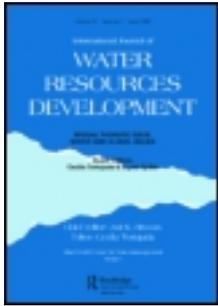


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Steps towards an Afghanistan–Pakistan water-sharing agreement

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Negotiations between Afghanistan and Pakistan to share the international watercourses in the Kabul Basin will involve complex networks of natural, societal and political systems. The natural systems are strongly influenced by climate change; societal interests include an economy based on agriculture; and the region in both states is subject to turmoil and insecurity. Given these complexities, the recent joint announcement by the finance ministers of Afghanistan and Pakistan of plans to construct a hydropower project on the Kunar River is a significant step. However, much work remains to jointly develop and manage the waters in the Kabul Basin.

Keywords: Afghanistan; Pakistan; transboundary water; Kabul River; Kunar River

On 26 August 2013, DAWN.com reported: “Pakistan and Afghanistan are moving towards joint management of common rivers starting with construction of a 1,500MW hydropower project on Kunar River” (Kiani, 2013).

Negotiations to develop mechanisms for two states to share an international watercourse involve complex networks of natural, societal and political systems (Islam & Susskind, 2013). Recognition of the complexity of water networks is imperative for the success of water negotiations for a hydropower project or more broad-scale water-sharing arrangements. The water networks in the Kabul Basin, to which the Kunar River is tributary, involve complex interactions of natural systems strongly influenced by climate change and future uncertainty; societal interests in an agriculture economy; and a region ravaged by conflict and political systems that are relatively new in Afghanistan and subject to turmoil in both countries. Given these complexities, the recent joint announcement by the finance ministers of Afghanistan and Pakistan of plans to construct a hydropower project is a significant step that should not be underestimated; however, much work remains if the two states want to develop a joint management regime for the common rivers.

The Kabul Basin presents unique circumstances for developing joint agreements for its utilization. The riparian states of Afghanistan and Pakistan are both upstream and downstream of each other, with tributaries originating in each state that flow into the other. The Kabul River and its tributaries are the western-most tributaries of the Indus River system, subject to the Indus Waters Treaty between the states of Pakistan and India, with the World Bank as a signatory. However, the Kabul River is not part of the Indus Waters Treaty, and Afghanistan is not a party.

The northern tributaries of the Kabul River arise from the snow and glaciers of the Hindu Kush, which is part of the Himalayas. The southern reaches are supplied by

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monsoon rains. Climate change creates a situation of high variability and uncertainty in the basin. It is reported that in the twentieth century the glaciers in Afghanistan decreased by as much as 50–70% (Committee Report, 2011). The rapid snow and glacial melt increase landslides, creating river blockages, which are subject to outbursts that cause downstream flooding. Monsoon patterns are also expected to change, affecting seasonal agriculture. What is known about this region is that the future of water availability will be different from the past. Recognizing this uncertainty is essential to the negotiation process. The Afghan government and the World Bank have developed a model to analyze connections among water uses within the natural system. This type of tool will assist in understanding and planning for the changing natural conditions; however, even this valuable tool must be adaptive to new information and changing natural and human conditions (World Bank, 2010).

The local knowledge of water resources is key information to be included in bilateral discussions and negotiations. The rugged terrain and conflict in parts of the region have prevented systematic data collection; this may be compensated, in part, with information from resident communities and farmers. The border between Pakistan and Afghanistan is described as porous, with tribal groups, extended families and insurgent factions living within both countries. Societal processes in the Kabul Basin are complicated by historical tribal relations not easily understood by outsiders. The people in both countries view water and food security as critical issues (Renner, 2009). In this region, perhaps more so than other transboundary basins, the implementation of water development projects is dependent on local support. Infrastructure development has been delayed, and the costs for roads, power lines and other projects greatly increased, by security concerns.

Within the Kabul Basin, each of the two countries is both upstream and downstream of the other. This creates a rather unique setting for negotiation, in which neither state may have the political tendency to assert absolute territorial sovereignty over water resources, even though that is a position often desired by domestic constituencies (McCaffrey, 2007). The international legal principles of notice, prevention of harm to other states, and equitable and reasonable utilization are slower to develop in domestic politics than the exercise of sovereign control over other resources such as hard-rock minerals and oil and gas. For example, the World Bank offered funding for a domestic water supply system in the lower Helmand River valley near the border with Iran. But when the World Bank required that Afghanistan communicate with Iran and ascertain Iran's non-objection before funding the project, the project did not move forward.

Pakistan expresses concern about its vulnerability to water developments beyond its borders. The Indian projects at Kishanganga and Baglihar are in formal dispute resolution to consider Pakistani claims that each violates the Indus Waters Treaty. Newspaper reports indicate that Pakistan has filed objections with the Indus Waters Commission over an additional four Indian projects on the Chenab River (ZeeNews, 2013), and Pakistani newspapers report that India plans to build 12 water-control structures on the Kabul River in Afghanistan, increasing the impression of Pakistan's vulnerability to upstream states (Kugelman, Alam, & Bakshi, 2011; Mustafa, 2011).

Natural systems, societal needs and influences, and political processes will all interact in complex networks to create uncertain outcomes for negotiations. The recent joint announcement of agreement to construct a hydropower project on the Kabul does not remove the need for negotiations, nor the uncertainties of the process. However, uncertainties tend to level the playing field in water negotiations. Neither state knows the full impact of climate change on the availability of water, the influence of local

communities on the process, or the domestic and international political forces that may come to bear during negotiations.

This article suggests the following steps that the states may take to reduce uncertainty and increase the likelihood of success in reaching an agreement on shared management of the Kabul River for the announced hydropower project on the Kunar and for longer-term development within the basin to manage flood control and domestic water supplies, improve reliability of irrigation supply, and increase power production.

Create common sets of data and information

In 1979, the Afghan Water Ministry operated and collected data from 160 hydrologic stations throughout the country. In September 1980, none of these stations remained operational (Williams-Sether, 2008). In 2002, the World Bank funded the Emergency Irrigation Rehabilitation Project, operated in cooperation with the Food and Agriculture Organization of the United Nations, to install 174 automatic hydrologic measuring stations. At the completion of the project in 2012, 105 remote hydrologic stations were installed and operational, along with 27 of 56 planned meteorological stations. Security in remote regions and lack of trained personnel were the principle limiting factors. At most, five to seven years of data are available from the Afghan side of the basin, with a gap of approximately three decades without any data (World Bank, 2012). However, it is not known how much information may be extrapolated from data gathered remotely or from outside Afghanistan.

A first step towards understanding the basin is jointly learning as much as possible about it. This may be accomplished by establishing a joint technical committee. The US Geological Survey and the International Centre for Integrated Mountain Development both have a strong presence in the region and may offer assistance. If sufficient Afghan personnel are not available to staff a technical committee, the parties may designate an organization to gather and analyze data, to provide it to both states and to help each state develop the needed technical expertise.

Each state must have access to the other state to verify data and to build confidence and trust in the process. During the Indus Waters Treaty negotiations, the World Bank gathered and analyzed the data, with each state having the opportunity to visit locations, to collect data independently and to challenge the World Bank's analysis. Changes were made based on the challenges. A similar process may be developed in the Kabul Basin.

Joint, independent, and verifiable fact-finding methodologies should be developed to create a common set of information, identify the unknowns and create processes to address unknowns, in order to move forward with negotiations for a project or to identify opportunities (Islam & Susskind, 2013; Phillips et al., 2008). For this basin, given the significant and unrecoverable data gaps, feedback loops are necessary to adjust assumptions during any project planning and management.

Identify interests – not projects or treaty provisions

Water is a flexible resource that may be used and reused for multiple purposes throughout the basin. Moving away from project-oriented discussions can create opportunities for mutual gains and shared benefits. The parties must clearly articulate their interests in terms of water use, not principles of rights or sovereignty. The finance ministers of the two states announced a joint hydropower project as needed for economic development in both states.

This is an important breakthrough in the relations between the states; however, the impacts from such a project have yet to be determined, and the opportunities for other joint benefits remain to be studied.

For example, power and a water supply for Kabul are strong Afghan interests, and power, flood protection and irrigation supplies are interests of both countries. The interests may be met in numerous ways that respond to the increasing variability of water resources and the mutuality of interests. These have yet to be explored by the two states.

The tools developed in the World Bank (2010) scoping document model the impacts of one water project on other water development options, helping to answer questions about system changes from impoundment of water for a hydropower dam.

Finding the opportunities for shared benefits and mutual gains requires that each party understand the interests of all other parties to create trade-offs in the negotiations. Each basin is unique, and the sharing of resources will reveal unique opportunities.

It is reported that in 2003 Pakistan formed a technical committee headed by the chairman of the Flood Commission to draft the provisions of a Kabul River treaty with Afghanistan. This one-sided approach does not foster mutuality at the negotiation table and should be abandoned for the upcoming negotiations on the Kunar.

In the 1970s, the Afghan ministry for water developed feasibility studies for numerous water projects, which were thwarted by the Soviet invasion. Many of these projects were incorporated in the Afghanistan National Development Strategy, but without re-examination in view of current understandings of climate change, ecosystem importance and possible shared benefits. The 'transboundary waters opportunity analysis' (Phillips et al., 2008) developed to maximize benefits from transboundary waters would be a helpful tool to jointly examine these older proposals.

Limit talks to water

The news report that announced the joint hydropower project in connection with broader economic development and trade initiatives does not indicate what steps each government will take next. The complexity of building a joint project necessitates delinking hydropower from the trade talks. By necessity, the ministries of each state with technical expertise in power and water must negotiate the details. Limiting talks to water is helpful for donor support and limits collateral distractions when seeking the required parliamentary approvals.

Previous attempts and joint talks over water are reported to have stalled when Afghanistan raised issues related to border demarcation based on the Durand Line or donors raised issues of regional security. It appears that this was avoided in the initial conversations about joint hydropower development; however, trade negotiations between the finance ministers and hydropower development should proceed independently of each other.

Conduct talks within a legal framework

Neither Afghanistan nor Pakistan is a party to the 1997 United Nations Convention on the Non-navigational Uses of International Watercourses. However, the provisions for notice, prevention of significant harm, and equitable and reasonable utilization are codifications of principles of customary international law binding on all states. Especially in the Kabul Basin it is not fruitful to expend time and resources on discussions of the rights of upstream and downstream states based on principles of absolute territorial sovereignty or absolute territorial integrity (McCaffrey, 2007).

The 1997 watercourses convention is a framework document setting forth the principles underlying the law. It does not set the specifics for water use in a particular basin but provides the boundaries within which negotiations may take place. Using an agreed-upon framework such as the 1997 convention provides the box within which the specific requirements for this watershed negotiation may be determined.

Support capacity building and consolidate donor and organizational support

Neither country has the human resources to participate in all international efforts directed at the sharing of waters in Central Asia. The Afghan government is building its capacity and will need technical engineering support. The support for transboundary water negotiations should be coordinated within the government to receive maximum benefit.

The Afghan government must determine the domestic process and responsibilities to move forward with water negotiations with Pakistan. The finance minister made the announcement of the joint hydropower project. The 2009 Afghan Water Law (Ministry of Justice, 2009) includes an inter-ministry approach for transboundary waters, including five ministries led by the Ministry of Energy and Water. Neither the Ministry of Mines (with jurisdiction over groundwater) nor the Ministry of Agriculture is included for representation on transboundary water matters. The water law provides for a supreme council to address water issues crossing multiple ministries. In addition, in 2010, the government formed clusters of ministry officials around development topics, including water, that have overlapping authorities with those of the supreme council. Domestic government responsibilities must be clarified to speak with one voice in international negotiations.

Create institutional arrangements for continuous communication

Institutions provide mechanisms for dialogue and exchange of information, and can provide the process to adapt management of the resource to address changing natural and societal conditions. This article previously discussed the need for a technical committee. The Indus Waters Commission provides an example of a technical body for the collection and dissemination of data and notice of proposed development projects. The Commission, established more than 50 years ago, does not have discretionary authority to develop and implement adaptive management to address changing conditions.

Adaptation and the creation of feedback loops for both natural and societal parameters are key to management of the Kabul River, which is supplied by glacial melt and monsoon rains, which are predicted to become more variable in response to climate change.

An agreed-upon set of triggers for specific circumstances may be included in a negotiated agreement; or the parties may establish mechanisms for the commission to change management regimes without having to change or amend the agreement; or the commission may be given discretion to mutually agree to different parameters for operations. All of these mechanisms have been used with success in other basins to address changes over time. The important point is that uncertainty is recognized in the negotiations and that mechanisms are in place to respond to changing conditions (Islam & Susskind, 2013).

Conclusion

Each of the steps outlined above represent a concept familiar to the governments of both states. This is not new information. While the joint announcement of a desire to construct a

shared hydropower project is newsworthy, it is but the start of a long process to understand the complexity of the natural, societal and political systems in the Kunar Basin that will play an important role in determining the success of the planned project. The process will take time and will require the support of a wide range of stakeholders, interested persons inside and outside the two governments, and international organizations.

The uncertainties inherent in the complex systems for sharing water must be recognized and addressed with mechanisms for adaptive management. The institutional arrangements will be key to the longer-term success of shared use in the Kabul Basin. In addition, it is these institutional arrangements that will create the lasting relationships between the two states, originating in the shared waters.

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