The institute was established in 1929, it works out various water resources development projects for more than 80 years.

SERVICES

- Project plan
- Site Reconnaissance
- Surveys and Investigations
- Preliminary Designs
- Feasibility Studies
- Detailed Engineering Designs
- Bill of Quantities and Cost Estimates
- Specifications
- Tender Documents
- Contracts Development
- Construction Supervision
- Management

FIELD of ACTIVITIES

- Regional Development Planning and Management
- Irrigation and Land Drainage
- Water Management
- Dams, Barrages and Canal Systems
- Watershed management
- Reclamation
- Surface and Ground Water Investigations, Planning and development
- Flood Control and Management
- Pump Stations
- Bridges and Roads
- Municipal and Industrial Water Supply
- Sewerage, Drainage and Sanitation
- Geological Studies, Mapping and Investigations
- Seepage Analysis
- Environmental Impact Assessment
- Financial and Economic Appraisal
- Agro-economic analysis
«UZGIP» Institute (former «Uzgipromeliovodkhoz», «Sredazgiprovodkhlopok» institutes) is the oldest design, survey and research organization of Republic of Uzbekistan and in Central Asian region on irrigation, drainage and water supply systems construction and improvement of the irrigated lands. The Institute was founded in 1929.

The Institute is the main designer of Technical Projects and Feasibility Study of reclamation, irrigation and rehabilitation of irrigated lands in Golodnaya, Djizak, Karshi and Sherabad steppes, Ferghana valley and in the Republic of Karakalpakstan with the total area more than 2 mln. ha. Also, UZGIP specialists developed systems of water supply of many rural settlements and large industrial enterprises of Uzbekistan.

The accumulated engineering expertise and know-how have enhanced successful and effective solution of practical and theoretical important issues, applied science and designing practice and construction of irrigation systems. On the basis of these works, approaches and methods of the integrated management of the salt affected soils were formulated and implemented for amelioration of the irrigated lands in the Central Asian Republics.

High intellectual, scientific and industrial potential of scientists, engineers and technicians of the institute has allowed carrying out researches, developing projects and rendering engineering services at a high technological level and qualitatively.

The Institute developed a number of unique projects successfully realized in the conditions of high seismicity, such as Andizhan reservoir buttress dam in Ferghana valley; Takhiatash water-engineering system in Karakalpakstan Republic on Amudarya – the largest river of the region; Karshi Main Canal in Republic of Uzbekistan (total length 176.6 km) with the cascade of six pump stations (capacity 195 m$^3$/sek, total height of water lifting ~132.2 m), Talimardzhan off-line reservoir (volume 1.5 billion cub. m) and swapping pump station (capacity 195 m$^3$/sek);

Basic approach of «UZGIP» Institute for development of projects is in attraction beside of its own specialists necessary experts from other organizations both local and foreign. The institute has branches in Nukus (Karakalpakstan Republic) and an expedition in Karshi (Kashkadarya veloyat). The Institute has wide experience in cooperation with experts of various foreign companies, such as BRLi (France), Mott Macdonald (Great Britain), Temelsu (Turkey), etc. It allows creating a team with high expertise and capability for both successful working out and implementation of projects of various complexities.

Consultants and experts from the Institute have experience in rendering of technical assistance and cooperation in water management, development of irrigation and drainage, development of water supply and sanitation systems in Algeria, Yemen, Pakistan, India, Cuba, Iraq and other countries of Asia, Africa and Latin America.

From the end of 1980-th UZGIP carries out Feasibility Studies and Projects on Rehabilitation of Irrigation and Drainage infrastructure and improvement of irrigated lands in Uzbekistan and Pre Aral Zone (Republic Karakalpakstan), and also it will carry out supervision of construction and reconstruction of the projected objects.
Since 1994 the Institute takes active part in working out the World Bank Aral Sea Program, EC-Tacis, ADB, FAO and other projects, such as:

- **Aral Sea Program of the World Bank:**
  - Program 3.1.B. "Improvement of Water quality used in agriculture" in which institute took part as a national leader. Foreign partner: ILRI, the Netherlands.
  - Program 3.2 «Preliminary Study of Drainage Project on the Right Bank of the Amu-Darya River, Phase I, II, together with Mott MacDonald (Great Britain) Temelsu (Turkey).
  - World Bank Project, Environment Assessment of Irrigation and Drainage in the Amu-Darya River basin, Phase I, II, together with IWACO, the Netherlands.

- **EC – TACIS PROJECT WARMAP, WARMIS Phase II**

- **Modernization project of South Hunger Steppe Canal in Syrdarya River basin, together with BRL, France.**

- **GEF/WB Water and Environmental Management Project:**
  - Component C. Dams Safety and reservoirs assessment.
  - Working out Technical-Economic Justification on Creation of Small Local Water Ponds on Coastal Area at the Amu-Darya River delta (Mezhdurechye).
  - Sub-component A-2 Water Saving

- **Asian Bank Development Projects:**
  - Grain Production improvement Project in Uzbekistan (2001)


- **The World Bank Karshi Pumping Cascade Rehabilitation Project (2001-2002). According to decision of the World Bank institute was as sub-contract organization.**

- **FAO Integrated Management for Sustainable Use of Salt-affected and Gypsiferous Soils and other.**
During period of the Soviet Union, the Institute (former Sredazgiprovodkhlopok) made a particular and an important contribution in designing of interstate water use, including but not limited:

- Schemes of Complex Utilization of Water and Land Resources of Syrdarya and Amudarya River basins and Aral Sea, Narin – Syrdarya Cascade etc., on the base of which water division is regulated between the republics of Aral Sea basin.

- On the basis of the developed by the Institute Technical projects on Automation System of Control of Water Resources of the Syrdarya and Amudarya Rivers Basin Water Management Organizations (BVO) of Central Asia: BVO - Syrdarya and BVO - Amudarya were developed.

- Technical-Economic Justification of construction main collectors for the Diversion of Drainage Sewage Water in Amudarya basin;

- Technical-Economic Justification of Construction of Water Ponds in Muynak Town in the Republic of Karakalpakistan.

«Scheme of Complex Utilization and Protection of Water and Lands Resources of Aral Sea Basin»

The Scheme of integrated utilization and protection of water and lands resources of Aral Sea basin was developed on the basis of TOR of Ministry of Agriculture of USSR and Ministry of Melioration and Water Economy of USSR submitted to Sredazgiprovodkhlopok institute on August 12, 1969, in accordance with Instructions of Presidium of Council of Ministers of USSR # 35 dated October 6, 1965 “About measures on maintenance of commercial fishing importance of Aral Sea”.

The main objective and tasks:

- Updating of land resources suitable for irrigation;
- Establishment of priorities for main water projects implementation, including water importation of Siberian Rivers and Aral Sea basin water resources rearrangement;
- Development of measures on improvement of fishery of Aral Sea;
• Determination of main volumes of work and required investments;

• Revelation of Aral Sea importance in actual natural conditions forming;

• Prognosis evaluation of water resources and development of different water retaining sectors of the national economy for solving problems of optimization on regulated runoff distribution allocation and utilization;

• Definition of economically optimal regime of limited water resources consumption at each phase of the systems development.


Main purposes of these Schemes were:

• Updating of volume of Amudarya and Syrdarya Rivers basins water resources and their actual utilization by sectors of the national economy and also for future period up to level of exhaustion of own water resources;

• Action plan for main water economy and water protective measures with cost estimation of these works;

• Actual and prospective water resources balances of Amudarya River basin with taking into account of measures on increasing of actual water resources;

• Water demands limits in accordance with republics, oblasts and manufacturing sectors for Amudarya River basin at the level of local water resources exhausting.
Development and Irrigation of the Virgin Lands in Karshi Steppe

«Feasibility Report (FR) on pumping irrigation with waters of Amudarya River of the area of Kashkadarya River lower reach» was developed by the institute in 1960. It was recommended by the FR to construct Karshi Main Canal (KMC) from Kizilyaik section of Amudarya River, with allocation into its commanded area 200 thous. ha of lower lands at the first stage and about 300 thous. ha at the second one.

Thereafter there were developed technical project commands on main canals and irrigation of 200 thous. ha of the first stage, and after that – second stage of the project for area of 164 thous. ha at upper zone of Karshi Steppe. Water delivering to the massifs of irrigation was provided by Karshi Main Canal with overregulation of supplied water at Talimarjon water reservoir.

KMC was designed for supply with irrigation water of 364 thous. ha of upper zone of Karshi Steppe. Water lifting to the irrigation area is performed to the height up to 132,2 m by system of pumping stations, total capacity of the PS is 450 thous. kVt.

The canal is divided into two parts – head reach (pumping canal) and working reach (gravity canal). Talimarjon off-channel-location storage reservoir of 1,5 bln m³ capacity is situated between the reaches. It accumulates water lifted by the head reach of the canal during autumn – winter season, feeds the working reach of the canal in the period of vegetative irrigations and it allows to accumulate water evenly during all year long and distribute it for irrigation in accordance with water supply schedule. Working reach of KMC was designed for 360 m³/sec capacity required for irrigation of all its commanded area at first and second stage of Karshi Steppe reclamation area of 364 thous. ha. Irrigation canals system in Karshi Steppe was designed in such a way to have routes of supply ditches in the direction of maximal slope of surface. As a rule, the supply ditches were designed as reinforced canalettes. Where surface slope were more than 0,003 then asbestos-cement pipes of diameter up to 500 mm were used. On-farm irrigation network in all was designed for the first and second stages of Karshi Steppe reclamation with total length of 11 445 km (or it is 31,2 r.m. per ha). There were designed 827,3 km of main and inter-farm collectors to discharge drainage water. Specific value of closed horizontal drainage average length is 50-60 r.m. per ha. There were designed 85 agricultural enterprises, including 71 cotton ones at total area of 347,2 thous. ha (214,5 thous. ha of which provided for cotton sowing) in the zones of first and second stages of Karshi Steppe irrigation and reclamation.
Complex Irrigation and Reclamation of Virgin Lands in Golodnaya Steppe

The designed net irrigated area was defined as 183,6 thous. ha with land use coefficient 0,8-0,9, including 178,3 thous. ha lands for agricultural use. 26 agricultural enterprises were provided by the complex project with farms structure and planning close to the design indicators for the new zone of Golodnaya Steppe.

Irrigation network was designed as concrete lined canals, reinforced concrete canalettes and closed pipelines. Total length of pipelines – 2 950,7 km, canalettes – 973,01 km and canals with concrete lining – 254,78 km. At the area of 155 thousand hectares followings were provided: lands leveling with total volume of it 130 mln. m³, horizontal closed drainage at the area of 96,2 thous. ha, vertical drainage at the area of 56,4 thous. ha. Construction of 482,8 km of farm collectors were provided by the project for catchment and diversion of drainage waters.

The total amount of works provided by the project was characterized by following figures: main channels – 362 km, pump stations – 4 units, length of irrigation network – 3 651 km, total volume of lands leveling – 130 mln. m³, total length of horizontal drainage and collector network – 5 780 km, 357 vertical drainage wells, motorways – 1 047 km, main water conduits – 156 km, industrial buildings – 3 700 thous. m², apartment houses – 750 thous. m², cultural and community constructions – 974 thous. m².

Complex Irrigation and Reclamation of Virgin lands in Golodnaya Steppe

The area of Golodnaya Steppe was 205 thous. ha by year of 1956. On August 6, 1956 Council of Ministers of the USSR approved a resolution on development of reclamation works at area of 300 thous. ha at virgin zone of Golodnaya Steppe. «Sredazgiprovodkhlopok» institute was approved as General Designer for this unique project. Development of 49 sizable agricultural enterprises including 43 ones of cotton specialization were provided by integrated projects for irrigation and land-reclamation of new zone of Golodnaya Steppe. Total lengths of designed inter-farm and on-farm irrigation networks were:

- With concrete lining – 800,8 km
- Pipelines – 1 136 km.
DESIGN of LARGE PUMP STATIONS, DAMS and WATER RESERVOIRS

The World Bank Karshi Pumping Cascade Rehabilitation Project, (KPCRP) 2001

Karshi Pumping Cascade lifts water from Amudarya River in Turkmenistan territory for irrigation of 400,000 ha of the Karshi Steppe in Kashkadarya Oblast located at south Uzbekistan. System of Karshi Main Canal was constructed in 1973 and it is most large pumping irrigation system. The canal was designed for irrigation of 402 thous. ha including 392,000 ha in Uzbekistan and 10,000 ha in Turkmenistan. Water intake and discharge capacity at the head reach is maintained year-round by 13 dredges. There are 6 pump stations (with max capacity of each ~ 120 m³/sec) which lift water to 132,2 m height at KMC head reach of 78,4 km length. There is Talimarjan water reservoir with 1,400 mln. m³ active capacity at the end of head reach where seasonal flow regulation is performed.

The objective of the Project was to increase the reliability, efficiency and sustainability of the pumping water supply from Amudarya River to Karshi irrigated command area. The present phase consists of two components:

Component 1: Rehabilitation and efficiency improvements of the most critical components of the pumping cascade, and
Component 2: Establishment of sustainable water management institutions in the Karshi irrigation command area, which would be operated on commercial principles and sell water to users.

As part of the preparation of this project, the Government of Uzbekistan with support from the World Bank and a grant from the Government of Japan ("PHRD grant") has facilitated the preparation of Environmental Assessment (EA). This activity has been managed by the Project Implementation Unit (PIU) under the Ministry of Agriculture and Water Resources (MAWR). Other relevant components of the program were: i) technical design and supervision of civil works, awarded to Mott McDonald – Temelsu; ii) institutional component, by DHV; and iii) social assessment, by individual consultants at PIU.

Karshi Pumping Cascade Rehabilitation and Maintenance Project (KCPS) 2006-2010

Project implementation is financed by the Government of Uzbekistan.

2006-2007. Main tasks of this stage of the project were to improve technical conditions of pump stations, reduction of the annual maintenance expenditures through: purchasing of electric equipment, spare parts of pumps, repairing electro motors, instrumentations for automation and power supplies, electric equipment, etc.

2007-2010. In order to enhance rehabilitation and maintenance of pump stations the following were provided: procurement of 3 set of modernized advanced pump units together with electric motors, two dredges, tugboat, spare parts for pumps, electric motors and dredges and electric equipment. These measures promoted some reduction of O&M expenditures of the pump stations cascade.
Rezaksay Water Reservoir (2007)

Rezaksay water reservoir of volume of 300 mln. m$^3$ was put into operation in 2010 (1-st stage for 200 mln. m$^3$ was constructed in 2007), it is situated in Rezaksay valley between Chust – Namangan valley and North Ferghana Canal in Chust tuman of Namangan veloyat of Uzbekistan Republic.

Talimarjon Water Reservoir (1974)

Technical design of the reservoir was developed in 1974.

Andijon Water Reservoir at Karadarya River (1971)

The reservoir construction has provided sustainable water supply of 266,7 thous. ha of existing irrigated area and additional irrigation of 32,8 thous. ha area.
Tashkent Water Reservoir (1962)

Tashkent water reservoir is situated in the middle reach of Akhangaran River and it was constructed in 1962. Assignment of the reservoir is Chirchik and Akhangaran Rivers seasonal flow regulation for irrigation purposes.

South-Surkhan Water Reservoir (1962)

South-Surkhan water reservoir is situated in the middle reach of Surkhandarya River. The reservoir is of in-channel basin type and of seasonal regulation. The Reservoir area occupies high water bed and three fluvial terraces above flood plain of the river.

Chimkurgan Water Reservoir (1952)

Technical design of in-channel basin type Chimkurgan water reservoir was developed in 1954 by «Sredazgiprovodkhlopok» institute on the basis of Scheme of multipurpose use of water-resources of Kashkadarya River basin.

Takhiatash Barrage (1969)

Takhiatash Barrage (it was designed in 1967-1969, constructed in 1974) represents concrete flow-through dam at Amudarya River with outlets to canal systems of Leftbank (Suenli) and Rightbank (Kuvanishjarma), shipping lock, fish passing facility and desilting basins for canals supply with clarified water, full capacity discharge ~ 11 000 m³/sec, dam crest length is 474 m. It was the only one dam across Amudarya River at the time of its construction.
REHABILITATION of IRRIGATION and DRAINAGE SYSTEMS and IMPROVEMENT of IRRIGATED LANDS


In view of the importance of agriculture and its potential for adding to overall economic growth and raising rural incomes in the coming period, the government is keen to develop the sector and has raised its importance on the economic agenda. A number of government-led and also donor financed projects are being undertaken to address the major challenges created by the recent reforms.

The objective of RESP -2 project is to increase the productivity and financial and environmental sustainability of agriculture and the profitability of agribusiness in the project area. This will be achieved through the provision of financial and capacity building support to farmers and agribusinesses in seven regions of the Republic of Uzbekistan (covering around 65 percent of the total population of the country), and improved irrigation service delivery through rehabilitation of I&D infrastructure and strengthening of WUAs in seven districts within following seven regions: Andijan (Ulugnor district), Bukhara (Alat district), Kashkadarya (Mirishkor district), Samarkand (Pastdargom district), Syrdarya (Bayavut), Tashkent (Buka district), Ferghana (Yazyavan district).

Project consists of the following components: (1) Rural Finance; (2) Irrigation and Drainage; (3) Rural Training and Advisory Services and (4) Project Implementation).

One of the most important is Component 2 Irrigation and Drainage addressed to improvement of water management of irrigated areas in these seven districts, through investments in rehabilitation of critical inter-farm and on-farm I&D infrastructure and other related activities. UZGIP Institute is involved in implementation of the two subcomponents: (a) strengthening WUAs and the institutional capacity to train and support WUAs to rehabilitate, operate and maintain on-farm I&D systems; (b) investments in demonstration plots in the districts for applied advanced method of irrigation.

FAO/TCP/UZB/2901 «Integrated Management for Sustainable Use of Salt Affected and Gypsiferous Soils»

Project on «Integrated Management for Sustainable Use of Salt Affected and Gypsiferous Soils» (FAO/TCP/UZB/2901) is the first stage of cooperation of Uzbekistan within the framework of special program of FAO on food security. Main objective of the project was to assist the Government of the Republic of Uzbekistan to introduce and demonstrate appropriate integrated low-cost, low-risk management techniques for rehabilitation and improvement of salt affected and gypsiferous soils and transfer of appropriate best practice for land users through FAO Farmer Field School (FFS).

Project demonstrations provided in selected pilot farms in Syrdarya and Kashkadarya regions has promoted high efficiency, reliability and benefits for farmers and end land users. Productivity of winter wheat and cotton has increased on 20-50% and 30% respectively. Soil salinity reduced on 6-7 ds/m, water saving per 1 ton of production decreased for 41-62%. Finance analysis has confirmed high level of potential benefits.
In order to transfer the appropriate methods for farmers practice, the FAO Field Farmer School approach that extensively used in Asian and Latin America countries was applied. Implementation of Farmer Field School for training of Facilitators and farmer groups each of 20-25 farmers (of total more than 300 farmers) were conducted. FAO FFS approach was widely distributed and about 690 farmers were trained in the framework of the World Bank project «Drainage, irrigation and wetland restoration» (2005-2009) in South Karakalpakstan.

**Ak Altin Agricultural Development Project (1999 - 2004)**

«UZGIP» Institute, in cooperation with joint venture Mott Macdonald – Temelsu, took part in implementation of the project as a consulting organization. «UZGIP» specialists developed Feasibility Study of the project, and bidding documents for irrigation and drainage network rehabilitation in the Ak Altin district of the Syrdarya region.

There were followings provided in the project: (i) Rehabilitation of inter-farm irrigation (66,5 km) and collector (143,0 km) networks; on-farm irrigation 722,2 km and collector (428,3 km) networks, and of drainage network (1944,9 km), including new construction of subsurface horizontal drainage with total length of 1049,7 km. Project staff provided required control and consultancy services and other related activities.
DESIGN of WATER MANAGEMENT PROJECTS in REPUBLIC of KARAKALPKASTAN and PRE-ARAL ZONE

Creation of Small Local Water Ponds on Littoral Zone of Amudarya River Delta (2000 -2004)

For the purpose of sustainable use of water resources in the area of Amudarya River delta “Creation of Small Local Water Ponds on Littoral zone of Amudarya River Delta” along former seacoast of Aral Sea was provided by the project developed by «UZGIP» Institute Feasibility Study of «Capacity building of small local water reservoirs in the area of Amudarya River delta», that will improve water service for agriculture and fish farms, and which also will have healthy influence to climatic conditions in the zone of ecological disaster. Development and remodeling of impoundments like Mezhdurechenskoye, Muynakskoye and Ribachiye water reservoirs, and lakes Karadjar, Ilmenkol, Domalak, Maypost, Jiltibars were provided by the project.

Scheme of Irrigated Agriculture and Water Management Development of Karakalpakstan Republic for Period up to 2015

As a result of disastrous lowering of water level in Aral Sea, degradation of natural-economic complex of Amudarya River delta complex and Southern Priaraliye wetlands desertification and also because of disastrous lack of water in 2001-2002, irrigated agriculture and water management of Karakalpakstan Republic was found in a state of severe crisis situation. Main areas of activity on the irrigated agriculture and on wetlands of Southern Priaralie were worked out in frames of the Scheme with the purpose of the crisis negotiation.

Following items of work were included in the provided consultancy services:
- Analysis of state of agriculture and water economy;
- Working out of irrigated agriculture development scenarios;
- Development of irrigation and drainage strategy implementation
- Analysis of perspectives for rehabilitation of water management infrastructure of Southern Priaralie wetlands;
- Development of the region water resources balances;
- Elaboration of operational arrangements on projects of water resources schemes;
- Evaluation of environmental impact of the water resources complex to environment;
- Evaluation of actual situation and vision of West Aral Sea;
- Development of measures on mechanical cleaning, reconstruction and construction of main and inter-farm collectors;
- Development of measures on reconstruction and construction of main and inter-farm canals;
- Preparation of proposals on water resources management improvement.

Feasibility Study of South Karakalpakstan Main Collector (2003)

Future South Karakalpakstan Main Collector (SKMC) is located at the area of Karakalpakstan which is situated at western part of Uzbekistan Republic, and it includes part of Aral Sea to the north.

Major objectives of the Project were:
- To improve the drainage of the irrigated lands of South Karakalpakstan;
- To reduce salinity of the water at lower reach of Amudarya River
- To reduce the government expenditures on electric energy and other costs associated with the existing large ameliorative pumping stations located in the zone of SKMC influence

Total length of SKMC – 297.2 km, design normal capacity is 25 m³/sec, maximal capacity – 40 m³/sec
DESIGN of WATER SUPPLY SYSTEMS

«Reconstruction of water supply system of Rishtan town» (2012)

Sub-project «Reconstruction of water supply system of Rishtan town» is carried out in frames of «Reconstruction of water supply and sanitation systems of Kokand and Andijan towns and reconstruction of water supply system of Ferghana, Margilan towns and of Rishtan district centre» and it is the second project of Investment Program of multitranche financing program of Asian Development Bank – “Water Supply and Sanitation Services”. The subproject aimed drinking water supply problems solving of Rishtan town and of adjacent rural villages of Ferghana veloyat. The project includes two water intake facilities and one water distribution structure with all necessary facilities (water wells, water tanks, second lifting pump stations, chlorination plants etc.), construction of conduit of 24 km length for water delivering to Rishtan town, and also municipal distribution network with total length of 52 km. Water supply system is provided with unique system of head control which provides a means of significant electricity saving at water delivering to consumers.

External Water Supply of Dekhkanabad PFF (2005)

The project provides external water supply of Dekhkanabad potash fertilizers factory (PFF) from Pachkamar reservoir which is situated at Guzardarya River. Water by means of two pump stations is delivered by conduit of 41.3 km length to the factory tanks. After bringing to potable quality at the factory treatment facilities water by means of three pump stations and conduit of 35.9 km length is delivered to the settlement tanks at the mine. Consultants’ services included working out of the Feasibility Study (2005) and Detailed Design (2007-2008) of the project.

List of Selected Water Supply Projects

<table>
<thead>
<tr>
<th>Project title</th>
<th>Date</th>
<th>Project location</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply for Kungrad alkali works</td>
<td>2010</td>
<td>East part of Ustuyrt Plateau of Kungrad tuman of Karakalpakstan Republic</td>
<td>“Kungrad alkali works” unitary enterprise</td>
</tr>
<tr>
<td>External water supply of Dekhanabad Potash Fertilizers Factory</td>
<td>2008</td>
<td>Kashkadarya region, Guzar and Dekhanabad tumans</td>
<td>Management of Dekhanabad Potash Fertilizers Factory</td>
</tr>
<tr>
<td>Project of water supply of Angren town from Akhangaran water reservoir</td>
<td>2000</td>
<td>Tashkent veloyat, Akhangaran tuman</td>
<td>Tashvisuqava of Ministry of Public services of Uzbekistan Republic</td>
</tr>
<tr>
<td>External water supply of Shurtan Gas-Chemical Complex</td>
<td>2000</td>
<td>Kashkadarya veloyat, Guzar tuman</td>
<td>UzbekNIPINEftegaz</td>
</tr>
<tr>
<td>External water supply of Bukhara Oil Refinery</td>
<td>1995</td>
<td>Bukhara veloyat</td>
<td>Uzvodokanal</td>
</tr>
<tr>
<td>Kungrad – Muynak Main water conduit in Karakalpakstan Republic</td>
<td>1994</td>
<td>Nukus tuman of, Kungrad tuman in Karakalpakstan Republic</td>
<td>“Uzvodokanal” PA of Ministry of Municipal Affairs and Housing</td>
</tr>
<tr>
<td>Water supply of Esimuziak settlement in Karauziak tuman of Karakalpakstan Republic</td>
<td>1993</td>
<td>Karakalpakstan Republic, Karauziak tuman</td>
<td>ODSR-1 R.O.D. “Priaralie”</td>
</tr>
<tr>
<td>Water supply of Kegeyli sovkhoz in Nukus tuman of Karakalpakstan Republic</td>
<td>1992</td>
<td>Nukus tuman of Karakalpakstan Republic</td>
<td>DSP-1 of “Priaralie” Association</td>
</tr>
<tr>
<td>Inter-farm water conduits for settlements in Muynak tuman Nukus tuman of Karakalpak Republic</td>
<td>1991</td>
<td>Nukus tuman of Karakalpak Republic</td>
<td>DSP-1 “Aralvodstroy” LLC</td>
</tr>
<tr>
<td>Water supply of Tzakhkasar and Kaps-Bayandur settlements in Akhurian district of Armenian SSR</td>
<td>1990</td>
<td>Akhurian rayon in Armenian SSR</td>
<td>Ministry of Melioration and Water Economy of Armenian SSR</td>
</tr>
</tbody>
</table>
SUSTAINABLE MANAGEMENT of WATER and LAND RESOURCES and ENVIRONMENT with USING GEOINFORMATION SYSTEM


Nuratau-Kyzylkum Biosphere Reservation, with total area of 24 000 km², occupying the Nuratau state reserve, part of Arnasay preserve, and also Aydar-Arnasay lake system in the middle reaches of Syrdarya River have significant water protection, erosion - preventive and mudflow protection importance for Uzbekistan.

The main objectives of this project were preparation of plan and demarcation of the general boundaries and internal zones of the reserve, and development of the long-term plan for management of the Nuratau-Kyzylkum Biosphere Reserve relying on the normative and legal, environmental, and socio-economic criteria and principles of sustainable natural resources use. The management approaches and methods, that were being implemented and demonstrated by this project, made the real contribution to achievement of the sustainable links and compatibility between land/water use and protection of ecosystems within watershed. In general, implementation of the project interventions will facilitate increase of the country’s reserve territory.

In accordance with the target tasks of this Component, the Institute provided the cost-beneficial, reliable and sustainable GIS data base of the Nuratau-Kyzylkum Biosphere Reserve project as a model for conservation of biodiversity in Uzbekistan, as well as GIS/RS training for project staff and experts.

GEF/ADB CACILM Project on «Sustainable Land Management Information System (SLM-IS)» (2008-2009)

GEF/ADB Project Sustainable Land Management Information System (SLM-IS) was implemented by UZGIP Institute in the framework of the Central Asian Countries Initiative for Land Management (CACILM) in the spirit of UNCCD. CACILM is a multi-country and multi-partner long-term (2006-2016) program aimed at restoring, maintaining and enhancing productive functions of land in five countries of Central Asia, while preserving its ecological integrity and functions.

The main objective was an increasing institutional capacity to enhance reliable monitoring and assessment of land degradation and adaptation of an integrated approach to land use planning and management, taking into consideration current international efforts towards a harmonization of land data and information management. Specific tasks were design of the SLM Information System and incorporation it into global land use system mapping (FAO-LUS).

Based on analysis and compilation of the available data, maps, satellite images and biophysical resource base CACILM Land Use map was prepared, which included 8 main classes of land cover ( forest, shrubs, agricultural lands, wetlands, bare areas, etc).

The new National Land Use System (LUS) map have been prepared in accordance with FAO LADA (2009) guidelines. It consists of 25 classes of land use, each of them is divided into 3-4 sub classes depending on biophysical attributes of ecosystem, land use attributes and social economic features.