Transboundary: Regional Water Management Cooperation in Central Asia (#351)

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Introduction

Water in Central Asia is an object of competing interests and thus – by definition – a potential source of conflict. Contrary to predictions of the early 1990s, however, the Central Asian states have not resorted to violence in order to advance their water interests. Instead, they have managed their differences by engaging one another in negotiations and information exchange; some institutionalised some ad-hoc, and some last-minute.

In the last decade of Soviet rule, the key water management institutions were the republican water ministries, which effectively managed water allocations and construction projects, and today remain the foundation for interstate water management (with some transformation by status and authority). In 1986-87, two basin water organizations (BWOs) Amudarya and Syrdarya were established. The federal Soviet government conducted compensatory schemes to regulate trade-off between republics concerning agriculture, energy and other sectors. Thus, there was not any serious competition for water among the republics.

As the USSR collapsed, the Central Asian republics continued to rely on Soviet water legislation. Yet, their legal obligations were no longer enforceable as water management had become a matter of international, not federal, affairs. With the creation of the five independent states, the big number of former domestic river basins were now transboundary and water had been turned into a source of potential interstate disputes that had not only environmental, but also political and economic implications.

During the Soviet period, the Aral Sea Basin was managed as an integrated economic unit. Economic priorities, defined by Moscow, dictated that water was allocated to optimise agricultural production and provision of hydroelectricity was a second priority. With independence the integrated economic system broke down. Each country began to redefine its own economic priorities. They became acutely aware of their resource inputs and outputs and it became evident that their respective goals conflicted regarding water usage (by volume and by schedule). Uzbekistan and Turkmenistan wanted to intensify agricultural production for which they were heavily dependent on water for irrigation. Yet, the majority of the water sources originated outside their borders (SPECA 2003). Kyrgyzstan and Tajikistan, meanwhile, would like to utilize water for electricity production and also expansion of agriculture. The scene was set for intense competition.

The potential conflicts were most pronounced for the populations living furthest downstream, especially Karakalpakstan and Kzyl Orda. Here the water was of very low quality consisting mainly of polluted drainage water that had been returned to the river. These populations had – and still have – little bargaining leverage over upstream users (agriculture users at midstream and hydropower users further upstream) because they lacked any resources needed by the upstream users. Midstream users were in better bargaining positions. Turkmenistan and Uzbekistan (and partially Kazakhstan) primarily needed water for agricultural production. The challenge was to keep water flowing from further upstream. Each of these three countries has large reserves of natural gas.

In sum, the benefits from cooperation were highly asymmetrical and unevenly distributed. It is largely due to the leadership of the water authorities from five countries and the support from the international community that major conflict did not erupt after independence.

Actions taken

Instead of engaging in violent conflict Central Asian states chose a far more cooperative stance. In order to avoid collapse of the agricultural sectors the countries extended the water management principles and quota systems inherited from the Soviet era. In February 1992, the five countries entered into agreement on Cooperation in the Joint Use and Protection of Water Resources of Interstate Significance, affirming the "existing structure and principles of allocation" of transboundary waters. By signing this agreement, the Central Asian states pledged "strictly to observe the coordinated procedures and established rules on use and protection of water resources," while recognising the Aral Sea as of common interest to the five countries. The agreement also formed an Interstate Commission for Water Coordination (ICWC), which subsumed the two existing basin water organisations, and was authorised to determine annual water consumption limits in accordance with actual water availability.

The following year the Interstate Council on the Aral Sea (ICAS) and the International Fund for Saving the Aral Sea (IFAS) were formed. Voicing and providing support, the international donor community soon endorsed this emerging institutional framework that comprised ICAS, IFAS, ICWC and associated organisations.

Assessment of regional arrangements

Why did the Central Asian countries choose to continue regional cooperation instead of promoting individual state interests? In short, because international organisations provided incentives for cooperation. International donors saw the Aral Sea crisis as an opportunity to link economic and political reforms with environmental and conflict issues. Fifteen to 20 international organizations have provided technical and financial assistance related to the Aral Sea at any one time since independence.

Initially these incentives were effective because the Central Asian states could no longer rely on Moscow to address the Aral Sea crisis. They needed financial and technical assistance to build new state institutions and join the international community of nation-states. In that regard, the World Bank's requirement for regional cooperation in order to receive aid worked as a critical inducement.1

The technical and financial assistance served as side-payments that provided compensation to different domestic constituencies, e.g., water and agriculture ministries, that otherwise could undermine the water sharing agreements. They also targeted the

[1] The World Bank's Operational Policy 7.50 (OP 7.50) calls on riparian states to come to an agreement over projects that have an effect on each other. This is intended as an incentive for cooperation, but may also work as an obstacle for project implementation as one party may veto a project that benefits another. World Bank (1994). World Bank Operational Policies: Projects on International Waterways. Operational Policy 7.50.

populations that were hardest hit by the Aral Sea crisis, thus ensuring lesser resistance to cooperation agreements.

Cooperation began to falter in the mid-1990s, however, because the Central Asian countries failed to agree on a comprehensive regional approach. In addition, the early agreements did not take into account the new political realities and divergent economic interests. The upstream countries demanded increased water allocations, but the agreement did not allow for that.2

A donor community review of the ASBP (Phase 1) conducted in 1996 recommended major changes to the water management institutional framework. It suggested a (a) stronger leadership by regional institutions as opposed to donor influence in program formulation and implementation; (b) increased political and financial commitment by the Central Asian countries towards regional institutions; (c) clearer priority setting between national and regional tasks and more focus on real implemented activities; and (d) clarification of the roles of the various institutions.

Despite the clear recommendations, however, many of these challenges remain today. In 2002, for example, members of IFAS agreed that they would make a concerted effort to finance the operational costs for the Executive Committee and their joint activities (lack of financing had been a major recurrent problem), and called for the creation of a special UN Commission to co-ordinate the activities of regional organisations and donors for implementation of the agreed ASBP - Phase2. However, until today no formal discussions have been undertaken among the states or with the UN Secretariat itself on the composition and role of a "special UN commission".

The international community and the Central Asian states were late to discover that interdependencies of the Soviet Union could be used to foster mutual cooperation. The Aral Sea crisis was viewed primarily as a water problem, not an opportunity for collaboration and economic development by trading energy for water. The first was the USAID, who managed to point the parties toward mutual gains by using an issue-linkage strategy and by excluding Turkmenistan, which historically has been the most resistant to outside interference in the Aral Sea basin. Central to a 1998 agreement on Syr Darya was the concept of compensation for energy losses from the upstream storage of water during the winter months (World Bank 2004). While there are several outstanding challenges in this barter system, it points to a more integrated and sustainable approach to regional cooperation.3

The management of water releases from the Toktogul reservoir on the Naryn River in Kyrgyzstan illustrates the water-energy nexus. Initially, after independence, the Central Asian states upheld the legacy interdependencies whereby Kyrgyzstan supplied both Uzbekistan and Kazakhstan with water during the summer months in return for gas and coal, respectively, during the winter months. This set-up was soon to be challenged. Whereas Toktugul was originally designed to meet irrigation demands downstream,

[2] The quotas for the Syr Darya river basin are: Uzbekistan (50.5 %); Kazakhstan (42 %); Tajikistan (7 %); Kyrgyzstan (0.5 %). The numbers reflect the share of total run-off in the main channel, tributaries not accounted. ICWC Bulletins.

[3] The 1998 agreement was not exhaustive and, as a consequence, the parties had to continually negotiate the exact volumes of water releases and amount of compensation. During 2003-2005 the parties were not able to conclude annual agreements, likely due to increased precipitation which caused Uzbekistan to be not dependent on water from Kyrgyzstan.

Kyrgyzstan quickly saw the possibility of increased hydropower generation. Instead of storing the water for release during the spring and summer irrigation periods, the water could be released during the winter when the domestic need for electricity peaked.

During the Soviet era, power generation was regulated by pooling all hydro- and fuel-energy resources. Electricity demand and supply did not correspond to state borders. Instead, the hydropower resources of Kyrgyzstan and Tajikistan were used as the peak energy resources for Kazakhstan, Uzbekistan and Turkmenistan. Meanwhile, coal-fired, gas-and-oil-burning heat power plants met the Kyrgyzstan and Tajikistan basic power demands. Thus integrated and centrally designed, it was possible to operate an optimal schedule for energy and water management.

As Central Asia opened to world commodity markets in the mid-1990s, disagreements over the use of Toktogul emerged. Uzbekistan and Kazakhstan started to charge world market prices for gas, oil and coal exports to Kyrgyzstan. In response, as it faced energy shortages during the winter months and was unable to muster the hard currency for carbon imports, Kyrgyzstan began to operate the Toktogul power plant for electricity generation during a season where it traditionally had been storing water. The downstream countries experienced the negative effects of this in two ways: Firstly, there was less water available for irrigation during the summer months. Secondly, the water released during the winter did not reach the Aral Sea, but was diverted to a local depression because the lower part of Syr Darya is frozen for much of the season.4

Today, Kyrgyzstan wants the downstream countries to contribute to the maintenance of the Toktogul reservoir and related infrastructure because these riparian are the main beneficiaries. Kazakhstan and Kyrgyzstan have agreed to such compensation within the Chu-Talas Commission. There may be room for similar mechanisms between Uzbekistan and Tajikistan with regard to Syr Darya.

As a result of the individual pursuit of self-sufficiency in water and energy, the countries have invested in costly solutions instead of adhering to the mutual interdependence of the water and energy systems.5 The total sums spent on water infrastructure are not publicly available.

The Review Team recommends that future water projects assess the total costs of water management policies striving for water independence versus cooperation, thereby providing documentation and incentive for either policy.

Forecasts indicate that 2008 may be the most critical ever in the Syr Darya basin. The capacity of the Toktogul water reservoir is expected be close to “death level” by April 2008, thereby impacting both power generation and irrigation. This could provide further incentives for effective water and energy management.

Current institutional arrangements and lessons learnt

As is shown above, the history of water management and disputes in Central Asia is the history of institutions. Some, like BWOs Amudarya and Syrdarya have been established in

[4] Kazakhstan has subsequently resolved the latter problem by implementing a number of technical measures financed by World Bank loans.

[5] Examples include construction of new reservoirs in Uzbekistan (Rezaksay and Arnasay) and in Kazakhstan (Koksaray).

Soviet times on a river basin principle and still are carrying out operational functions of the water management. Some, like ICWC emerged immediately after the collapse of the union as an attempt to substitute federal water management (policy) authority.

Each country has established its own system of water management and over the years developed its own institutions that should carry out water management in the country and promote national interests in discussions with other countries of the region. Institutional and water governance systems of the other states are more or less similar, though would differ from each other with the names of the institutions, their subordination to the governmental authorities and mandates, level of influence, etc. E.g. WUA that are very well developed in Kyrgyz Republic and have an important role in settlement of local water related disputes are not that strong in Uzbekistan and Tajikistan yet and exist in Turkmenistan and Kazakhstan in different format.

Additionally to the institutions established by the countries themselves (e.g. ICWC), number of regional institutions has been established during last 16 years with support from IFI and international organisations. Furthermore several projects contributed substantially to the institutional landscape and influenced the present state of affairs in the water sector.

Though institution-building has become a trademark for Central Asian water management, most regional institutions are found wanting, however, as they continue to muddle through political and financial obstacles. The following could be mentioned among the main shortcomings:

- The lack of political commitment and agreed by the five countries guiding for the institutions agreements on the key water management issues, among others on water allocation principles and on cross border financial mechanisms for O&M and new investments;
- Level of decision making power and authority of ICWC and IFAS does not correspond to the functions that have to be performed;
- Lack of clear mandates, responsibilities and accountability of IFAS and its sub-bodies (especially in relation to inter-sectoral challenges);
- Failure of the donor community to fully engage EC-IFAS in preparation and implementation of projects;
- Lack of consensus between sub-bodies of IFAS (and national institutions) and donor agencies on Aral Sea Basin Programmes (ASBP);
- Inadequate funding by the states to cover core operational expenses of IFAS and its sub-bodies; No permanent location of EC-IFAS;
- Lack of unified donor stance on institutional issues, regional cooperation and transboundary water issues, national and regional water management and sustainable development policies and practices.
- Lack of proper coordination between water and energy sectors.
- Lack of mutual trust

Not only each individual institution but also interrelations between them, coordination of their functions and duties would have to be reconsidered to make them capable of urging constructive negotiations on water and energy disputes and promote integration in the region.

Present hierarchy in the relations between main water governance institutions was agreed by the Head of States on 9 April 1999 (in Ashgabat). The agreement set up the following distribution of obligations between the regional organizations, which still is valid:

- Board of the International Fund for the Aral Sea (Board of IFAS), represented by Deputy Prime Ministers of five States – this is the highest political level for decision making and final approval of activities before (if needed) the Head of States;
- Executive Committee of IFAS – a permanent body, which is represented by 2 members from each State and carries out all activities for implementing decisions made by the Board of IFAS via the National Branches of IFAS. Also, EC-IFAS, on behalf of the Board could organize the Agencies or PMCU for different projects (international and donors) implementation;
- Interstate Commission for Water Coordination (ICWC) – the highest level of transboundary water resources management, water allocation, water monitoring, water use and preliminary proposals assessment for principal improvement and change of organizational, technical, financial, environment approaches and decisions related to water at the interstate level.
- BWOs, SIC ICWC and Secretariat - are executing bodies of the ICWC.

Regional cooperation is fostered through the establishment of an institutional framework for water management. In sum, while the institutional framework has allocated water every year, it is not perceived as efficiently managing the regional water resources.

Present interrelations between the key institutions in the fields of water and energy governance, their mandates, functions, obligations and duties are not fully responding to the actual requirements of the present situation. It has been criticised for its lack of clarity with respect to the functions of different organs of the same institution, for confusion between decision-making organs and executive organs, and for the duplication of functions between different institutions (Vinogradov 2002).6 This was also clearly stated at the OSCE conference in Tashkent on October 30, 2007 by Prof. Dukhovny7.

External evaluations of international projects supporting regional institutions generally show a low level of coordination despite many projects being similar. In the field of water, donors have focused on technical rather than political and economic solutions (ICG 2002b). In sum, external actors have been unable to significantly influence the basic attitudes and approaches of individual riparian states (Mason et al. 2003).

This lack of progress is due to several reasons: External actors have not maintained clear and consistent objectives; economic and strategic objectives often run counter to policies that encourage collective regional behaviour; Central Asian states are sceptical about foreign involvement in water management, in particular in downstream countries, which fear that new initiatives may strengthen the upstream countries political position (Mason et al. 2003).

[6] Vinogradov, S. (2002), "Managing Transboundary Water Resources in the Aral Sea Basin: In Search of a Solution", *International Journal for Global Environmental Issues*, vol. 1, nos. 3/4, pp. 345-361.

[7] Dukhovny V. ICWC: achievements and challenges of the future – water cooperation on the way to sustainable development. SIC ICWC, Tashkent, 2007, 39p.