



Examples of the Environment – Security Interface
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Dear Chairman, Ladies and gentlemen, let me - on behalf of the Executive Committee of the International Fund for Saving the Aral Sea - express my sincere gratitude to organizers of the Conference for their hospitality and wonderful preparation work.

I would like to brief you on current status of addressing the Aral Sea crisis and related institutional aspects, and new Heads of the Central Asian States environment and socio-economic initiatives.

Aral Sea Basin Program and Water and Environmental Management Project: Aral Sea Basin Problems

Until 1960, Aral Sea covered an area of about 66,000 square km and had volume of more than 1,000 billion cubic meters (BCM). The inflow from Amy Darya and Syr Darya is about 120 BCM annually, precipitation is about 6 BCM and groundwater is about 5 BCM. Evaporation from the surface of the Aral Sea is about 63 BCM annually. With these inflows and outflows the level of Sea was stable between 50 to 53 m (Baltic Sea system).

1960-90 water use mostly for irrigation in the basin increased from 63 BCM to 117 BCM what led to declining of the inflow to 9 – 12 BCM by 1990 and 2-3 BCM by 2003. Sea level dropped by 23 m to current level of 31 m and lost more than 70% of the sea's area. Expansion of irrigation, associated with the diversion of river water from the Aral Sea, since the late 20th century and, in particular, in the years between 1950 and 1990 when the irrigated area almost doubled to 8 million ha, created serious environmental problems.

Salinization of land and water occurs by irrigation water solving salt in the soils, raising saline groundwater levels and discharging saline drainage water into the river system. About 1/3 of the irrigated land is already saline with yields decreased by about one third. Drinking water of acceptable salinity levels is difficult to find in the lower reaches of the rivers. Damages due to salinization are estimated to at 2 billion US\$ per year. In the delta areas these problems are the most acute. There, the former wet delta environment is, in addition, threatened by desertification with severe effects on human as well as animal life and on biodiversity.

Livelihood and quality of the life of about 4 million people living in the Amu and Syr Darya Deltas had been severely affected. Increased basin-wide soil and water salinization, disappearance of fresh water lakes and bio-diversity, salt storms, desertification, health problems, poor quality drinking water, and loss of fisheries are a few among many consequences of past and current water and salinity management practices.

Aral Sea caught the attention of ecological crisis actually degradation due to non sustainable use of land and water resources extends beyond the Sea to the total basin. Upper water shed area of the basin lost about 50% of its forest cover. Soil erosion has intensified.

Mismanagement in irrigation and drainage and insufficient investments for rehabilitation of irrigation and drainage infrastructure have resulted in increased river water salinity and soil salinization and water losses in river basins.

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During the early 1990s, several regional institutions were established, including the **International Fund for Saving the Aral Sea (IFAS)** and the Central Asian Economic Community (CAEC), recently re-structured and re-named the **Central Asian Cooperation Organization (CACO)**. As its name implies, IFAS was established originally to coordinate and mobilize financing for the Aral Sea Basin Programme (ASBP) - from within the five Central Asian states themselves and from the international donor community. Meanwhile, the Interstate Commission for Water Coordination (ICWC), comprising representatives of the Ministries of Agriculture and Water Resources and the two (Amu Darya & Sry Darya) River Basin Commissions (BWOs) inherited from the former Soviet Union, was established in 1992.

Status of IFAS and Regional Institutions

IFAS' original mandate was to raise international awareness of, and concern with the Aral Sea environmental disaster and, in addition, to coordinate and mobilize regional and international financing for the ASBP. Its chairmanship rotates among the five member states.

Against this background, it is clear that IFAS, the ASBP and the international and regional contexts within which both exist have evolved significantly since their creation in the early 1990s. First, IFAS' original awareness-raising, advocacy and financial resource mobilization role has to a large extent been fulfilled: there is now widespread knowledge internationally about the Aral Sea crisis and the ASBP itself; and, while funding constraints remain, substantial investments have been made by numerous multilateral and bilateral aid agencies since 1994. Indeed, recent experience suggests that absorptive capacity rather than lack of financing may be the ASBP's binding constraint. Secondly, in addition to its original multilateral financing sponsors (World Bank, UNDP and UNEP), the ASBP overall and its components now enjoys the active support of numerous other multilateral and bilateral aid agencies, including ADB, EU-TACIS, UNESCO, Canada, Denmark, Netherlands, Sweden, Switzerland, and the United States (USAID).

Development of Aral Sea Basin Programme

The grave environmental problems of the Basin prompted the government of former USSR to take some steps in water management in 1986 without much success. After independence in 1991, the five basin states recognize the need to establish water allocation principles, and in 1992 signed a water treaty establishing Interstate Water Coordination Commission (ICWC).

The River Basin Organizations (BWOs, established in 1987) for both Syr Darya and Amu Draya rivers were maintained to carry out the decisions of ICWC.

In 1993, three new institutions were created; Interstate Council of the Aral Sea (ICAS) for overall programme coordination; International Fund for Aral Sea (IFAS) to receive and manage investments funds; and Sustainable Development Commission (SDC) to focus on regional environmental issues.

In 1994 Aral Sea Basin Programme (ASBP), preparation of which started in 1992 with the assistance of UNEP and the World Bank, was launched. The main objectives of the ASBP are:

- stabilize the environment of the Aral Sea Basin;
- rehabilitate the disaster area around the sea;
- improve management of land and water resources in the basin
- build capacity of institutions at all levels to plan and implement these programmes.

Water and Environmental Management Project

The most important regional project was the Water and Environmental Management Project (WEMP) supported by GEF, EU, the Netherlands, and Sweden. The total financing of the project was US\$ 21.5 million, US\$ 4.1 million of which were from the funds of the five Central Asian States.

Project activities were under six components:

- The Water and Salt Management Component (A)
- The Public Awareness Component (B)
- The Dams and Reservoir Management Component (C)
- The Transboundary Water Monitoring Component (D)
- The Wetland Restoration Component (E)
- The Project Management Support Component (F)

The major benefits of the project are:

- Substantial advances towards sustainability of land and water in the region through the provision of a coherent and transparent regional water and salt management plan; the enhanced capacity to reach and monitor interstate agreements on the subject (Comps. A and D); the improved acceptance of difficult reform measures (Comp. B) the acceleration and increase of investments (Comps. A, C, and E); and improved water quality and increased flow to the deltas (Comp A and B).
 - Increased safety of dams (Comp C).
Preservation of biodiversity of international importance by an improved habitat for globally threatened bird species (Comp E) and reduced salinity in rivers.
 - Increased incomes due to reduced damages from salinity, in the region in general, and increased revenues for people living in the vicinity of wetlands in Amu Darya river delta.

New Initiatives

Ladies and gentlemen, I would like to draw your attention to the new initiatives of the Heads of Central Asian States in the Aral Sea Basin. The initiatives were discussed and approved by the Heads of the States in 2002. The Heads of the States approved "Strategic Action Plan for improvement of ecological and socio-economic situation in the Aral Sea Basin for the period of 2003-2010". The Program indicates 4 major priorities:

- Improvement of integrated water management;
- Improvement of socio-economic conditions;
- Environment restoration; and
- Socio-economic and environment monitoring.

The Action Plan consists of 14 programmes:

1. Integrated Water Resources Management

Priority objective of the programme is development of agreement on joint use and protection of water resources taking into consideration the socio-economic conditions of region, improvement of institutional set up.

The programme will lead the Central Asian countries towards joint activities establishment of common approaches, effective methods and water sharing mechanisms. The programme will improve interstate and inter-sectoral relations through establishment of common objectives.

2. Rehabilitation and improvement of irrigation infrastructure and water and land resources utilization

Priority objective of the programme is rehabilitation of irrigated and drainage infrastructure.

It relates to technical improvement and reconstruction of irrigated lands and irrigation infrastructures having the regional importance, provision of dam safety, for example: safety of the Sarez Lake, Syrdarya flow management and increasing the capacity of *Kairakkum* water reservoir.

3. Improvement of environment monitoring systems

Priority objective of the programme is improvement of environment monitoring system in terms of data collection and dissemination addressing water-economy, environmental and socio-economic problems of the Aral Sea basin. For this reason it is envisaged:

- Regional data bank establishment;
- Improvement of transboundary water monitoring system;
- Improvement of monitoring system of snow-glacial resources;
- Development of the regional model for climate change.

4. Combating natural disasters

The Central Asian republics are undergone the impact of various dangerous nature phenomena, number of which is sharply increased for the last years. Due to that, countries suffer significant damage and have human victims.

Priority objective of the programme is prevention of soil erosion, coast-protecting measures, forests rehabilitation in upper-water shed formation, flood protection.

5. Assistance to address social problems

Priority objective of the programme is improvement of the socio-ecological situation in region, increasing living standards. It is envisaged to assist in implementation of:

- public health programme;
- living standards programmes, establishment of new working places;
- programmes for provision population with drinking water;
- environmental education system;
- programme for interaction with non-governmental organisations and improvement of public participation.

6. Capacity building and legal base improvement of inter-state organisations

Capacity and legal base of inter-state organisations do not correspond to the up-to-date needs. It complicates their management, especially during dry year.

The important condition for effective work of the inter-state organisations is improvement of the regional information system, introduction of automated systems into water-economy practice, provision with the modern facilities of automation, strengthening of their legal base and financial status.

Priority objective is capacity building of inter-state organisations (EC IFAS, ICWC, ISDC and two BWO "Syr Darya" and "Amu Darya") by improvement and strengthening of their legal base and capacity.

7. Upper water-shed management

Priority objective is conservation of the mountain, foothill eco-systems and glaciers. It is supposed to carry out studies of effects decreasing the mountain glaciers and degradation of mountain eco-systems, and to develop actions to reduce negative impacts.

8. Regional and national programmes on rational water utilization in various sectors of economy

The OBJECTIVES of the programme are as follow:

- Water saving;
- Rehabilitation of flood-lands and nature reserves;
- Water resources integrated management in lower reaches of Amu Darya and Syr Darya rivers;

9. International programme for hygienic-ecological improvement of urban and rural area

Priority objective of the programme is assistance in implementation of programmes targeted at improvement of the eco-systems in the Aral Sea region. The particular attention will be given to the prevention of salt-dust wind transport from the dry bottom of the Aral Sea.

10. Environment rehabilitation and improvement of biological productivity

Priority objective of the programme is assistance in implementation of programmes on rehabilitation of ecological stability and biological productivity of the natural eco-systems and increase of water eco-system stability in the Aral Sea basin.

It is supposed:

- To provide the environmental drawdowns in deltas of Amu Darya and Syr Darya;
- To determine the economical capacity of water eco-systems of the Aral Sea basin;
- To adhere the regime in water protection zones;
- To assess the limit of permissible load on eco-system;
- Interaction with the regional programmes and programmes on conservation of bio-diversity.

11. Conception on sustainable development of the Aral Sea Basin

Priority objective of the programme is determination of a system of the regional OBJECTIVES for sustainable development and basic directions of their implementation (including mechanisms of coordination, financing and participation) and increasing the standard of population living to pass the Aral Sea basin to the future generation in a sound state.

For this reason it is envisaged to develop basic programme document for implementation of the general policy for rehabilitation and sustainable development of the Aral Sea basin.

12. Combating desertification

The priority objective of the programme is combating desertification and sustainable development of economy, support to the Central Asian Programme for combating with desertification.

13. Wetlands development in Amu Darya and Syr Darya rivers deltas

The priority objective of the programme is conservation of wetlands in river deltas by creation of shallow reservoirs network and controlled lake systems and establishing local pilot industrial territories for wetlands conservation and biodiversity restoration.

14. Rationalisation of use of mineralized drainage waters

Priority objective of the programme is water quality and quantity management for its use in the Aral Sea basin.

Finally, I would like to draw your attention to the proposal of the Republic of Tajikistan supported by 141 countries worldwide. According to the UN General Assembly proclamation, the years 2005-2015 were declared as the decade of "Water for Life" activity. We call

everyone to take an active part in actions aimed at improvement of the integrated water resources management, providing population with fresh drinking water and improvement of environment for the purpose of sustainable development.

The ASBP-2 adopted in our region completely corresponds the Millennium Development Goals, other international Forums and therefore it deserves the support of international donors. On April 2005, in Dushanbe, we are going to hold the International Conference on Transboundary Water Problems devoted to the international decade of "Water for Life". There it would be advisable to discuss the perspectives of the Program implementation.

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