and interests of environmental protection will be achieved

Farmers: Decision-Making: The new Land Code and laws “On Agricultural Cooperative (Shirkat),” “On Dekhan’s Enterprise,” “On Farmer’s Enterprise” were adopted in 1998. The Government, through budget financing, promotes realization of selection works, development of the ecologically proved methods of running the agricultural enterprises and agro-technologies, capable to raise productivity and quality of agricultural plots, to ensure rational use of land and water resources, to improve methods of fighting with agricultural pests and weeds. The priority task is also assistance in carrying out researches in the field of designing of the equipment ensuring optimum use of energy of a man and animals in dekhan (personal subsidiary) enterprises. The mechanisms of encouragement of achievements of agricultural producers on ecologically proved running of an agricultural enterprise and production of ecologically clean agricultural products are being developed. The Ministry of Agriculture and Water Economy has begun the reorganization of the informational network, which will be capable to implement an active propaganda of the achievements of domestic and global agricultural science and practice. This system will assist the agricultural producers in the experience exchange on running the agricultural enterprises, protection and rationalization of the use of land, water and local resources, optimization of use of chemical substances of various purposes, reduction of wastes of the agricultural production and their effective processing. Programmes and Projects: At the end of 2000, “Programme of Deepening of Economic Reforms in the Agriculture for 2001-2003” was prepared. It is expected that during its realization the specific weight of farmers’ enterprises in the production of agricultural produce will grow significantly. The share system and family contracts in the agricultural cooperative associations (shirkats) will receive their further development. The activity of dekhans’ (personal subsidiary) enterprises will be wider. New forms of financing of the agricultural commodity producers will be introduced and their access to credit resources will be extended. The alternative forms of provision of villages by high-efficiency engineering techniques and material resources will appear. Status: Dekhans’ (personal subsidiary) enterprises occupy more than 520 thousand ha of the sowing areas as of the end of 2000. They produce 66% of gross agricultural products, including vegetation-43% and animal breeding-89%. The land area that is taken by farming enterprises has increased in 3,4 times and made up about 890 thousand ha in the year 2000.

CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Decision-Making: The most important mechanisms of forming financial resources used by the Government in the process of implementing the reforms and achievement of sustainable, socially fair and ecologically weighed development are: preservation of the active role of the state in regulation of the economy, defining of priorities of investment policy and attraction of foreign capital. Taking into account that financial and monetary spheres are still in the stage of reform, the Government has to adjust the budget-tax and monetary policy every year. On the instruction of the Government the Ministry of Finance develops annually the programme of measures on perfection of the tax-budget policy, decrease of fiscal functions and strengthening of a stimulating role of the taxes, optimization of mutual relations between the republican and local budgets as the first phase of formation of the State Budget for a forthcoming year. At the same time the Central Bank simultaneously with development of the Main Directions of Monetary Policy prepares the package of concrete measures on deepening reforms in the banking sphere. Annually the Government approves the State Investment Programme for a forthcoming year, by means of which the policy on re-structuring of the economy and development of social sphere is being materialized. The significant part of these programmes is financed by the State Budget. Foreign investors also take part in their realization. The internal investors (industry, business), attracting in the exceptional cases foreign credits, use a guarantee of the Government. Starting from 2002 the State Investment Programmes will be elaborated for the intermediate term of 2-5 years. This, in the opinion of the Government, will give a greater dynamism in attraction of foreign investments. Sustainable financial resources for realization of the activity on protection of the nature are regulated by a complex of the legislative and normative acts directed on reduction of negative influence on environment. The ecological tax was introduced in Uzbekistan in 1997 in accordance with the adopted Tax Code.

Programmes and Projects: In 2001 for the first time in the practice of the work of the Government the programme for the mid-term period on reduction of the inflation level for 2001-2003 was adopted, which is being realized now. The basic components of the programme are: rigid control of currency issue; lightening of the control over credit policy of commercial banks; provision of monitoring the processes of pricing on the most important types of products; carrying-out of multi-alternative calculations (short-term and mid-term forecasts) of the consequences of changing prices on the strategic goods (works, services); perfection of the mechanism of regulation of the rates of refinancing; and, realization of measures on gradual achievement of budget deficiency covering, and also optimization of the policy of incomes and expenditures of the State Budget.

In the Republic of Karakalpakstan and provinces the territorial programmes and projects on microcrediting of small businesses are implemented. Many credits are provided to the families with scarce means for increase of business activity of the population. The rural residents are provided with highly productive lands and credits with low interest rates for running the farms. One of the components of the programme on deepening of economic reforms in the agriculture for 2001-2003, which is being implemented at present, is the perfection of the system of financing of the agricultural commodity producers, expansion of their access to credit resources.

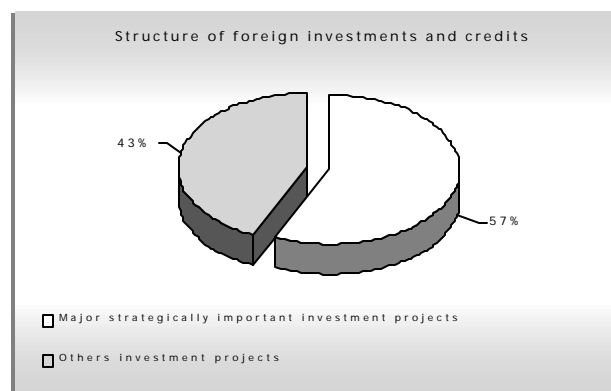
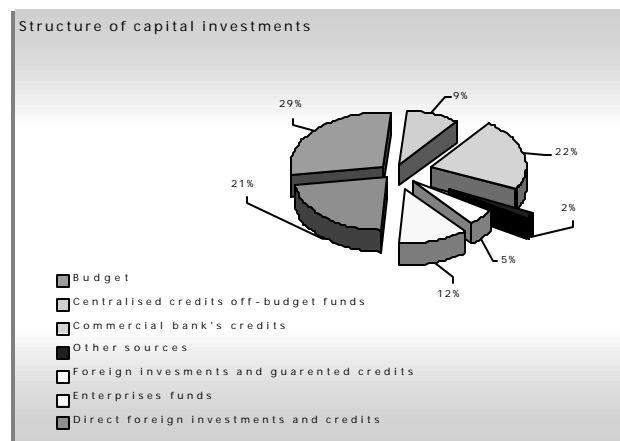
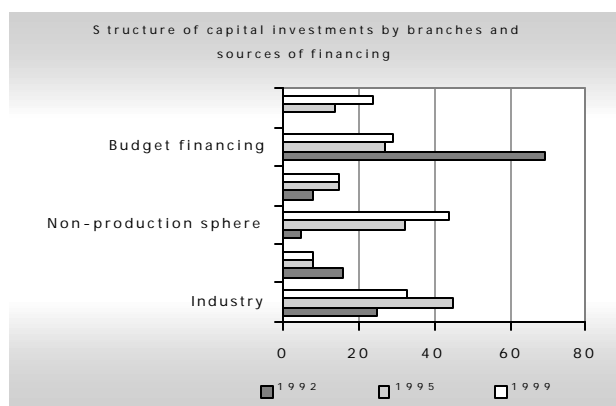
Status: The state budget in Uzbekistan plays a leading role in provision of the macroeconomic stability, economic growth, reforming of the structure of economy, social development and protection of environment. In 2000 the total expenditures of the State Budget constituted 30% of gross domestic product (GDP), thus the budget deficiency did not exceed 1,6%. The achievement of macroeconomic stability and growth in connection with this of the internal savings, and also increased inflow of foreign investments have allowed to reduce a profitable part of the budget from 29,7% in 1995 to 28,5% in 2000. The budget capital investments were reduced from 18% of the expendable part in 1995 to 12,4% in 2000.

In 2000 correspondingly 10,9 and 36,2% of expandable part of the budget was allocated on financing of the economy and social sphere (including capital investments). Despite of a general reduction of the budget expenditures, the Government has ensured protection (in relative values) of the expenditures on education and health care in accordance with the social task of investment of the funds in the human capital.

The budget funds are used on monitoring of environment, condition of use of natural resources, organization and operation of reserves and national parks. The State Budget finances construction and operation of irrigation systems, works on strengthening of the coasts of the rivers, prevention of floods and landslides. The same source is used on construction, operation, protection, reconstruction of structures and sources for provision of the high-

quality water for home and industrial use. The significant budget funds are used in financing of the works on solving the crisis of the Aral Sea basin. The resources of local and national funds on protection of environment are used for financing of individual and local measures on creation and re-equipment of protective structures, support of scientific researches and scheduled arrangements directed on protection of environment.

In 2000 the total volume of capital investments in Uzbekistan constituted more than 693,3 billion of Soums that made up 21,7% of GDP. The budget funds in the total volume of capital investments constituted 30,3%, own funds of the companies 26,4%, internal credits 7,3%, foreign credits and investments 21,7%, savings of the population 12,7% and off-budget funds 1,4%. The largest part of investments was directed on fuel and energy complex (13% of total volume of investments), development of transport and electronic facilities of communications (15%) and on housing construction (14%).



Capacity-Building, Education, Training and Awareness-Raising: The experts in the field of finance, bank activity and credit system are prepared by the largest in Uzbekistan Tashkent Banking Academy and Tashkent Financial and Credit Institute. Professional economists and financiers improve their skills annually; about 25 persons on a Doctorate Degree and about 150 persons on Assistant Professor Degree.

Information: All information concerning the issues of execution of the budget, spending financial funds at the expense of all sources of financing on corresponding spheres and directions of the economy, social sector and etc., is formed at the State Department on Statistics, provincial (regional) departments and according to the Law «On the State Statistics» may be provided to the interested organizations.

Research and Technologies: The research works in the field of finance, monetary sphere, efficiency of the investment in the economy and social sphere, and also preparation of the recommendations to the Government on formation of economic policy and directions of development of the reforms are carried out as follows:

The Centre of Effective Economic Policy under the Ministry of Macroeconomic and Statistics, which is entrusted with the following functions: preparation of the proposals on ensuring macroeconomic stability, sustainable economic growth and deepening of economic reforms, development of multi-alternative long-term and mid-term macroeconomic forecasts; analysis and working out of the proposals on development and rational use of fuel and energy, mineral-raw and land-water resources, prospects of development of the base branches of economy; analysis of macroeconomic, branch and territorial proportions, development of the system of inter-branch and material balances, determining on this basis of the strategy of structural transformations of the economy and investment policy; research of demographic processes, substantiation of measures ensuring rational employment of the population, study of the standards of living of the population and consumption budget of families, definition of the ways of saturation of the internal consumption market; revealing and analysis of the factors influencing to the

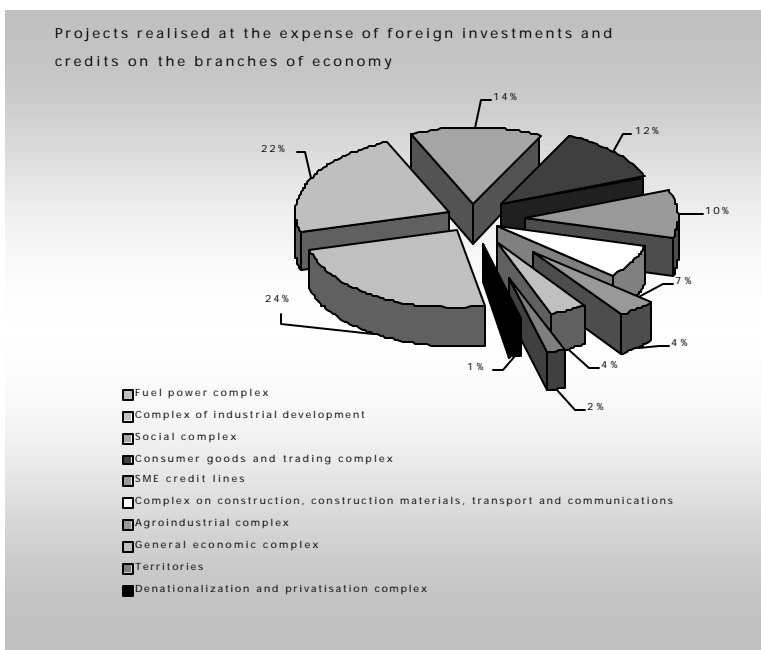
inflation rate, definition of forecast levels of inflation, development of the mechanism of anti-inflationary regulation; and, analysis and forecasting of the foreign trade and payment balance of the republic, development of the proposals on perfection of foreign economic and currency policy.

The Centre of Tax and Budget Policy under the Ministry of Finance, which is entrusted with the following functions: development of the proposals on perfection of financial-budget system, reduction of fiscal functions, optimization of mutual relations between republican and local budgets; formation on the basis of macroeconomic forecasts and calculations of the proposals on perfection of methodology of working out of the State Budget, increase of the level of its balancing, introduction of effective mechanism of distribution of funds on the budgets of different levels; definition of directions of effective utilization of the budget allocations in financing of economy and introduction of the normative approaches of formation of the state expenditures; perfection of the tax policy, development of flexible and effective forms of taxation; and, development of measures on further formation of favorable investment environment and attraction into the republic of foreign capital.

The Centre of Monetary Policy under the Central Bank, which is entrusted with the following functions: preparation of the proposals on deepening of the reforms in the budget sphere and further capitalization of the banks, development of the mechanism of stimulation of attraction of the funds of the population into the banking infrastructure; analysis of the tendencies and development of the proposals on strengthening of monetary circulation, regulation of money mass, perfection of the mechanism of payments and settlements in the economy, substantiation of interest policy with the purpose of ensuring macroeconomic and financial stability; and, development of measures on perfection of the monetary and credit policy, forms and methods of crediting, identification of the directions of wide participation of commercial banks in crediting of investment projects in the priority branches and sectors of economy; and, drafting of the proposals on ensuring of stability of the national currency, liberalization of the currency policy.

Cooperation: Attraction of foreign investments takes a leading place in the activity of the Government. A number of commissions and specialized funds of UN, governments of many developed countries and heads of the leading banks and other credit and financial institutions of the world participate with interest in financing of the National Programmes on Reforming of Economy, achievement of sustainable development, overcoming of ecological crisis in the Aral Sea region (for more details please see the corresponding chapters of this document). During eight years from 1993 to 2000 the share of foreign investments and credits has increased from 0,1 to 21,7% in the total volume of capital contributions.

However, despite of active international activity of the Government, the total volume of financial assistance to Uzbekistan for realization of the recommendations of the Agenda for the 21 century, which, as it was adopted by the final document of the Conference in Rio, should be not less than 30% of the total necessary expenditures, has not been achieved during the past ten years.



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CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

Decision-Making: Uzbekistan has created, basically, the legislative base which to sufficient extent ensures protection of the intellectual property and stimulates development of innovation activity aimed at solving the problems of social, economic and public development, achievement of ecological balance. The Law "On Information" was passed in 1993 and the Law "On Trade Marks, Service Marks and Names of the Places of Origin of Goods" with a new language was approved in August 2001. Protection of the intellectual property is regulated by the Part 4 of the Civil Code of the Republic of Uzbekistan. From 1994 to 2001 the legal base was replenished by the laws: "On inventions, useful models and industrial samples," "On legal protection of computer programmes and databases" (1994); "On selection achievements," "On copyright and related rights" (1996), "On assessment activity" (1999), "On legal protection of technologies and integrated microcircuits" (2001). The laws "On innovation activity," "On sciences and on the basis of the state scientific and technical policy," "On the state scientific and technical examination," "On legal protection against unfair competition," "On legal protection of departmental facilities of the industrial property" and others are in the process of working out.

In 1996-1997 the Government undertook a number of measures on concentration of the resources on realization of scientific researches and developments, which directly would have provided the decision of the acute current and long-term tasks of development of Uzbekistan.

The priorities of the State Scientific and Technical and Innovation Policy have been formulated. Now the state support has been provided mainly for carrying out scientific researches and developments capable to: significantly influence on resource-saving and first of all power-suppliers in the nearest future; create highly effective selection grades of the agricultural crops and breeds of animals, processes of foodstuff production, technology for the agriculture, processing branches of the agro-industrial complex and the whole cotton complex; work out ecologically clean resource-saving processes in the power, mining and chemical industry; and, solve the problems of profound without-wastes processing of raw material, effective recycling of secondary resources and production wastes. The research works directed on solving the whole complex of social problems also enjoys the state support.

Programmes and Projects: The scientific and technical potential of Uzbekistan allows carrying out fundamental and applied researches and elaborations capable of accelerate the movement of sustainable development. In 2000 the research works were carried out within the framework of 10 programmes of fundamental researches and 28 state address scientific and research programmes on solving the major scientific and technical problems.

Status: Despite of the economic difficulties of the transition period the scientific potential in the republic has been basically preserved. Uzbekistan continues to remain the largest centre of sciences, having advanced research base, extensive scientific fund, and qualified scientific staff in the Central Asian region. The network of the scientific establishments consists of more than 300 scientific-research institutes, research centres, laboratories and design-survey organizations, in which over 25 thousand of scientists are engaged. The number of the doctors and candidates of sciences has reached 2,5 and 15,5 thousand persons, correspondingly. The overwhelming majority of the scientific-research institutes are concentrated in the systems of the Academy of Sciences of Uzbekistan, Scientific-Production Center of Agriculture (SPCA) under the Ministry of Agriculture and Water Economy, Ministry of Health. There are more than 7 thousand persons in 40 Scientific-Research Institutes of the Academy of Sciences, and about 3 thousand of them are scientists, including more than 400 doctors and 990 candidates of sciences. The SPC of Agriculture has branches in the Republic of Karakalpakstan and in all provinces of the republic. The SPC coordinates the activity of about 20 scientific-research institutes on agriculture, in which 3.3 thousand persons are engaged, including about 1,5 thousand scientists, and out of them - 90 doctors and 480 candidates of sciences. The system of the Ministry of Health has 15 scientific-research institutes, 6 republican centres of sciences, 11 central scientific-research laboratories in the structure of higher medical educational establishments. The researches in the field of health care are carried out by a thousand of scientists, including 150 doctors and 335 candidates of sciences.

The large volume of researches and elaborations in the system of engineering sciences is carried out by scientific-research and problem laboratories of the educational establishments of the Ministry of Higher and Secondary Education, and also by research organizations which are included into the structure of industrial concerns and associations.

About third of all scientific research works and elaborations carried out in Uzbekistan is coordinated by the Government through the State Committee on Sciences and Techniques (SCST). The Government defines the priority directions of development of the sciences and techniques within the framework of which the SCST approves the State Scientific and Technical Programmes, programmes of realization of innovation works, announces competitions on realization of scientific and technical elaborations. These programmes, recommended by the SCST, are financed by the state budget.

Other research works and developments are carried out on the orders of industry and businesses. Lately the participation of industry and businesses in financing of research works has significantly increased. Their share in the total volume of financing in 2000 constituted 64,5%. The total volume of financing of the science and scientific servicing made up approximately 0,4 - 0,5 % of GDP in 2000. This is connected with the economic difficulties of the transition period, deficiency of financial resources both with the state and businesses.

Capacity-Building, Education, Training and Awareness-Raising: The programme on preparation of the experts of higher qualification for 2001 envisages training of about 1,5 thousand candidates of sciences for the Masters Degrees and 250 – for Doctors of Sciences. The overwhelming majority— 1,1 thousand post-graduate students (72,8%) — is represented by the pedagogical composition of educational institutions. The representatives of higher educational institutions entering the Doctorate Degree courses make up 62,8%. The distribution of the post-graduate students and doctors on various specialties basically corresponds to the tasks of socio-economic development of Uzbekistan, which should be addressed by the Government in a short-term and a long-term period. Accordingly the research, educational potential and decision making capacity will increase significantly.

Information: The State Department on Statistics, provincial (regional) departments on statistics carry out statistical and monitoring research works in relation to development of institutional, personnel and research potential in the sphere of sciences. According to the Law “On the State Statistics” comprehensive information on this subject is accessible to the interested parties. The information is accessible on the Information Server of Uzbekistan: <http://www.uzland.uz>.

Research and Technologies: The scientific researches, developments, projects of creation of new technologies, machines and equipment are carried out according to the approved State Scientific and Technical and Innovation Programmes within the framework of the established by the Government following five priority directions of development of the sciences and techniques: Development of the scientific basis and recommendations for consecutive liberalization of political and economic life of the society, liberalization of the state and public construction; Selection of highly productive, perspective grades of agricultural crops and breeds of animals, development of ecologically safe, resource-saving agro-technologies and means of intensification of agricultural production, development of optimum methods and means of use of land and water resources; Development of effective methods of exploration, extraction and processing of mineral-raw resources and ecologically clean technologies ensuring competitiveness of industrial production; Development of progressive means, methods and technologies for the power sector of economy and power consumption, information provision, automatic control and regulation of technological processes; and, Development of modern methods and means of prophylaxis, diagnostics, treatment of diseases and perfection of the system of protection of health of the population, monitoring of environment and provision of the ecological safety of the country.

Within the framework of the above mentioned priorities of development of the sciences and techniques from 3 to 8 State Scientific and Technical Programmes are being implemented at present. In its turn each programme contains up to several dozens of local, but coordinated between them, scientific and technical projects.

Financing: See under **Decision-Making**.

Cooperation: Uzbekistan, having concluded agreements on partnership and cooperation with many countries of the world, constantly develops scientific and technical relations with these countries. On the basis of the Agreement on Partnership and Cooperation between the Republic of Uzbekistan and the European Union a complex of measures on cooperation in the field of sciences and technologies is being accomplished, according to which joint programmes and projects are carried out, the conferences and seminars on the issues of innovations, commercialization of technologies, exchange of the scientific and technical information and experts-researchers are

carried out. Since 1998 the State Committee on Sciences and Techniques has been actively cooperating with the American Fund of Civil Researches and Development (CRDF). The Agreement on Scientific and Technical Cooperation for 1998-2007 between the Governments of Uzbekistan and Russia has been successfully realized.

On the decision of the Intergovernmental Commission on Economic and Scientific and Technical Cooperation between Uzbekistan and China the joint research works are conducted in the field of agriculture, medicine, biotechnology, seismology, material research, and power.

The Programme of Scientific and Technical Cooperation between Uzbekistan and India envisages joint researches in the sphere of material-researches, solar power, laser technologies, unconventional medicine, information technologies and computer engineering.

Since 1993 young experts, working in the system of the Academy of Sciences of the Republic and the Ministry of Higher and Secondary Special Education are sent annually as interns to the leading scientific centers of the developed countries of the world. In 2001 20 persons were sent for the internship: 4 to USA; 6 to Germany; 2 to France; 3 to England; 2 to Turkey; and 3 to Russia. The scientific centers of Uzbekistan and the countries of Central Asia carry out traditionally large volume of joint research works.

Starting from 2001 the realization of the programme on creation of the Regional Centre of Support of Experiments (RESC) was launched. Participation of the scientists and experts of Uzbekistan in the programmes of EU-INTARE, CORPENICUS, TACIS, and UNTC becomes more significant, as well as in the bilateral programmes of cooperation with the countries of EU.

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CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

Decision-Making: The Constitution of the country guarantees the rights of the citizens on receiving education. Mass and priority form for Uzbekistan form of covering the population by education, ensuring increase of a level of literacy of the population, is the school education. Children of preschool age are obliged to study from 1 to 9 grades in the various types of comprehensive educational establishments, including special schools for disabled and underdeveloped children.

Since the independence two laws “On Education” (1992) and “On the National Programme on Personnel Training” (1997) have been passed. These laws provide the basis for: creating the conditions of realizing reforms of the educational system of the republic and further development of the sphere of education; and, promoting achievement of the main objective of building the national system of education.

The policy of the Government in the field of financing the education envisages that the state guarantees in the part of: development and functioning of educational establishments of the state subordination; payment for work of the population engaged into the sphere of education according to the existing legislation; and, receiving by the population of obligatory free-of-charge education in the comprehensive educational institutions and in the system of training of personnel on grants with subsidizing of the social support of trainees by means of payment of grants, benefits for accommodation. The schools provide free-of-charge textbooks and school accessories to the first grade pupils and by winter clothes the pupils of the 1-4 grades of the families with scarce means; granting of various privileges, grants and other benefits to the teachers; and, decreasing of the retirement term for 5 years – women from 50 years old and men from 55 years old, payment of complete volume of pensions to the working teachers-pensioners. Great attention is given to stimulation of attraction into the sphere of education of the donor, sponsor, private and foreign investments, formation of the mechanism of granting of the educational credits with a flexible system of their repayment. See also under **Programmes and Projects** and **Status**.

Programmes and Projects: The reform of the system of education is implemented in three directions: preserving of the achieved in the pre-reform period educational level, its transformation in accordance with the new requirements and conditions; and, development, reorganization of all structure and content of education and training of personnel.

The first steps in the sphere of search, further development and effective use of intellectual potential of the nation have been taken, such as establishment of the Republican Scientific-Practical Centre for Gifted Children, special supporting funds “Umid,” “Ulugbek,” “Kamalot,” “Ustoz.” The Fund “Ustoz,” organized with the assistance of the Academy of the State and Public Building under the President of the Republic of Uzbekistan, has elaborated and implemented the educational strategy “Intellectual Corridor,” which includes traditional and virtual libraries, centres of innovation digital technologies for preparation of educational materials. Professional studio on preparation of multimedia materials and clips for the large-scale programmes of ensuring education by domestic highly technological production has been established.

The following has been introduced simultaneously into the system of education: payment for use of textbooks starting from the 2d grade, which provides reduction of the state expenses for these purposes with partial transfer of the saved funds for improvement and development of the logistics of the educational system; and multilevel multi-channel system of financing of education and training of personnel (from the budget and off-budget sources), the mechanisms of provision of financial and economic independence of educational establishments with development of the process of their entrepreneurial, advisory, expert, scientific-production and other activity have been created.

The National Programme on Personnel Training has been approved in the Republic of Uzbekistan. Its unique concept of development of education in Uzbekistan has been forming new policy of the state on development of a qualitative human capacity. The basic objectives of the National Programme have been determined: upbringing of the harmoniously developed personality ready to make a realized choice in his/her life and devoted to the Motherland; and, preparation of a qualified expert meeting the requirements of the modern highly technological production, with wide outlook and potential of knowledge. The introduction of the system of continuous education has been launched as an experiment - from children’s kindergarten up to the high school: special classes for gifted children have been organized in the children preschool establishments and special programmes of individual training for children of school age have been developed. The new types of preschool establishments – home kindergartens, complexes of kindergarten-school, groups in preschool establishments on training children to foreign

languages, ethics, aesthetics and etc are also introduced. Organization of private children's preschool establishments have been allowed by the decision of the Government since 1999, which ensure reduction of pressure on the budget and increase the quality of education in the individual conditions (at present there are only two private kindergartens in Tashkent city). The Institute of development of the secondary special and vocational training develops the standards of secondary, special education, as well as new educational plans, programmes for professional colleges; the volumes of educational hours and a list of subjects on a comprehensive educational cycle, profound and profile training of the pupils and students in the academic lyceums, general technical and special cycle have been determined.

The programmes of the preparation, improvement of professional skills of the pedagogical and engineering-pedagogical staff of the system of secondary special, vocational training (SSVT) up to 2010 has been prepared. The objective of the programme is to ensure the academic lyceums (AL) and professional colleges (PC) by the highly skilled pedagogical personnel meeting the requirements of the state educational standards. The main principles of the programme are as follows: organization of the system training the teaching personnel for educational establishments of the SSVT system in the leading and base higher educational establishments, specialized faculties and faculties of pedagogical, technical, agricultural, economic and medical institutes on 89 directions of vocational training; systematization of the process of continuous increase of professional level of the teaching personnel at the higher educational establishments, involved into training of personnel for AL and PC as well as introduction of their regular certification; introduction of a distance method of training of the pedagogical personnel with wide use of the international information network Internet; use of industrial potential of the enterprises with modern technologies for preparation of the engineering-pedagogical staff, by means of deepening of their cooperation with the base higher educational establishments; introduction into the process of training of advanced international pedagogical experience with the use of modern foreign methodology and expansion of practice of training of the professor-teaching composition of the higher educational establishments and improvement of professional skills of the teachers of AL and PC at the educational centres of the developed countries; creation of the conditions for professional growth and improvement of professional skills of the heads and teachers of AL and PC; realization of regular certification of professor-teaching personnel and provision of the procedure of replacement of individuals on the posts on a competitive basis.

Together with the Asian Development Bank the project of developing the potential of the experts of the base education has been elaborated which includes five components: improvement of an overall performance of the pedagogical and non-pedagogical personnel; expansion of the access to improvement of professional skills by distance education; dissemination of new methods of teaching; strengthening of participation of the society in the life of schools; and, improvement of the conditions of work of the pedagogical personnel.

Status: Since the independence, Uzbekistan has undertaken significant efforts on reforming the system of education, bringing it into conformity with the new market conditions determining the socio-economic development of the country. The decentralization and democratization of the educational system has been carried out. As in all developed states of the world the republic gives a great importance to the sphere of education, further development of educational structures, covering of the population by all forms of education and upbringing by providing protection of the constitutional rights of the citizens on education.

From the point of view of the economy, the actuality of the reforming of the system of education is conditioned by the fact that it is the main base for generating of new products and technologies, introduction of which results in creation of new workplaces and brings additional incomes to the state, raises its competitiveness and promotes its sustainable economic growth.

The important role in the educational system is given to the "human development" stemming from the fact that the basic strategic objective of the given sphere of activity consists of development of an educational level of the population, inheritance and accumulation of the "human capacity," reproduction of scientific knowledge, cultural values and norms.

During the short period of time after the approval of the programme, the Government of the Republic elaborated and approved dozens of regulations determining the structure and content of the educational establishments. In particular, the legal base of development of education has been created, the procedure of educational management has been defined, the rights and duties of the pedagogical employees have been determined, dozens of new textbooks, programmes, manuals have been worked out, and the educational establishments of a new type have

been opened. The established in the republic Academy of the State and Public Building and the Banking Academy play a great role in retraining of personnel

The realization of the National Programme of Personnel Training already gives appreciable results in the reforming of educational system. Carried out structural transformations promote formation of the system of continuous education, which corresponds to the modern global educational systems. According to the global tendencies in the organization of the system of education the borders of the 9 grades school education have been gradually expanded. The result is the increase of the period of training in the academic lyceums and professional colleges, introduction of the two level training – Bachelor and Master of Arts/Sciences - in the higher educational institutions.

The outcomes of the reform, which are the characteristics for all educational levels, may be considered as follows: updating of the content of training and education, introduction of the new and advanced techniques of teaching directed on increase of the quality of education; deepening of psychology-pedagogical training directed on learning the pupils/students, on comprehension of internal logic and laws of the educational process; development and introduction of the state educational standards on various educational levels regulating the necessary requirements to a general educational and professional level of preparation of the trainees, and also the system of parameters and methods of quality control of training and knowledge of the pupils/students; realization of the arrangements on solving the problems of duly provision of educational institutions by the educational, training-methodical literature by means of creation and publishing of new and revised available textbooks and educational programmes for educational institutions and upbringing establishments of the republic, selecting of the authors' collectives and working groups; creation of conditions for organization of competitive environment in the system of education, preparation, retraining and improvement of professional skills of the personnel, in overcoming of deformations in the ratio of certain educational levels, accommodation of a network of educational establishments, caused by former departmental organization of the educational system, first of all vocational training, taking into account local and republican interests; and, realization of the arrangements on introduction of monitoring over development and assessment of the efficiency of continuous education, that will allow to remove disproportions between the structure and volume of training of personnel and the structure and volume of demand on them in the market of labor.

At present there are 9802 comprehensive schools in the republic, including 9726 - daytime, in which more than 6 mln. of trainees are studied. The school education has the structure of 9-year education ensuring the merger of primary and low secondary education into one continuous cycle. At present the continuous cycle of general educational training includes training at 10-11 grades. Since 1996-97 academic year the lessons of teaching reading has been started to be given on a new first reading book, the necessary programmes, manuals, textbooks have been created. The educational plans and programmes on availability of the study of history of the republic have been tested at 315 schools, 16 children's preschool establishments and 21 off-school establishments. Certain schools in the system of school education have been granted the right of independent use of the off-budget funds. By the beginning of 1999/2000 academic year there were 257 establishments of secondary special, vocational training of a new type, including 46 academic lyceums and 241 professional colleges, in which 69,3 thousand pupils were trained, including in the academic lyceums - 9,8 thousand and in professional colleges - 59,5 thousand pupils.

Business-school, professional courses for primary and secondary schools in the sphere of secondary education have been opened, which train new specialties taking into account the requirements of the market economy (such as farmers, tax and customs employees, auditors and etc.). At present Uzbekistan has 61 higher educational institutions, where 183,6 thousand of students are trained. During 1991-2000 the higher educational establishments of the republic prepared 478,6 thousand experts of various orientation. The status of the Pedagogical institutes has been raised; they are reorganized into the universities in the provinces. The Tashkent Islam University has been established in the republic. The modern structure of training the experts of higher qualification on the system of Bachelor Degree with a 4 year term of training and Master's Degree with a 2 year term of further training has been introduced. The higher establishments have been selected which are granted with the right to enroll into the Master's Degree studies.

In order to increase the quality of training in the higher educational establishments the modular principle has been introduced, which is based on constant monitoring of knowledge of the students, allowing carrying out constant control over the process of mastering by them of programmes and independent work. The professional colleges realize the principle of uninterrupted-ness and continuity of comprehensive, secondary and higher education. The qualifying requirements to the graduates of academic lyceums and professional colleges are being elaborated, the

state educational standards and educational programmes have been worked out on all general educational subjects, which passed approbation and are introduced gradually starting from the 1999/2000 academic year.

In order to solve the problems of provision of the educational institutions by the educational, training-methodical literature and new pedagogical programmes a number of measures have been carried out, among which are: selection of authors' collectives and working groups on creation and publishing of new textbooks and educational programmes for educational institutions of the republic, including for academic lyceums and professional colleges; development and introduction into the educational process of the new pedagogical programmes for comprehensive schools, higher and secondary educational institutions. In accordance with the changes, occurring in the republic, in political and socio-economic spheres, the textbooks, programmes on humanitarian disciplines, first of all on history and geography have been revised. The competitions on publishing of new textbooks are being carried out on the line of the fund "Ustoz." During 10 years the enterprises of the State Committee on Printing and Publishing Production Concern "Shark" have issued about 231,4 mln. copies of the textbooks and other educational-methodical literature for educational establishments of the republic, including 224,1 mln. for comprehensive schools of the republic (116,6 mln. – for the primary grades). In the course of implementation of the National Programme for comprehensive schools of the republic 63,4 mln. copies have been issued, including 48,7 mln. of a new content. Thus the share of the new textbooks gradually occupies a dominant place. If in 1998 it made 64,2%, than in 2000 it became 92,7%. On the basis of experimental materials the requirements and contents of the new educational literature for the system of secondary special and vocational training have been formed.

In order to provide the educational institutions of the republic by the qualitative composition of the teachers the rating assessment, certification, preparation, retraining and improvement of professional skills have been introduced in relation to the training of personnel. For 10 years the higher educational establishments and pedagogical schools of the republic prepared 350,6 thousand experts on pedagogics, that is more than 61% of the total number of the pedagogical employees engaged in the system of education and training.

At present the system of education engages 567 thousand teachers, including: children preschool establishments - 64,1 thousand; comprehensive schools - 454,2 thousand; in the system of secondary special and vocational training - 10,9 thousand; technical schools - 16,1 thousand; higher educational establishments - 16,1 thousand. In the system of education 97 % of the working teachers have higher and secondary special pedagogical education.

In realizing the National Programme of Personnel Training the need for the teachers on the new educational structures grows considerably, which requires expansion of the system of their preparation, retraining and improvement of professional skills. During the last 10 years 797,3 thousand teachers of comprehensive schools have improved their professional skills. Simultaneously, the training of teachers with additional specialization on the economic orientation have been accomplished, the courses of improvement of qualification of the teachers on mathematics of economy and entrepreneurship with conferring them of the 2-d specialty are in action.

According to the expert calculations the number of the teachers and engineering-pedagogical employees will make 108 thousand persons by the year 2006, and in the future – about 121 thousand persons. The perspective plan of improvement of professional skills of the employees and teachers of higher and secondary special and vocational training has been realized, according to which more than 200 thousand teachers and engineering-pedagogical employees will have to improve their qualifications till the year 2005. 14 thousand teachers have passed additional training during the period of 1998-2000.

Information: The basic information on development of education in the republic is formed in the statistical bulletins, which are released by the State Department of Statistics of the Ministry of Macroeconomics and Statistics.

Research and Technologies: Within the framework of the State Programme on Localization the researches on use of local materials used in manufacturing of the educational equipment for educational institutions and their components have been carried out. Monitoring of implementation of the National Programme on Personnel Training, which has a research character, is carried out jointly with the missions of the international organizations.

Financing: The progress achieved in perfection of the system of education of Uzbekistan is a consequence of the high national priority of personnel policy of the country and a guaranteed financial support of the state on solving the problems of education. So, despite of financial difficulties in the conditions of transition period Uzbekistan could preserve stable enough share of the state expenditures on education in GDP and total state expenditures. The

share of the expenses on maintenance and development of the system of education in the general national expenditures constituted 20% in 1990, 17.8% - in 1991. During the next years the stable growth of contributed funds is noted: in 1995 -19,4%, in 1999 - 23.8%.

Cooperation: The realization of the National Programme of Personnel Training is carried out with the support of the international and foreign organizations of the World Bank, Asian Development Bank, IANF, GÖZ, ÖACIS, USAID and others. The provided means are directed on development of the process of preparation and retraining of the staff, publication of the textbooks and educational-methodical manuals for provision by them of the educational institutions of the republic, improvement of the logistic base of the educational system, increase of efficiency of the administrative and managerial personnel, introduction of experimental methods with development and realization of the projects of cooperation on these issues.

The World Languages University jointly with the German Institute “Goethe” and the British Council and other institutes hold seminars on drafting of the textbooks and manuals, on exchange of experience.

In accordance with the agreements of the Ministry of Higher and Secondary Education 207 students continued training in 11 leading universities of Turkey, 11 students were sent on internship and practice to the higher schools of Spain, 15 - to China, 10 - to India, 3 - to Italy. The Fund “Umid” trains 19 persons in Japan, who were enrolled in 1998 -10 persons and in 1997 – 9 persons.

ACCELS jointly with the Fund “Umid” trains 50 students of the comprehensive schools and 250 students of the institutes of the republic at the schools and institutes of USA, 42 teachers of the English language improved their skills and obtained certificates, 10 of whom were sent to continue improvement of professional skills to USA.

On the basis of the grants of the Fund “Ustoz” 375 individuals of the professor-teaching composition of the educational establishments of the republic were trained and improved their skills in 25 leading educational and scientific centers of USA, Canada, Germany, France, Great Britain. 270 teachers of professional colleges and academic lyceums, 100 teachers of comprehensive schools are being trained at present at the international centre of South Korea. 40 individuals are studied in Japan and China to get their Master’s Degrees.

The role of financial support is being strengthened from the part of certain international organizations as technical assistance for publishing of educational literature with development of polygraphic base in the republic, technical equipment of the educational institutions, first of all of new structures – academic lyceums and professional colleges, improvement of professional skills of the pedagogical staff and etc.

The credit of the Asian Development Bank was received to equip with modern educational-laboratory equipment of the academic lyceums and professional colleges created in 1998-2000 for US\$ 57mln. and from the Republic of Korea – US\$ 35mln., the issue of obtaining a grant from Japan Government on US\$ 58mln. has been worked out.

Within the framework of the project of the Asian Development Bank the equipment by the educational-laboratory and special equipment of 3 academic lyceums and 42 colleges on the total of US\$ 41mln. has been envisaged. At the expense of the credit of the Republic of Korea it is planned by educational equipment 200 academic lyceums and professional colleges on the total amount of US\$ 32mln. The credit of the Japanese Government will be allocated on equipment of 50 professional colleges of the agricultural orientation by engineering, mechanical and special equipment on the total amount of US\$ 51mln. The total amount of foreign investments on equipment of lyceums and professional colleges, organized in 1998-2000, constitutes US\$ 114,3mln.

The work on equipment of 5 educational establishments on the account of the grant of the Government of Germany is being carried out.

The deliveries of educational literature through the funds “NİDÂN” and “PERCA” are being accomplished as the humanitarian help for the institutes and special secondary establishments, on the other funds – audio and video materials; the grant on US\$ 50 thousand on purchase of the educational literature on technical disciplines has been received.

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CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES.

Decision-Making: Formation of optimum policy and solution of the issues on international cooperation for sustainable development is carried out by the Cabinet of Ministers of the Republic of Uzbekistan through the Department on Coordination of Foreign Economic Activity, Ministry of Foreign Economic Relations, Ministry of Foreign Affairs, Ministry of Macroeconomics and Statistics, Ministry of Finance and National Bank, which are engaged in developing the proposals on the external economic policy and perfection of the normative base related to this sphere of activity.

The National Strategy of Sustainable Development of the Republic of Uzbekistan (1999) determined the basic principles of further development of the international cooperation and deepening of integration of the country into the world community which are as follows: priority of the national interests; equality and mutual benefit in deepening of cooperation in all areas of policy, economy and culture; openness for cooperation irrespective from the ideological beliefs and political structure taking into account ensuring of peace and safety; obligations to observe the established international norms and rules; development of cooperation on the basis of bilateral and multilateral agreements; and, combination of both long-term and current priorities.

Development of the international cooperation, activity and realization of the arrangements on achievement of sustainability of the international and regional level is carried out within the framework of the laws, passed by the republic, "On Foreign Economic Activity" (new language - 2000), "On Customs Tariff" (1997), Decrees of the President and Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan, Agreement on creation of the Single Economic Expanse between the Republic of Kazakhstan, Republic of Kyrgyzstan, Republic of Tajikistan and Republic of Uzbekistan - "Central Asian Economic Community" (CAEC, 1994); multilateral agreements on solving the problems of the Aral Sea, approved by the Decisions of the Heads of the states of Central Asia.

Programmes and Projects: See under the heading **Cooperation** in the various chapters of this Profile.

Status: The necessity of entering into the single global economic system Uzbekistan considers as a priority in formation of the external economic policy. Establishment between the states of a regime of free commerce is one of the basic approaches of its realization. The Government makes the efforts on perfection of the institutional and structural regime with the purpose of elimination of trade barriers both at the regional and international levels. The independent activity of Uzbekistan, at the national level, as a subject of international law has been started since 1991. During the years of independence of 1991-2001 the international authority of Uzbekistan has been raised and strengthened, its role and participation in the world community became more active.

The progress achieved during this period can be considered on such aspects as: the legal basis of the international cooperation, and also national structures ensuring fully-fledged participation of the republic in the international cooperation, has been created; the diplomatic relations have been established with 110 countries of the world. Active cooperation with the International Monetary Fund, World Bank, International Financial Corporation, European Bank of Reconstruction and Development, Asian Development Bank is constantly developed. There are more than 90 foreign representations in the republic, as well as various international intergovernmental and non-government organizations; and, the commercial-economic relations have been established with more than 140 countries of the world, 38 of them are on mutually beneficial basis when the most favorable regime is granted. Mutually advantageous and long-term relations are established with such developed states as USA, Japan, Germany, Great Britain, France, Republic of Korea, China and etc.

Speaking about foreign trade regime it should be noted that export-import regime has been completely liberalized: the export customs duties on all kinds of goods and services are abolished, the system of licensing and quotation of export has been brought into conformity with the international requirements; the country does not have quantitative restrictions of import, the maximal rate constitutes, as a rule not more than 30%, and the average weighted rate of the import duties makes up 4,8% that also corresponds to the international norms;

The process of entering WTO as a fully-fledged member is being considered. The republic of Uzbekistan, having received in June 1994 the status of an observer in GATT/WTO, carries out a systematic work on the issues of entering WTO. The Interdepartmental Commission on the work with the World Trade Organization headed by the Prime Minister of the Republic of Uzbekistan, the structure of which includes the representatives of the Ministry of

Foreign Economic Relations, Ministry of Macroeconomics and Statistics, Ministry of Finance, State Tax Committee, other ministries and departments, was established in 1998 by the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan. According to the established procedure of WTO Uzbekistan has presented to its Secretary the Memorandum of regime of foreign trade of the republic for discussion by the countries-members of WTO.

The first stage of structural transformations was characterized by formation of import-substituting structure of production with raw orientation of the export. However the strategic directions of further transformations have predetermined the necessity of formation of export-oriented economy. In the structure of foreign trade turnover the share of export-import transactions with foreign countries constitutes more than 70%. In 2000 the volume of import in comparison with 1999 made up 94.7%, and export - 100,9%. The share of foodstuffs has been reduced in the structure of import and the deliveries of the goods of technical orientation have been raised. The share of cotton fibre in the structure of export has been reduced owing to increase of the volumes of deliveries to the market of ready-made products.

Information: The wide information field about the condition of political and investment climate in Uzbekistan is considered as a mechanism for decision-making process on development of the international cooperation. Therefore the Government undertakes significant efforts for ensuring a wide informing of the international financial and economic institutes, foreign banks and representatives of business circles about the condition of the investment climate in the country – the Resolution “On the measures on perfection of information provision for attraction of foreign investments” was adopted in 1999.

The issues of creation of the National Centre on development of foreign trade and support of the exporters, the main objective of which will be provision of the information on international cooperation of the republic, adaptation of the local producers and their products to the conditions of tough competitive market and requirements of the international standards, search of the potential business partners, creation of the system of information support of the exporters, are in the process of consideration. Similar centres should be created in all provinces of the republic.

Research and Technologies: No information available.

Financing: In the Republic of Uzbekistan the most important programmes and projects, including multilateral financing for cooperation on sustainable development, are carried out within the framework of wide technical and financial cooperation with such countries as Japan, Germany, France, Switzerland, Korea, USA, and also with the assistance of the UN, IBRD, EBRD, ADB, WHO, USAID, TACIS and etc.

The Investment Programme of Uzbekistan envisages active use of commercial foreign credits, own resources of foreign companies and firms, that indicates to the process of strengthening of the international cooperation.

Cooperation: See under the heading **Cooperation** in the various chapters of this Profile .

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CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

This issue deals mainly with activities undertaken by the UN System.

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CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Decision-Making: The Cabinet of Ministers coordinates and controls the execution of the actions of appropriate executive agencies on implementation of the international obligations. The competence of the Ministry of Foreign Affairs includes the observation of execution of the international agreements of the Republic of Uzbekistan. The mechanism ensuring coordination of actions of structural divisions at the international (regional), national and local levels have been worked out.

The national policy and strategy with regard to the international cooperation on sustainable development and strengthening of ecological potential of the country is built according to the principles of the RIO Declaration and Global Agenda 21. As the subject of the international law Uzbekistan has joined such international institutions as UN, OSCE, and is a party to the majority of the conventions on environment and sustainable development, considering them as effective international legal instruments and mechanisms. The development of the national legislative base promotes implementation of the obligations taken by the republic on the Conventions and Agreements. The procedure of concluding international agreements and mechanisms of decision making process are regulated by the Law of the Republic of Uzbekistan “On International Treaties of the Republic of Uzbekistan” (1995), which establishes the procedure for concluding, execution, termination, suspension and denunciation of the international agreements. International agreements are accomplished in accordance with the Constitution of the Republic of Uzbekistan and generally acknowledged principles and norms of the international law. With the purpose of implementing the programme of actions on ensuring the execution of the Presidential Decree of the Republic of Uzbekistan “On the measures of implementation of the programme on liberalization and deepening of the reforms in political, economic and spiritual spheres of the society, ensuring safety of the country,” dated 2 June 2000 under # UP-2612, the “Regulation on the procedure of preparing the drafts of international agreements of the Republic of Uzbekistan and control over execution of the obligations of the Republic of Uzbekistan on international agreements” has been elaborated.

Programmes and Projects: The main directions of the actions, the realization of which ensures implementation of the obligations taken by the country on the indicated International Conventions, Agreements, Protocols, are formulated in the national programme documents adopted in 1992-2000: the Concept and National Strategy of Sustainable Development, Basis of the Agenda for the 21 century for the Republic of Uzbekistan (1999), National Action Plan on Environment Protection (1999); National Programme on Termination of the Use of Ozone Destroying Substances (1998); programme of survey of the country concerning climate change and development of measures on prevention of possible consequences (1999), Strategy on Reduction of Emission of the Greenhouse Gases (2000); Programme of measures on combating desertification (1998); National Action Plan on environmental hygiene (1998); National Strategy and Action Plan on Preservation of Biological Diversity (1998); and also agreements, contracts and projects of the regional level.

UN Frame Convention on Climate Change: Related programmes and projects include:

- UNDP/GEF project (1996-1998): “Uzbekistan – Country Survey on Climate Change”;
- R&D of: anthropogenic influences on climate system, analysis of climate changes; determination of the consequences of climate change for Uzbekistan, approaches for evaluating the vulnerability of the water and land nature resources; priority measures on mitigation of the negative consequences of climate change; a network of the national experts on the problems of climate change.
- World Bank/Government of Switzerland project “Studying of the National Strategy of Uzbekistan on reduction of emission of greenhouse gases” (1998-1999): the National Strategy and plan of arrangements for 2000-2010 have been elaborated with regard to reduction of emission of greenhouse gases (approved by the Resolution of the Cabinet of Ministers dated 9 October 2000, ¹ 389); substantiation of expedience and perspectives of implementing the projects on MCD by branches of economies has been prepared for expanding the spheres of the international cooperation on the issues of climate change as a whole, as well as on the issues of trading by off-setting of emissions;
- State Programme on Provision of Rural Settlements by Drinking Water and Natural Gas for the period of 2000-2001 State Power Programme up to 2010; programme of development of production of the electric and heating power up to the year 2005; and, programme of development of small hydroelectric power industry.

UN Convention on Combating Desertification: The State Programme on Soil Improvement of the Irrigated Lands for the years of up to 2010. The work on elaboration of the project proposals is in the process of finalization; Autonomous solar energy system; System of early forecast of droughts; Elaboration of action plan on organization of monitoring of desertification, salinization and droughts on the example of Bukhara province; Restoration of deserted eco-systems of Kyzylkums on the basis of optimization of forest-agrarian eco-systems and formation of ecological shell; Ecological problems of development of irrigated land cultivation in Samarkand province; Artificial dews as a source of additional waters in the regions with water resources deficit; and, Selection and dividing to rayons (planting) of species of tree for protecting from desertification in the Aral Sea region.

Convention on Preservation of Biodiversity: Within the framework of the Programme of scientific-technical, normative-methodological works, nature protection and organizational arrangements, financed at the expense of the Republican Fund for nature protection, the following is being carried out through: the publishing of: *Red Book of Uzbekistan* (Volume I - Flora, Volume II- Fauna), album "Rare and Disappearing Types of Insects of Uzbekistan," the works of the nature reserves of Uzbekistan, *Fish Manual of Uzbekistan*, and, booklet-poster "Nature Reserves of Uzbekistan"; on development of the nursery for wild animals "Saykhun" and Gissar State Nature Reserve; the drawing up of the General Scheme of development and allocation of the especially protected natural territories (Institute of Zoology of the Academy of Sciences); the preparation of the State Programme of scientific researches in the especially protected natural territories; and, the project GEF/UNDP on creation of Kyzylkum-Nurata Biosphere Reserve.

Vienna Convention on Protection of Ozone Layer: Within the framework of the programme GEF/UNDP on implementation by Uzbekistan of the quantitative obligations and terms of gradual of withdrawal from production and use of ozone destroying substances (ODS) with further complete refusal of consumption (Resolution of the Cabinet of Ministers "About the measures on implementation of the international obligations of the Republic of Uzbekistan on the contracts in the sphere of protection of ozone layer" and "On regulation of import to the Republic of Uzbekistan and export from the Republic of Uzbekistan of ozone destroying substances and products which contain them" ((2000, 120, 190) the following projects are implemented: Introduction of the programme of extraction and repeated use of coolants in cooling branches; Promotion of development and dissemination of ozone-safe technologies; and, Training to monitor and control the importation of ozone destroying substances.

Status: For the period of 1992-2000 a certain progress on implementation of the taken obligations connected with these Conventions has been achieved.

UN Frame Convention on Climate Change: the national policy on reduction of negative anthropogenic influence on the climate and coordination of actions on its realization have been formed; measures on preventing unfavorable consequences of climate changes for development of the economy of the country and environment are in the process of elaboration; a complex of arrangements on stabilization of concentration of the greenhouse gases in the atmosphere at a safe level is being implemented; and, the system of monitoring over the process of climate change and the ir consequences is being developed.

UN Convention on Combating Desertification: The complex programmes have been realized on prevention of further degradation of lands, restoration of fertility of ploughed lands, productivity of pastures and haymaking; the complex arrangements have been carried out on ensuring rational water use with the purpose of sustainable development of the agriculture; the legislative and normative base, development of economic mechanisms for stimulating the rational nature use have been perfected; and, the system of information, ecological education on the problems of desertification, monitoring over the development of the process are being developed.

Convention on Preservation of Biodiversity: The complex of measures on rationalization of water distribution and water use are being implemented, as well as on regulation of the regime of running of distant-pasture cattle rearing, withdrawal from usage of toxic pesticides and development of biological measures of protection of plants and forests; and, the management of especially protected natural territories – nature reserves, nurseries and etc., which at present occupy 4,6 % of the territories of the country, has been perfected.

Vienna Convention on Protection of Ozone Layer: The qualification of the experts engaged in installation, repair, servicing of all kinds of cooling machinery and units of air-conditioning with the use of ODS and their substitutes is being raised; and, the works on extraction and recycling of coolants HFU-123 with the purpose of reduction of their importation into the republic are carried out, the level of technical provision of the special services accomplishing these works is being increased.

Despite of the advanced nature of the issues on implementation of the taken obligations, the problems impeding the realization in full of the arrangements envisaged within the framework of the National Programmes and Plans on

implementation of the UN Convention on Environment and Development are as follows: insufficient level of development of the international administrative regulating rules and guiding documents on implementation of certain provisions of the UN Conventions; absence of international efficient bodies, which would render advisory support to the corresponding national institutional structures; absence of a complex ecological monitoring on climate, processes of desertification at the national and regional levels on the countries of Central Asia as well as the single system of informational exchange; imperfect nature of evaluation of the market ecological cost of nature resources – biological, land, water, atmospheric air and etc.; and, non-fulfillment in full by the developed countries of the recommendation of the Global Agenda-21 on transfer of clean technologies and financial support to the countries with transition economies.

Capacity-Building, Education, Training and Awareness-Raising: According to the recommendations of the Conference UNNED (Rio-92) and provisions of the UN Frame Conventions the institutional structure has been established in Uzbekistan, which is presented by the National Commissions, Coordination Groups, Information Centres. The composition of these structural subdivisions includes the heads of the ministries of: Macroeconomics and Statistics; Agriculture and Water Economy; Power; Finance; and, Foreign Affairs, Main Department on Hydrometeorology, and, the state committees on: Nature Protection; and, Sciences and Techniques.

The network of the national experts on the problems of sustainable development has been established. The representatives of scientific and business circles from various regions of the country, major scientific and international experts on the problems of ecology and sustainable development, representatives of non-governmental organizations of various orientations are involved in the work both of structural subdivisions and in elaboration of the National Action Programmes. Such wide representation became a guarantee that the Action Programmes were developed on a multi-sector basis and are the concrete mechanisms of realization of the National Strategy, Plans and Programmes directed on implementation of the taken obligations on corresponding Conventions.

Information: The organizational structure, formed in the republic in connection with the necessity of coordination of the works on implementation of the corresponding Conventions, recommendations and programmes of the Agenda-21, is an important mechanism in the progress to sustainable development of the country, promoting the dialogue between the management and executive bodies and a wide circle of public structures.

Special information programmes and courses functioning in the country on all stages of the educational system have been developed for creation of the information field on various aspects of sustainability, as well as on the issues relating to implementation of the obligations on conventions, as well as the programmes and plans of joint actions with the representatives of a wide circle of public structures - NGO, bodies of local self-management. The obligatory representation of non-governmental organizations of various orientation, youth and public organizations, mass media in the work of the educational and thematic seminars and meetings on the problems of environment and sustainable development is being ensured.

The specialists and experts together with the representatives of mass media develop thematic newsletters, radio and TV programmes, and prepare series of printed articles.

Research and Technologies: No information available.

Financing: Implementation of the taken by the Republic obligations on the Conventions: on climate change, on combating desertification, preservation of bio-diversity, prevention of destroying of ozone layer and etc., is being accomplished by means of implementation of the above-mentioned Programmes and Projects. The structure of financial resources for them is being formed at the expense of: funds of the federal and local budgets, including ecological fund; grant assistance of the international donor organizations – UNDP, GEF, UNEP, World Bank, and others; direct support of the Governments of a number of developed countries (Switzerland, Holland, Japan, Finland and others).

Cooperation: See under the heading **Cooperation** in the various chapters of this Profile.

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CHAPTER 40: INFORMATION FOR DECISION-MAKING

Decision-Making: The central body of the executive authority accomplishing management and carrying out of gathering, analysis, management of a flow and dissemination of the state statistical information is the State Department of Statistics under the Ministry of Macroeconomics and Statistics of the Republic of Uzbekistan. The coordination of the works on creation and use of information technologies and information is carried out by the State Committee of the Republic of Uzbekistan on Sciences and Techniques. The procedure of preparation of the coordination and making decisions of the Government on socio-economic development is determined by the Rules approved by the Resolution of the Cabinet of Ministers. The Ministry of Macroeconomics and Statistics and the State Nature Protection Committee of the Republic of Uzbekistan are in the list of the ministries and departments, with which the coordination of any project or decision of the Government on socio-economic issues is obligatory, which ensures integration of solving the issues of development and environment.

In 1993 Uzbekistan adopted two basic laws regulating the issues of gathering, analysis, management, dissemination of the information, development of information technologies and networks. They are the laws "On the State Statistics" and "On Information." In 1996 the Government adopted the Resolution "On new approaches to summarizing the results of the socio-economic development and evaluation of the process of reforms in the Republic of Uzbekistan," which determines the system of indices for evaluation of the condition of economy, socio-economic results, carried out reforms and the degree of sustainability of development at the state, provincial and regional levels. The laws "On mass media," "On guarantees and freedom of access to information," "On guarantees of journalistic activity" will receive further development in the process of strengthening of democratic freedoms of the society.

Uzbekistan became the first country among the NIS countries, which founded the post of Ombudsman within the framework of the Parliament. However it is necessary to create an institution of the representatives of Ombudsman in each region of the country to strengthen the legal status according to the international standards.

Programmes and Projects: Within the framework of the TACIS programme and with the assistance of the Federal Statistics Department (FSD) of Germany the programme of measures on development of the system of dissemination and publication of the statistical information has been realized in the republic: the system of publications has been created, the uniform standards of publications have been introduced, the system of communication with the users of informational-printed production has been formed. Besides within the framework of the TACIS programme and with assistance of the Central Bureau on Statistics (CBS) of the Netherlands a number of special programmes has been elaborated: "Register of Enterprises," "Statistics of Enterprises - Retail Trade" and others. The "Programme of modernization and development of the national network of data transfer of the Republic of Uzbekistan for the period of 1999 - 2003" is being implemented at present. The structure of the National network of data transfer is being built at 3 levels in accordance with this programme: republican, provincial and regional. The programme is planned to be implemented in 3 stages:

I stage (1999): modernization of the existing network UzPAK, provision of the centralized entering of the networks of data transmission providers to the global information networks, including the Internet, and also regulating the use of the communication channels, including satellite. In 1999 the Centre on management of the national data transmission network was established.

II stage (1999-2001): installation of the regional units of the network and inclusion of all regional centres into the network, organization of electronic exchange at the level of republican centre-provincial centres. The following is envisaged at this stage: Modernization of the network of data transmission in Tashkent city with the use of modern network technologies of Frame Relay with the prospect of transition to the ATM technology on 650 ports; Modernization of the data transmission networks at the provincial level with installation of regional units of the network in Samarkand, Bukhara, Namangan cities on the network technologies of Frame Relay with the prospect of transition to the ATM technology by capacity of 950 ports. By this the existing network UzPAK is used at the same time with the purpose of reserving communications; Creation of the automated system of settling accounts with the users and the system of technical support (Helk Desk) of the enterprise UzPAK and the service UzNet; and, Expansion of the interdepartmental information-computer network UzNet.

III stage (2000-2003): inclusion into the network of all regional centres, organization of an electronic exchange at the level of the republican centre-provincial centres-regional centres. At this stage the creation of networks of data

transmission at the level of regional centres with the use of network technologies of Frame Relay X. 25 with organization of 4800 ports is envisaged.

The complete realization of the programme will allow to ensure the growth of the volume of data transmission services in 20 times during 4 years and to increase the number of users almost in 12 times.

See also under **Status**.

Status: The sources of information for decision making are: materials of the state statistical reporting, data of observations and monitoring of the environment, results of the scientific research works and others. The information field on the condition of the environment and nature protection activity is formed on the basis of such information blocks as: National statistics; Information on observation of the condition of water and land resources, atmosphere (including Cadastre of greenhouse gases) is formed at the Main Hydrometereological Department; and, Block of the departmental information of ecological orientation (including Cadastres on appropriate natural spheres) is formed at the State Nature Protection Committee, Ministry of Health, State Land Committee, State Geology Committee, branch ministries and departments.

In the long term it is planned to expand the list of cadastres and improve their structure. Their total number will make more than 30 types. The Single Service of the State Cadastres (SSSC) has been established under the Cabinet of Ministers on the base of "Uzgeodazkadastr."

The bodies of the State Nature Protection Committee in the provinces accomplish the supervision over observance of the nature protection legislation, work in close contact with the public inspectors on nature protection. On the basis of the analysis of the being formed ecological situation the State Nature Protection Committee prepares and submits for consideration of the heads of the republic (local bodies of management) the proposals on the necessary development of the nature protection actions.

Generalization and analysis of the information on economic, social issues and on its basis preparation of proposals for the persons making decisions (Cabinet of Ministers, local bodies of authority and management) are carried out by the Ministry of Macroeconomics and Statistics.

NGOs, as a form of representation of the civil society, help to strengthen the ties between the state and individuals, fulfill the functions of conductors of the initiatives and opinions of the population. Uzbekistan has a rich historical experience of the civil unification in the form of such institutions as "Makhallya," "Djura" (association of men), associations of foremen-handicraftsmen, village meetings.

During the years of independence more than 2,300 NGOs, including 7 national cultural centers, 20 funds and charitable organizations, more than 40 women organizations have been created in the republic; more than 30 NGO have ecological orientation.

Capacity-Building, Education, Training and Awareness-Raising: The Government of Uzbekistan as the subsequent measures, the realization of which will promote liberalization in the political sphere, envisages to create conditions and to ensure the following: partial transfer of authority from the central bodies of management to local ones, from the governmental organizations to non governmental ones; active participation of political parties and public organizations in the legislative process; and, granting of greater independence of the legislative authority while implementing its activity. The analysis of the development processes of achievement of sustainability of the country will be carried out on the basis of integration evaluation of the data in the sphere of ecology and information on socio-economic development of the country, taking into account the introduction into the national statistical structure of additional indicators on sustainable development.

Recently adopted resolution of the Cabinet of Ministers determines a complex of measures on development of a computer network, provision of a wide access and participation of the network Internet. It will serve the development of the national monitoring system and formation of a large scale information field, access of the public to information on all aspects of development.

In 2001 one more step on development of the national information sphere was taken. The "Programme of Development of Computer and Information Technologies for 2001-2005" is under consideration of the Government. Its basic components are: wide introduction of modern computer and information technologies in the branches of economy, in the educational process of comprehensive schools, colleges and lyceums, higher educational establishments, development of the appropriate educational standards; increase of the level of organization of preparation in the higher and secondary special educational institutions of the republic of the highly skilled programmers and experts in modern computer and information technologies; creation of high-rank colleges

on preparation of the experts in the field of software, computer and network equipment, digital telecommunications; provision of a wide access of the educational and research establishments, enterprises and organizations of the republic to the international information networks, including the Internet; development of the proposals on localization of production of equipment and technical means in the sphere of computer and information technologies; and, further perfection of the normative-legal base in the sphere of computer and information technologies.

The created mass media are mostly printing-information bodies of the state structures and public organizations. 25 regional television studios, two private newspapers, two non-government radio stations have been established lately.

Information: The source of the information for decision making is the materials of the state statistical reporting, data of observations, researches, results of monitoring of environment and etc.

The Law "On the State Statistics" was passed in 1993 in the Republic of Uzbekistan according to which the Central body of the executive authority carrying out management in relation to gathering, analysis, management and dissemination of the state statistical information is the State Department on Statistics of the Ministry of Macroeconomics and Statistics of the Republic of Uzbekistan (MMES). The branch departments of the MMES on the regular basis prepare analytical information and reports on occurring socio-economic processes for the decision making persons.

The national system of indicators of sustainable development (SDI) was formed during the period of development of the Strategy of Sustainable Development (1999) and which completely corresponds to the elaborated national policy, achievement of the set objectives for perspective.

Research and Technologies: In 1999 the Government adopted the resolution "On the programme of modernization and development of the national network of data transfer of the Republic of Uzbekistan for the period of 1999-2003," and in May 2001 - "On the measures of organization of development of the programme of development of computer and information technologies for 2001-2005, ensuring a wide access to the international information systems."

In order to develop and improve the methods of data gathering on a regular basis on the state statistical-information system it is envisaged to: use new technologies of gathering the information - high-speed channels with the use of the protocols of combining digital, audio- and video information, use of general republican opto-fiber network of communication; and, formation of the single information-analytical base on priority directions of the activity in relation to the achievement of sustainability on the countries of the Central Asian region: preparation of the reviews on regional problems of ecology (especially in the Aral Sea region), evaluation of sustainability of use of land-water resources, institutional development and etc.

For improvement of the methods of assessment and analysis of data the State Department on Statistics within the framework of the TACIS programme, with international assistance as follows:

The Central Bureau of Statistics of the Netherlands: developed taking into account the national specificity and introduced into effect the programme "Register of Enterprises." Thus it was ensured the creation of the database of the Single State Register of Enterprises and Organizations. This allowed to improve the accounting of the economic subjects on the basis of the single principles of identification, ensure the process of actualization of the database; carried out within the framework of the project "Statistics of the Enterprises - Retail Trade" the development of the functioning of the system of statistical accounting of the activity of the small sector of economy including software products of input, processing, analysis of the data and output of the results of observations; methodical base for survey of the major and medium sized enterprises, informal sector of the economy; and, within the framework of realization of the project "Statistics of Foreign Trade" prepared functioning of the system of accounting of foreign trade operations approached to the international practice. The international classifiers of the commodity nomenclature of foreign economic activity, the single classifier of the countries and currencies for information processes were introduced;

The Statistics of Italy: developed the basis of methodology of the national statistics of tourism in accordance with the requirements of the international standards.

The World Bank: In 1998 the World Bank provided Uzbekistan with the grant for rendering support to institutional changes in the statistical system of the country. The basic directions of the activity, which is carried out within the framework of the programme actions, are as follows: creation of the system of national accounts, perfection of the

methodology of formation of its structure and functioning stemming from the national peculiarities of economic and institutional development of the country; at the expense of the loan of the World Bank (¹ 3650-47, 2000) a complex of measures directed on institutional development of the system ensuring formation of the national information field on the basis of gathering of the authentic and internationally comparable data on the standards of living of the population has been implemented.

FSD of Germany: The project implemented with the FSD of Germany “Dissemination and publication of the statistical information” is directed on formation of sustainable channels of communication of the structures of formation of the information with its direct users at the local, national, regional and international levels;

Increase of the level of logistic provision of the statistical-information services of local level both at the expense of the funds of the federal budget and the funds of the local bodies of management promotes improvement of information services at the provincial and national levels, including in rural area.

The main directions of the activity on the grant of the World Bank “Support of the institutional changes in the statistical system of the country” are envisaged as rendering of consultative services by the international experts on strengthening of the national potential of formation and dissemination of the information on the basis of integrated use of traditional methods and knowledge and know-how.

The opportunity of increase to a certain extent of the speed of data exchange with the territorial divisions (up to 64-2048 Kbyte/sec) by means of transition from the switched channels of communication to the allocated high-speed channels with the use of modern protocols of combining of digital, audio- and video-information has been studied; the most perspective variant seems to be the use of general republican opto-fibre network of communication.

Financing: The State Department on Statistics of the MMES develops the cooperation and receives the help on the line of the international and foreign organizations as grants and funds allocated on the TACIS programme for support of the countries with transition economies in the field of statistics; the volume of the grant of the World Bank (UZ-27198) and the loan of technical assistance for the institutional development (¹ 3650-47) makes up US\$ 560 thousand.

Within the framework of preparation of the programmes on realization of the Strategy of Sustainable Development, obligations taken on the UN Conventions on environment the appropriate national structures attract the funds of federal and local budgets, funds of the international donor organizations for development of the information system of ecological orientation.

Cooperation: The Government of Uzbekistan as the subsequent measures ensuring development of liberalization in the political sphere envisages: partial transfer of authority from the central bodies of management to local, from the governmental organizations to non-governmental ones; provision of active participation of the political parties and public organizations in the legislative process; and, granting a greater independence of the legislative authority while accomplishing its activity.

The expansion of the volumes of cooperation of the State Department on Statistics is envisaged in Uzbekistan with such international organizations as Statistical Department of the European Union, FSD of Germany, SSI of Turkey, CBS of the Netherlands, Statistics of Italy and others with the purpose of introduction into the practice of information-statistical research works of the international standards, strengthening of the national potential of formation and dissemination of the information on the basis of integrated use of traditional methods and knowledge and know-how.

See also under **Programmes and Projects** and **Research and Technologies**.

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CHAPTER: INDUSTRY

Decision-Making: In 1996-1997 the power independence was achieved. The Government has begun the decision of the issues of optimization of the branch structure of economy as a whole and industry in particular. According to it in 2001 the Government prepared long-term strategy of structural transformations of economy, state investment, scientific and technical and innovation policy. The main task, which should be solved, is to carry out a consecutive transition from agrarian-industrial to industrial-agrarian economy with prevalence of processing industry capable to ensure the needs of the population basically at the expense of own production.

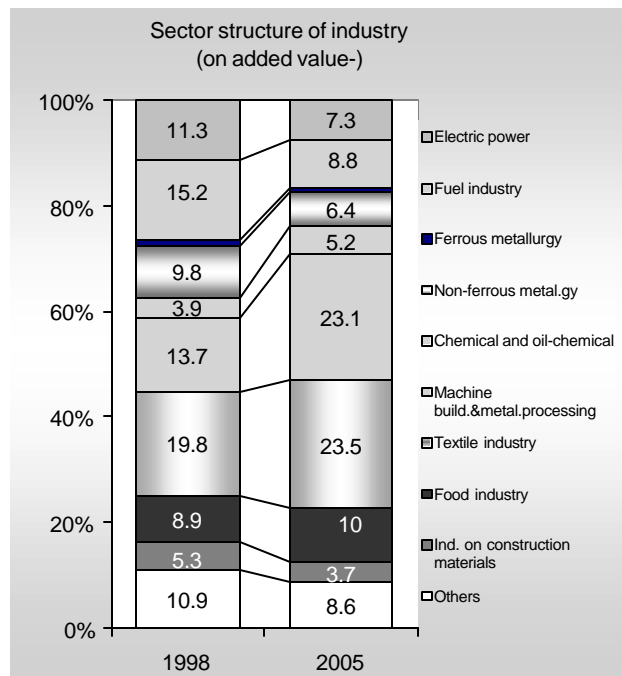
Programmes and Projects: The objectives of programme to restructure the republic's industry is to achieve highly technological, export-oriented productions, competitive advantages in the external market and sufficient capacities on profound processing of the richest mineral-raw resources and agricultural raw materials, which are available in Uzbekistan. Based upon the decision of the Government (Resolution of the Cabinet of Ministers ¹ 517, 2000), under the guidance of the Ministry of Macroeconomics and Statistics, the following programmes and projects are being prepared regularly: intermediate forecasts of structural transformations of the economy envisaging perfection of reproduction, branch and territorial proportions (once per two years); programmes of development of branches and inter-branch complexes on modernization and technical re-equipment of base branches on the basis of advanced resource-saving and ecologically acceptable technologies (annually); investment programmes for a mid-term period (3-5 years) taking into account realization of the basic priorities and strategic tasks of structural transformations; and, schemes of development and allocation of production forces on mid-term period (once per two years) envisaging: rational use of mineral-raw, labour, land and water resources; perfection and development of infrastructure, accumulated industrial and intellectual potential; stable inflow of foreign investments to the regions of the republic; development of competitive environment; outstripping development of small and medium-sized businesses; and, complex socio-economic development of the territories.

Status: The branch structure of the industry with its outdated technical basis, which basically determines costly, not effective model of consumption of the national economy, forces the Government to search constantly for the decisions on mitigation of the situation. Until recently it had been necessary to decide two contradictory tasks. On the one hand, it was necessary to stimulate development of the branches with low power- and material-intensity, from the other hand - the urgent necessity of achievement within rather short period of power independence required to direct significant investments into power sector to the detriment to the other sectors of economy. It resulted in more loading of the branch structure, increase of power- and material-intensity of the economy.

For 10 years (1991-2000) the volume of industrial production has been increased in more than 1,2 times, thus a share of added cost of produced by the industry in the gross domestic product (GDP) has decreased from 26,3% in 1991 to 13,8% in 2000. In the same time the specific weight of power-intensive branches (electric power

industry, fuel industry, metallurgy, chemical and oil-chemical industry, industry of construction materials) has increased in the structure of industry for this period from 25,5% up to 45,5%.

According to the forecast calculations in 2001-2010 the volume of industrial production should increase in 2-2,5 times. The processing branches will be developed by accelerated speeds, the average annual growth rates of which will constitute 13-15% in 2006-2010 in comparison with 4-6% in the extracting branches. Machine building (3,0-3,5 times), textile (2,4-2,6 times) and food-processing industry (1,8-2,0 times) will get the most accelerated



development. In the machine-building complex, by reducing the scales of production of the branches with high degree of dependence on import of raw materials for furnishing items, the priority ones will be the growth of production of agricultural machines, mechanisms, aircraft construction, automobile industry, radioelectronic, electrotechnical, ensuring own needs and entering the global markets. The share of machine building in the volume of industrial production should increase from 13% in 1998 up to 20% by the year 2010.

Capacity-Building, Education, Training and Awareness-Raising: See Chapter 4-Energy of this Profile.

Information: Statistical information on the condition of the industry of Uzbekistan is formed at the State Department on Statistics, provincial (regional) departments and in accordance with the Law “On the State Statistics” it may be provided to the interested organizations.

Research and Technologies: The researches and scientific substantiations of the directions of effective development of the industry are carried out by the Centre of Effective Economic Policy under the Ministry of Macroeconomics and Statistics. The technological elaborations are carried out mainly by own forces of the companies. The basic source of technological modernization of the industry is the import of technologies preferably in the form of creation of joint productions with the leading companies of the industrially developed countries of the world.

Financing: The programmes of restructuring the industry are funded by different sources: budget, internal savings, and foreign credits. In 2000 from the total volume of capital investments, which were estimated in 696 billion of Soums, 56% was directed to industrial construction, including 31% on development of the industry. The share of foreign investments and credits in the total volume of capital investments has increased from 16,1% in 1996 to 21,7% in 2000.

Cooperation: The Government cooperates actively with the World Bank, IMF, EU, EBRD, ADB, while selecting the strategy of industrializing of the economy and substantiating concrete actions on restructuring the industry. See under the heading **Cooperation** in chapters, 2-Trade, 4-Energy, and 4-Transport of this Profile.

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CHAPTER: SUSTAINABLE TOURISM

Decision-Making: With the purpose of promoting the expansion and strengthening of interethnic relations and integration into the international tourist market, increase of professionalism in the matter of propaganda of cultural-historical and spiritual heritage of Uzbekistan in the world community, and also increasing the quality of servicing of the tourists up to the level of the world standards, the Decree of the President of Uzbekistan in 1999 authorizes the Programme on Development of Tourism in Uzbekistan for the period of up to 2005. This document also approves the establishment of the Coordination Council on realization of the programme, which was headed by the Deputy Prime Minister, one of the State Advisers of the President and Chairman of the National Company “Uzbektourism.” The composition of the Council includes the heads of the Ministry of Finance, Ministries of Internal and Foreign Affairs, hotels, cultural, educational, foreign economic relations, transport companies and mass media, and also the Chairman of the Committee on Religions and Deputies Khokims of Tashkent city, Samarkand, Bukhara and Khorezm provinces.

The Law on Tourism was passed in 2001. The Law “On Protection of Consumers’ Rights” (1996) regulates the comprehensive list of norms protecting the rights of consumers of tourist services.

Programmes and Projects: The Programme on Development of Tourism for the period of up to the year 2005 has been in the process of implementation in Uzbekistan since 1999. The programme contains six major sections, covering all components of tourist activity: formation of the normative-legal base of tourism; Investment programme of NC “Uzbektourism” for 1999-2005; marketing arrangements; increase of the level of servicing up to the international standards, development of the infrastructure of tourism; arrangements on conservation and address use of the areas of natural reserves, monuments of cities which are included into the world heritage of the culture and history; and, arrangements on organization of internal tourism.

The investment programme of NC “Uzbektourism” envisages to invest in construction of new and reconstruction of working hotel complexes of about US\$ \$300 mln. at the expense of internal sources and attraction of foreign capital investment during the next five years. The largest facilities are construction of the “President-Hotel” in Samarkand city, a hotel in Khiva, holiday area and golf-club in the area of Charvak reservoir in Tashkent province, and also reconstruction of hotels in Andijan, Djizak, Termez, Shahrisabz, Samarkand, Bukhara cities.

Status: The Government fully realizes what significant potential of optimization of the model of consumption has the development of tourism which, besides satisfying the money interest as appreciable addition to the national income, also expands a circle of the people as supporters and benevolent ones in many countries of the world with regard to Uzbekistan and its people. And this represents not a small value than additional incomes.

The external turnover of tourist services of the republic increased in 3 times in 2000 in comparison with 1995 and made up about US\$35 mln. By this the share of export in the volume of external turnover of tourist services constituted 96,6 %.

There are more than four thousand monuments of architecture and ancient architecture on the territory of the republic, many of which are recognized by UNESCO as major monuments of the world culture. The large interest for development of foreign tourism is represented by the architectural monuments of ancient cities as Samarkand, Bukhara, Khiva, Shakhrisabz and others.

Uzbekistan also has unique natural resources for development of tourist-recreational services. Significant values represent hydrogen sulphide, iodine-bearing, radon, light-mineralized alkaline thermo-mineral sources of mineral waters. The picturesque natural landscape, especially at the foothills together with the sources of mineral waters serve as an important factor for further development in the republic of recreational complexes, sanatoriums, tourist bases.

Many small private comfortable hotels and complexes are under construction in the cities on the territory of which or neighboring to them regions there are historical and cultural monuments. On the decision of the Government the investors into tourist business are exempted from payments within 3 years of customs duties on the imported hotel equipment and vehicles for servicing the tourists by the tourist companies.

Capacity-Building, Education, Training and Awareness-Raising: In Tashkent city, the Institute of Improvement of Professional Skills of the experts on tourism and guiding interpreters is organized with participation of WTO in

2000. The Informational Methodical Directory for the guides was prepared in 1999, which includes the information on history of the republic, political life, cultural-historical heritage, tourist potential, basic laws of the Republic of Uzbekistan, achievements in the sphere of humanitarian sciences and culture.

The regular television programme “Tourism-Review” is broadcast, films and advertising brochures on historical and cultural monuments of Uzbekistan are created. NC “Uzbektourism” publishes weekly information-advertising newspaper *The Great Silk Road*.

Information: The socio-economic information on the condition of tourism is formed at the State Department on Statistics, provincial (regional) departments and in accordance with the Law “On the State Statistics” may be provided to the interested organizations. The special information on tourism is placed on the Internet site of NC “Uzbektourism.”

Research and Technologies: Researches in the sphere of efficiency of development of tourism are carried out by the Centre of Effective Economic Policy under the Ministry of Macroeconomics and Statistics, and in the field of history and cultural heritage, by the Institutes of History and Manuscripts of the Academy of Sciences of Uzbekistan.

Financing: Construction of large hotel complexes and the restoration-protective works on maintaining in the normal condition of the monuments of architecture are financed by the state and local budgets with attraction of foreign investments. The scientific research works are financed by the state budget on the line of the State Committee on Sciences and Techniques.

Cooperation: Uzbekistan in the person of NC “Uzbektourism” actively cooperates with the World Organization on Tourism (WOT), UNESCO, UNICEF and etc.

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