# Executive Committee of the International Fund for saving the Aral Sea

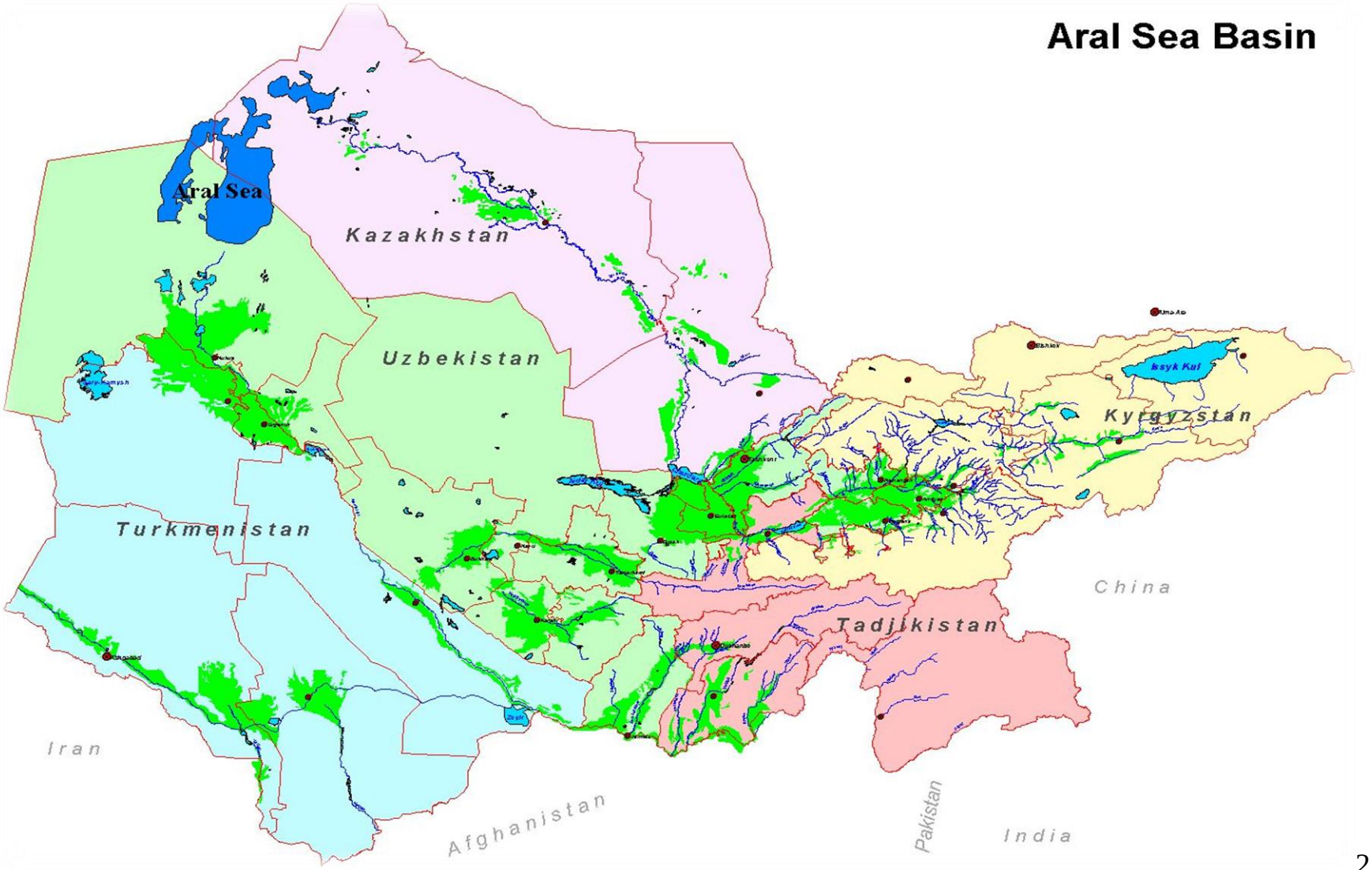
## Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

**Dr. Normukhamad Sheraliyev**

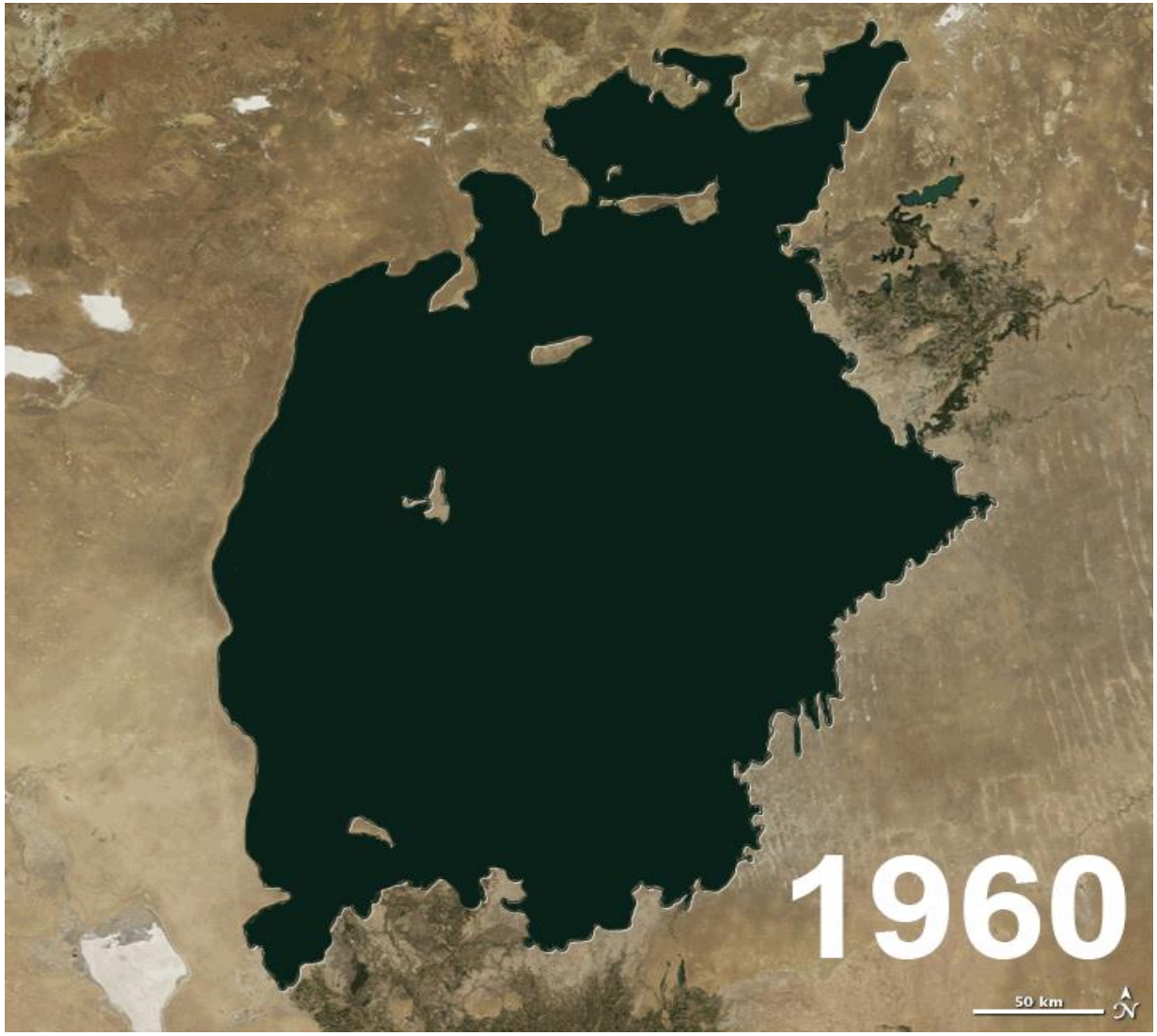
*Engelberg 2015*

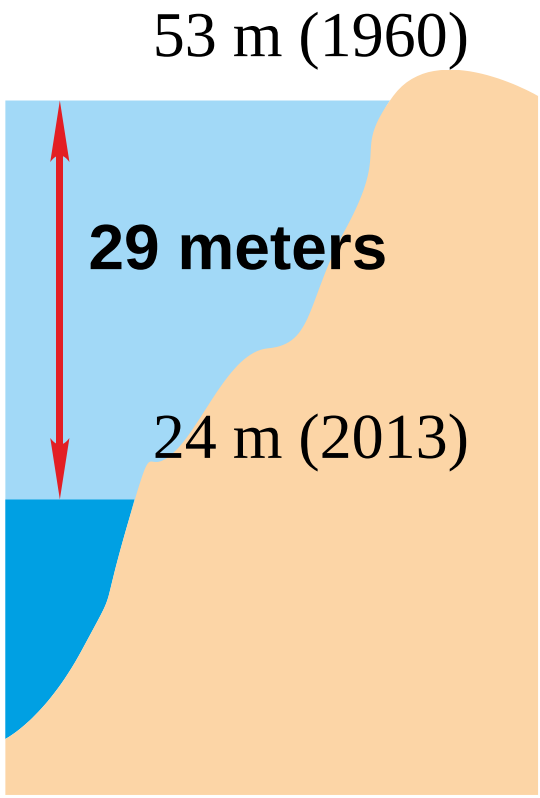
# International Fund for Saving the Aral Sea

## Aral Sea Basin



# The Aral Sea change through years

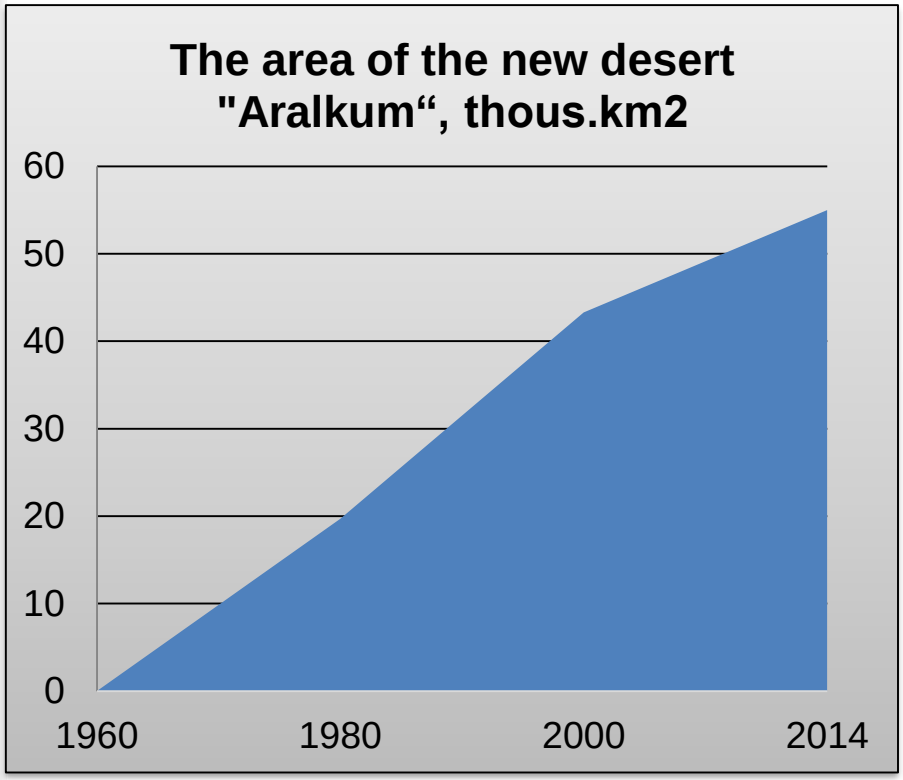


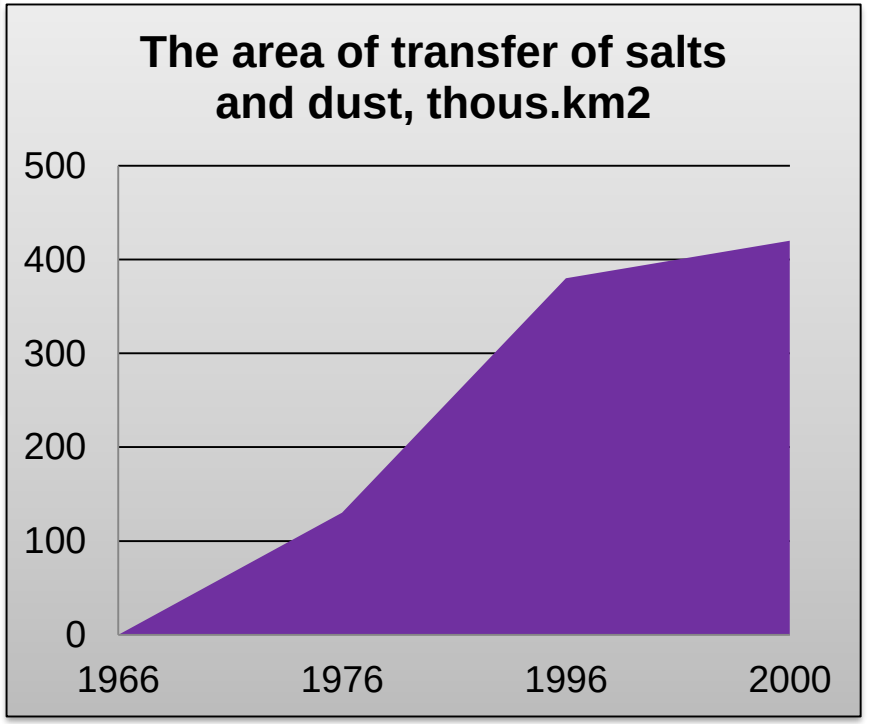




**Water level**

# Environmental consequences of the drying of the Aral Sea

# The dynamics of desert area expansion, salt and dust storms cover area

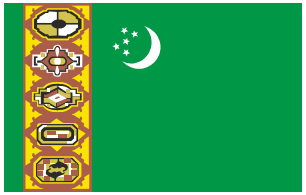
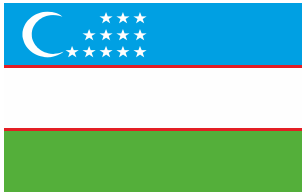


# International Fund for Saving the Aral Sea

**IFAS was established in 1993 in order to consolidate the efforts of the countries of the region and the international community to mitigate the negative consequences of the Aral Sea disaster.**



# The IFAS structure

Council of the Heads of Central Asian states on the Aral Sea Basin problems

President of IFAS

Audit Committee

Board of IFAS (Representatives of each founder state at the level of Deputy Prime Minister)

Interstate Commission for Water Coordination of Central Asia (ICWC)

- Secretariat
- SIC ICWC
- BWO "Amudarya"
- BWO "Syrdarya"
- Coordination Metrological Center

Interstate Commission on Sustainable Development for Central Asia (ICSD)

- Secretariat
- SIC ICSD

Executive Committee of IFAS (The Chairman is appointed by the President of IFAS. The EC consists of 10 members: 2 from each founder states)

- Executive Board of IFAS in Kazakhstan
- Kyzylorda Branch
- Executive Board of IFAS in Kyrgyzstan
- Branch of EC IFAS in Tajikistan
- Dashoguz Branch of EC IFAS in Turkmenistan
- Agency of IFAS in Uzbekistan
- Nukus Branch in Uzbekistan
- Regional Center of Hydrology

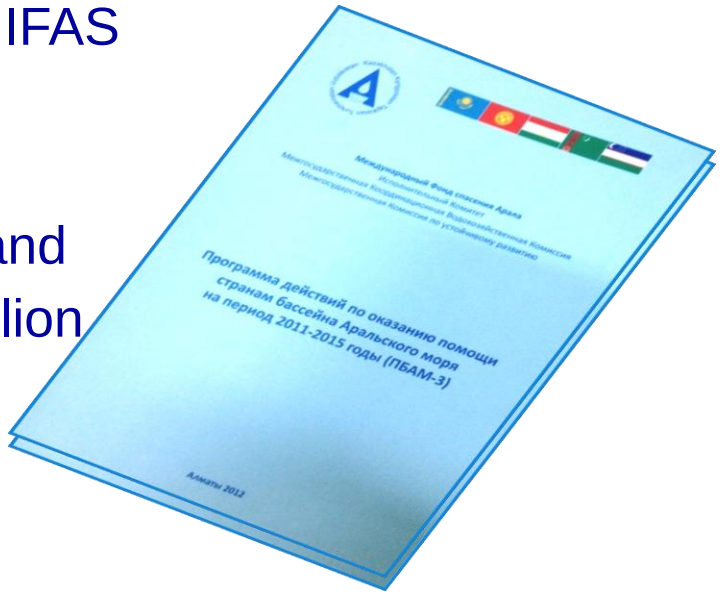
# International Fund for Saving the Aral Sea


## Since 2013 Uzbekistan chairs the IFAS

# ASBP-3

ASBP-3 was adopted by the Decision of the IFAS Board (2011, Almaty).

ASBP-3 comprises more than 300 national and regional projects at the total sum over 8,5 billion dollars.




THE WORLD BANK ADB USAID giz

## “Programme of measures on eliminating the consequences of the drying up of the Aral Sea and averting the catastrophe of the ecological systems in the Aral Sea region”

The Program was supported by
H.E. Ban Ki-moon, UN Secretary General,
and circulated as an official document at the 68th session of the UN General Assembly in September 2013

## INTERNATIONAL CONFERENCE «DEVELOPMENT OF COOPERATION IN THE ARAL SEA BASIN TO MITIGATE CONSEQUENCES OF ENVIRONMENTAL CATASTROPHE» (October 28-29, 2014, Urgench)

# PROJECT

## Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

One of the effective ways to restrain salt and dust transfer, fix shifting sand, create stable basis for free-range animal husbandry in future and localize negative impact on environment is to create forest protection with the use of local plants (Haloxylon, Saltwort, Calligonum).

Because of their ability to disengage oxygen, absorb carbon dioxide and accumulate dust, hardy-shrub species can become the main buffer from sand to maintain ecological balance in nature.

# Forest plantations

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

**Aims of the project are:**

- to improve ecological and socio-economic situation in the region, particularly:
- to reduce wind erosion, fix moving sand dunes, minimize the process of deflation (removal of salt, dust and sand) on the protected area, improve air quality - all these measures are aimed at improving population health;
- to improve environmental situation through disengaging of oxygen, absorption of carbon dioxide and accumulation of dust by trees and shrubs, which would lead to reduction of morbidity of the population;
- possibility to involve the drained areas in economic activities through development of animal husbandry and cultivation of medicinal plants, which in the future will provide the population of the Aral Sea with additional live-stock production;
- restoration of the local fauna and flora.

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

**Project area:**

- In Uzbekistan forest plantations are proposed to be carried out on the dried-out bottom of the Aral Sea on the Akpetke Archipelago on an area of 20 000 ha, which will protect the lake and desert tracts of the Akpetke complex.
- According to the preliminary assessment of biodiversity state undertaken in 2008 by the FAO project on "Development of a project proposal for the establishment and organization of a protected natural area in the Akpetke area", it was determined that these habitats are of great importance not only for birds, but also for other fauna and flora species that make up desert ecosystems.

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

СХЕМА СОЗДАНИЯ ЗАЩИТНЫХ ЛЕСНЫХ НАСАЖДЕНИЙ В ПРИАРАЛЬЕ


| Условные обозначения | | |
|---|---|---|
| № Про-ектов | Наименование проекта | Место реализация проектов |
| 1 | Создание защитных лесных насаждений на осушенном дне Аральского моря (на площади 200 тыс. га на территории архипелага) | Архипелаг Аклетке (50 км от пос.Казахдарья) |

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

In Turkmenistan a pilot territory of Ruhybylent district of Dashoguz region was selected for forest plantations.

In the Republic of Kazakhstan, it is proposed to plant forest plantations on the site:

- “Kaskakulan” (10000 ha);

“Karateren” (10000 ha).

The site is located on the dried out bottom of the former Aral Sea (absolute desert), south to the settlement Karateren.

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

## The project anticipates the following activities:

- Carrying out planting of forest plantations on the dried seabed of the Aral Sea;
- Fixation of shifting sands;
- Establishment of eight nurseries for growing planting material for desert species
- Organization of permanent monitoring of new forests;
- Identification of biodiversity of the most valuable ecosystems, organization of monitoring and development of measures for their conservation and restoration;
- Monitoring and implementation of measures to combat fires, identification of the centers of diseases of forest crops, carrying out of sanitary measures to eliminate diseases on the basis of chemical and biological control methods;
- Further training of manpower and strengthening of material-technical base of forestry organizations;
- Organization of regional workshops to exchange experience.

# Haloxylon aphyllum

# Mechanical protection out of reeds

# Cellular mechanical protection

# Fixing of shifting sands

# Seedlings nursery

# Planting of saxsaul (haloxylon)

# Deposition of sands in saxaul plantations

# Sand-accumlation capacity of desert plants

| Name | Height (sm) | Diametr of coma (см) | Accumulation ($m^3$) |
|---|---|---|---|
| **Haloxylon** | 265 | 320 | **10,6** |
| **Saltwort** | 220 | 260 | **5,6** |
| **Calligonum** | 110 | 210 | **6,9** |

# Expected results

- Creating favorable conditions for increasing the productivity of land,
- The increase in biodiversity
- Prevent deflation and erosion processes, reducing wind erosion, fixing shifting sands and prevent ingress of salt and dust in the surrounding villages
- Possibility of livestock development and the involvement of desertified areas in economic circulation
- Improving the environmental situation in the region,
- Poverty reduction and increasing employment in the region.

# Restoration of degraded land through afforestation of the dried seabed of the Aral Sea area

**Estimated project budget –** $ 9 000 000
Co-financing: $ 1 500 000
Amount of requested funds: $7 500 000

**The project:**

- was included in the Action Program to assist countries in the Aral Sea Basin for the period 2011-2015 (ASBP-3) designed according to the mandate of Heads of States-Founders of the IFSA of April 28, 2009 in Almaty, by the Executive Committee of IFAS in cooperation with regional organizations and in close collaboration with the donor community;
- reflects priorities of the three countries and provides a unique opportunity for the States-Founders of the IFAS to combine more effectively national and regional efforts to improve environmental conditions and socio-economic situation in the region;
- among 44 complex projects (clusters), has been supported by donors and specialists (experts) of the EU, UNECE, as well as the States-Founders of IFAS at the Coordinating Donor Conference on 9 December 2010. The donors pledged their full support to the Program and willingness to develop close partnership and cooperation with the Executive Committee of IFAS and the Governments of the Member States of IFAS in its implementation.

# THANK YOU FOR ATTENTION!