

Государства – учредители Фонда

Республика
Казахстан

Кыргызская
Республика

Республика
Таджикистан

Туркменистан

Республика
Узбекистан

Republic
of Kazakhstan

Kyrgyz
Republic

Republic
of Tajikistan

Turkmenistan

Republic
of Uzbekistan



International Fund for Saving the Aral Sea is international organization formed for the purposes of development and financing of ecological and theoretical and practical projects and programs directed to environmental recovering of the situation in the districts exposed to the Aral Sea catastrophe impact as well as for the solving of general socio-economic problems of the region.

«When we speak about humanitarian aid, when we suggest that a person is the most important activity entity of the United Nations Organizations, I would like these words will be specifically implemented in the Aral Sea crisis solving».

**I.A.Karimov, extract from the speech in the meeting of
Central Asian States Heads , October, 2002,
Dushanbe city**

GEF Agency of the International Fund for Saving the Aral Sea in association with leading mass media of the Republic of Uzbekistan has recently prepared a number of articles and publications, video reels and programs on the Aral Sea Shore problems. It became as tradition for mass media editorial staff to go to the Aral Sea Shore and make there live commentaries and interviews with organizers and participants of the Aral Sea Basin Program. With it, during the activity process we have to answer very frequently such questions as: When will you save the Aral Sea, when it will be full of water? Will it reach its previous sizes?

These issues are the evidence of sincere interest and anxieties of our fellow citizens, friends of Uzbekistan regarding our Aral. It must be admitted that mass media often mentioned about the present situation in the Aral Sea Shore but they insufficiently reported about realistic ways of the problem solving as well as the work provided in this direction, implementation of specific projects, results achieved.

It became clear that extreme attention of separate national and international organizations to the holding of conferences, seminars and symposiums (sufficiently expensive) on the Aral Sea problems has played a negative role in a certain degree: distraction of funds, attention and resources from the practical actions.

Perhaps, in future it will be possible to consider and implement large interstate water management projects but at present we would like to understand the Aral Sea saving as everyday solution though small but specific tasks in order to relieve the Person's life in the environmental catastrophe zone as well as the Nature surrounded him.

We offer you our prospectus which objective is to compensate partially the existing lacks of information regarding both ways and work on the overcoming of the Aral Sea crisis consequences as well as to try to attract attention and concentrate the efforts of partners, our fellow citizens, international organizations on the practical tasks solution through the proposal of the projects which are being presently implemented.

The previous prospectus (2005) contains a detailed information about each from five components of GEF regional project "Water and Environment Management in the Aral Sea Basin implemented by us during 1998-2003 years.(visit our website: www.aral.uz)

We have accumulated a definite experience for this period including cooperation and joint work with international organizations on the basis of international standards in the issues of analysis, procurement, implementation and monitoring. We formed an experienced team of national experts with partners in the Central Asian Region countries as well as drew a conclusion from omissions and errors.

GEF Agency has status of international organization. Its name "**Agency for implementation of the Aral Sea Basin and GEF projects**" is not casual. After the completion of the above-stated project in 2003 the Agency continues the implementation of a number of projects and programs which proved their vitality, some of them - in the GEF project's components development. In this regard we would like to offer you our new prospectus in which we greatly emphasize our present work, particularly the results of 2005-2006.

The Agency expresses its huge thanks to the organizations and colleagues in Uzbekistan, Central Asian countries, international organizations and donors for their attention, support and above all for their understanding during joint work, search of optimal solutions and compromises without which it is impossible to implement the projects.

We shall be glad to see you as the participants of the implementation of our projects and programs directed to the solution of the knotty problems in the Aral Sea Basin and we would like to note that participation and assistance form can be different.

Agency of
International Fund for Saving the Aral Sea

IFAS formation history

After the collapse of the Soviet Union the Central Asian States though economic difficulties make sufficient efforts on overcoming of the Aral Sea crisis consequences.

Each regional state defines its own national interests of socio-economic development as well as changes its attitude to the environment problems and realizes the necessity of the orientation to international water law principles.

In order to reduce ecological and social tension as well as to avoid the appearing of the conflicts in the part of water sharing and water resources management, the leaders of water management bodies of Central Asia have adopted the Statement in October 1991. In this statement they acknowledged that only united and joint actions in the coordination and management can promote an effective solution of water management problems of the region on the basis of historical community of the Central Asian people, their equal rights and responsibility for the providing of rational water resources usage in the region. On this basis the ministries of water management organizations of Central Asian States in February, 1992 signed the Agreement “About cooperation in the sphere of joint management, using and protection of water resources of interstate sources”.

There is Interstate Coordination Water Commission (ICWC), it consists of water management organizations’ leaders from five regional countries as well as it is interstate body which provides direct functions on management and development of water resources, interstate water sharing, supporting of nature processes sustainability in transboundary waters and long-term strategy generation on water resources management.

The Central Asian States Heads in Kzyl-Orda city (March, 1993) signed the Agreement to provide joint actions on the solving of the Aral Sea and Aral Sea Shore problems, ecological recovery and providing of socio-economic development of the Aral Sea region. Under the Decision of the State Heads of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, Republic of Uzbekistan the **International Fund for Saving the Aral Sea (IFAS)** was created. One of the priority directions of the fund was the Central Asian States’ intention to develop a cooperation in the sphere of regional water resources management in the Aral Sea Basin.

IFAS structure

The Executive Committee of the International Fund for Saving the Aral Sea (EC-IFAS) has commenced to function since 1997. Under the recommendations of the state-founders’ governments the IFAS President approved the **Fund’s Board** consisting of five members (1 member from each state), Revision Commission of IFAS – 5 persons (1 person from each state), Chairman of the Executive Committee of IFAS (10 members, 2 persons from each state).

The following persons were elected as IFAS Presidents:

N.A.Nazarbayev - 1993 - 1997, President of the Republic of Kazakhstan

I.A.Karimov - 1997- 1999, President of the Republic of Uzbekistan

S.A.Niyazov –1999 - 2002, President of Turkmenistan

During informal meeting in Astana city (September, 2006) the President of Kazakhstan - N. Nazarbayev, the President of Tajikistan - E. Rakhmonov, the President of Kyrgyzstan - K. Bakiyev, the President of Uzbekistan - I. Karimov have discussed the issues on the International Fund for Saving the Aral Sea activity activation as well as the organization of the Information Center under its frameworks.

The IFAS national organization and its branches function in each state-founder since 1997. There are **GEF Agency and Nukus branch of EC-IFAS** in the Republic of Uzbekistan.

Agency of International Fund for Saving the Aral Sea for implementation of the Aral Sea Basin and GEF projects has been formed by EC-IFAS on May 12, 1998 on the initiative of the Republic of Uzbekistan and was approved by the Decision of IFAS President, the President of the Republic of Uzbekistan I.A.Karimov.

The Fund's national organizations provide the implementation of the projects on the territory of Uzbekistan as well as the coordination of the works with IFAS national structures in the Central Asian States.

Before coming to the coverage of specific projects which are being implemented by the Agency under the International Fund for Saving the Aral Sea we propose it is advisable to acquaint our readers with general situation in the Aral Sea Basin, socio-economic situation in the Aral Sea Shore, Aral Sea morphometric indexes changing for last years.

Water-management situation in the Aral Sea Basin

The existing water-management system of the Central Asian States was created to provide cotton independence of the Soviet Union without taking into account administrative frontiers of the union republics, according to the basin principle. This system was very uneconomical and it led to the well-known Aral Sea crisis at the result of irrational water and land resources usage.

Both regional water infrastructure management and inter-republican water sharing in Syrdarya and Amudarya rivers were centralized provided by the Ministry for melioration and water management of former USSR. The interstate water reservoir water-engineering systems built during the Soviet period (Toktogul, Kairakum, Chardara, Nurek, Charvak water reservoirs) worked exceptionally in the irrigation regime – they accumulated water in autumn-winter period and discharged it in spring-summer time for agriculture irrigation.

The management and drinking water supply uses priority water law in all the states of the region but key participants and consumers of the Aral Sea water-management complexes are irrigation and hydropower engineering which departmental interests sometimes come into stage of conflicts.

Hydropower engineering recourses of the basin rivers are 146 billion kW/h., however their usage degree is very slight. The floods are lasted over long period of time and they are caused by the melting of snows and glaciers coincided with intensive water withdrawal for irrigation needs.

The continuing growth of water withdrawal from the basin rivers for irrigation needs has become a main reason of the Aral Sea crisis. Presently it is failed to stabilize a water level in the Aral Sea – its level reduces depending on the volumes of discharge water, filtration waters from Amudarya delta and the Small Sea that leads to the increasing of water mineralization in the Aral Sea, if the Aral Sea water area is decreased the slated desert area is increased at the dried bottom place.

The most important Aral Sea region problem is joint management, rational usage and protection of water resources of the Aral Sea Basin. The assessment of total river resources in the Aral Sea Basin was provided on the basis of hydrological data, including subdivision into Syrdarya and Amudarya rivers basins. Average arithmetic magnitude of cumulative runoff for the monitoring period (1914/1911-2005 years) is 112,4 km³/year in the whole basin, including 38,8 km³/year – in Syrdarya and 73,6 km³/year – in Amudarya.

The studying shows a definite annual flow time variation cyclicity. So, the Syrdarya basin hydrograph clearly shows six of twelve-year cycles beginning from 1928 and ending in 1997, the Amudarya basin hydrograph shows three nineteen-year cycles beginning from and ending in 1992.

Annual magnitudes of water resources are changing due to water content ripple from low-water years (95% of provision) up to high-water years (5% of provision) in the following limits: Syrdarya – from 23,6 km³ up to 51,1km³, Amudarya – from 58,6 km³ up to 109,9 km³.

The Aral Sea Basin total flow river formation in the basin states is being provided as follows:

Table 1

States	River basin (km ³)		Aral Sea Basin	
	Syrdarya	Amudarya	km ³	%
Kazakhstan	2,4	—	2,4	2,1
Kyrgyzstan	29,1	1,6	30,7	27,4
Tajikistan	1,0	54,0	55,0	48,9
Turkmenistan	—	1,50	1,50	1,3
Uzbekistan	6,3	5,0	11,3	10,1
Afghanistan and Iran	—	11,5	11,5	10,2
Total Aral Sea Basin	38,8	73,6	112,4	100,0

The majority of surface waters are transboundary ones but a considerable part of local inflows especially in Fergana valley (Ispahara, Shakhimardan, Sokh, Aravansay, Keles) is being used by two and more countries.

The amended resources of ground waters in the Aral Sea Basin according to its origin are divided into resources naturally formed in the mountains and in water catchment areas as well as resources formed under the filtration influence in the irrigated territory. As a whole, the basin territory contains 339 developed and approved for usage deposits of ground waters, total regional stocks were evaluated as 31,17 km³, 14,7 km³ from them belongs to the Amudarya river basin and 16,4 km³ belongs to the Syrdarya river basin. The majority of deposits of ground waters is depending on the surface flow. The existing total ground water withdrawal for different water users is over 10,0 km³ per year.

A sufficient part of ground water basins is being lied and formed on the territory of two countries ant it belongs to transboundary ones (Golodnostepskiy, Kizilinskiy, Dalverzinskiy, Kafirniganskiy, Ferganskiy and etc.). As both water withdrawal volume and water shortage are being increased so joint regulation, quality control and licensing for avoiding of pollution and desiccation issues are being appeared.

Hundreds of different size and capacity reservoirs such as Aidar-Arnasay declivity, Sarykamish, Dengiz-kul, Solyonoye and others have been formed in the region. On the average, during 1990-1999 years a total volume of return water has been fluctuated from 28,0 km³ up to 33,5 km³ a year. About 13,5-15,5 km³ is being formed in the Syrdarya basin as well as 16-19 km³ in the Amudarya basin. Over 60% of return water is coming through collectors into rivers, 27% - into natural declivities, 13% is reused for irrigation. In perspective the return water can be used as additional source.

Due to the measures undertaken during 12-15 years on the improving of water resource management was reached a reduction of mineralization annual mean of river water in downstream and middle courses of Syrdarya and Amudarya through decreasing of drainage flow and usage norms of mineral fertilizers and pesticides.

In the near 10-20 years there will be a flow increasing due to melting of glaciers, global warming, in a long-term perspective a flow will be depended on annual sum of atmospheric precipitations in a winter period taking into account very unstable character.

The upstream countries (Kyrgyzstan, Tajikistan) have large capacities for hydropower generation but small opportunities for thermal power generation as well as small irrigated areas. As opposed to them, the downstream countries (Kazakhstan, Turkmenistan, Uzbekistan) have large areas of irrigated lands, great stock of fossil fuel which is possible to produce thermal power as well as some capacities to generate hydropower.

After the Soviet Union collapse the leaders of water-management organizations of the basin states have created on the priority basis the Interstate Coordination Water Commission (ICWC) as well as they signed the Agreement about cooperation in the sphere of joint management, using and protection of water resources of interstate sources. This agreement underlines:

«respecting the existing structure and distribution principles and relying on present normative documents on distribution of water resources of interstate sources, the Parties agreed the following:

Article 1.

Taking into account community and unity of regional water resources, the parties possess equal rights for using and responsibility for providing their rational usage and conservation ...

Article 3.

Each party on its territory should not admit the actions which infringe the interests of other parties and damage them, ...

Article 4.

The parties should provide joint works on the solving of environmental problems related to the Aral Sea shrinkage as well as to define the volumes of sanitary discharge for each specific year on the assumption of interstate source water content...

Article 10.

Coordination commission and its executive body provide:

- strict observance of discharge regime and water consumption limit;
- fulfillment of the measures on rational and economic usage of water resources, sanitary discharge pass through all stem streams and irrigation systems (where they are stipulated), water resources guaranteed volume delivery to river deltas and the Aral Sea in order to recover ecological situation, water quality observance in accordance with the agreements achieved...»

Many experts think that the existing water resources of the Aral Sea Basin are sufficient for complex usage for the needs of all economy branches of the basin states under agreed water management including ecological requirements. It is necessary according to the international norms and neighbourliness traditions to implement the agreements achieved with the basin states as well as quantity and quality water delivery regimes and ecological discharge of the rivers themselves.

Environmental and socio-economic situation in the Aral Sea Shore

Up to 1961 the total Aral Sea area was 66,0 thousand km², an average annual catch of precious species of fishes reached 25-27 thousand tons, musquash skins - about 2 million, canned fish counted 18-20 million conventional cans on average.

The maritime industry stopped in 1979 at the result of the Aral Sea drying and since 1984 the Aral Sea fully lost its fishing meaning. The water level declined more than 24 meters, its volume decreased from 1064 up to 115 km³, mineralization reached 100 – 120 g/l. The dried bottom area exceeded 4,0 mln.ha and became as a source of poisoned aerosols transfer but the most terrible result was a loss of thousand job positions.

Under above-stated circumstances the rehabilitation of environmental and socio-economic situation in the Aral Sea Shore region became as priority task and both programs and projects implemented in the Aral Sea Basin (please, find their detailed description in the following section) make their contribution into its improving. So, local water reservoirs created along with protected and conserved territories should support a high level of biodiversity providing the development of fishery and hunting, fur trade for local population. As the monitoring shows, the creation of watered zones in Syrdarya and Amudarya deltas actively impacts on the climate alleviation in the Aral Sea Shore.

The forest plantations on the Aral Sea dried soil take place since the middle of 80-es of last century. Four botanic woody-shrubby types were selected including saxaul and 15 types of plants for seeding on the reclamation territories as well as for the usage as forage plants.

During last time the works on the Aral Sea dried bottom activated due to the GTZ project activity (German Society for Technical Cooperation) “The Aral Sea dried bottom and forest plantations reclamation” and GEF Agency of the International Fund for Saving the Aral Sea “Development of the Aral Sea dried part on the basis of salt and dust resistant plants (saxaul, cherkez and others.). This effect is being increased due to cooperation potential in the afforestation project implementation, generalization of earlier fulfilled scientific works, survey works, experience exchange on forest plantation technology and etc.

For the above-mentioned period the forest plantations were provided on the area over 250 thousand ha that seriously effects on the decreasing of salt and dust transfer from the Aral Sea dried bottom as well as on the environment improving.

A reliable legislative base was created in Uzbekistan in order to stabilize and improve environment. It is directed to state relation regulation in the environment protection sphere. Both International Fund for Saving the Aral Sea and Fund for the Aral Sea Shore genofond protection were also created for the above-stated objectives.

During last 3 years the Government of Uzbekistan has adopted a number of additional measures on the formation of favorable business atmosphere, support and stimulation of the entrepreneur activity as well as favorable conditions were created for small and middle business development, new job positions appearing and socio-economic situation improving.

For the purposes of private enterprise support the provision of population with micro loans is being carried out through Social Assistance Funds (SAF) under International Fund for Saving the Aral Sea, banking structures and international credit institutes. The Republic of Karakalpakstan has considerable changing in the construction, agriculture and other sectors of economy: there is a construction of colleges and lyceums, rural medical stations, reconstruction of polyclinics, hospitals and schools.

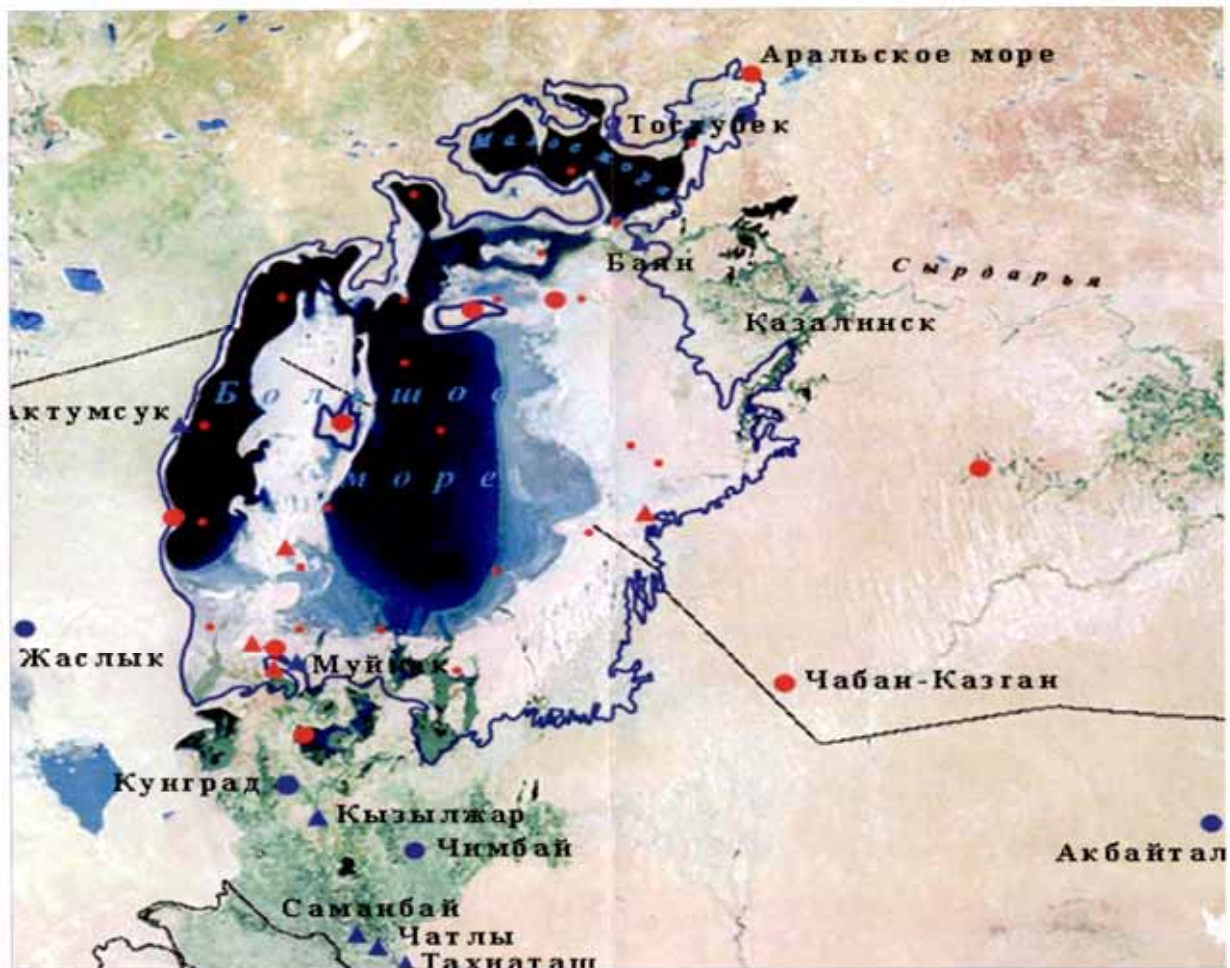
“The drainage project of Uzbekistan” is being provided at expense of credit funds as well as reconstruction of main drain collector systems, construction and reconstruction of drinking water supply systems for the republican population.

Kungrad sodium plant was put into operation in 2006, surveying and production of gas and oil in Ustyurt plato and in the Aral Sea is provided jointly with foreign companies. During last years Karakalpakstan fulfills a sustainable plan on the provision of the state with raw cotton, grain and etc.

Positive tendencies in the socio-economic development of Karakalpakstan allowed to reduce labor force outflow and the main thing is concluded in the fact that the Aral Sea Shore population hope to overcome crisis influences and normalize ecological and socio-economic situation.

The table on the Aral Sea parameters changing during 2001-2006 years

Years	River flow influx, km3		Total influx	Level H, m	Water mass volume, W, км3	Water surface area F, km2	Salinity, (g/l)
	Amudarya	Syrdarya					
1	2	3	4	7	8	9	10
2001	0,38	2,69	3,07	32,6	142	21100	60
2002	6,7	6,4	13,1	31,8	122	18500	Более 60
2003	11,4	9,2	20,6	30,98	120	18200	Более 60
2004	5,92	9,86	15,78	30,72	115	17600	Более 60
2005	17,28	10,67	27,95	30,33	109	16600	Более 60
2006	4,13	8,06	12,19	30,15	106	16100	Более 60



A modern water reservoir (2006) and its previous boundaries (1965)

Information on the activity of the organizations of the International Fund for Saving the Aral Sea in the Republic of Uzbekistan – GEF Agency and Nukus branch of EC-IFAS in 2005-2006

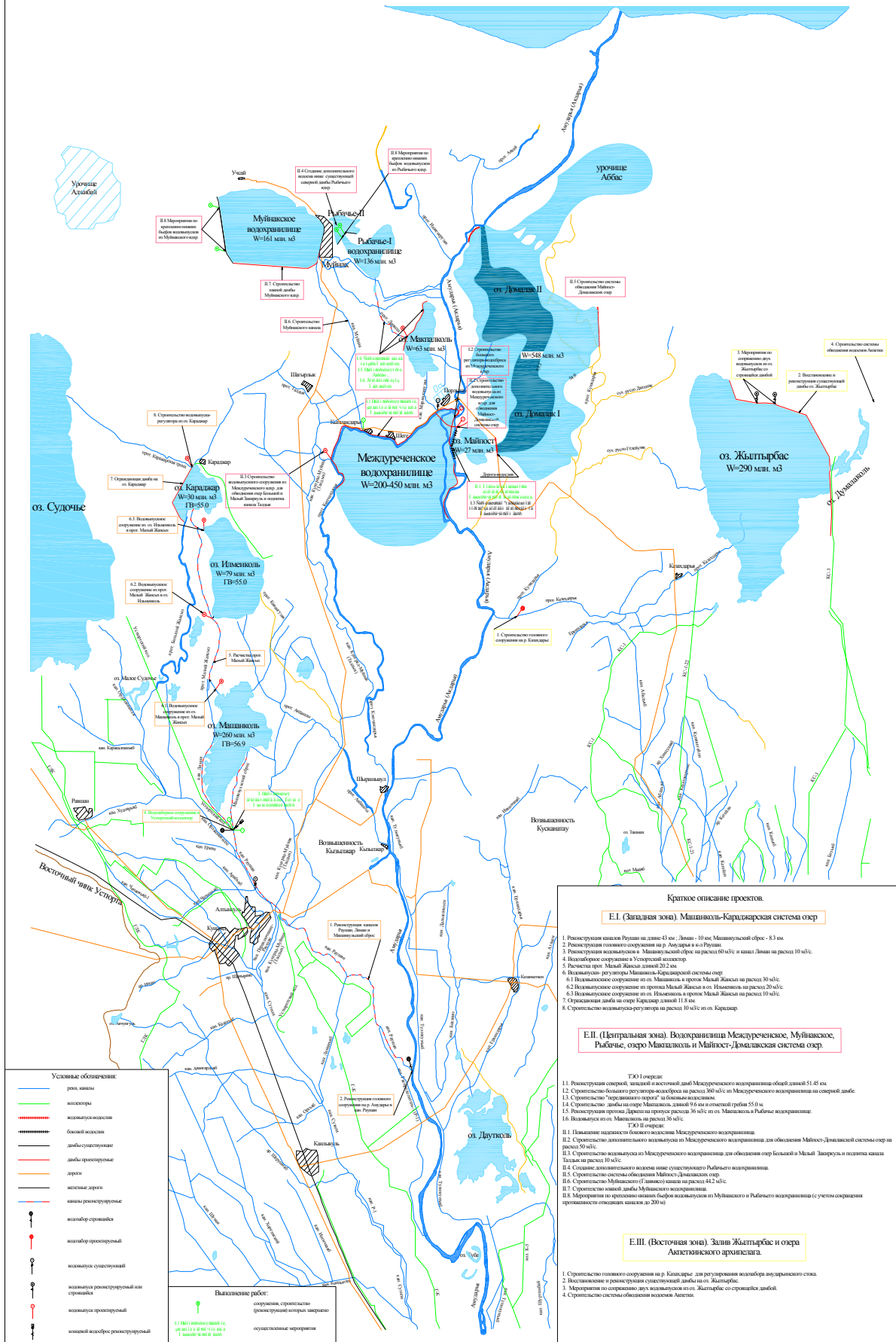
In this prospectus the projects implemented by the agency are conventionally divided into 3 groups.

1. First group presents large projects of the Aral Sea Basin Program (ASBP) having priority meaning for sustainable development and improving of ecological and socio-economic situation in the Aral Sea Shore region.

1.1 “Creation of local water reservoirs in Amudarya delta” project.

The project is being provided in the accordance with the Aral Sea Basin Program (ASBP) approved by the Central Asian States Heads in 1994 (Nukus city), it involves 7 programs and 19 subprograms including “Researching and assessment of the existing engineer decisions, preparation of the projects and creation of artificial watered landscape ecosystems in Amudarya and Syrdarya deltas and in the Aral Sea dried bottom”.

ПРОЕКТ СОЗДАНИЯ МАЛЫХ ЛОКАЛЬНЫХ ВОДОЕМОВ В ДЕЛЬТЕ Р. АМУДАРЬИ (I И II ОЧЕРЕДИ)



Краткое описание проектов

E.I (Западная зона). Машинкуль-Караталская система озер

1. Реконструкция канала Рашан на длине 45 км, Ливан - 10 км, Машинкульский сброс - 8,5 км.
2. Реконструкция главного сооружения на р. Амударья в о. Рашан.
3. Реконструкция жемчужины в Машинкульском сбросе на расходе 60 м3/с и канал Ливан на расходе 10 м3/с.
4. Водозаборное сооружение в Устьртышском канале.
5. Рыбная ферма Милый Жаксыл длиной 20,2 км.
6. Возвышенное сооружение на о. Машинкуль в проток Милый Жаксыл на расходе 30 м3/с.
- 6.2. Возвышенное сооружение по проток Милый Жаксыл в о. Илманкуль на расходе 20 м3/с.
- 6.3. Возвышенное сооружение по проток Милый Жаксыл в о. Илманкуль на расходе 10 м3/с.
7. Строительство дамбы на озере Каратал длиной 11,8 км.
8. Строительство водозаборного регулятора на расходе 10 м3/с в о. Каратал.

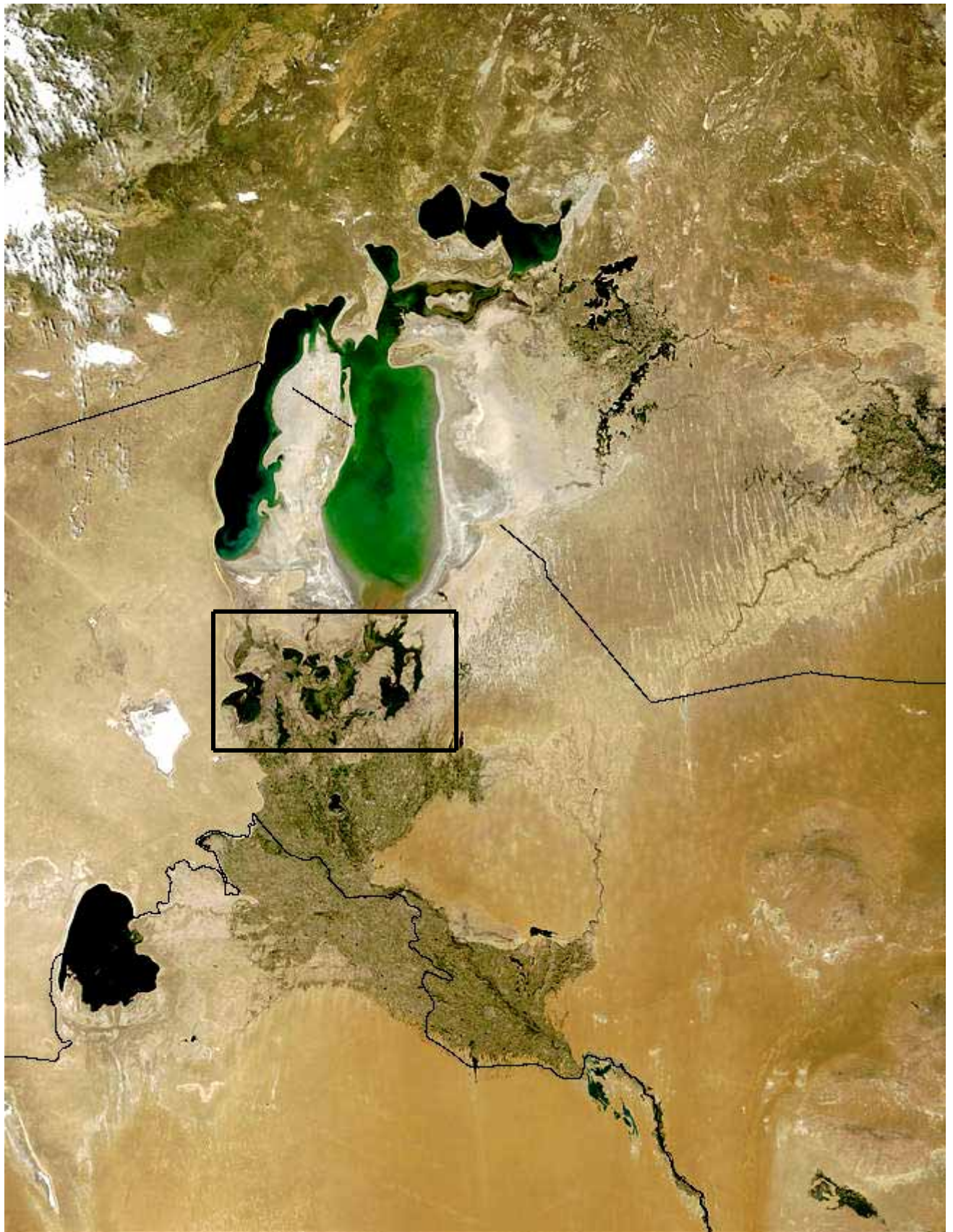
E.II (Центральная зона). Водохранилища Междуреченское, Муинское, Рыбное, озера Мангалкуль и Майнот-Джамалская система озер

- ТЭО I очереди:
- 1.1. Реконструкция северной, западной и восточной дамб Междуреченского водохранилища общей длиной 51,45 км.
 - 1.2. Строительство главного регулятора водозабора на расходе 360 м3/с на Междуреченском водохранилище на северной дамбе.
 - 1.3. Строительство "переливного проекта" за боковым водозабором.
 - 1.4. Строительство дамбы по берег Машинкульской дамбы 96 км от ее правого берега 55,0 км.
 - 1.5. Реконструкция прохода Дарсан в проток на расходе 36 м3/с в о. Машинкуль в Рыбное водохранилище.
 - 1.6. Возвышенное о. Машинкуль на расходе 36 м3/с.
- ТЭО II очереди:
- 1.1. Повышение надежности бокового водозабора Междуреченского водохранилища.
 - 1.2. Строительство дополнительного водозабора на Междуреченском водохранилище для обеспечения Майнот-Джамалской системы озер на расходе 50 м3/с.
 - 1.3. Строительство водозаборного регулятора из Междуреченского водохранилища для обеспечения о. Большой и Милый Закурлы и озера каналы Талхан на расходе 10 м3/с.
 - 1.4. Создание дополнительного водозабора ниже существующего Рыбное водохранилище.
 - 1.5. Строительство системы обеспечения Майнот-Джамалской озер.
 - 1.6. Строительство Муинского (Ташкент) канала на расходе 44,2 м3/с.
 - 1.7. Строительство дамбы Машинкульского водохранилища.
 - 1.8. Мероприятия по артезианскому источнику (бьеф) водозабора из Муинского и Рыбного водохранилищ (с учетом сокращения производства опресненной воды до 200 км).

E.III (Восточная зона). Залив Жытырбас и озера Аджыткентского архипелага

1. Строительство главного сооружения на р. Каратал для регулирования водозабора в дельтовом створе.
2. Возстановление и реконструкция существующей дамбы на о. Жытырбас.
3. Мероприятия по сокращению двух водозаборов на о. Жытырбас со строящихся дамб.
4. Строительство системы обеспечения водозабора Аджыткентского архипелага.

- Условные обозначения:**
- река, канал
 - каналы
 - каналы-каналы
 - боковой водозабор
 - дамбы существующие
 - дамбы проектируемые
 - дороги
 - железные дороги
 - каналы реконструируемые
 - каналы существующие
 - каналы проектируемые
 - каналы реконструируемые
 - каналы существующие
 - каналы проектируемые
 - каналы реконструируемые
- Выполнение работ:**
- охватываем, строительство
 - проектируемый канал
 - существующие мероприятия



The Aral Sea today. The artificial water reservoirs created during last years are presented in the square.

After the holding of first-priority measures in Amudarya delta a water level of the lakes reached over 150 thousand ha that is possible in future to restore biodiversity of the region as well as to improve socio-economic conditions of the population, increase employment due to the participation in the construction works, fishery and livestock farming development.



Sudoche lake with a look at “chink”.



Sudoche lake has rehabilitated and swans came back.

The created local water reservoirs (artificial lakes) promote the improving of environmental situation due to reduction of the salt and dust transfer area as well as they alleviate the climate. The construction and assembling works to the amount of 1071878,0 thousand Uzbek sums were fulfilled under this project in 2006.

The works on the Mejdurenskoye water reservoir northern dam reconstruction were provided as well as the works on the side spillway sustainability increasing from 0 mark up to 6 + 20 on picket. The construction and affixment of discharge canals from Jyltyrbas bay were also completed. The statement on the putting this construction unit into operation is being presently gone through the formal procedure.

The works on the dam reconstruction in Jyltyrbas bay were continued. The construction of Kazakhdarya riverbed bypass was completed. The construction unit was put into temporary operation until the head water check regulator construction in the main Kazakhdarya riverbed is completed.



The basis for fish breeding is being appeared.....



**The multifunctional project:
biodiversity and cattle breeding, employment and environment.**

1.2 “The Aral Sea dried part development on the basis of local salt and dust fixed plants (saxaul, cherkez and others)” project.

According to the scientists’ data over 70 tons of sand, dust and poisoned aerosols from the Aral Sea dried bottom are annually come up into atmosphere as well as they are blown away the irrigated fields, pastures and gardens and reduce their productivity, disable from agricultural turnover, deteriorate environmental situation and make a negative influence on the population’s health and etc.

One of the methods proposed by the specialists on the struggle with salt and dust transfer, localization of their negative impact on the environment has become the creation of protective plantations (afforestation) including the using of local plants (saxaul, cherkez, tamarisk) able to grow in these natural conditions without additional watering due to precipitation. The tree and bush vegetation emitting oxygen and absorbing carbonic acid and accumulating dust is directed to become as key climate-regulated link as well as to support ecological balance of the environment.

The main project aims are: reduction of wind erosion and moving sands fixation that minimizes the processes of deflation, salt and dust transfer from the protective territory. The planned measures allow to recover ecological situation, reduce local population morbidity, involve the dried territories into agricultural turnover through the cattle breeding development, salt-resistant plants growing and biodiversity rehabilitation.

The project implementation place is the Aral Sea dried bottom site with the area of 10000 ha (1 phase), at 4 sites of different bottom sediment types situated in North-East from Jyltyrbas bay (Muinak rayon).

The general contractor is Karauzyakskoye rayon forestry administration.

The works to the amount of 93 659,0 thousand Uzbek sums were fulfilled in 2006. 1234,0 km of longitudinal mechanical protection from reed was provided, 557,0 thousand pieces of saxaul seedlings were planted along it as well as the sowing of saxaul, cherkez and kandym seeds at the area of 435,30 ha attaching to the mechanical protection zone.



Woodland origin. Saxaul plantation in 2005.

According to the analogous **“Creation of protective forest plantations in the Aral Sea dried bottom”** project the forest reclamation works to the amount of 39369,0 thousand Uzbek sums on the area of 958 ha were executed since the construction commencement. The additional sowing of saxaul and kandym seedlings and seeds was provided in 2006 as well as the installation of longitudinal covering mechanical protection from reed preventing from barkhan moving to the amount of 4 438,0 thousand Uzbek sums. The forest reclamation works on the reaching of the ameliorating area up to 1000 ha are being implemented.

1.3. “Organization of social assistance to the Aral Sea Shore population in the adaptation to the market conditions in the ecological crisis zone” project.

It is generally known that the Republic of Karakalpakstan as ecological crisis zone does not attract external investors as well as the spheres of human resources using are limited. In this regard, The President of the International Fund for Saving the Aral Sea, The President of the Republic of Uzbekistan I.A. Karimov in his appeal to the World Bank (1998) in the number of priority tasks noted the necessity of the assistance activation for small and middle production organizations through special funds of social assistance.

The “Social assistance to the population” project is being implemented since 1998 in order to improve the Aral Sea Shore population living conditions, new job positions creation and entrepreneurship development.

The project stipulates the rendering of financing, information and consultative assistance in the creation of new production and development of existing small and middle business, dekhkan and

farming economies as well as the attraction to the entrepreneur activity of temporary unemployment and indigent part of the population suffered from ecological crisis impact.

The Social Assistance Agencies-funds (SAF Agencies) created in the Republic of Karakalpakstan cover all the districts of the republic.

The key directions in the project implementation are cattle breeding, plant growing, consumer production, paid services rendering, national and traditional trade development and others. Under the project selection a special attention is paid to the social directivity as well as the compliance with the Aral Sea Shore socio-economic development plans.

The project financing is provided at expense of funds-fees of the Republic of Uzbekistan into International Fund for Saving the Aral Sea. Only in 2006 the population of the Republic of Karakalpakstan submitted about 560 project proposals, 488 of them were approved by the Council of Ministers of the Republic of Karakalpakstan as well as 482 projects to the amount of 1101,5 million Uzbek sums were financed.



The Social Assistance Funds: national trade support.

At the result of the project implementation 645 new job positions were created. The borrowers produced 1550,0 tons of meat (live weight), 4410,0 thousand liters of milk, 571,0 thousand pieces of eggs, 1780,0 tons of bakery, pastry and flour.

4050,0 tons of grain and 1320,0 tons of cotton were produces as well as different paid services were provided to the amount of 188,0 million Uzbek sums. For the reported period the borrowers' total income from the social assistance to the population projects implementation was 4760,0 million Uzbek sums and the borrowers' net income was 747,0 million Uzbek sums after all disbursements including loan reimbursements have been paid.

For the reported period the loan refund amount from the earlier financed projects and used for the continuation of this program was 1328 million Uzbek sums that is 272,9 million Uzbek sums more than for 2005. Under the project implementation the Nukus branch and its agencies collaborators have provided paid, consultative and personal services to the amount of 14,5 million Uzbek sums.

1.4. “Dam safety in Uzbekistan” project. The creation of water reservoirs is the most radical way of the removal of both within-year and perennial variability and territorial irregularity of the river flow in order to satisfy the interests of various spheres and needs under arid and semi-arid zones.

Besides protective properties from the destroyed mud torrents the water reservoirs have a fishery meaning as well as they serve as a place of population rest under the hot climate conditions. At the same time in a direct or indirect dependence on the dam sustainability there is the safety over 6 million of the population of Uzbekistan living along the rivers and mountain streams.

Under both safe flood discharge pass and modern water accumulation in water reservoirs it is possible to guarantee water supply in the lower reaches during summer period. This project has been earlier implemented at Chimkurgan and Akhangaran water reservoirs.



The Andijan water reservoir dam.

The works on the equipping with control and measuring facilities, automation, communication and early warning systems of Andijan and Tashkent water reservoir dams were completed in 2006. “SINOHYDRO Corp.” Company (Korean People’s Republic) provided both the consultations on equipment assembling and water reservoir operating personnel training. The equipment delivery and training cost was USA 872 thousand .

At present the works on the design estimate preparation are being provided at Karkidon, Pachkamar and South-Surkhan water reservoirs.



**The Andijan water reservoir structure complex.
Kampyrabad water station.**

2. As it is aware one of the reasons of the Aral Sea catastrophe is wasteful attitude to water resources. This group unites the projects related to the formation of careful and respectful attitude to water as precious natural gift through the searching of optimal ways and methods of water economy.

2.1. “Water saving competitions in the Republic of Uzbekistan” project was developed in order to stimulate the agricultural water users participation in the reasonable water saving measures implementation as well as in their practical application at the pilot project level.

The project stipulates financial incentives as premium disbursement on a competitive basis for substantial water consumption saving without agricultural production volume reduction. The competition is held in the sphere of farming economies, shirkats and water user associations. The amount of 4-6 million Uzbek sums is designated to organize the competition in one of the oblasts of the republic as well as monitoring and financial premium disbursement at the expense of the Agency.

During 2003 – 2005 the Agency jointly with the Ministry for water and agriculture of the Republic of Uzbekistan has implemented **“Water saving participation” project** in Syrdarya, Jizak and Surkhandarya oblasts as well as in Bukhara and Navoi oblasts of Uzbekistan in 2006.



The summing-up of water saving competitions in Bukhara and Navoi oblasts for the period of 2006.

Taking into account the above-stated, the competition scale extension can attract much more participants of water saving competitions as well as allow to discover interesting and inexpensive proposals and experience of water economy for their further distribution, increase public awareness in the necessity to provide constantly these works in this direction. In this regard the water saving competition will be additionally implemented both in Tashkent and Khorezm oblasts during 2007.



Transportable water spillway engineered by Sattarkulov.



**Hydrostation
at flumed irrigation network.**



Hydrostation at inter-farming canal.

2.2. “Public awareness” project. The Republic of Uzbekistan having about 4,3 million ha of the irrigated lands is the largest water user among the Central Asian States as well as it consumes over 60% of the Aral Sea Basin river annual flow though only 9-12% of water resources are formed in its territory.

The project objective is initiating the population and publicity understanding of the responsibility for water resource usage through mass media. The project as others makes a considerable contribution into psychological preparation of the population and water users on keeping the record of water consumption. The project constantly informs on the work of projects, programs and activity on the Aral Sea crisis consequences alleviation for local population.

The short-length film “ The Aral Sea: time of hopes” (Uzbek, Russian and English versions) was developed and distributed in association with Uzbek Television Channel group on mass media representatives expedition results (2005). This film contains information about the Aral Sea Shore problems and the ways of their solving as well as key projects implemented by GEF Agency of the International Fund for Saving the Aral Sea. The present film is presented as CD in number of 300 copies. It informs about the projects implemented by the IFAS organizations as well as the changing which takes place in ecological and socio-economic situation in the region. The film was sent to the ministries and organizations of the republic including the system of Ministry for Popular Schooling and Ministry for Higher and Specialized Secondary Education. The film was also sent to the diplomatic representations and international organizations accredited in the Republic of Uzbekistan as well as to the foreign missions of the republic through the Ministry of Foreign Affairs of the Republic of Uzbekistan.

Over 30 new video reels, about 15 new television programs and special programs on water theme and necessity of careful and respectful attitude to water resources and sources were produced in 2006 in association with Uzbek Television Channel creative group. A special attention was paid to the work among youth including educational institutions. Famous cultural workers and honored scientists, senators of Oliy Majlis (the Parliament) of the Republic of Uzbekistan participated in a number of the above-mentioned programs. The total on-air broadcasting in “Uzbekiston” and “Yoshlar” television and radio channels was over 4000 minutes that costs over 1 billion Uzbek sums in the equivalent.

On October, 2006 the Agency and Nukus branch of IFAS organized the expedition to the Aral Sea Shore composed of the group of journalists of central mass media of the Republic of Uzbekistan. The series of reportages, special programs with the participation of the Aral Sea Shore population, participants and organizers of the Aral Sea Basin program were prepared in basic Uzbek television and radio channels.

2.3. “The execution of development and research works on approbation of effective methods of irrigation and watering at different soils and their application into agricultural production” project. The developments on four various crops - cotton, rice, wheat, corn are provided under the project frameworks including the reduction of the watering norms in order to distribute positive results among agricultural producers.

Karakalpak husbandry research institute is the executor under “Cotton growing” component.

The Executor has developed the following documentation as flow sheet (checklist), cost estimate and developing and research work schedule. The field clearance from guza-paya, plowing, moist-charging and flushing watering were conducted according to the above-stated documentation. The cotton seed sowing (“Chimbay – 5018 sort) was provided on the area of 15 ha. The young growth was received on 80 % land under crop.

38, 1 tons of raw cotton were gathered for the reported period as well as the crop capacity counted 25,4 c/ha. 5804,6 m³/ha of water was discharged for 1 ha as well as 87069,01 m³/ha of water was discharged for 15 ha, i.e. 1695,4 m³ less than it was stipulated according to the norm (economy reached 22,6 %).

Karakalpak branch of Uzbek rice growing research institute is the executor under “Rice growing” component.

In accordance with the project all required technological measures (field clearance from weeds, aryk (irrigation ditch) cleaning, cheque cleaning from straw and other undesirable plants as well as ground area planning and fertilizer application into soil by disking) were provided. The rice sowing (“Nukus” sort) was produced on the area of 15 ha. The raw rice croppage was 75,3 tons, the crop capacity was 50,2 c/ha. 20525 m³ of water was discharged for 1 ha as well as 307875 m³ of water was discharged for 15 ha for the reported period, i.e. 5475 m³ less than it was stipulated according to the norm.

2.4. The information gathering, summary and project implemented analysis are being completed under **“National and International Assistance Assessment in the Aral Sea Region” project which has been implemented in association with UNDP.** The project is implemented according to the UN Framework program to assist the Republic of Uzbekistan development.

The project is directed to the studying and assessment of the effectiveness of the measures provided at national and international level for improving of ecological and socio-economic situation in Uzbekistan. The data bank on the implemented projects will be created. The recommendations on the most effective directions including the Aral Sea Basin Program were prepared as well as the variants of the activity coordination mechanisms of different international organizations and national ministries and departments are proposed in order to improve ecological and socio-economic situation in the region.

The research results will be assisted to national organizations and donor society in the direction determination of the follow-up initiatives.

3. Along with the perspective projects (group 1) a number of the projects are being implemented on the issues required immediate and effective measures. The same project as «Emergency aid program” was implemented in 1994. This program showed its effectiveness as well as it is used to render emergence and effective aid to the population as additional measures to the existing state programs especially in the population health protection sphere.

3.1. “Organization of the additional medicament provision of the children patient care institutions of the Republic of Karakalpakstan in 2005-2008” project stipulated the providing of the Republican children clinic hospital, children departments of Takhtakupyr and Muinak central district hospitals, Ellikan T.B. clinic with medicaments during four years. The first lot of the medicaments was delivered to the amount of 29,0 million Uzbek sums including medicines for the treatment of people suffered from the diseases of respiratory organs, cardio-vascular system, blood and hematopoietic organs. All medicaments provided as humanitarian aid are under strict control as well as they are dedicated for resuscitation and low-income family patients.

3.2. Under the frameworks of “Organization of additional vitamin foodstuff provision of separate children, medical and educational institutions of the Republic of Karakalpakstan in 2005-2007” it was stipulated the providing of Takhiarash orphanage, Republican children sanatorium for consumptives, Khodjeyly “Mehrobonlik uyi” and specialized kinder garden №18, Nukus city. The competitive commission of the Health Ministry approved JV “Green World” as the supplier. 1240 liters of natural fruit juices as well as 2810 kg of jam to the total amount of 16840 thousand Uzbek sums were supplied to the above-mentioned medical and educational institutions with total contingent of 750 children that in the considerable degree promoted the children dietary intake increasing and children recovery.

3.3. “Organization of additional provision of patient care institutions of the Health Ministry of the Republic of Karakalpakstan with ambulances” project. Taking into account a great remoteness of separate population aggregate from district centers the rendering of emergency medical aid is quite difficult in a number of cases. In order to increase a resource base of the medical institutions of Karakalpakstan and in the frameworks of state program “Charity and medical workers year” the Agency of IFAS purchased 10 “Damas” ambulances in the Republic of Uzbekistan to the total amount of 82304,1 thousand Uzbek sums and handed them over to the organizations of the Health Ministry of the Republic of Karakalpakstan.

3.4. “Construction of vertical drainage wells in Gulistan city” project.

During many years the water filtration from interstate channel “Dustlik” negatively impacts on soil-reclamation and environmental oblast centre state as well as on sanitary-ecological situation in the residential communities of the city. In some areas ground waters rose to the land surface and flooded the multistorey building cellars. This project conformed to the IFAS priority directions, its implementation was commenced according to the Syrdarya oblast Khokimiyat appeal. The total project cost is about 90 million Uzbek sums. The contracting agency - “Botir-TAB Co. Ltd.” was chosen on the tender basis. 5 vertical drainage wells with a depth of 50 meters were drilled under the project as well as well casing, pump-power facility equipping, inspection houses and improvement works were provided. After all the well works have been completed the construction structures were put in state commission. This project made a considerable contribution into the oblast khokimiyat reclamation land recovery program implementation as well as it assisted to the groundwater level reduction and building cellar dehumidification that allowed to improve a sanitary situation of a number of domestic houses and administrative buildings in Gulistan city.

3.5. «The water intake facility re-equipping in order to work on the liquid chlorine” project stipulates the equipment delivery and its assembling in the water distribution stations in a number of Karakalpakstan districts. The project directed to improve tap water quality as well as to decrease currency funds expenditures for the purchasing of powdery chlorine for water disinfection (a liquid chlorine is produced in Uzbekistan). The project cost is USD 560 thousand. Since November 2005 up to December 2006 “Shindong Enercom Inc” (the South Korea) provided both assembling and engineering setup of the equipment as well as water-purifying personnel training at 10 water intake facilities and water distribution stations in 8 districts of the republic. The State Commission put the structures into operation on January 2007. At the result the disinfection water quality has considerably improved as well as the expenses have decreased as compared with powdery chlorine used earlier. The total amount spent to the project implementation is 545 846, 0 thousand Uzbek sums including 318 905, 2 thousand sums in 2006.



The tap water disinfection with liquid chlorine.

3.6. Under “Centre for diagnosing and treatment of urolithiasis and bilestone diseases formation” project the medical equipment modern complex produced in Israel was purchased in 1998 as well as the centre work was organized.

The total volume of medical services was 9586,0 thousand Uzbek sums in 2006. 83 patients received medical services at transurethral system “Termex-2”, 28 patients were cured by shock-wave lithotripter “Nova” and 137 patients received treatment on MR-imaging installation. 1851 patients were provided by medical services on the above-stated devices since the centre operation commencement.

The preferential medical services provided to the Karakalpakstan population during 6 years of the centre functioning counted the amount of 49961,5 thousand Uzbek sums.

5. International co-operation.

As it has been already noted GEF Agency has the international organization status.

Since 1999 many Agency projects were implemented due to co-operation and support of the governments of a number of countries, international organizations and donors – the European Union, the Netherlands Government, the Switzerland Government, the Denmark Government, the World Bank, UNDP, SIDA (Swiss International Development Agency), CIDA (Canadian International Development Agency) and others.

The Agency is going-on its work on the co-operation expansion in this direction as well as it attracts new international participants to the co-operation. So, “National and International Assessment in the Aral Sea Region” project is being implemented in association with UNDP - according to the UN Framework Program on development assistance in the Republic of Uzbekistan.

The Agency also established the relations with German Society for Technical Co-operation (GTZ) in order to coordinate the works on the Aral Sea dried bottom afforestation.

In 2006 the Agency representatives in association with the delegation from the Republic of Uzbekistan participated in the Round table meeting on the Aral Sea problems which was held in the Chamber of Deputies of the Italian Republic Parliament. One of the meeting outcomes was the creation of the Parliament Special Group on the Aral Sea problems.



The Uzbek delegation in the Italian Parliament, March 2006.



**The meeting with Extraordinary and Plenipotentiary Ambassador of French Republic
Mr. J.B. Harth in GEF Agency of IFAS**

The joint projects were prepared in association with Tashkent Centre of the Organization for Security and Co-operation in Europe (OSCE).

New ways and forms of joint work in the Aral Sea Basin are being planned according to the results of the meetings with diplomatic mission heads of Czech Republic, French Republic, Switzerland Confederation as well as with international, social and public organizations leaders.

We shall be grateful for your responses, wishes and proposals which will be taken into account under the development of the follow-up documents.

GEF Agency is located on the following address: 15, Sh.Rustaveli street, Tashkent city, 100070

Tel.(99871) 2553934, fax: (99871) 2550249. E-mail: ifas_undp@aral.uz