Министерство сельского и водного хозяйства Республики Узбекистан

# THE REPUBLIC OF UZBEKISTAN

# NATIONAL REPORT

*Within the framework of UNEP support for achieving the Johannesburg Plan of implementation target of "Integrated Water Resources Management and Efficiency Plans by 2005, with support to developing countries"*


**TASHKENT - 2006**

## General Information

**Geography:** The Republic of Uzbekistan is situated between the Amudarya and Syrdarya rivers and occupies 449 square kilometers. The span of the territory from the west to the east is 1,425 km and from the north to the south - 930 km. The territory borders on Kazakhstan in the northeast, on Kyrgyzstan and Tajikistan in the east and southeast, on Turkmenistan in the west, and on Afghanistan in the south. The total length of the state border is 6,221 kilometers.

Uzbekistan possesses the diversified relief. The territory of Uzbekistan is a mixture of deserts and the high snow-covered mountains, the high-water rivers and vast arid plains and deserts. Piedmont and highland part of the country comprises the Tyan-Shan and Gissar-Alai mountain ridges and spurs separated by intermountain troughs. Height of the mountain ridges is up to 4 thousand meters and more.

Droughty climate has facilitated formation of the Kzylkum and Karakum deserts. The desert vegetation dominates on plains and steppe, and grass meadow and forest vegetation in the mountains. Soils are mainly presented by sierozems and gray-brown desert ones.

The largest rivers flowing through the territory of Uzbekistan are Amudarya and Syrdarya. Amongst the few lakes on the territory of republic the largest one is the Aral Sea/Lake. The largest artificial lake-reservoirs are Charvak, Andidjan, and Tuyamuyun ones.

**Climate:** The climate of Uzbekistan is sharply continental, characterized by the long dry and hot summer, chilly and moist autumn and mild low snowy winter. Duration of winter period on plains and low piedmont areas in the extreme south of the country is 1.2-2 months, that of in the extreme north (Ustyurt plateau) is up to 5 months. Average temperature in January is around -8°C (Churuk meteostation on Ustyurt), while in extreme south, in Termez and Sherabad it is 2-8°C is 3-6°C respectively. The absolute minimum temperature is -37°C (Churuk meteostation). The average monthly air temperature for July in the northern regions is up to 26°C, that of in the south is more than 30°C. The absolute maximum temperature in the plain and piedmont regions is 42°C. In summer the day time soil surface temperature may be up to $60^0$C, that of in sandy desert is up 70°C. The average annual atmospheric precipitation on the plains is 120-200 mm, in mountainous areas – up to 1000 mm. More than 70% of precipitation occurs in winter (in the form of rain and snow) and spring time. Snow cover is formed almost every year, but on plains and in piedmont areas it is often unstable, and lasts only few days.

**Political and Administrative Structure:** Uzbekistan is a sovereign democratic republic with the presidential form of government. Head of the state and executive power is the President. The Parliament (Oliy Majlis) exercises the legislative power.

**The Capital** city is Tashkent (with population over 2.5 million people). It is one of the largest cities in the Central Asia. **The State language** is Uzbek. Currently, the Republic of Uzbekistan consists of the Republic of Karakalpakstan and 12 oblasts.

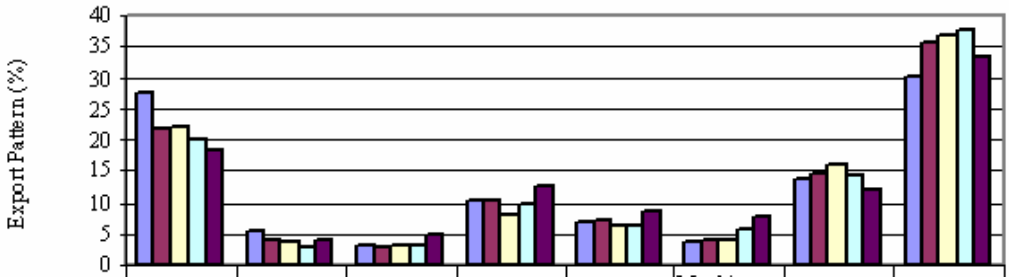
| Administrative and Territorial Division of the Republic of Uzbekistan | | |
|---|---|---|
| **Name of Oblasts** | **Administrative Centers** | **Territory, '000 km$^2$** |
| The Republic of Karakalpakstan | Nukus | 165.5 |
| Andidjan | Andidjan | 4.24 |
| Bukhara | Bukhara | 40.3 |
| Djizak | Djizak | 21.2 |
| Kashkadarya | Karshi | 28.57 |
| Navoi | Navoi | 110.9 |
| Namangan | Namangan | 7.44 |
| Samarkand | Samarkand | 16.77 |
| Surkhandarya | Termez | 20.1 |
| Syrdarya | Gulistan | 4.3 |
| Tashkent | Tashkent | 15.6 |
| Fergana | Fergana | 6.76 |
| Khorezm | Urgench | 6.05 |

**Population:** According to the data of the State Statistics Committee of Uzbekistan population of the Republic as of 1 January, 2006, is 26,021 million people. Uzbekistan is the first largest country in terms of population in the Central Asia and the third one of the CIS countries (after Russia and Ukraine), and the 24-th one in the world. Uzbekistan is the multinational republic. Currently, representatives of more than 100 nationalities and ethnic groups live here. The main part of population is Uzbeks. Concentration of population mainly in oases is explained by the peculiarities of the nature conditions, such as mountain, highland and deserts relief, and aridity of climate.

## Social and Economic Conditions [1]

**Economy:** Uzbekistan is the country of one of the most ancient irrigated agriculture in the world, and one of the most favorable regions for production of various agricultural crops. Thereby, one of the priority directions of the country's economy is agriculture. Irrigated husbandry is the basis of the republic's food independence and source of export production. It provides more than 95% of the total crop production.
The republic is the main producer and supplier of the most important strategic raw material as cotton that has the great export potential. Uzbekistan is the fifth country of the world in terms of cotton fiber production, and out of approximately 2 million tons of cotton fiber produced in the Central Asia 1.4 million tons are produced in Uzbekistan. Uzbekistan produces up to 5 million ton of fruits and vegetables that significantly exceeds demands the republican's market. Over the recent years the private and dekhkan farms become the main managerial and legal forms of agricultural enterprises in the country.

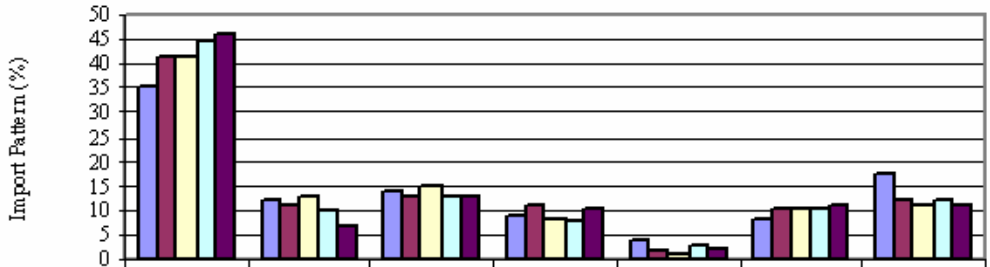
The leading sectors of the Uzbekistan's industry are: ginnery, machine building, textile, natural gas, non-ferrous metallurgy, electrical, instrument making, electronic, aircraft, oil and agricultural products processing industries. Uzbekistan is the fourth and tenth country of the world in terms of gold and copper stocks respectively. Uzbekistan possesses the rich deposits of oil and energy resources. Uzbekistan's gas supply is 5 trillion cubic meters, oil and coal supply is around 4 and 2 billion tons respectively.
Cotton fiber, energy carriers, and ferrous and non-ferrous metals dominate in the commodity export pattern (Figure 1). Machinery and equipment, and chemical products dominate in the commodity import pattern (Figure 2).




| | Cotton Fiber | Food Products | Chemical Products | Energy Carriers | Metals | Machinery & Equip-ment | Services | Others |
|---|---|---|---|---|---|---|---|---|
| 2000 | 27,5 | 5,4 | 2,9 | 10,3 | 6,6 | 3,4 | 13,7 | 30,2 |
| 2001 | 22 | 3,9 | 2,7 | 10,2 | 7 | 3,9 | 14,6 | 35,7 |
| 2002 | 22,4 | 3,5 | 3 | 8,1 | 6,4 | 3,9 | 15,9 | 36,8 |
| 2003 | 19,8 | 2,7 | 3,1 | 9,8 | 6,4 | 5,9 | 14,4 | 37,9 |
| 2004 | 18,1 | 3,8 | 4,7 | 12,4 | 8,6 | 7,4 | 11,8 | 33,2 |

Figure 1. Pattern of Commodity Export from the Republic of Uzbekistan

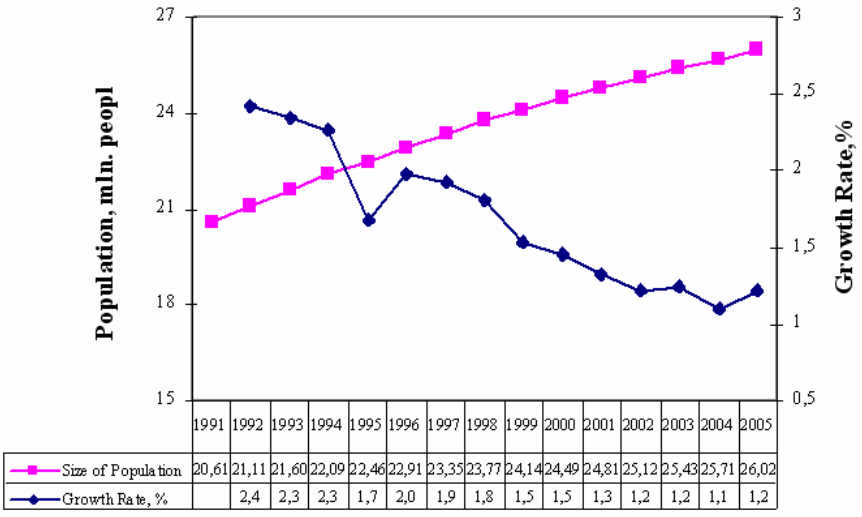
[1] Materials from the website "Uzbekistan in Figures – UinF" are used in this section. This site is the product of joint efforts of UNDP mission in Uzbekistan and the Center for economic studies (www.statistics.uz), as well as news site: www.regnum.ru/news/600454.html




| | Machinery &Equipment | Food Products | Chemical Products | Metals | Energy Carriers | Services | Others |
|---|---|---|---|---|---|---|---|
| 2000 | 35,4 | 12,3 | 13,6 | 8,6 | 3,8 | 8,5 | 17,8 |
| 2001 | 41,2 | 10,8 | 12,7 | 10,9 | 1,9 | 10,3 | 12,2 |
| 2002 | 41,4 | 12,5 | 15,1 | 8 | 1,3 | 10,6 | 11,1 |
| 2003 | 44,4 | 9,9 | 12,8 | 7,9 | 2,7 | 10,2 | 12,1 |
| 2004 | 46 | 6,8 | 12,5 | 10,3 | 2,1 | 11,1 | 11,2 |

Figure 2. Pattern of Commodity Import in the Republic of Uzbekistan

**Demography**: Over 14 years of independence population of Uzbekistan was increased by 5.414 million people (in 1991, it was 20.607 millions). During the recent years population growth rate in the republic was halved as compared with 1991, and is now around 1.2 % per year (Figure 3).




| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Size of Population | 20,61 | 21,11 | 21,60 | 22,09 | 22,46 | 22,91 | 23,35 | 23,77 | 24,14 | 24,49 | 24,81 | 25,12 | 25,43 | 25,71 | 26,02 |
| Growth Rate, % | | 2,4 | 2,3 | 2,3 | 1,7 | 2,0 | 1,9 | 1,8 | 1,5 | 1,5 | 1,3 | 1,2 | 1,2 | 1,1 | 1,2 |

Figure 3. Size and Growth Rate of Population in the Republic of Uzbekistan

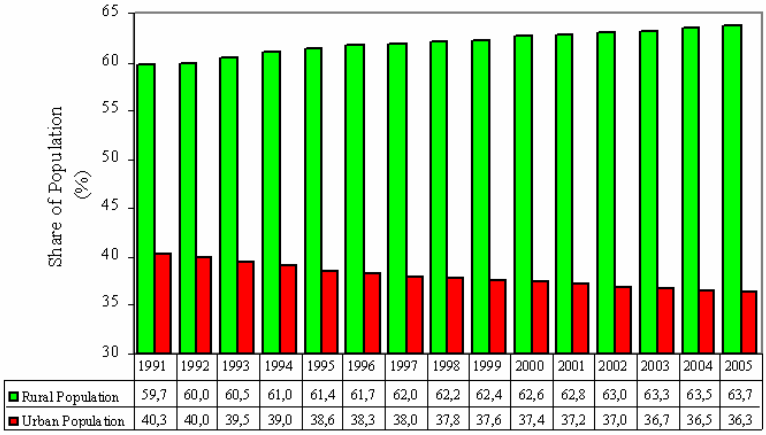
Percentage of the working-age population is currently 56.1%, share of children and teen-agers up to 16 years old is 36.7%. Uzbekistan possesses 40% of the total labor resources of the Central Asia. The mean age of the Uzbekistan's inhabitants is 23.9 years. According to the prediction of the Uzbek demographers, share of children and teen-agers will be decreased down to 31.2% of total population, that of the working-age population will be increased up to 59.4% by 2010.

As of 01.01.2006, share of women and men parts of population was: 50.1% of women, and 49.9% of men.

In 2005, the average life expectancy of men was 69.4 years, that of women 73.8 years. By this index Uzbekistan is far ahead of Russia, but behind its neighboring countries of Kazakhstan, Kyrgyzstan, Kyrgyzstan, as well as Ukraine.

By the birth rate (26.36 births per 1,000 people) Uzbekistan is only behind Tajikistan on the territory of the former Soviet Union.

Major part of the Republic's population live in the rural area with the steady tendency for the growth of rural population share. As of 01.01.2006, around 64% and 36% of population live in the rural and urban areas respectively (Figure 4). Thereby, sustenance of the major part of population directly depends on productivity of the irrigated agriculture.




| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rural Population | 59,7 | 60,0 | 60,5 | 61,0 | 61,4 | 61,7 | 62,0 | 62,2 | 62,4 | 62,6 | 62,8 | 63,0 | 63,3 | 63,5 | 63,7 |
| Urban Population | 40,3 | 40,0 | 39,5 | 39,0 | 38,6 | 38,3 | 38,0 | 37,8 | 37,6 | 37,4 | 37,2 | 37,0 | 36,7 | 36,5 | 36,3 |

Figure 4 Share of Rural and Urban Population in the Republic of Uzbekistan

## Water Management Situation in the Republic of Uzbekistan [2]

Irrigated agriculture in Uzbekistan is the important basis for sustenance and well-being of the Republic's population. As it was mentioned above, the major part of population lives in the rural area, i.e. agriculture is the main sphere of employment for the vast majority of people. Due to aridity of climate, the agricultural production in the Republic is impossible without irrigation. Volume of water resources formed on the territory of Uzbekistan is approximately 20% out of the established limits for water withdrawals (Table 1). Thereby, water availability for irrigated agriculture to the great extent depends on the status of the interstate water relationships.

**Table 1. Volume of Water Resources ($km^3$) used/consumed by Uzbekistan (Based on data from "Vodproject" and SIC ICWC)**

| INDICES | Total | including: | |
|---|---|---|---|
| | | Syrdarya River Basin | Amudarya River Basin |
| Approved Water Intake Limits for the Years with 90% Probability | 55.10 | 25.50 | 29.60 |
| Long-term Average Volume of the Surface Flow Formed on the Territory of Uzbekistan | 11.23 | 6.17 | 5.06 |
| Volume of the available water resources | 59.20 | 24.10 | 35.10 |
| Including: | | | |
| Intake from the surface flow of the 90% probability year | 52.40 | 19.90 | 32.50 |
| Underground Water Extraction (without damage to replenishment) | 1.90 | 1.60 | 0.30 |
| Volume of Return Waters Use | 4.90 | 2.60 | 2.30 |
| Average Volumes of Return Waters Flow | 20.10 | 8.50 | 11.60 |
| Including: | | | |
| Water Losses and Collector/Drainage Flow | 18.40 | 7.60 | 10.80 |
| Industrial and Municipal Sectors Effluent | 1.70 | 0.90 | 0.80 |
| Average Volumes of Return Waters Flow by Type of Use | 20.10 | 8.50 | 11.60 |
| Including: | | | |
| Discharged Back into River | 9.00 | 5.60 | 3.40 |
| Reused for Irrigation within the Area of Formation | 4.10 | 2.10 | 2.00 |
| Disposed into Depressions | 7.00 | 0.80 | 6.20 |

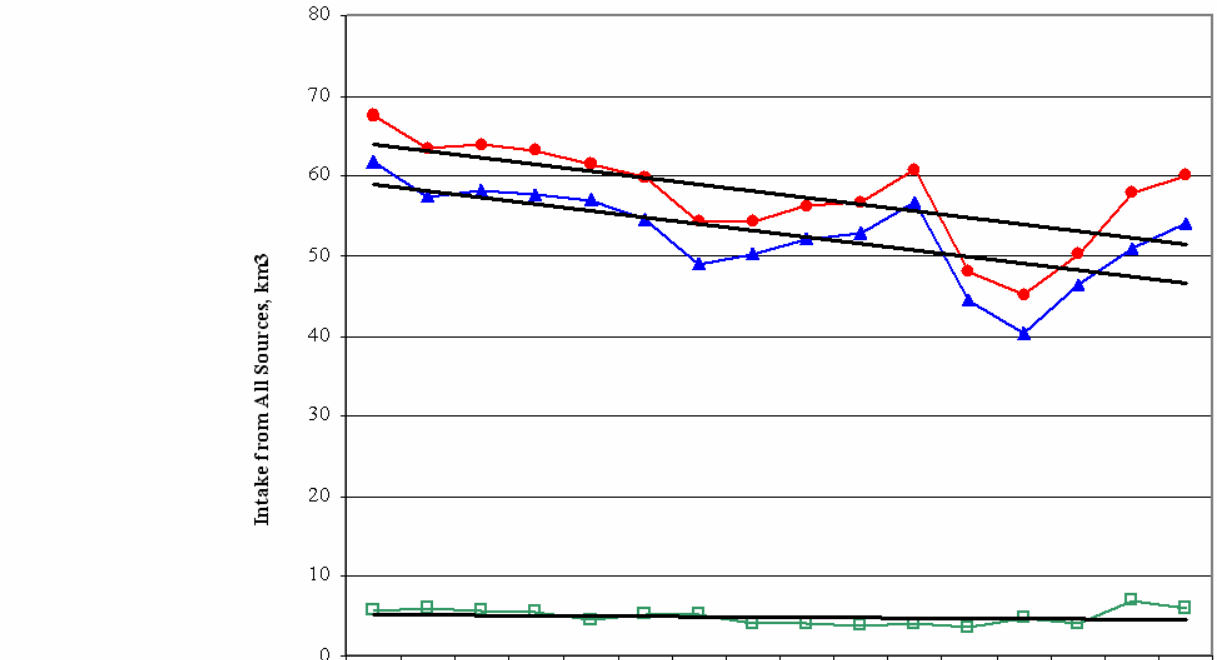
[2] The following materials are used in this section: "Draft Government Strategy of the Republic of Uzbekistan for Improvement of Management and Use of Water Resources" (Vodproject, 2004), "Drainage in the Aral Sea Basin in the Strategy for Sustainable Development" (SIC ICWC, 2004), pre-design study – "Transition to the IWRM in the lower reaches and deltas of the Amudarya and Syrdarya rivers" (SIC ICWC, 2005).

For management, distribution, and control over use of water resources there is the brunched government service in Uzbekistan, comprising the Main Administration of Water Resources (the subdivision of the Ministry of Agriculture and Water Resources), ten Basin Irrigation Systems Administrations (BISA), the Main Canals System Administration of the Fergana valley, seven main canal administrations (MCAs), 52 Irrigation System Administrations (ISA), and also 14 territorial Administrations of pumping stations, energy supply and communication (APSEC), and 13 Hydrogeology and Ameliorative Expeditions (HGAE).
Total area of irrigated land in Uzbekistan is 4.3 million ha (Table 2).

**Table 2. Pattern of Land Fund Use in Uzbekistan (mln. ha)**

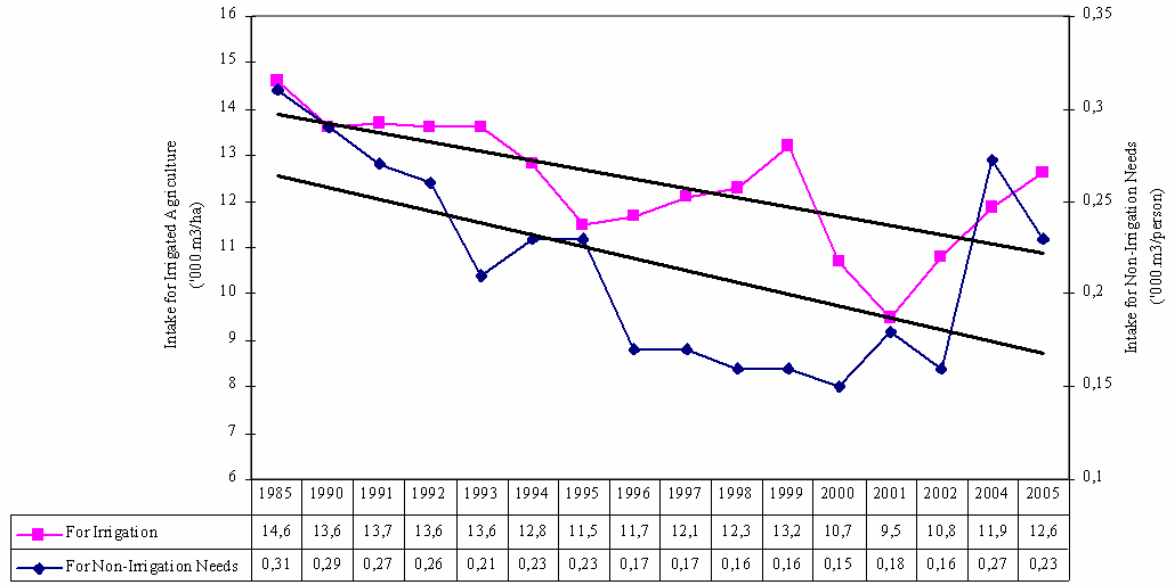
| Total Land Area | Including: | | | | |
|---|---|---|---|---|---|
| | Irrigated | Rainfed | Pastures | Forests | Not in Use |
| 44.9 | 4.3 | 0.9 | 22.4 | 1.3 | 16.0 |

Water is delivered to 4,235 water consumer/users, including: 2,739 agricultural associations and enterprises and 1,496 non-agricultural entities (municipal, energy, industry and the other sectors).
Out of the total intake in 2005, 90.1% were used in irrigated agriculture, 3.6 % for municipal water supply, and 2.9% in industry and energy sectors (with the deduction of return flow).
Over the recent decades the peculiarity of situation in water sector of the republic (Figures 5 and 6) is that the volume of technically accessible water resources and water demands exceed (especially in the dry years) the volume of ecologically accessible water resources in the rivers. In the conditions of growing population this creates the serious threats to the food and ecological safety of Uzbekistan




| | 1985 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intake fromAll Sources, km3 | 67,48 | 63,40 | 63,90 | 63,20 | 61,50 | 59,80 | 54,20 | 54,20 | 56,16 | 56,70 | 60,70 | 48,07 | 45,10 | 50,30 | 57,86 | 60,13 |
| including: For Irrigation | 61,73 | 57,45 | 58,15 | 57,66 | 56,87 | 54,61 | 49,02 | 50,15 | 52,09 | 52,87 | 56,66 | 44,41 | 40,39 | 46,30 | 50,91 | 54,16 |
| including: For Non-Irrigation Needs | 5,75 | 5,95 | 5,75 | 5,54 | 4,63 | 5,19 | 5,18 | 4,05 | 4,07 | 3,83 | 4,04 | 3,66 | 4,71 | 4,00 | 6,95 | 5,97 |

Figure 5. Trends of Water Consumption/Use in Uzbekistan (Gross Indicators)




| | 1985 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For Irrigation | 14,6 | 13,6 | 13,7 | 13,6 | 13,6 | 12,8 | 11,5 | 11,7 | 12,1 | 12,3 | 13,2 | 10,7 | 9,5 | 10,8 | 11,9 | 12,6 |
| For Non-Irrigation Needs | 0,31 | 0,29 | 0,27 | 0,26 | 0,21 | 0,23 | 0,23 | 0,17 | 0,17 | 0,16 | 0,16 | 0,15 | 0,18 | 0,16 | 0,27 | 0,23 |

Figure 6. Trends of Water Consumption/Use in Uzbekistan (Specific Indicators)

Results of predictions received by the SIC ICWC from the analysis of three scenarios ("retention of the existing trends", "medium" or "neutral" scenario, and "optimistic" scenario) for development of Uzbekistan up to 2020 are provided below.

1. Optimistic Scenario

1.1 The Republic will be developed on the basis of development and improvement of the integration processes, including:

- use of water resources on the basis of water saving and the nature protection approaches to their management;
- improvement of productivity and efficiency of the irrigated agriculture.

1.2 Population growth rate will be reduced to 1% a year; due to outrunning paces of industry development by 2020, the average annual growth of the GDP will be not less than 6% (around USD 1,550 per capita).

1.3 It is expected that as a result of the on-going policy aimed at water saving and improvement of efficiency of water distribution and use at the level of country, the specific water intake for irrigation will be reduced to 8.5-9.0 thousand $m^3$/ha;

1.4 Complex of measures aimed at improvement of productivity and efficiency of irrigated agriculture will allow increasing the irrigated land area up to 4.5 million ha. as compared with 4.3 million ha. (current level). Increase of irrigated land area is mainly expected after 2010. This is associated with the assumed improvement of the general economic situation by this time and emergence of the sufficient funds for introduction of the large-scale water saving measures. Implementation of complex of measures aimed at increase of the agricultural production efficiency will allow improving provision of population with foodstuff. It is expected that food production will ensure the average consumption at the level of 3,500 cal/person/day with domination of fruits and vegetables in ration.

2. Medium Scenario.

2.1. The integration processes in the area of water resources management will be developed more slowly than in the optimistic scenario.

2.2. Population growth rate will be reduced reaching 1.36% and 1.23% a year by 2010, and 2020, respectively.

The average annual growth of the GDP will be 2-4 %.

2.3. Development of new lands will be limited not only by availability of water resources and their quality, but also lack of the necessary investments. Taking into account that this scenario assumes not so significant development of economy, as compared with the "optimistic" one, and limited financial

resources for introduction of water saving in all sectors of economy, the specific water intake for irrigation will be required at the level of 9.5-10.0 thousand $m^3$/ha;

3. Retention of the Existing Trends.

3.1. Development of Uzbekistan will be carried out with retention of the existing trends in use of water resources.
3.2. Population growth rate will remain constant at the level of 2.0 % a year, and the average annual growth of the GDP will not exceed 2 %.
3.3. The specific water intake for irrigation will remain at the level of 11.5-12.0 thousand $m^3$/ha.
3.4. The area of irrigated lands will practically remain the same up to 2020.

Thus the only acceptable scenario for Uzbekistan is the "optimistic" one. In this scenario the main attention in the irrigated agriculture will be paid to improvement of productivity and efficiency of water use, strengthening attention of society and decision makers to water sector and comprehensive approach to water resources management and use, taking into account the needs of nature. The IWRM exactly complies with these requirements, and therefore it should become the dominating direction of the political and economic activities for all water using sectors of economy, as well as the oblast, rayon and local management bodies.

### *Priorities and the Key Problems of Water Management*

The main objective of water management of the Republic is the stable and equitable delivery of water to water users and nature through the efficient integration of measures aimed at development and management of water resources and conservation of environment with the sustainable and reliable execution of the following functions:

- provision with water the requirements of economic development and social needs on the basis of equality of rights to access to the reliable system of water supply and disposal;
- ensuring conservation of the nature objects (rivers, lakes, reservoirs, deltas, etc.) as the elements of landscape and the natural habitat;
- prevention of the catastrophic or emergency situations associated with water resources (floods, mudflows, droughts, etc.).

*The main* priority directions of water resources use: drinking water supply, irrigated agriculture, and ecology are accompanied by the *problems* that require the step-by-step solution, namely:

- compliance with the ecological requirements to water resources quality;
- improvement of water supply system efficiency through water saving at all levels of water hierarchy;
- liquidation of non-uniformity of water distribution by irrigation systems and canals, increase of water availability and stability of water delivery;
- restoration of the irrigated agriculture productivity level.

These problems should be resolved in the integrated manner for each user, and irrigation system with orientation to water saving, increasing of water and land productivity, and improving of water quality, including:

- objective and transparent estimation of the available water resources for years and cycles with the various water supply probability (the current status and perspective);
- joint use of river flow, return and underground waters;
- liquidation of the technical drawbacks in management of water resources;
- compliance with the precise rules of water distribution at the interstate and national levels, introduction of water rotation and reduction of the managerial water losses;
- rational revision of the priorities in selection of crops and crop rotations;
- verification of water use/consumption norms.

Complexity in solution of the listed problems at the current stage is associated with:

- increasing deficiency of water resources and their pollution;
- progressive ageing of previously created water infrastructure, deterioration of the technical conditions of dams, waterworks, pumping stations and the other structures;

- lack of sufficient support to the proper maintenance of many structures and water management objects of the former on-farm and now the inter-farm network;
- aggravation of problem (especially at the lower reaches of the Amudarya river) with drinking water supply of the proper quality to population;
- significant reduction of irrigated lands productivity due to incompleteness of establishment of the private and dekhkan farms and Water User Associations;
- increasing deficiency of water resources in the conditions of on-going irrational use of water and significant unproductive waste of water;
- inadequate normative and legal basis;
- lack of the sufficient financing of measures and activities in water sector;
- deterioration of the fixed capital assets of water management enterprises and aged production base that is practically not being renewed;
- water management organization and enterprises are poorly equipped with the office equipment, vehicles, modern communication and metering equipment;
- inability of the majority of water users in the current conditions to pay the full price for use of water resources and water delivery services;
- insufficient attention to the system planning in development of water sector of economy;
- lack of harmony between the multidimensional, complicated, and important tasks and problems in water sector of economy and the necessary functions of the authorized body in the area of water resources management that currently is not vested with the appropriate power for implementation of the unified water management policy.

### *The Main Threats to Water Resources*

According to assessments of the "Vodproject" Association, around one third of the available water resources for Uzbekistan are return waters. Part of these return waters is disposed into the natural depressions, and around one fourth is reused for irrigation partly in the areas of their formation and partly at the downstream areas in a form of mixture with the natural river flow. These waters are the main source of the natural flow pollution and salinization of irrigated land and cause the significant ecological problems.
The main source of water pollution is irrigated agriculture because on the one hand the technical level of irrigation system is low, and on the other hand, due to particularity of the majority of Uzbekistan's irrigated land massifs, collector/drainage waters are disposed directly into rivers.
According to the "Vodproject" data the increased level of water pollution (by the average annual values) in Uzbekistan is observed in the Zerafshan (1.2-1.6 MAC), Syrdarya (1.3 MAC), Amudarya (1.2 MAC), and Surkhandarya (1.2 MAC) rivers.

### *Risks Associated with Water*

Due to lack of regulation at the interstate level in regard to the Toktogul reservoir operation mode that was originally designed for operation in irrigation-energy mode, but over the recent years it was changed to the energy-irrigation mode, the "artificial" deficiency of water is created during vegetation period, especially in the Syrdarya and Djizak oblasts of Uzbekistan. Accordingly, because during winter period it is impossible to discharge the big flow volumes through the Syrdarya riverbed downstream from the Chardara reservoir (Kazakhstan), the Arnasai depression is used as the "dumping" capacity. More than 30 $km^3$ of water were disposed in this depression over the last ten years. This situation caused the problems with flooding of territories in the Djizak and Bukhara oblasts of Uzbekistan.

### *The Key Tasks for Water Resources Management at the National Level*

For the purposeful solution of the problems existing at the various levels of water hierarchy it is necessary to implement activities on the staged solution of the following key tasks:

1. Practical ensuring of the water management organizations' jurisdiction within the hydrographic boundaries that corresponds to the IWRM principles. This will allow making the timely decisions on water management and provision of water services without interference of the territorial administrative bodies.

2. Integrated water management taking into account all types of water use within the boundaries of the hydrographic units on the basis of the hydro-meteorological data analysis in the real-time mode with consideration of water supply dynamics and multi-sectoral use of water resources. Provision of this information in the user friendly format to all water users.
3. Strategic planning of water use and consumption taking into account the needs of agricultural production, municipal and rural waster supply, industry, and nature, as well as the other water consuming sectors of economy.
4. Practical decentralization of decisions on water management with transfer of managerial functions to the lowest level possible (WUAs and their federations, Canal Councils), based on the country's legislation and with assistance from the Government to establishment and development of the WUAs and their federations.
5. Gradual transition from the direct government management of water delivery to transfer these functions to water sector with regulation of its interrelationships with the other sectors of economy.
6. Gradual transition to management of the WUAs and subsequently the water management organizations' activities by the elective Councils vested (within the framework of the country's legislative basis) with the appropriate power for carrying out the water policy, and establishment of rules and procedures on their respective water systems.
7. Ensuring, through introduction in practice the measures on improvement of land and water productivity, the conditions enabling farmers to cover completely costs of operation and maintenance, as well as minor repair and improvement of all irrigation and drainage system within the WUA boundaries.
8. Practical ensuring participation of the Canal Councils, WUAs and their federations in formation of water policy and rules for water resources management.

## Actual Status of the IWRM Process in the Republic of Uzbekistan [3]

The concentrated form of expression of the water policy of the Republic of Uzbekistan is the Law "On water and water use" (published on 06.05.1993). In this Law there is no direct mentioning of development/support to the IWRM Action Plan/Strategy (they are not mentioned under exactly this name in the above Law), but the main meaning of the IWRM process in terms of "comprehensive, rational, and efficient use of water resources" is included in the legal structure.

The first step in the direction for transition to the IWRM in Uzbekistan was made by adoption of the below listed Decrees of the President of the Republic of Uzbekistan and Resolutions of the Cabinet of Ministries, which directly or indirectly regulate the various aspects of water relationships:

The Decrees of the President of the Republic of Uzbekistan:

- "On the most important directions for deepening of reforms in agriculture" of 24.03.2003;
- "On improvement of system of the economy management bodies" of 22.12.2003.

The Resolutions of the Cabinet of Ministries of the Republic of Uzbekistan:

- "On improvement of organization of water resources management", No 320 of 21 July, 2003;
- "On improvement of activities of the Ministry of agriculture and water resources of the Republic of Uzbekistan", No 290 of 28 June, 2003.

These documents were the base ones for the practical reforms in the area of water resources management, water distribution and use, and for replacement of the previously existing administrative territorial management scheme by water resources management on the basis of river basins and irrigation systems. It is worth mentioning that the above listed Decrees and Resolutions mainly envisage only the structural reorganizations of water resources management bodies within the framework of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan because agriculture is the main water user. Some works are already being carried out, but more works are yet to come for separation of functions of the state and farm levels water resources management, organization of water use on the basis of new interrelationships between the state water management bodies and the already established and being established Water User Associations, and on the staged transition to the chargeable water use in the Republic.

[3] Results of monitoring of process for transition to the IWRM presented in ANNEX, are used in this section (monitoring consultant is Dr. Yu. Rysbekov (SIC ICWC)

The hard works are yet to come for increasing of public participation in the water resources management. The representative authorities and self-administration bodies established in accordance with the Constitution of Uzbekistan should in particular resolve the water resources management problems, including issues associated with coordination of activities and interaction of water use entities on the territory of their jurisdiction. However, the real public participation in the water resources management, especially at the lower levels of the water sector hierarchy, is still insufficiently developed with the exception of some pilot irrigation systems, where introduction of the IWRM principles had been commenced. It is necessary to establish the public Councils at the various levels of the water resources management: basin, irrigation systems and canals (the Basin Councils, Water User Unions and Associations), and their active involvement in the management processes.

A number of the national Concepts, Strategies, Programs, and Action Plans had been adopted and are being implemented in the Republic of Uzbekistan. All these documents to a variable extent contain provisions associated with sustainable management and development of water resources. Many projects associated with water are being implemented that also indicate not only existence, but realization of the appropriate policy in the area of IWRM at the national level.

Although the specific Action Plans for transition to IWRM on the scales of the republics are not envisaged directly at the present moment, the necessary conditions for the IWRM implementation (favourable political environment, managerial roles and tools) are appeared in the national and sectoral programs. Practically all the national development plans (on reduction of poverty level or improvement of living standards for achievement of the Millennium Development Goals, agriculture and energy sectors, nature protection sphere and the others) are integrated one and include the main IWRM principles to one or another extent.

The specific action plans are envisaged within the framework of pilot irrigation systems of the "IWRM-Fergana" project and in the preliminary rationale of the project "Transition to the IWRM in the lower reaches and deltas of the Amudarya (Turkmenistan and Uzbekistan) and Syrdarya (Kazakhstan) rivers".

If to assess objectively how far Uzbekistan has come towards the institutional capacity building necessary for water resources management based on the IWRM principles, currently no one out of 17 functions, characterizing the institutional capacity, works at the level of the real objective:

- There are some gaps in quality and coverage in:
  Preparation of the ecological and socio-economic assessments, monitoring of water availability and quality, pollution load, water sharing, intermediation in resolution of conflicts, cooperation in use of the international water courses;
- There are a lot of gaps in:
  Preparation of laws and ancillary normative documents, Collection of information about water resources and development of databases, Preparation of water resources assessments, Monitoring of the aquatic ecosystems, Planning of water resources use, protection and conservation, Management of water demands;
- Function for recovery of water resources management costs is not established yet and practically these costs are completely covered by the Republican budget.

The main serious institutional limitations impeding execution of necessary functions by the water management organizations are insufficient: budget, equipment (for maintenance of databases, operative measurements and control over water discharges and quality parameters), material and technical supply (mainly with vehicles and machinery). At the same time the staff number and level of their competence to the acceptable extent correspond to the technical complexity of the above listed management functions. Practically all heads of water management organizations are familiar with the IWRM principles. However, it should be stated that staff is only motivated to some extent to water management based on the IWRM principles.

### "IWRM-Fergana" Project

The pilot project "IWRM-Fergana" is being implemented since 2002, in the Fergana valley with sponsorship of the Swiss Development Cooperation Agency (SDC). The organization responsible for implementation of this project is the Association of the International Water Management Institute (IWMI), and the Scientific Information Center of Interstate Commission for Water Coordination (SIC ICWC). The Kyrgyz Republic, The Republic of Tajikistan, and The Republic of Uzbekistan are participating in the implementation of this project. The executive agency is ICWC and the responsible ministries in each republic.

The objectives of the project are: introduction of the IWRM principles in the Fergana valley with participation of all levels organizations, which represent the water management hierarchy.
All vertical participates in the testing and implementation of the IWRM principles: "stakeholders – the decision makers at high level". Different sectors of economy, which are water users and water consumers, are involved in this process at the horizontal levels.

The main achievements of the project are as follows:

- Increased understanding of the IWRM principles amongst politicians, and project participants;
- Appraisal and approval of the IWRM structure, elaborated within the framework of the project by all the three countries in the Fergana valley;
- Creation and registration of the three pilot organizations responsible for canals management (including participation of the main water users in the management) within the hydrographic boundaries;
- Improvement of water distribution along the canals managed by WUA;
- Demonstrated the "bottom-up" approach and its advantages for establishment of WUA and organizations at the canal level;
- Demonstrated potential for improvement of land and water productivity by 5% and water saving by 30%.

According to the conclusion of the Swiss Development Cooperation Agency (SDC), that conducted monitoring of the project progress in the spring of 2005, the project achieved significant results, while developing and implementing the IWRM principles in the oblasts of the Kyrgyz Republic, The Republic of Tajikistan, and The Republic of Uzbekistan, located in the Fergana valley. The significant contribution to the improvement of the social and economic conditions of rural population well-being, and water resources management had been achieved in the pilot objects through the wide involvement of stakeholders, institutional restructuring, and the use of operative management tools.

Main objective of the "IWRM-Fergana" project at the present stage of its implementation (from May 2005 to May 2008) is the extension of scale of the IWRM principles implementation. For this purpose the project will:

- consolidate, strengthen, and replicate the achieved new managerial structure and improvements in the area of water and land productivity;
- intensify the vertical integration;
- in the course of political dialog with the governments, will develop the principles, and methods of the system sustainable financing at canals, Water User Associations (WUAs), and farm levels.

Component "The political improvements and changes at the national level" had been included in the scope of work of "IWRM-Fergana" project, as the most important new direction. This component will be focused on the support to the national efforts at the political level in order to create and develop the legal and political environment facilitating the extension of the IWRM scale.

The decision makers and specialists of water management organizations to full extent recognize that the managerial aspects of IWRM envisage fulfillment of the following requirements:

- transition from management within the administrative boundaries to management within the hydrographic boundaries;
- transition from the sectoral water management to the integrated (system) one;
- water demands management instead of the traditional supply management;
- introduction of the cooperative forms of water resources management instead of the administrative and command ones;
- replacement of the "closed" institutions by the open (transparent) water resources management structures;
- use of the system for water resources management with the active participation of stakeholders ("bottom-up" approach) instead of the existing previously the "top-down" one.

Due to shortage of funds the special national trainings in the IWRM are not carried out in Uzbekistan, with the exception of the National Trainings within the framework of the "IWRM-Fergana" project. Under the ICWC aegis at regional level the special trainings, seminars, round tables for the representatives of different levels of water sector hierarchy of all the Central Asian countries are being held. For these purposes, the training center (SIC ICWC Training Center, Tashkent) and its department (in the Khorezm oblast, Urgench) are available. Program of the regular SIC ICWC trainings is quite comprehensive and covers all the IWRM aspects.

**ANNEX**

## QUESTIONNAIRE [1] (REPUBLIC OF UZBEKISTAN)

*Note: Answers to the majority of questions are ticked in the appropriate boxes. Since IWRM is the complicated subject, in a number of cases the explanatory comments referring to the number of the question are added.*

### 1. National water policy

| | | | | |
|---|---|---|---|---|
| ***1.1*** | ***Does the country have a water policy?*** | | | |
| 1.1a | Existing | ☑ | Give the date of publishing: **06.05.1993** | Give the title(s) of the document(s): **The Law of the Republic of Uzbekistan "On Water and Water Use".** |
| 1.1b | In progress | ☑ | Give the expected date of finalisation: | |
| 1.1c | Foreseen | ☐ | Give the expected period for preparation: | |
| 1.1d | Not foreseen for the time being ☐ | | | |
| 1.1e | Is the policy and the law/regulations harmonised? Yes: ☐ No: ☐ Partly: ☑ | | | |

**Comment on 1.1a :**

Taking into account that:

- The Republic of Uzbekistan is the successor of former Uzbek SSR that had the water policy
- Succession of the water policy is specified in the Agreement of 1992 (the Agreement amongst the Governments of the Central Asian Countries "On cooperation in the joint management, use and protection of the transboundary water resources")
- The country had adopted the National constitution and Water Law[2], and
- The other provisions, which were outlined in the comments on this questionnaire,

**it would be incorrect to deem that the national water policy is absent.** Adoption of the Constitution, Laws regulating public relationships in the certain spheres, identification of the authorized body and its power for each sphere etc. are an embodiment of policy.

**Besides,** the Republic of Uzbekistan had adopted and is implementing the following strategies and action plans[3]:

- The National Sustainable Development Strategy of the Republic of Uzbekistan (1999)
- The National Action Plan on Environmental Hygiene (NAPEH) (1998)
- The National Environmental Action Plan (NEAP) (1998)
- The Environmental Action Program
- The Aral Sea Basin Program (World Bank / UNDP / UNEP)
- The National Biodiversity Strategy and Action Plan of the Republic of Uzbekistan (1998)
- The National Action Program to Combat Desertification (1999)
- The National Concept of Sustainable Development (1998)
- The National Action Plan for Biodiversity Conservation of the Republic of Uzbekistan
- The Sub-Regional Action Plan to Combat Desertification in the Aral Sea Basin
- The UNDP and the Government of Uzbekistan Environmental Program, and the others.

These and the other National Concepts, Strategies, Programs, and Action Plans contain to a variable extent provisions associated with the sustainable management and development of water resources.

**There are many "water" projects under implementation.** This also indicates not only existence of the policy, but also realization of the relevant policy in the area of IWRM at the national level.
The only problem is how efficiently these projects are being implemented.

**Comment on 1.1b:**

Policy is a phenomenon. Realization of policy is the continuous process. Dynamism of the public relationships determines the necessity for process of policy change/revision.

**Comment on 1.1e:**

It is practically impossible to ensure complete harmonization between the policy and legislation. The new public relations emerge, which should be regulated by the normative/legislative acts. Policy, as a rule, goes ahead of legislation, and the latter should "support" the former.

[1] Questionnaire format was developed by the DHI Water and Environment jointly with UNEP Center on cooperation (UCC/DHI – 14.12.2005)
[2] The Law of the Republic of Uzbekistan "On Water and Water Use" (06.05.1993г.) – in force;
[3] Based on materials from: http://www.eco-portal.kz/modules.php?name=News&file=article&sid=31 and the others.

| | |
|---|---|
| ***1.2*** | ***What does the water policy cover?*** |
| 1.2a | Water resources management only ☐ Water resources management, water supply and other uses [4] ☑ |
| 1.2b | If a water policy document exists, does it explicitly state IWRM (or IWRM principles) as a basis for water resources management in the country? Yes: ☐ No: ☐ Partly: ☑ |
| 1.2c | Does the water policy define IWRM? Yes: ☐ No: ☑, but… [5] |
| 1.2d | If Yes (1.2c) write definition, if necessary in an annexed document referring to the number of the question. |
| 1.2e | Does the water policy specify the role of the private sector in water resources management? Yes: ☑ No: ☐ |
| 1.2f | If Yes (1.2e) describe the role as specified, if necessary in an annexed document referring to the number of the question.<br>**Comment on 1.2f:**<br>The Law of the Republic of Uzbekistan "On Water and Water Use":<br>Article 10. *Participation of public associations, collectives and citizens in implementation of measures aimed at the rational use and protection of water resources*<br>The public associations, collectives (in accordance with their charters) and citizens should assist to the governmental authorities in implementing of measures aimed at the rational use and protection of water resources.<br>In implementing of these measures the Governmental bodies should take into consideration proposals of the public associations, collectives and citizens. |
| 1.2g | Does the water policy include the "polluter pays" principle (those causing pollution pay the cost of monitoring and treatment)? Yes: ☑ No: ☐ |
| 1.2h | Does the water policy include the "user pays" principle (water users pay the cost of management and provision of water)? Yes: ☐ No: ☑ |

**Comment on 1.2g :**

The Law of the Republic of Uzbekistan "On Water and Water Use":
Article 115. *Responsibilities for violation of the water legislation*
Those responsible for settlement of deals specified in the article 114 of the present law, as well as for:
-pollution and contamination of rivers;
- commissioning of industrial enterprises, public utilities and the other objects without structures and facilities preventing pollution and contamination or their adverse impact on waters;
- violation of water protection regime at watersheds causing their pollution, water erosion and the other harmful phenomenon;
- failure to conduct the planned hydrotechnic, technological, forest ameliorative, sanitation and the other measures ensuring protection of water from pollution, contamination and depletion, and also measures aimed at improvement of water conditions and regime;
- failure to comply with the normative time for construction of water protection structures and devices;
- commissioning of uncompleted water protection structures (with uncompleted construction works and non-compliance with design, which adversely affect their efficient operation);
- disregard of water protection zones;
- failure to submit report to the governmental bodies on use of water or falsification of data in this report;
- failure to fulfill instructions of the nature protection bodies;
- violation of regime of the especially protected water objects,
incur criminal, administrative and the other liability in accordance with the legislation.

The legislation can impose liability for the other types of the water law violations.

**Comment on 1.2h:**

In Uzbekistan the water charge is introduced for the specialized water use only. Agricultural producer does not formally pay for water management and delivery of water.

## 2. National water legislation

| | | | |
|---|---|---|---|
| ***2.1*** | ***What is the situation of ownership of water in your country?*** | | |
| 2.1a | Is water a common good (i.e. it belongs to everyone)? | Yes ☑ | No ☐ |
| 2.1b | Is water the property of the State? | Yes ☑ | No ☐ |

[4] Provided that the current Water Law of the republic is understood under water management policy (The Law of the Republic of Uzbekistan "On Water and Water Use" of 1993).
[5] The IWRM concept is included into legislation in the form of statement "integrated, rational, efficient use of water resources".

| | | | |
|---|---|---|---|
| 2.1c | Is water a private property? | Yes ☐ | No ☑ |
| 2.1d | Is ownership variable according to the type or location of the water body? | Yes ☐ | No ☑ |

**Comment on 2.1a, 2.1b:**

- The Constitution of the Republic of Uzbekistan

Article 55

The land, its minerals, fauna and flora, as well as other natural resources shall constitute the national wealth, and shall be rationally used and protected by the state.

- The Law of the Republic of Uzbekistan "On Water and Water Use"

Article 3. *The State Ownership for Waters*

Water resources shall constitute the state property and national wealth of the Republic of Uzbekistan, and shall be rationally used and protected by the state.

| ***2.2*** | ***Does the country have one or more specific water laws, or a water code?*** | | |
|---|---|---|---|
| 2.2a | Existing: ☑ | Give the date of publishing: **06.05.1993** | Give the title(s) of the documents : **The Law of the Republic of Uzbekistan "On Water and Water Use"** |
| 2.2b | In progress: ☑ | Give the expected date for finalisation: | |
| 2.2c | Foreseen: ☐ | Give the expected period for preparation: | |
| 2.2d | Not foreseen for the time being ☐ | | |

**Comment on 2.2b:**

Similar to the question 1.1.b: legislation is not at a stop, it is in progress. In particular, the "Law on Water User Associations" is being developed in Uzbekistan.

| ***2.3*** | ***Does the water legislation include obligations to take into account the following principles?*** | | |
|---|---|---|---|
| 2.3a | Public hearings | Yes ☐ | No ☑ |
| 2.3b | Participation of the stakeholders in the water management | Yes ☑ | No ☐ |
| 2.3c | Management by river basin | Yes ☑ | No ☐ |
| 2.3d | Management at the lowest appropriate level [6] | Yes ☑ | No ☐ |
| 2.3e | Financial contribution by the users towards the management of water resources | Yes ☐ | No ☑ |
| 2.3f | The "polluter pays" (those causing pollution pay the cost of monitoring and treatment) | Yes ☑ | No ☐ |
| 2.3g | The "user pays" (water users pay the cost of management and provision of water) | Yes ☐ | No ☑ |
| 2.3h | The particular role of women in water management | Yes ☐ | No ☑ |
| 2.3i | Separation between resource management and water service provision | Yes ☐ | No ☑ |
| 2.3j | Water use efficiency | Yes ☑ | No ☐ |
| 2.3k | Private sector involvement | Yes ☑ | No ☐ |

**Comment on 2.3a:**

If the "public" is understood as "governmental", the only answer is **"Yes"** (the state accountability).

If the "public" is understood as "common" hearing, the only answer is **"No"** (such duty is not imposed on the water management bodies).

**Comment on 2.3b:**

According to the provisions of the Constitution of the Republic of Uzbekistan: All citizens of the Republic of Uzbekistan shall have the right for associations, participation in the management and administration of public and state affairs, both directly and through representation, and the other rights and freedoms. Therefore, any stakeholder can participate in water resources management in accordance with the procedure established by legislation.

**See also the answers to question 1.2e**

[6] The water problems should be managed at the lowest appropriate level. I.e. at the level, where the local competences and the capacities make solution to the problems possible and where decision makers are affected by the solutions

**Comment on 2.3c:**

In accordance with the Decree of the President of the Republic of Uzbekistan "On the most important directions for deepening of reforms in agriculture (24 March, 2003), and the Decree of the Cabinet of Ministers of the Republic of Uzbekistan "On improvement of water resources management" (21 July, 2003, #320) transition to the basin principle of water resources management along with reorganization of the managerial structure had been implemented in the republic.

**Comment on 2.3d:**

The Law of the Republic of Uzbekistan "On Water and Water Use"

Article 7. *Competence of local bodies of the state administration and management in the area of water relationships regulation*

The local state authorities and management bodies in the area of water relationships regulation are responsible for:

- identification of the main directions for use and protection of water resources at their respective territories;

- ensuring of law and order in the area of regulation of water resources use and protection;

- inventory and assessment of the water object conditions, and control over use and protection of waters, compliance with the established limits of water consumption, and maintenance of water use records by water users;

- implementation of measures aimed at protection and improvement of water object conditions, prevention and elimination of the adverse impact, as well as water pollution, and rehabilitation of objects damaged by accidents, flooding, mudflows, and natural disasters;

- regulation of the other issues, specified by the legislation.

**Comment on 2.3j :**

The Law of the Republic of Uzbekistan "On Water and Water Use"

Article 1. *Tasks of water legislation of the Republic of Uzbekistan*

The tasks of the Law of the Republic of Uzbekistan "On Water and Water Use" are: regulation of water relationships, **rational use of water** for needs of population and the national economy, protection of waters from pollution, contamination, and depletion, prevention and elimination of the adverse impact of waters, improvement of water object conditions, as well as protection of rights of enterprises, institutions, organizations, private and dekhkan farms and citizens in the area of water relationships (the Law version #681-I of 29.08.98).

Article 35. *Responsibilities of water users in regard to use of water objects*

Water users are obliged to:
**- use water objects rationally, take care about saving of water, and restoration and improvement of water quality,** observe the established limits of water consumption;
- maintain operational conditions of water protection and the other water structures and technical facilities, **improve their performance,** carry out records of volumes of water intake.

**Comment on 2.3k:**

The Constitution of Uzbekistan (article 53) has appropriate provisions for recognition of the various forms of ownership, including the private one.

**See also Comment on 1.2f.**

| | | |
|---|---|---|
| ***2.4*** | ***Regulations supporting the water law*** | |
| 2.4a | How many regulations are required by the water law? | Give the titles and other details of regulations in an annex |

**Comment on 2.4a:**

There is no exact answer to this question. It is only possible to tell the number of normative and legislative acts, which are specified in the Law (or in the special Decree of the Government) as to be developed. As a rule, this list covers the minimum number of normative and legislative acts at the level of bylaws that should be adopted in the first place.

Since the normative and legislative acts cover all spectrums of legislation and water law in particular, there may be infinitely many of such acts (Decrees of the Government, sectoral acts, etc.).

| | |
|---|---|
| 2.4b | Among the regulations foreseen, how many have been adopted?<br>If possible mark "adopted" on the list given in an annex |

**Comment on 2.4b:**

The Decrees of the President and the Cabinet of Ministers of the Republic of Uzbekistan, which directly or indirectly regulate the various aspects of water relationships, are listed below:

**The Decrees of the President of the Republic of Uzbekistan:**

- "On the most important directions for deepening of reforms in agriculture (24 March, 2003)
- "On improvement of the systems of national economy management bodies" (22 December, 2003)

**The Decrees of the Cabinet of Ministers of the Republic of Uzbekistan:**

- "On improvement of water resources management" (21 July, 2003, #320)
- "On improvement of activities of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan" (28 June, 2003, #290)
- "On improvement of activities of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan" (17

January, 2001, #26)

- "On issues associated with organization and operation of the State inspection for control and supervision over technical conditions and safety of large and especially important water structure under the Cabinet of Ministries of the Republic of Uzbekistan (30 March, 1999, #143)
- "On procedure for preparation of population of the Republic of Uzbekistan for protection from the emergency situations" (7 October, 1998, #427)
- "On measures for the state support to agricultural enterprises of the republic" (with amendments) (13 January, 1997, #24)
- "On organization of activities of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan" (with amendments) (26 November, 1996, #419)
- "On organization of activities of the Ministry of Emergency Situations of the Republic of Uzbekistan" (with amendments) (11 April, 1996, #143)
- "On improvement of activities of the State Committee of the Republic of Uzbekistan for supervision over safety in industry and mining" (10 January, 1996, #17)
- On approval of "Temporary procedure for limited water use in the Republic of Uzbekistan" (3 August, 1993, #385)
- On approval of "Provision on water protection zones of reservoirs and the other water bodies, rivers, main canals and drainage collectors, sources of drinking and municipal water supply, and also sanative and recreation water bodies in the Republic of Uzbekistan" (7 April, 1992, #174),

**and the others.**

**Annexes to the Decrees of the Cabinet of Ministers of the Republic of Uzbekistan:**

- #320 of 21.07. 2003 – (Annex #5 "Provision on the Main Administration of water resources of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan")
- #419 of 26.11.1996 – (Annex #1. Provision "On the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan")
- #143 of 11.04.1996 – (Annex #1. Provision " On the Ministry of Emergency Situations of the Republic of Uzbekistan")
- #17 of 10.01.1996 - (Annex #1. Provision "On the State Committee of the Republic of Uzbekistan for supervision over safety in industry and mining")
- Temporary procedure for limited water use in the Republic of Uzbekistan (approved by the Decree of the Cabinet of Ministers on 03.08.1993, #385)
- "Provision on water protection zones of reservoirs and the other water bodies, rivers, main canals and drainage collectors, sources of drinking and municipal water supply, and also sanative and recreation water bodies in the Republic of Uzbekistan" (approved by the Decree of the Cabinet of Ministers on 07.04.1992, #174),

**and the others.**

| | | | | |
|---|---|---|---|---|
| 2.4c | Are the regulations effective? | Yes: ☐ | No: ☐ | Partly: ☑ |

**Comment on 2.4c:**

Practically every newly adopted normative act is the step forward in the national legislation, i.e. it is more effective as compared with its absence. However, due to a number of reasons (it is in general lack or insufficiency of mechanisms for its implementation) it may be not as efficient as expected.

| | | |
|---|---|---|
| 2.4d | If "No" or "Partly" for which reason? (tick one or more of the following possible reasons) | |
| 2.4e | Regulations insufficiently known by the users: | ☑ |
| 2.4f | Regulations insufficiently known by those who shall enforce them: | ☐ |
| 2.4g | Regulations too complicated to be operational | ☐ |
| 2.4h | Regulations contradict each other: | ☐ |
| 2.4i | Regulations conflicts with customary law or cultural traditions of certain users: | ☐ |

**Comment on 2.4h, 2.4i :**

There is a persistent enough opinion that the various normative and legislative acts very often allegedly "conflict" or not "harmonized" or "contradict" with each other. This is not entirely true.

The general legal force rules of the normative and legislative acts are as follows:

- The state constitution has supreme legal force
- Laws and the other normative and legislative acts are being adopted on the basis and in pursuance of the national Constitution and can not contradict its norms and principles
- The normative and legislative acts of ministries, state committees and agencies are being adopted on the basis and in pursuance of the Constitution and Laws, decisions of the Parliament, President and Government
- The normative and legislative acts of the local state authorities are being adopted on the basis and in pursuance of the Constitution and Laws, decisions of the Parliament, President, and Government, and also decisions of the superior local state authorities.

Correspondence of legal force between the various normative and legislative acts is as follows:

- Normative and legislative act should correspond to the one that has superior legal force
- In case of disagreements between two normative and legislative acts, it should be enforced the one that has the superior legal force
- In case of disagreements between two normative and legislative acts which have equal legal force, it should be enforced the subsequent one
- The normative and legislative act adopted by one ministry, state committee or agency has superior legal force as compared with the normative and legislative act adopted by the another ministry, state committee or agency if the institution that adopted such act is specially authorized to regulate the certain area of public relationships.

Thereby, in regard to legal force the normative and legislative acts harmonize with each other in accordance the above mentioned provisions.

| | | |
|---|---|---|
| 2.4j | Sanctions are not applied in cases of non-compliance: | ☑ |

**Comment on 2.4j :**

Sanctions are envisaged and applied. However, the size of sanctions for non-compliance with the water legislation (the majority of them is considered as administrative violations) as a rule is inadequate to the caused damage.

| | | |
|---|---|---|
| 2.4k | Monitoring capacity inadequate | ☑ |
| 2.4l | Institutional enforcement capacity inadequate | ☑ |
| 2.4m | Other reasons (explain which): | |

| | | | | |
|---|---|---|---|---|
| ***2.5*** | ***Is the water law harmonised with other national legislation?*** | | | |
| 2.5a | Environmental legislation | Yes: ☑ | No: ☐ | Partly: ☐ |
| 2.5b | Land-use legislation | Yes: ☑ | No: ☐ | Partly: ☐ |
| 2.5c | Agriculture legislation | Yes: ☑ | No: ☐ | Partly: ☐ |
| 2.5d | Health legislation | Yes: ☑ | No: ☐ | Partly: ☐ |
| 2.5e | Other legislation (describe): | | | |
| 2.5f | If relevant, list key areas of conflict between the water law and other legislation: | | | |

**Comment on 2.5:**

In accordance with the above **Comments on 2.4h, 2.4i**, disagreements between various normative and legislative acts can be easily resolved even in case if there is no agreement (in text or wording) between legislation of various sectors.

| | | | |
|---|---|---|---|
| ***2.6*** | ***Is the national legal framework harmonised with the international agreements which the country endorses?*** | | |
| 2.6a | Yes: ☑ | No ☐ | Partly: ☐ |
| 2.6b | List the water related agreements signed by the country [7] and, if possible, mark those which have been integrated in the national legal framework. | | |

[7] Country can sign the international agreement, but not ratify it.

**Comment on 2.6a:**

- The Constitution of Uzbekistan

Preamble

"…recognizing priority of the generally accepted norms of the international law…"

- The Law of the Republic of Uzbekistan "On the International agreements of the Republic of Uzbekistan" (22.12.95):

Article 27. *Compliance with the International Agreements of the Republic of Uzbekistan*

The international agreements of the Republic of Uzbekistan shall be the subject to strict and obligatory observance in accordance with the norms of international law.

Practically each Law of the Republic has the provision on precedence of the legal force of international agreement over the similar provision of the national Law.

In particular, the Law "On Water and Water Use of the Republic of Uzbekistan" defines:

Article 119. *International Agreements*

If the international agreement of the Republic of Uzbekistan sets the other provisions than envisaged by the present Law, then the provisions of the international law shall take precedence.

**Thereby, after ratification** by the country of the international agreement its provisions are automatically considered as harmonized with the national legislation.

**Note:** There are international agreements that come into force without their ratification

Thus, the Law of the Republic of Uzbekistan "On the International Agreements of the Republic of Uzbekistan" defines:

Article 14. *The International Agreements of the Republic of Uzbekistan that are subject to ratification*

The international loan and indemnity agreements of the Republic of Uzbekistan, signed by the Government of the Republic of Uzbekistan or by its authorized agencies with the international financial institutions **are not subject for ratification and come into force** for the Republic of Uzbekistan **from the moment of their signing.**

The above mentioned is true in regard to the similar agreements of the Republic of Uzbekistan in the water sector.

**Comment on 2.6b:**

- The Convention to Combat Desertification (1994)
- The Framework Convention on Climate Change (1992)
- The Convention on Biological Diversity (1992)
- The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (1971)

**Agreements and equated to them the regional political and legal documents signed by the Republic of Uzbekistan:**

- The Dushanbe Declaration (2002)
- Decision of the Heads the Central Asian Countries of 06.10.2002, "On the main directions of the Program for specific actions aimed at improvement of ecological and socio-economic situation in the Aral Sea basin for period 2003-2010" (ASBP-2)
- The Ashgabad Declaration (1999)
- The Agreement of 1998, amongst the Governments of Kazakhstan, Kyrgyzstan, and Uzbekistan about use of water and energy resources of the Syrdarya river basin (Tajikistan is the Party to Agreement since 1999)
- The Agreement of 1998, amongst the Governments of the Central Asian Republics
- The Issyk Kul declaration about the regional cooperation of the Central Asian Countries
- The Agreement of 1997, amongst the Governments of the Central Asian Republics "On status of the International Fund for Saving the Aral Sea"
- The Almaty Declaration (1997)
- The Nukus Declaration (1995) of the Central Asian Countries and the international organizations on sustainable development of the Aral Sea basin
- Agreement of 1992 amongst the Governments of the Central Asian Republics "On cooperation in joint management, use and protection of the transboundary water resources",

**and the others.**

| ***2.7*** | ***Does the legal framework include an obligation to elaborate/maintain an IWRM Action Plan/strategy/process?*** | |
|---|---|---|
| 2.7a | Yes: ☐ | No: ☑ |

**Comment on 2.7a:**

Water Law of the Republic of Uzbekistan does not directly specify the development/support to the IWRM Action Plan/Strategy (they are not mentioned exactly under this title), but the IWRM process in terms of "integrated, rational, efficient use of water resources" is included in the legal structure.

The projects, which reflect practically all the main IWRM aspects (sustainable development, water saving, public participation, coordination and the others), are presented in the key political document ASBP-2, approved by the Heads of the Central Asian Republics. One of the large ASBP-2 projects (Project #8.3) is entitled **"The Integrated Water Resources Management in the Aral Sea Basin".** As "The expected results" of this project it is in particular envisaged the following:

1. The new managerial structure of the water management bodies with involvement of public for implementation of the IWRM principles within the hydrographic boundaries at the pilot objects…
2. The legal basis for realization of the IWRM principles in the form of regulation documents package.

Development of the Concept of sustainable development in the Aral Sea basin is envisaged by the ASBP-2 as Priority #11. In priority rationale it is said that "the main objective of ASBP-2 … can be achieved only within the framework of policy aiming at sustainable development (SD)".

In the Nukus (1995), Issyk Kul (1995), Almaty (1997), Ashgabad (1999), and Dushanbe (2002) Declarations of the Central Asian countries it was declared transition of the countries to the SD policy, integrated and multi-disciplinary approach, ecosystem and **integrated natural resources management** and water use.

| **3. Institutional framework for the water sector** | | |
|---|---|---|
| ***3.1*** | ***Provide the organisation chart(s) for the Institution(s) responsible for water resources management (attach in a separate document or in electronic format)*** | |
| | Water resources management in the Republic of Uzbekistan is carried out on the basin principle.<br>Water management structure includes the following levels:<br>**1. National:** the Main Administration of water resources of the Ministry of Agriculture and Water Resources (MAWR);<br>**1.1. Basin (at the level of large river basins):**<br>The Basin irrigation systems management (BISM):<br>*Within the Syrdarya river basin*: **1.** the Naryn-Karadarya BISM; **2.** the Naryn-Namangan BISM; **3.** Syrdarya-Sokh BISM; **4.** the Lower-Syrdarya BISM; **5.** Chirchi-Akhangaran BISM, and also: **6.** Administration of Main Canals System with the joined dispatch center for the Fergana valley,<br>*Within the Amudarya river basin:* **1.** Amu-Surkhan BISM; **2.** Amu-Kashkadarya BISM; **3.** Amu-Bukhara BISM; **4.** Lower Amudarya BISM; **5.** Zarafshan BISM.<br>**1.1.1. Basin (at the level of irrigation systems):**<br>Three Main System Administrations (MSA); seven Main Canal Administrations (MCA), and 52 Irrigation System Administrations, as well as the specialized departments: 14 territorial Administrations of Pumping Stations, Energy and Communication (APSEC), 13 Hydro-Geological and Amelioration Expeditions (HGAE). | |
| *3.2* | ***Water resources management responsibility***<br>*If the water resources management responsibility is undertaken by a sector institution (e.g. Ministry of Agriculture, Energy, Environment) are there plans to move the responsibility away from the particular sector institution and place it in a cross-sectoral institution.* | |
| 3.2a | Yes: ☐ | No: ☑ |

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|---|---|---|---|
| *3.3* | ***Institutions in the management framework***<br>*Which institutions are in place being part of a framework for IWRM?* | | |
| 3.3a | Is there a national body where cross-sectoral coordination at the overall level can take place? | Yes: ☑ | No: ☐ |
| | If Yes, give its name: date of establishment frequency of meetings | | |
| | **Comment on 3.3a:**<br>At the national level: **The Government of the Republic**<br>On the basis and in pursuance of decisions of the Government, departments of ministries and agencies coordinate their activities at the lower levels: **oblast, rayon, local levels.**<br>As a rule, the main coordination agency is the state authorities and administrations at the relevant levels.<br>Dates and periodicity of the Government sessions are identified by the Government itself | | |
| 3.3b | Is there a platform where interaction with stakeholders at the national level can take place? | Yes: ☑, but… | No: ☐ |
| | I If Yes, give its name: date of first meeting frequency of meetings | | |

| | | | |
|---|---|---|---|
| | **Comment on 3.3.b:**<br>This is a platform where interaction with stakeholders **may take place**:<br>In accordance with the competence, the state authorities and management bodies at the levels from oblast to the lower levels resolve **all issues** on the respective subordinated territories:<br>The Constitution of the Republic of Uzbekistan (Article 99):<br>The Soviets of People's Deputies led by khokims are the representative bodies of authority in oblasts, rayons, cities and towns, except in towns subordinate to rayon centers, and city districts. They shall act upon all matters within their authority, in accordance with the interests of the state and citizens.<br>The Constitution of the Republic of Uzbekistan (Article 100):<br>The local authorities shall:<br>- … direct the economic, social and cultural development within their territories,<br>- … protect the environment…<br>The Constitution of the Republic of Uzbekistan (Article 105):<br>Residents of settlements, kishlaks and aulls (villages), as well as of residential neighborhoods (makhallas) in cities, towns, settlements and villages shall decide all local matters at general meetings of citizens…<br>**Note:** The above mentioned bodies are responsible, in particular, for solution of issues associated with water resources management, including issues related with activities coordination and interaction amongst water use entities on their respective subordinated territories.<br>Another issue is poor public control and necessity for establishment of the public Councils at various levels of water resources management: basin, irrigation system or canals of various orders (Basin Councils, Unions and Water User Associations) and their active involvement in the process of Water Resources Management. | | |
| 3.3c | 3.3c.1. Are there platforms for interaction with stakeholders at the regional/provincial level? | Yes: ☑ | No: ☐ |
| | **See Comment on 3.3b, the part relevant to 3.3c.1.** | | |
| | 3.3c.2. Are they operational (holding meetings and influencing decisions)? | Yes: ☐ | No: ☑ |
| 3.3d | 3.3d.1. Are there bodies for participation of the users at the local level | Yes: ☑ | No: ☐ |
| | **See Comment on 3.3b, the part relevant to 3.3d.1.** | | |
| | 3.3d.2. Are they operational (holding meetings and influencing decisions)? | Yes: ☐ | No: ☑ |
| 3.3e | 3.3e.1. Are there bodies for river basin management? | Yes: ☑ | No: ☐ |
| | 3.3e.2. If Yes, give<br>- number of basin bodies – **11**<br>- organisational structure – **See Comment on 3.1.**<br>- key functions – **See Comment on 3.3e.2** | | |

**Comment on 3.3.e.2:**

**The Main functions** of Basin Irrigation Systems Management (BISM):

- summarizes the predictions of water demands and submits proposals on the water intake limits to the MAWR of Uzbekistan;
- upon proposals from the oblast departments of the Ministry of Agriculture and Water Resources (MAWR) and Irrigation System Administrations (ISA) and on the basis of water intake limits approved by MAWR for the certain basin, identifies water intake limits at the basin level by sectors of economy, main canals, especially important water objects, irrigation systems, administrative oblasts and rayons. Identifies the operation mode of the inter-system pumping stations;
- manages the surface water resources within the whole basin and by the irrigation systems for its purposive and rational use;
- develops measures and submits proposals on its implementation to the MAWR in order to ensure reliability of operation and development of water infrastructure of the basin, introduce the resource saving technologies, market principles and mechanisms of water use;
- jointly with "Uzsuvnazorat" inspection executes control over observance of limits and rational management of water resources within the basin;
- maintains inventory of water supply and intake within the whole basin, and by the Main Canal Systems and Irrigation Systems, sectors of economy, administrative oblasts and rayons, water sources and especially important water management objects, and also submits reports on water use in accordance with established procedure;
- compiles the water resources balance, maintains water cadastre section "Water Use" for the whole basin, and by Main Canal Systems and Irrigation Systems, sectors of economy, administrative oblasts and rayons, water sources and especially important water management objects;
- organizes installation of water measurement structures and devices at the state-owned irrigation systems, introduction to the water resources management the modern systems of communication, automation and telemechanics, and also provides their metrological support;
- develops and implements proposals on improvement of water availability for some irrigation systems, improvement and development of irrigation systems and their structures;
- prepares proposals on the basin prospective water master plan, as well as for modernization, reconstruction, re-equipment of irrigation systems and their structures for inclusion into investment programs, participates in the investment projects;
- ensures purposive and efficient use of the allocated funds.

| | |
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| 3.3f | Other institutions (explain) |
| | • Unions of canal water users, established within the framework of the IWRM Fergana project<br>• Water User Associations, farmers and dekhkan farms (lower level of water resources management), established during the recent years. |

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| ***3.4*** | ***Institutional Capacity at the national/central level***<br>*The questions below try to establish how far the country has come towards a realistically attainable institutional capacity for water resources management based on IWRM principles. Imagine a 5 year goal of establishing the management functions below and associated competences. The goal has to be consistent with a realistic water resources management budget and staffing considering the usual or immediately foreseen national budget priorities.*<br>*For each of the functions below, give your assessment of the national/central level capacity using the following scale: 0 = function not established, 1 = function has many large gaps in quality and coverage, 2 = function has some gaps in quality and coverage, 3 = function operates at the realistic goal level.* | | | | |
| 3.4a | Policy formulation | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4b | Drafting of laws and associated regulations | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4c | Recovery of cost of water resources management | 0: ☑ | 1: ☐ | 2: ☐ | 3: ☐ |
| 3.4d | Collecting water resources information and operating databases | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4e | Preparation of water resources assessments | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4f | Preparation of environmental assessments | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4g | Preparation of socio-economic assessments | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4h | Monitoring of water availability | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4i | Monitoring of ambient water quality | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4j | Monitoring of aquatic ecosystems | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4k | Monitoring of pollution loads | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4l | Monitoring of water use | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |

| | | | | | |
|---|---|---|---|---|---|
| 3.4m | Planning resource use, protection and conservation | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4n | Facilitating water demand management | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.4o | Water allocation | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4p | Conflict mediation | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.4q | Cooperation on internationally shared watercourses | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |

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| ***3.5*** | ***Institutional constraints (apart from human resources) at the national/central level***<br>*Give your assessment of the severity of major negative factors constraining the water resources management institution(s). Use the following scale: 0 = not relevant, 1 = not severe, 2 = severe, 3 = very severe* | | | | |
| 3.5a | Lack of Good Governance (transparency, accountability, integrative, communication, participation) | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.5b | Institutional framework poorly suited to address the key water resources management issues (e.g. mix of regulatory and service provider functions) | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.5c | Institutional mandate poorly defined | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.5d | Responsibilities poorly described for departments/sections | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.5e | Inadequate equipment (laboratory, monitoring equipment, etc.) | 0: ☐ | 1: ☐ | 2: ☐ | 3: ☑ |
| 3.5f | Inadequate budget | 0: ☐ | 1: ☐ | 2: ☐ | 3: ☑ |
| 3.5g | Inadequate logistics (e.g. transport) | 0: ☐ | 1: ☐ | 2: ☐ | 3: ☑ |
| 3.5h | Inadequate office facilities | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |

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| ***3.6*** | ***Human resources***<br>*Development of the water resources management functions requires staff with competences at levels corresponding to the technical complexity of the functions. The questions below address the staff capability compared to the realistic goal level of the functions (ref 3.4)*<br>*Assess the human resource situation in the national/central water resources management institution(s) in relation to the IWRM functions under 3.4a – 3.4q. Use the following scale: 0 = not at all, 1: to some degree, 2: to a reasonable degree. 3: fully* | | | | |
| 3.6a | Is the number of staff adequate for handling the IWRM functions at goal level as outlined above? | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.6b | Is the staff sufficiently qualified for to handle the IWRM functions at goal level as outlined above? | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 3.6c | Is the staff motivated to handle the water resources management based on IWRM principles? | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 3.6d | Estimate the number of senior managers in the water sector that are familiar with IWRM principles.<br>Less than 5 ☐ 5 - 10 ☐ 10 – 20 ☐ More than 20 ☑ | | | | |
| 3.6e | Are there specific IWRM training activities in your country (if Yes, list them here or in a separate annex referring to the number of the question | Yes: ☐ | | No: ☑, but… | |
| | List of IWRM training activities: | | | | |
| **Comment on 3.6e:**<br>Apart from the national trainings within framework of the "IWRM Fergana" project, the special trainings in the IWRM are not being conducted due to insufficiency or lack of finance. At the same time the specialized regional training courses, seminars, and round tables are held under the aegis of ICWC for representatives of the various levels of the Central Asian water hierarchy. These trainings are held at the Training Center of SIC-ICWC in Tashkent and in its affiliate in Urgench (Khorezm oblast). The list of training topics on IWRM is quite wide. | | | | | |

## 4. Processes and Milestones leading towards IWRM

| | |
|---|---|
| *4.1* | ***Status of Action Plan/strategy for implementation of an IWRM Framework*** *(enabling environment, institutional roles and management instruments)* |
| 4.1a | Not foreseen for the time being ☑, but… |

| | |
|---|---|
| 4.1b | Under preparation ☐<br>Since when : month year Expected to be finalised by : month year |
| 4.1c | Existing ☐ Approved by<br>Date of approval: month year |
| 4.1d | Existing and under implementation ☐ Agency in charge of implementation<br>Date of start of implementation : month year |

**Comment on 4.1:**

Although Action Plans on the scale of Uzbekistan are not envisaged right at this moment, the conditions for implementation of the IWRM (enabling environment, institutional framework and management instruments) appear in the national and sectoral programs. Part of these programs is listed in the comment on 1.1a.

Specific action plans are envisaged within the framework of the pilot objects of "IWRM-Fergana" project and within the preliminary rationale "Transition to IWRM at the lower reaches and delta of Amudarya river (Turkmenistan and Uzbekistan) and Syrdarya river (Kazakhstan), which had been accomplished under sponsorship of the US State Department.

Within the framework of project "UNEP support for achieving the IWRM 2005 target Central Asia" by October 2006, it is envisaged development and approval of the national "road maps", which will be the basis for subsequent development of the detailed Action Plans.

| ***4.2*** | ***If an Action Plan exists (confirmed in 4.1c or 4.1d)*** | | |
|---|---|---|---|
| 4.2a | Which government and non-government agencies were involved in preparing the plan?<br>Specify : | | |
| 4.2b | Is there a portfolio of projects to implement the IWRM Action Plan? | Yes: ☐ | No: ☑, but… |
| 4.2c | Is there a programme for capacity building included in the IWRM Action Plan? | Yes: ☐ | No: ☑ |
| 4.2d | If Yes, is it a recurrent programme? | Yes: ☐ | No: ☐ |
| 4.2e | Does the action plan have mechanisms for monitoring of implementation? | Yes: ☐ | No: ☑ |
| 4.2f | If Yes, which agency is responsible for monitoring? | | |
| 4.2g | Is there a strategy for financing of the Action Plan implementation? | Yes: ☐ | No: ☑ |

**Comment on 4.2b:**

There are some projects that include elements of the Action Plan on the scale of pilot irrigation systems (for example within the framework of "IWRM Fergana" project and preliminary rationale of project "Transition to IWRM at the lower reaches and deltas of Amudarya and Syrdarya rivers), but not on the scale of the Republic of Uzbekistan as a whole.

| ***4.3*** | ***IWRM in other Plans***<br>*Is IWRM itself or the principles that form the basis for IWRM parts of official documents (policies, plans or strategies) from other sectors that use water or relate to water* | | |
|---|---|---|---|
| 4.3a | Does IWRM appear in a Poverty Reduction Strategy Paper | Yes: ☑ | No: ☐ |
| 4.3b | If Yes, provide date and title of document<br>month year title | | |
| 4.3c | Does IWRM appear in a National Development Strategy to achieve the MDGs | Yes: ☑ | No: ☐ |
| 4.3d | If Yes, provide date and title of document<br>month year title | | |
| 4.3e | Does IWRM appear in an Agricultural Development Plan | Yes: ☑ | No: ☐ |
| 4.3f | If Yes, provide date and title of document<br>month year title | | |
| 4.3g | Does IWRM appear in an Energy Development Plan | Yes: ☑ | No: ☐ |
| 4.3h | If Yes, provide date and title of document<br>month year title | | |
| 4.3i | Does IWRM appear in a National Environmental Action Plan | Yes: ☑ | No: ☐ |

| | | | |
|---|---|---|---|
| 4.3j | If Yes, provide date and title of document<br>month year title | | |
| 4.3k | Does IWRM appear in other national plans development plans | Yes: ☑ | No: ☐ |
| 4.3l | If Yes, provide date(s) and title(s) of document<br>month year title<br>month year title<br>month year title | | |
| **Comment on 4.3:**<br>Each national development plan (on reduction of poverty or improvement of living standards for achievement of the Millennium Development Goals, agriculture, energy sectors, environmental sphere and the others) is **the integrated one** and includes the main IWRM principles to one or another extent. | | | |

| | | | | | |
|---|---|---|---|---|---|
| ***4.4*** | ***Awareness on IWRM***<br>*Is IWRM and the inherent concepts known and understood by the major operators in the water sector and sectors relating to water (e.g. agriculture/irrigation, hydropower, health, environment, water supply and sanitation). Use the following scale: 0 = not at all, 1 = to some degree, 2 = to a reasonable degree, 3 = fully* | | | | |
| 4.4a | High level decision makers | 0: ☐ | 1: ☐ | 2: ☐ | 3: ☑ |
| 4.4b | Professionals in agencies responsible for water resources management | 0: ☐ | 1: ☐ | 2: ☐ | 3: ☑ |
| 4.4c | Professionals in agencies within water use and water related sectors | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 4.4d | Major water users (incl. industries) | 0: ☐ | 1: ☑ | 2: ☐ | 3: ☐ |
| 4.4e | Consultants | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |
| 4.4f | Non-government organisations (NGOs) in the water sector | 0: ☐ | 1: ☐ | 2: ☑ | 3: ☐ |

| **5 Narrative descriptions of process towards IWRM** | |
|---|---|
| 5.1 | Describe in your own words your assessment of the extent to which your country has achieved the target of the Johannesburg Plan of Implementation on IWRM: "…..to develop integrated water resources management and efficiency plans by 2005" |
| | **The IWRM 2005 Plans were not prepared** |

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