
GLOBALIZATION AND WATER RESOURCES MANAGEMENT: THE CHANGING VALUE OF WATER

AUGUST 6-8 AWRA/IWLRI-UNIVERSITY OF DUNDEE INTERNATIONAL SPECIALTY CONFERENCE 2001

LEGAL ASPECTS OF INTERSTATE COOPERATION FOR TRANSBOUNDARY WATER RESOURCES MANAGEMENT IN THE ARAL SEA BASIN

Bakhtiyor R. Mukhammadiev¹

Abstract: The five states of the Aral sea basin face complex problems related to sharing transboundary water resources and seek to develop an effective legal and institutional framework for the cooperative management of these water resources. Recently adopted agreements and initiatives among the Aral sea basin states form the bases for the cooperation on water allocation but lack effective enforcement mechanisms for implementation and need to be further developed to cover all the issues involved. The appropriate interstate agreements and procedures should be developed according to international water law, and should take account of local traditions and experiences. It is also very important to harmonize the national water laws and interstate agreements of the basin countries with interstate agreements having preference over national water laws for rational and integrated water resources management. Further work is needed to bring together national governments to adopt the instruments necessary to strengthen the existing institutional and promote enforcement mechanisms.

KEY TERMS: Aral Sea basin; transboundary water resources management; legal and institutional mechanisms.

INTRODUCTION

The Aral Sea basin extends over 690,000 km² and includes all or part of the countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (Figure 1). The Basin has three distinct ecological zones: the mountains, the deserts and the Aral Sea with its deltas. The basin is formed by two of the largest rivers of Central Asia - the Amudarya and Syrdarya, which originate in the eastern part of the basin and flow west through extensive deserts before reaching the Aral Sea. The Tien Shan and Pamir mountains in the east and southeast are characterized by high altitudes (peaks over 7,000 m), and by high moisture coefficients, with average annual precipitation ranging from 800 to 1,600 mm. In the foothills and valleys, soil and temperature conditions are favorable for agriculture. The lowland deserts of Karakum and Kyzylkum cover most of the basin area with low precipitation (under 100 mm/year) and high evaporation rates. The present population in the basin is about 39 million people with growth rates averaging 2.54 %. As a result of disintegration of the Soviet Union in 1991, five Central Asian Republics declared their independence. The former administrative borders of the republics became international and hence the two rivers - Amudarya and Syrdarya gained an international status (see Figure 1).

Institutional Framework

The post-Soviet evolution of the institutional framework for the management of transboundary water resources in the Aral Sea basin is reflected in a series of agreements. The objectives of these agreements have been to improve management and cooperation, and enhance the effectiveness of interstate bodies and organizations

¹ Specialist of the Regional Water Resources Department of the Scientific Information Center of the Interstate Commission for Water Coordination of the Central Asia (SIC ICWC), 11 Karasu-4, Tashkent 700187 Uzbekistan, Phone/Fax: (+998 712) 658442, E-Mail: bakhtioyr@sicicwc.aral-sea.net.

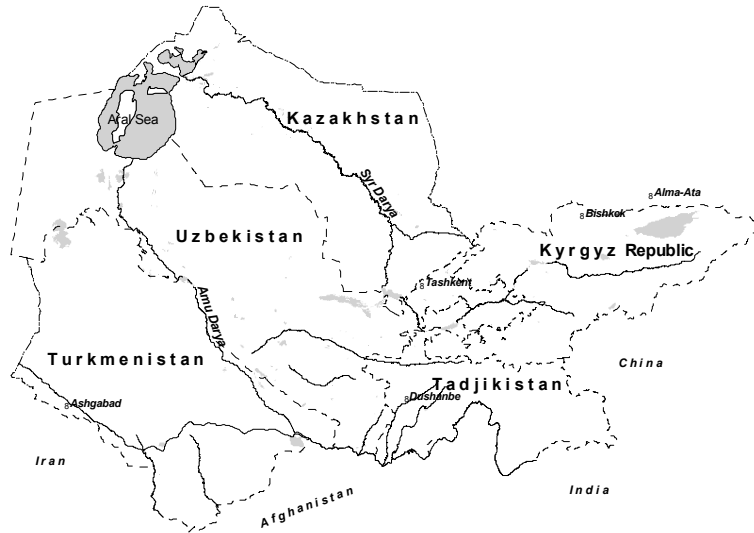


Figure 1. The Aral Sea Basin

involved in water management. The basin countries agreed that the institutional framework would include the International Fund for saving the Aral Sea (IFAS) and its Executive Committee (EC IFAS); the Interstate Commission for Water Coordination (ICWC) and its executive bodies: the Secretariat of the ICWC, the Scientific Information Center (SIC ICWC), the Basin Water Organizations (BWOs) of Syrdarya and Amudarya.

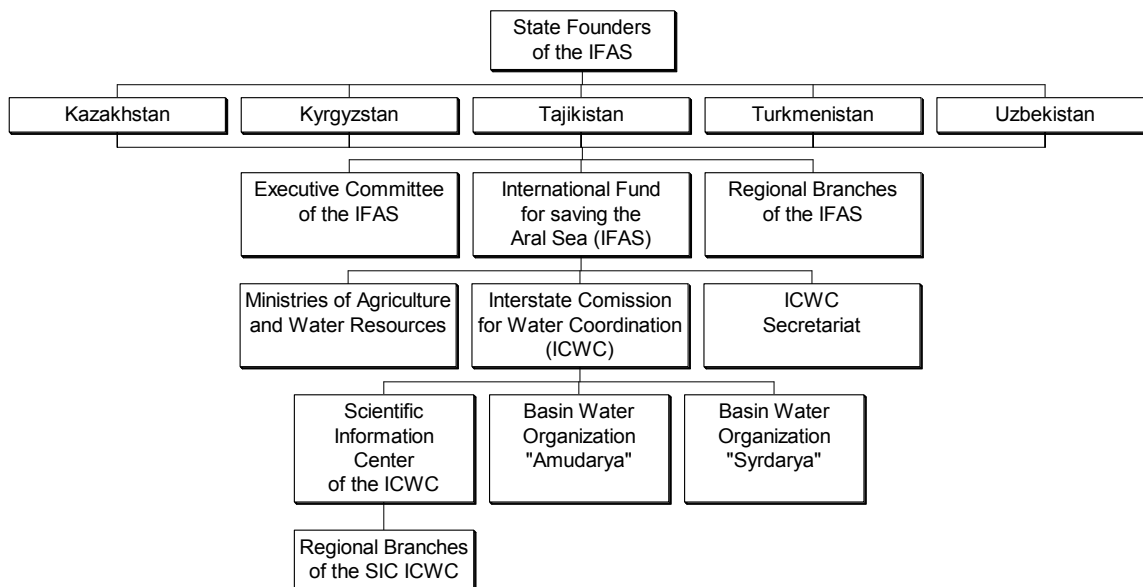


Figure 2. Structure of Interstate Organizations in the Aral Sea Basin

The International Fund for saving the Aral Sea (IFAS)

Established in 1993, the International Fund for saving the Aral Sea (IFAS) - a successor to the former International Council of the Aral Sea Basin (ICAS) and the former IFAS - has a board composed of Deputy Prime Ministers of the five states, responsible for agriculture, water and the environment. The Board meets at least three times a year to discuss the views of member states and to decide on the policies, programs, and institutional

proposals recommended by the Executive Committee, which is the permanent working body of the Fund. The IFAS also retains its former responsibilities for managing contributions and financing program activities, pursuant to a set of regulations on the IFAS and its Auditing Committee.

The main functions of the IFAS are as follows:

- Project implementation approved by states' heads for solving the problems of the Aral Sea;
- Coordination of the activities of its regional branches;
- Assistance and cooperation with ICWC;
- Enhancement of co-operation with international organizations, donor countries, environmental and other funds to improve the environmental conditions in the Aral Sea basin;
- Accumulation of financial funds and their distribution;
- Preparation of documents and organization of meetings of IFAS Board of Directors as well as for heads of states.

The Interstate Commission for Water Coordination (ICWC)

ICWC was established in 1992 by the five basin states by the "Agreement on Cooperation in the Management, Utilization and Protection of Interstate Water Resources ", signed in Almaty on February 18, 1992. ICWC consists of heads of water management organizations from each member state. It adopted most of the functions of the former Ministry of Water Resources of the USSR for managing the basin water organizations, with the following modifications:

- ICWC as a commission has five members, appointed by member states, with equal rights and responsibilities. They meet quarterly for decision making on various aspects;
- Two BWOs were re-established as executive bodies of the ICWC and part of the Central Asian Scientific Irrigation Research Institute became a Scientific Information Center (SIC) acting as an "intellectual" body of the Commission;
- All of the items involved in the meetings of the ICWC, according to the agenda, should be prepared by executive bodies and distributed among the members before the meetings (20 days). This helps to prepare comments and proposals from each state;
- Each member of the ICWC represents the interests of his/her country, based on definite responsibilities and authorities given to him;
- Water allocation principles used during the Soviet period remain in force for the time being until a new approach for regional and national strategy can be developed and implemented.

According to mandatory package among others the ICWC is responsible for the development and realization of annual water use limits for each state from the main river systems, the work of large reservoirs, management of water allocations based on the real water supply in the basin, installation of annual water supply criteria for the Aral Sea and its deltas, as well as minimum instream requirements both for rivers and canals, operation and maintenance of water scooping structures on rivers which are controlled by the BWOs. The ICWC prepares recommendations for governments on development of general price policy and compensations for certain losses related to cooperative use of water resources as well as water use law.

THE ICWC SECRETARIAT

The Secretariat, based in Khodjent (Tajikistan), acts as a standing executive organ of the ICWC, reporting on the implementation of ICWC decisions. The Secretariat organizes the meetings, prepares the budget and programs of the ICWC.

The Scientific Information Center (SIC-ICWC)

The SIC-ICWC is based in Tashkent (Uzbekistan), with branches to be established in Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan. The functions of the SIC-ICWC are mostly of a technical nature. They include the creation and management of a unified database for water resources in the Aral Sea basin, the development of automated systems to be used in the management of the BWO Amudarya and BWO Syrdarya, and the organization

of regional training courses for water management personnel. In addition, SIC is responsible for international exchanges, preparation and implementation of scientific research and technical projects at the regional level.

The BWO Amudarya and BWO Syrdarya

The BWO Amudarya, which is based in Urgench, was established as an interstate organization in 1986. It is directly responsible for water allocation, quality control and operation of infra-structures in the Amudarya river basin. Similarly established and based in Tashkent, the BWO Syrdarya has the same set of responsibilities for the Syrdarya river basin.

BWOs main functions are as follows:

- Ensuring timely and guaranteed water delivery to all water users according to established ICWC limits from transboundary water sources. The control of water quality and water discharge into the Aral Sea according to the established volumes, and filling of interstate reservoirs;
- Development of plans for head water structures, modes of operations of reservoirs, preparation and coordination with ICWC of the limits for all water users in Amudarya and Syrdarya river basins;
- Creation of automatic monitoring systems for river basin management, organization of gauging of water on main water distribution structures and their equipment supply by necessary devices;
- Monitoring of measurements at the boundary points to guarantee the exact information concerning transboundary river flow;
- Implementation of reconstruction and technical operation of water structures, interstate canals, automatic monitoring systems;
- Conducting scientific research, designing, construction of new water management structures and rehabilitation of existing ones.

INADEQUACIES OF THE PRESENT SYSTEM

The Agreement of March 18, 1992, which was the basic mark in organization of the regional water management cooperation between the states, is based on the principles established in the Soviet time. The new conditions are characterized by the reassessment of national priorities and purposes, weak economy, absence of federal support for water infrastructure, and the impact of transition of all states to a market economy (with various speed of this re-structuring in the countries). These factors are very important and require a broader comprehension of a new situation. The present status also requires developments of several new principles for water resources management, operation and maintenance.

The former rules of water resources management, where priority was given to irrigation, do not meet the present priorities of the states. It creates conflict of interests between the countries located upstream and downstream. Attempts to prevent the conflicts on the basis of barter of energy between the countries (i.e. to supply upstream countries with fuel in exchange of water to downstream countries) did not prove to be successful because of absence of strict and enforced conditions. Sometimes, it is taking a lot of time for negotiations among the states on this matter.

Although ICWC and BWOs successfully dealt with most of the complex situations with water allocation and water supply, even in drought years, completeness and order of management, are obviously insufficient. Still some water structures, including reservoirs and the transboundary river sites, are not transferred under BWOs' jurisdictions. This should be executed for rational water use and maintenance of inflow in the Aral Sea. BWOs do not have control over the water diversions, ground water withdrawals and return flows, as well as managing quality issues related to return flows and groundwater. The protected zones of the transboundary rivers have not been determined and officially transferred to BWOs' jurisdictions. BWOs and their bodies do not have advanced modern equipment for reception and data processing, reliable systems of communication on the large distances, equipment for automatic control, modern models of integrated water use.

The methods of water allocations, inherited from the Soviet time, do not take into account the present changes in priorities of the new independent states. All states have certain reserves and needs for water, which are sharply differentiated on the basis of current, an especially future problems related to guaranteeing the parameters of population per capita. Kyrgyz and Tajikistan consider that in the Soviet times the irrigation development was limited in their territories, and it is necessary to them to reassess their future share of water resources. In contrast to upstream, the countries located downstream are arguing about water quality issues and instream requirements.

Strengthening the Regional Legal Framework

There is a high demand for new legal frameworks, as the rivers in region became transboundary. This requires new approaches for interstate negotiation. The appropriate interstate agreements and procedures should be developed according to the international water law, and also should consider local traditions and experiences. The heads of the states repeatedly proclaimed in the joint declarations that they all recognize transboundary water resources as objects of common property and their development, protection and use should be carried out based on the interstate agreements of regional bodies. Thus each state has the right to use in its territory national water resources and also part of the transboundary waters (within certain limits). The Aral Sea and its deltas were determined as independent water users, which has its own limit for water.

However, up to date the existing documents do not guarantee appropriate use and control of water resources. It can be explained by the fact that the existing agreements do not cover all areas of joint management of transboundary waters in Central Asia. The river flow into the Aral Sea is not guaranteed, and water use still remains inefficient.

The documents, prepared by all Central Asian states, should establish mechanisms of their implementation taking into account regional traditions and international standards. The legal support should be included in the normative engineering specifications that determine all technical aspects of use and consumption of water and acceptable impact of human activity on the environment.

The Role of Regional Water Strategy

The work on "Basic Rules for Strategic Water Resources Management in the Aral Sea Basin", developed by Regional Working Group of experts of five countries and organized by ICWC together with the World Bank, has shown the importance of regional water resources management problems. Among the solutions to these problems the development of the legal documents for regulation, management and use of water resources have the highest priority and value. Similar legal documents authorized by all Central Asian countries, and containing legal obligations, will create a basis for steady socio-economic development and creation of stable ecosystems in the region.

The legal structure of strategy of water resources management has the form of complex rules and agreements. They should adjust both development and performance of water strategy, serve as a tool in all cases related to water resources management, and be directed towards sustainable maintenance and conflict avoiding development.

Further study and precise definition of the issues involved require the following questions to be addressed:

- Concept of equal rights in water use and its observance;
- Efficiency criterion in joint water resources management;
- Priority of regional interests over national ones and control of this priority.

A SET OF THE NECESSARY AGREEMENTS

IFAS and ICWC together with legal advisers from the European Union have drafted several agreements. They include:

- The Agreement on the status of organizations of the International Fund for saving the Aral Sea;
- The Agreement on strengthening the institutional structure of the ICWC;
- The Agreement on creation of regional, national and basin-wide information systems and information exchange;
- The Agreement on the "Use of waters from transboundary sources"
- The Agreement on the "Planning of joint actions on transboundary rivers"
- The Agreement on the "Water quality for creation of ecological stability of the rivers".

The first of these documents was approved by IFAS Board of Directors in 1997 and confirmed by the heads of the states on April 9, 1999. The next two agreements have passed through a long process of negotiations and are now

ready to be submitted to the following meetings of the ICWC. After long discussion of agreements about water use (5 versions were prepared and discussed between the states), it was decided to prepare the separate agreements for each basin, a plan of actions for Syrdarya river basin is already prepared, and as for Amudarya river basin it is only at initial stage.

Another set of problems relate to the fact that since the beginning of the independence each of the five states has started to work on the creation of new national Water Laws. Most of these documents are reminiscent of the old-Soviet water codes. Interrelations between regional water users and water allocations sometimes created contradictions with the national water law. Although the water laws of Kazakhstan, Tajikistan and Uzbekistan declared that the interstate agreements have a higher priority over the national water laws, in two other states, Kyrgyz tan and Turkmenistan, the similar provisions are absent. Thus, this question requires further development, trust and realization of discussions between the states.

CONCLUSIONS

Legal and institutional mechanisms play an increasingly important role in cooperative efforts to manage transboundary water resources in the Aral Sea basin. Confidence will grow as further progress is made with the institutional framework and as the Parties begin to recognize and adhere to the international legal principles most relevant to transboundary water resources, including equitable and reasonable utilization, the obligation not to cause significant harm, sustainable development and joint management through appropriate institutional mechanisms.

Future conflicts over transboundary water resource allocation in the region may be avoided through improved communication among national governments and the willingness to seek consultation with other riparians before taking actions that may cause harm to others. These solutions have already been conceived, but further progress in the legal and institutional arenas is essential to future success.