

**Organization types of transboundary cooperation
in the world water practice**

Since 1991 in the history of five Central-Asian republics - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan- a new period of sovereign independent development has come.

As is well known these countries are located in dry climate zone, and in Soviet time regional water resources management, related mostly to Amudarya and Syrdarya transboundary rivers basin, which takes place within the Aral basin, was carried out in centralized way from Moscow by USSR Minvodkhoz.

After receiving independence governments of all five states faced with the problem on water resources management at the regional interstate level demanding urgent solution.

Centuries-old experience and traditions in irrigated farming, joint living of peoples in united state (Russian Empire-USSR), leaders and water experts understanding of not allowing interstate vacuum in such delicate and vitally important sphere as water-related activity initiated immediately formation of Interstate Coordination Water Commission at the beginning of 1992.

On September 12, 1991 five states of Central Asia declared that integrated water resources use will serve as a base for providing equal rights and mutual benefits. Agreement about cooperation in integrated water resources management, use and conservation from interstate sources was signed on February 18, 1992 in Almaty. Thus states of the region confirmed their adherence to the Aral Sea basin integrated water resources management.

By the request of 5 states of Central Asia international organizations on behalf of UNDP, UNEP, the World Bank and other assistant organizations called to undertake urgent measures on effective transboundary water resources management, use and conservation meeting all requirements of the states as well as conflicts prevention. All these organizations supported our countries in development of different variants of long-term problems solution.

Five states of the region under new political and economic conditions are accumulating and developing transboundary waters cooperation experience in connection with principles and norms of international right as well as adoption of bilateral and multilateral agreements.

Besides our states should study and use international experience of transboundary cooperation. Global experience is various and useful, its roots rise from distant past without which the present time can't exist as well as wonderful future all of us.

I will try to describe briefly experience of cooperation with foreign countries and within the Central-Asian region and underline the most useful aspects to extend interactions in sphere of water.

The history of water use by mankind for different agricultural needs is ancient. All civilizations have been formed due to water.

The most ancient cities of the world - Samarkand, Khodjent, Rome, Kiyev, Babylon and many others were and are located on the rivers - fresh water sources.

In well-known ancient legal canons such as: Rome right; Muslim right; Hinduist and Buddhist right and others, water problems solution have been addressed.

Mankind development and, especially modern state formation in 18-19 centuries, resulted in necessity of equitable civilized solution of problems in water use and allocation among individual states.

For the first time issues of interstate water use in post-Napoleon Europe have become object of discussion at Vienna Congress in 1815, where shipping and navigation problems on Rain river were considered first of all.

The first **Rain Commission** was formed in 1818 and had being existed for almost 150 years. The same situation was formed on Danub river. Since 1856 till present time **Danub Commission** first of all studied and solved problems of free shipping and navigation and with economic development of adjacent countries it started to consider issues of irrigation, water supply, timber-rafting, fishing, recreation, etc.

On North American continent the first example of international cooperation was establishing of **International Joint Commission** between USA and Canada in 1909 that deals with boundary waters operation including rivers and lakes.

During 90-year period of activity this Commission has been solving successfully multilateral problems of transboundary river water resources operation. The Commission has implemented two great projects related to power development and flood control on Columbia river and created sea rout along St. Laurence river to connect Great Lakes (Michigan, Huron, Eire, Upper and oth.) with the ocean to organize shipping, create united power system, regulate water-table as well as to improve water quality in Great Lakes.

Due to necessity of close cooperation in 1944 USA and Mexico founded **International Boundary Water Commission** that deals with priorities definition in boundary rivers water use and allocation as well as water quality issues.

In particular, these two states receive strictly approved water quantity not depending on water flow availability of the rivers Rio-Grande, Tijuana and Colorado.

Latin America has accumulated specific experience in transboundary water resources use. **Intergovernmental Commission** on measures coordination between Argentina, Bolivia, Brazil and Paraguay was created there in 1971. This Commission operates through Ministry for Foreign Affairs of riparian-countries and determines common policy.

Within framework of this organization programs "Technical Commissions" were set up to take decisions on the following projects:

- On Uruguay river between Argentina and Uruguay (1973);
- Salto-Grande Project between Argentina and Uruguay (1946, 1952-1972);
- Yachyret bilateral independent organization on Parana river (1973);
- Joint Plan between Argentina and Chili (1974);
- Treaty on Amazon Cooperation (Bolivia, Brazil, Columbia, Equador, Peru, Surinam and Venesuella);
- Cooperation Project between Brazil and Uruguay for integrated development of Lagoah Mirim lake basin (1963-1977);

International cooperation on water resources use started in Africa in the late 19 century.

In 1855 at Berlin Congress it was claimed that navigation along the rivers Congo and Niger has become free.

Agreements between Egypt and Sudan (1929-1959) had an important meaning in Nile river water use, between countries Burkina Faso, Mali and Niger for integrated hydropower development and generation.

After independence receiving in African countries whole range of basin organizations appeared, such as:

- Senegal Basin Administration (1972) between Senegal, Mauritania, Mali and Guinea-Bissau;
- Basin Administration of Gambia between Gambia, Senegal and Guinea-Bissau;
- Basin Administration of Cadger (1977) between Burundi, Rwanda, Tanzania and Uganda;
- Basin Administration of Niger between Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Cost, Mali, Nigeria and Niger;
- Chad Lake Basin Commission between Chad, Cameroon, Nigeria and Niger;
- Volta River Basin Board.

In Asia the most attention should be paid to agreements and projects on Mekong river use by Vietnam, Cambodia, Laos and Thailand.

In 1957 formation of **Mekong Commission** initiated cooperation, which was interrupted by Indo-Chinese wars and renewed in 1975.

The late agreement was signed in 1995. Mekong Commission consists of a Council, which includes one representative in rank of Deputy Minister from each country and one of them is elected as the Chairman of Council for 1-year term.

This Commission also includes **Secretariat and Joint Committee** consisting of one representative from each country at the Department Head level.

Joint Commission Chairman is elected from these representatives for 1-year term.

Council is responsible for policy and decisions carrying out and providing leadership related to promotion, support, cooperation and coordination of join projects activity in constructive and mutual profitable way for Mekong river waters continuous development, use, conservation and management.

Joint Committee functions are as follow:

- implementation of Council policy and decisions as well as other issues defined by Council;
- formation of basin development plan;
- environment conservation study and assessment, support of Mekong river basin ecological bank;
- statement of the tasks and Secretariat activity management;
- development of rules for water and inter-basin water intakes use including:
- determination of temporal frameworks for rainy season and dry season;
- determination of hydrological stations location, assessment and maintenance of flow required for each station;
- Criteria elaboration for excess water quantity assessment during dry year in main stream;
- improvement of in-basin water use monitoring mechanism;

- determination of monitoring mechanism for inter-basin water intakes from main stream.

Secretariat function includes following objectives:

- fulfillment of decisions and tasks defined by Council and Joint Committee;
- preparation of annual works program;
- preparation of Council and Joint Committee session;

Secretariat is under leadership of main executive official and one assistant.

Big experience was obtained in South Asia, this is, first of all, **Indus Commission** founded in 1960.

Nepal-Indian Commission on the rivers Cozi and Gandak was founded in 1954.

Joint Commission Bangladesh-India was founded in 1951.

In Indo-Pakistan Agreement (1960) on Indus river basin the principle of monopoly use of international river tributaries on the territory of appropriate states.

Jordan-Syrian Agreement of 1953 on Yarmuk river basin supposes river waters sharing into parts between the states, for example, flood waters, reservoirs water, waters of river's watershed.

Agreement between Iraq and Turkey (1976) on the rivers Tigris and Euphrates waters regulation, which is, unfortunately, already infringed.

As a compromise, Turkey claimed that it will abstract the least share from disputable water resources. Turkey will abstract only 50 m³/s from 900 m³/s of the total discharge, rest waters will flow downstream to the countries located closer to the south.

Turkey will generate power at 19 hydropower stations. Despite of protests Turkey is continuing their construction.

French-Spanish agreement (1968) about water allocation of Pucerda canal, in which equal and mutual motivated international water use is achieved according to the principle of rotation and represents big interest.

In the whole world two or more countries use more than 245 river basins simultaneously.

About 40% of world population and 50% of land more or less depend on benefit received from water resources available in the basins.

Mostly appropriate coastal states use these international waterways in peaceful situation, despite of universal agreement absence which can regulate non-shipping kinds of these resources use.

UN Convention on this issue is open for signing since May 21, 1997, however it hasn't come to power.

Poor cooperation and direct disputes existing between some coastal states hamper optimal use of many international waterways in the prejudice of all basin states' interest.

For example, approximately 150 bilateral and multilateral international agreements about transboundary water bodies conservation and use act in Europe and North America.

However not all European transboundary water ways are covered by those agreements, and some of them have grown old.

In the result of those agreements elaboration and implementation the following conclusions can be made:

- to solve existing problems common will of states is necessary:
- all Sides should long for and be able to undertake actions based on principles of good neighborhood, mutual understanding, non-discrimination and reliability. All this comprises cooperation base. Necessary skills in financing, management and negotiations carrying out should be also developed:
- to replace, if possible, command-control approaches for partnership of all interested Sides at all levels - governmental, local, business, economic, financial and public.
- flexibility in problems' solution is necessary:
- Sides should transfer certain authorities to jointly formed bodies.

As to types of organization of transboundary cooperation in the world practice, they are divided as follow:

bilateral
 multilateral (regional)
 international
in time - urgent and permanent:

depending on target use they can be integrated and non-integrated, however because of social and economic development of the countries ecological aspect becomes prior. There are many examples of bilateral organizations. One of them is India-Bangladesh on joint Gang river water resources use as well as Nepal on **Makhakali river integrated development**.

At regional level in Europe **Helsinki Convention** on transboundary waterways and international lakes conservation and use came to power.

On African continent range of country-members of Community on South Africa countries' development problems have signed protocol about integrated waterways use, and ratification process of this protocol has already started.

At international level in May of 1997 UN Convention was adopted about right of non-shipping kinds of international waterways use.

Practically all forms of interstate cooperation on transboundary waters base on main provisions:

- water resources are common property of mankind and base of its future, their volumes are extremely limited;
- water resources exist not depending on state borders;
- water resources management main goal is common well-being of peoples and states;
- priority of basin interests to compare with private interests, including individual states using common water resources;
- obligatory following principles of water resources multi-objective use optimization.

Functions of interstate management bodies on transboundary waters, mentioned in interstate agreements, vary widely from coordination of different branches activity in adjacent countries to management of all basins with every available branches, that is in this case management will be integrated.

Among different functions of interstate organizations **UN International Legal Commission** (1990) concigers necessary following functions:

- permanent exchange of opinion and consultations on all issues of mutual interest;
- joint water resources monitoring and other related natural substances on permanent base;
- collection, identification and dissemination of information and data related to international water resources use, conservation and saving, uniform information system creation;
- preparation of proposals, researches and programs directed to water resources improvement, use, management and development;
- preparation of the rivers and their potential development joint projects.

The highest forms of interstate cooperation on transboundary waters are as follow:

- integrated operative management of common water resources;
- measures on water quality improvement;
- perspective development and improvement of water resources;
- harmonization and cooperation in all kinds of water resources integrated use and other related natural and economic potentials;

Other conditions of successful cooperation are as follow:

- account of various political systems in riparian countries;
- account of social and cultural states development various levels;
- account of natural-economic conditions variety
- ;
- account of demographic situation changes;
- coordinated planning methods;
- observance of approved water allocation principles.

Cooperation between states in transboundary water resources use is permanently developing interaction. It depends mostly on traditional relations of the states, their social development levels, economic potential and many other factors, including experience of independent and civilized existence as well as reasonable combination of own interests with neighboring state-water users' interests.

Collaboration of the states at the different levels of development should be based on mutual assistance and respect.

More developed, rich and strong countries should be attentive to the problems of less developed countries along the river. They should ignore direct economic benefit and sacrifice certain things to retain fruitful collaboration and peaceful neighborhood as profit and benefit will be anyway, but it is not possible to estimate it at once and directly.

Demonstrative example of such collaboration is interrelation of rich superpower USA and less rich Mexico on base of Rio Grande and Colorado boundary rivers water use. After receiving independence states of Central Asia according to principles of international right, available agreements, provisions of former state management as well as local experience and traditions, keeping peaceful neighboring relations signed whole range of agreements, protocols and provisions which were put in base of present Aral sea basin water resources management.

As a result of multiyear activity modern structure of the Aral sea basin water resources management interstate bodies is formed in following way:

International Fund for Aral Sea Saving (IFAS) includes:

- IFAS Board;
- Audit Commission;
- Executive Committee of IFAS (EC IFAS);
- EC IFAS branches in CAR;
- International Coordination Water Commission (ICWC), ICWC Secretariat, Scientific-Information Center (SIC ICWC), Basin water organizations (BVO "Amudarya" and BVO "Syrdarya");
- Sustainable Development Commission (SDC), Secretariat, Scientific-Information Center under Institute of Deserts in Turkmenistan (SIC SDC).

IFAS main objective is financing and crediting of joint practical actions and perspective programs and projects on Aral sea saving, ecological improvement of Aral sea coastal zone and the Aral sea basin in a whole taking into account all states of region interests. IFAS is formed at the expense of state-founders and participants fees from Turkmenistan, Republics of Kazakhstan and Uzbekistan in amount of 0.3%, the Kyrgyz Republic and the Republic of Tajikistan in amount of 0.1% of budget revenue. IFAS is formed also at the expense of:

- voluntary fees of enterprises, international and individual foreign public and national organizations, juridical and physical persons;
- means directed to solution of specific target programs;
- other contributions.

Participants of this Fund can be international organizations, other juridical and physical persons. IFAS Board is presided by IFAS President elected from Heads of the state-founders for term approved by Head of States Council Decision of Central Asia. EC IFAS is located in the country where leader is IFAS President. IFAS activity can be stopped according to Head of the IFAS state-founders' decision. IFAS organizations have privileges and immunities.

Parts undertake necessary measures on IFAS premises and property protection from criminal infringement and possible damage. IFAS organizations and their property within area of parts are free from all direct taxes. All sponsor payments of international donors and organizations are free from taxes.

Staff has also approved privileges and immunities.

International Coordination Water Commission (ICWC) is main executive body on direct water resources management and perspective development, measures implementation on related natural process sustainability support as well as preparation of legal and regulating acts concerning transboundary water sources management, development and conservation in the Aral sea basin.

ICWC elaborates main directions of integrated water policy, approves annual water consumption limits for each state and the Aral sea basin as a whole as well as great water reservoirs operation regimes, taking into account ecological and sanitary requirements, sets annual water supply volumes to river deltas and Aral sea.

ICWC carries out functions through basin water organizations **BVO "Amudarya" and BVO "Syrdarya" as well ICWC Scientific-Information Center.**

BVOs directly manage by surface river waters distributing water between states with the help of structures and canals, transferred to them by ICWC state-members. SIC ICWC jointly with national centers develops strategy's main provisions of the region

and country-participants, plans of short, middle and long-term measures on basin development, perspective norms of careful water consumption, creates and serves information system of water resources use in connection with hydro-ecological monitoring, organizes scientific-technical information exchange between CAR states in new achievements and technologies as well as ICWC communication with country-donors.

While carrying out optimization of water resources management methods, especially after Ashgabat meeting of Central Asia Head of the States on the Aral sea problems (8-9 April 1999), mostly branchial structure is retained which causes range of principal disadvantages in available structure and water resources management functioning at interstate level.

First of all it worth to note that absence of integrated water resources management, impact of branches separateness between majority of departments, branches and organizations.

At present stage interstate water bodies as well as national ones practically have no possibility to change water regimes imposed by energy specialists taking into account that main water regulatory structures of hydropower dams are on their balance.

These bodies don't participate in water and Aral sea quality management.

None of branchial water users, except of Minvodkhoz and Minselvodkhoz, regulates water demand and use as well as undertakes measures on water resources saving.

Water quality management system carried out by nature protection bodies and practically non-coordinated is low effective as in control of technical and municipal wastes point pollution so in permissible water salinity limitation in the rivers as well as in organizational activity on water bodies habitat improvement.

System of integrated water use and consumption planning is absent, without which water productivity increase in connection with economic requirements is impossible.

The structure should provide sufficiently sustainable water management parameters under conditions of unstable external factors and simultaneously should be enough comprehensive and flexible to answer external changes. This requirement has not been kept yet at none of levels.

Both at the regional and national levels of water management similar system of disadvantages exists that should be improved totally according to region's needs available using foreign experience:

- disintegrated management and assessment of all water types despite of natural integrity;
- absence of integrated water resources management at inter-branch level and permanent conflicts appearance;
- necessity of management and account on natural (basin), but not territorial principle related to administrative division;
- necessity of mutually related water resources and command areas (or catchment areas) management;
- necessity of simultaneous management of all water types quantity and quality.

At present stage at the regional and national level following objectives are absent and should be realized:

- clear definition of transboundary and national natural surface waters and use regulations;

- united organization responsible for all water resources types management and use;
- transboundary and national waters use responsibility and control mechanism;
- water resources quality management and control mechanism;
- clear understanding of economic problems as management object at the regional and national level;
- creation of damage compensation and responsibility mechanism as well as determination of damage and principle of its scale evaluation;
- this fact equally belongs to water reservoirs operation malfunction, violation of approved water intake limits and water resources quality;
- modern system of satellite information about environment situation, water reservoirs state and channel-formation processes;
- common information base for all water sector participants, method of its formation, restoration and use regulations;
- clear system of financing and economic relations;
- system providing staff, training and support of water management scientific and engineering potential.

It is necessary to connect all these provisions with national water right of IFAS state-participants. Big problem, that should be solved and undoubtedly will rise trust level and extend collaboration framework, is a process of direct water delivery to Aral sea that will demand:

- institutional process of water delivery to the Aral sea;
- setting order and principle of works organization on maintenance and regulation of transboundary river channels in BVO system as well works on repair and reconstruction of all structures on BVO balance;
- in order to concentrate all transboundary waters management in basin including ground and return waters organization within BVO's appropriate sub-divisions for licensing and control ;
- organization and strengthening of subdivision providing calibration of all hydro-technical structures and gauging stations on transboundary sources.

Subdivision should include experts from each state-participant and receive interstate standard powers.

According to statement of Lorence Boisson de Shazurn, Senior Adviser of Group on environment and international right issues of the World Bank Legal Department, states of Central Asia have different interests from point of view of water use related either with irrigation or hydropower development.

Although in Soviet period these five states took obligation to keep coordinated regime, in this context reasons for uncertainty and difference in water use practice still exist and can result in conflicts:

- criteria of integrated water resources use are not fixed;
- river flow accumulation and water use planning is not really outlined;
- water reservoirs' problems, economic and social demands of region are potential sources of conflict;
- water resources are still used ineffectively.

Besides, necessity of introducing quantifiable minimal river flow in Aral sea increases. Finally, proper mechanism for disputes resolution is absent in case if conflict occurs.

UN/EEC Conventions are of big interest as mean of conflict prevention and disputes resolution on transboundary ecological issues.

UN/EEC Conventions are preventive in their character. For example, in p.1 of article 2 of Convention on environment impact assessment (EIA) in transboundary context is stated, that "Parts on individual and collective base undertake appropriate and effective measures on preventing substantial harmful transboundary impact caused by planned activity".

In p.1 of article 2 of Convention on transboundary water ways and international lakes conservation and use is said, that Parts undertake all appropriate measures on transboundary impact prevention, restriction and reduction.

Set of appropriate mechanisms on conflicts prevention was developed and introduced in Conventions, for example:

- Parts' obligation to collaborate;
- mechanisms of consultation;
- information and technologies exchange;
- public information and participation;
- bilateral and multilateral collaboration;
- joint assessment and monitoring;
- bilateral and multilateral agreements.

UN/EEC Conventions contain similar provisions on disputed resolution.

For example, in article 22 of Convention on transboundary impact prevention, restriction and reduction it is pointed that:

"In case if dispute occurs between two or more Parts regarding understanding and implementation of given Convention, they should intend to regulate this dispute by means of negotiations or any other way acceptable for dispute participants of Parts

"Besides in p.2 it is said that: "each Part may claim that regarding dispute unregulated ... it takes one or both of the following means of disputes regulation as obligatory for each Part taking such responsibility:

- a) address dispute resolution to International Court;
- b) arbitration according to procedure reflected in annex 4

Main elements of arbitration process are as follow:

- in case of dispute parts or one part inform Secretariat;
- court of arbitration includes three members; both part-plaintiff and another part assigns one arbiter, and two these arbiters on mutual agreement assign the third arbiter who is court of arbitration Chairman;
- court of arbitration makes its decisions according to international right and Convention provisions;
- decisions on procedure questions as well as essential ones are adopted by majority of votes;
- if another decision is not adopted, parts of dispute will compensate trial costs in equal shares;
- court of arbitration decision is accompanied by reasons description; it is final and obligatory for all parts".

Specific examples of experience in transboundary environment impact assessment is implementation of Convention between Croatia and Hungary, Hungary and Slovakia, the Netherlands and Germany.

In Finland first note according to Convention was sent to Sweden in late fall of 1994. Note contained information about plans of artificial Vutos lake construction (that is big dam and water reservoir) in Lapland.

Water reservoir construction would be likely dangerous for water quality in Gulf of Bothnia, which is also part of Sweden area.

Finland and neighboring countries cooperate in processes of planned projects' resolution.

EIA Convention is considered as innovative international legal tool for achieving sustainable development, preventing and reducing transboundary impact on environment and its control.

Importance of this legal document increases due to growth of EEC members' number. It may be useful for Central-Asian region too. Much work has been done in this direction, especially after Ashgabat meeting of Central Asia Head of the States on Aral problems (on April 8-9, 1999) where many juridical slip-ups were removed and IFAS structure was optimized.

Especially close cooperation in joint water resources use is found in current dry year. In the beginning of the year (January 2000) water supply schedules and mutual overflows of electric power, other resources delivery were agreed between states of the region.

However, low water situation of current year is significant and on May 30, 2000 bilateral meeting of the Republics Uzbekistan and Tajikistan governmental delegations was held in Tashkent and ended by signing of protocol, where it is noted :

Governmental delegations of the Republics of Uzbekistan and Tajikistan according to bilateral interstate agreements and other documents have agreed not to take unilateral actions hampering normal functioning of industrial objects, hydro-technical and power structures, transport and communication unless bilateral coordinated decision would be taken;

To promote cooperation development on bilateral base in industry and water-power issues.

Together with measures on guaranteed water availability in low water conditions water releases from Kairakum water reservoir (Tajikistan) for Uzbekistan and execution of necessary works by Uzbekistan on installation of mobile pumping station "Makhram-0" for water supply to Tajikistan were mutually coordinated.

Question of electric power overflows was considered in connection with above mentioned. This question was considered more carefully on ICWC session in July and proper decisions profitable for both parts were adopted.

This is only one of many examples of arising problems civilized solution on water-power and other resources use in our countries.

Dushanbe Summit of Head of the States in staff of the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan and the Republic of Uzbekistan was held in June last year and played important role in international collaboration in Central Asia. Shanghai Forum, regular session of which took place in Dushanbe in July 2000, influenced international authority increase of the Central-Asian states as well as strengthening of trust measures.

Honorable attendees:

President of Russian Federation Putin V.V., President of the Republic of Kazakhstan Nazarbayev N.A., Chairman of Chinese People Republic Dzyan-Dze-Min. President of the Republic of Uzbekistan Karimov I.A. and President of the Republic of Tajikistan Rakhmonov E.Sh.

Process of peaceful cooperation regulation demands big efforts of leaders and peoples of our countries. Any promotion of this generous process is obligation of each of us. Especially delicate and vitally important sphere for our region is water sector , and it is necessary to do everything for our countries prosperity, peaceful life, everybody's access to pure water and comfortable living conditions. Man serves it!

Reference

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