

Brewing Conflict over Kabul River; Policy Options for Legal Framework

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Abstract

Pakistan and Afghanistan not only share 2600 km long boundary but also a labyrinth of watercourses which meander in the rugged terrain of the Pak-Afghan borderland. Both the neighboring states are water stressed countries yet they have not tapped the potential to conserve this precious and rapidly depleting resource. Despite sharing water, there is no treaty between the two countries to put a mechanism in place for governing and managing its shared fresh water resource. Afghanistan is planning to construct reservoirs on the shared Kabul River which may limit the supply of water to the lower riparian state of Pakistan. This may trigger a conflict between the two states as Pakistan is already facing water shortage on which its agriculture and industry rely. However, this issue can be amicably resolved if the two states decide to enter into a formal agreement on the shared watercourses.

Key Words: *labyrinth, potential, mechanism, riparian, agriculture, water-stressed, watercourses*

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Introduction

Pakistan is a water-stressed country. The per capita water availability is 1000 cubic meter which was 5,600 cm at the time of partition. This places Pakistan among water-scarce countries. There would be a further shortage by 31 per cent in 2025¹. With the growing population, its demand for fresh water is also increasing. Pakistan's agriculture, which is the mainstay of its economy and employs major chunk of its labour, is also facing acute water shortage. Its economic growth also signifies further consumption of water. If Pakistan does not build small, medium and large sized water reservoirs the situation will worsen. Unfortunately, Pakistan's perennial rivers do not originate inside its borders. Kabul River, which is the Western tributary of mighty Indus River, contributes 16.5 Million Acre Feet (MAF) of water to Pakistan's complex water system.

Pakistan is the lower riparian of the river while the upper riparian, Afghanistan, has not built any big reservoir on it so far due to the three decades long conflict within the country. Its water managements is the worst in the world where water is managed locally. Its storage facility is also among the lowest in the world. But it is now planning to build storage dams on the river which may limit the flow of water to Pakistan. This will cause further stress on Pakistan's already depleting water resources affecting its agriculture and economy. If this issue is not taken up seriously by both the neighboring countries to manage the distribution of water on equitable bases, it may flare up into a conflict.

¹ Imran Rana, "Pakistan to face 31% water shortage by 2025," *The Express Tribune*, March 23, 2013.

This research undertaking builds on the hypothesis that the growing demand of water in both Pakistan and Afghanistan will make the Kabul River a controversial issue in the bilateral relations between the two countries. Until a mutual agreement regarding shared water resources is not negotiated and agreed upon, the impending crisis will loom large over the bilateral relations between the two countries.

This paper seeks answers to the following research questions:

1. What is the status of Kabul River between the two countries?
2. What problems can occur if the river is not managed mutually?
3. Is there any hope of legal framework of joint control over the river?

Robert Kaplan (1994)² had rightly warned about “The Coming Anarchy” in international politics that future wars will be fought over scarce resources, especially water. As the pressure of population grows on, the nature and humans overexploit their natural resources, conflict cannot be avoided over the control of natural resources. Since the collapse of the bipolar system, the scholarship in security studies has broadened the concept of security to include other areas that may threaten the security of states. This redefined security incorporates environment and other non-military threats including water. Thomas Homer-Dixon, who led a project on environment, population and security, known as Toronto Group, found a connection between interstate violence and scarce renewable resource of water. The chances of conflict in the third world countries are more likely given the contextual factors like

² Robert Kaplan, “The Coming Anarchy,” *The Atlantic*, February 1, 1994.

physical characteristics of a given environment, localized human social relations and institutions.

Gunther Baechler, who led Environment and Conflicts Project (ENCOP) came up with his finding that violence can occur in the absence of regulatory mechanisms and poor state performance.³ Michael Klair claims that modern warfare in 21st Century will be the result of “Resource War” especially freshwater global distribution.⁴

Kaplan’s warning could find its true impact in the South Asian region which is facing water scarcity in face of its growing population. Pakistan and India have faced such water disputes in the past which resulted in the famous Indus Water Treaty. The treaty has come under immense scrutiny after Pakistan has shown concern over India’s plan to build reservoirs on its rivers. If India is able to divert some of its water, it will cause huge loss to Pakistan’s economy.

On the other hand, Pakistan shares some of its Western rivers with Afghanistan. There is no mechanism of installing bilateral framework to manage the shared water. The Afghan plan to build storage reservoirs on these rivers may seriously limit the flow of water to Pakistan. This may lead to a crisis situation between the two countries. The scarcity of water resources and its growing demand from the teeming population of these neighbouring countries may drag the region into a serious conflict. This may become a defining feature of insecurity in the region.

³ Günther Baechler, “Why Environmental Transformation Causes Violence: A Synthesis,” *Environmental Change and Security Project Report*, Issue 4 (Spring 1998): 24-44.

⁴ Michael T. Klair, *Resource Wars: The New Landscape of Global Conflict* (New York: Owl Books, 2001), 141.

Water Situation in South Asia

South Asia is densely populated region. The region is conflict prone as it has witnessed several inter and intra-state conflicts in the recent past. One core issue is the disagreement over fair distribution of water. The region is water-stressed as it is home to the world's 21 per cent population but has only 8.3 per cent of share in the world's fresh water resource.⁵ Stress in water occurs when it observes a decline in per capita or per hectare of the arable land. There are some factors which can cause the water stress. Population growth is one of them and climate change is another important contributing factor to the water stress. According to a technical report the ground water of South Asian region is decreasing. Rising in the sea level and over usage of water for irrigation purposes are some other factors.⁶

The stress on fresh water resources in South Asia has already affected the relations between countries in the region. Pakistan and India are the classic example. Despite having a treaty the water issue between the two has become politicized. South Asia is called hydrological society as the defining feature of this region is trans-boundary rivers.⁷ Kabul River in Afghanistan is one of these rivers.

⁵ Brahma Chellaney, "Water:Asia's new battle ground" 2011. Harper Collins publisher India with joint venture with India Today group

⁶ Richard Matthew (2013) Climate Change and Water Security in the Himalayan Region Page 39-40. Published by National Bureau of Asian Research

DOI: [10.1353/asp.2013.0038](https://doi.org/10.1353/asp.2013.0038). Available at <http://muse.jhu.edu/journals/asp/summary/v016/16.matthew.html>. accessed on 11 december 2013

⁷ Dr Narendra Kumar Tripathi, "Water Issues in Sino-Indian And Indo-Pak Relation". 2009. United Service Institute of India.

The Kabul River

The Kabul River in Afghanistan is one of the important Trans-boundary Rivers in South Asia. Pakistan is in unique position with regard to the Kabul River as it is the lower riparian on the river, it is also an upper riparian. The Chitral River which originates in Pakistan enters into Afghanistan in Kunar province and later on joins the Kabul River at Jalalabad. The Kabul River then enters into Pakistan at Khyber Agency. Afghanistan has not made an efficient use of its water so far. Most of its water flows to Pakistan which is around 16.5 Million Acre Feet (MAF).⁸ But as Afghan government is moving towards some stability, it has planned to build 12 dams on this river to cater for water storage, irrigation, and generation of electricity. The realization of such a plan would mean a dent in Pakistan's water intake. Being a lower riparian of the Kabul River, Pakistan could face a decrease of around 17 per cent in its water.⁹

⁸ Khalid Mustafa, *India to help Afghanistan build 12 dams on Kabul River*. The News. 12th May, 2011. Accessed from <http://www.thenews.com.pk/Todays-News-13-5933-India-to-help-Afghanistan-build-12-dams-on-Kabul-River>

⁹ "Sharing water resources with Afghanistan". Daily DAWN. 13 November, 2011. Accessed from <http://www.dawn.com/news/673055/sharing-water-resources-with-afghanistan>



Map of Kabul River

<http://www.google.com.pk/search?q=map+of+kabul+river>

There is non-existence of any bilateral treaty or agreements between the both states, so there is a strong need that a treaty should be negotiated which must be de-linked from the grievances which both states are facing currently. This is the only solution which can lead both riparian states towards win-win solution.

The Afghan Plan

Afghanistan is a landlocked country of 28 million people. It has gone through its worst history of violence spread across three decades. Subsequently, the state could not build any infrastructure and the already existing one crumbled in the flames of war. The water sector is surprisingly controlled at local level. There are no

state rules and regulations regarding proper management of its water resources.¹⁰

Hydro-geographically, Afghanistan is comprised of four basins: 1) Northern, 2) Western, 3) Southwestern, and 4) Eastern Kabul River. The last one covers 12 per cent of the country's area. This river enters Pakistan in Khyber Agency and joins the mighty Indus River 80 km downstream at Attock. Kabul River basin is divided into three sub-basins: Logar-Upper Kabul, Panjshir, and Lower Kabul. The average flow of Logar-Upper Kabul is 2.5 per cent, whereas Panjshir provides 14 per cent. The Lower Kabul and its significant tributaries provide the major part of the annual flow of this river. Afghanistan plans to construct dams on these three basins of Kabul River. This plan is in line with the expected growth in population of this sub-basin in the next two decades which may result in a demand of 300 per cent rise.¹¹

Afghanistan shares its water resources with Iran, Pakistan and Central Asian Republics. But it has not developed its water infrastructure so far and has no treaty of water sharing with its neighbours. Its plan to build dams on the rivers can be materialized by the support of international donors. The United States and India would be the major contributing countries. According to some

¹⁰ Denis Reich and Calvin Pearson, "Irrigation Outreach in Afghanistan: Exposure to Afghan Water Security Challenges" *Journal of Contemporary Water Research & Education*

Issue 149, Pages 33-40, December 2012

¹¹ Richard Matthew (2013) *Climate Change and Water Security in the Himalayan Region*, Asia Policy, Number 16, July 2013, Published by National Bureau of Asian Research

Afghan sources, India has invested over a billion dollars in the rebuilding projects of Afghanistan.¹²

It is to be underlined here that the development of water reservoirs in Afghanistan is inevitable as it has one of the lowest water storage capacities in the world.¹³ Managing the water at this moment is very essential because the Afghan population which is either internally displaced or refugees, are returning to their homes. This will cause a demand in the access to water. The current status of available water is approximately 2.8 Million Cubic Meters (MCM).¹⁴ Owing to changes in climate, increased demand for water, and environmental concerns, the issue of shared water resources is becoming complex with each passing day.¹⁵ This concern has been stressed by the Afghan President Hamid Karzai last year in a televised debate. Mr. Karzai accused the neighbour states for

¹² “Why South Asia Needs a Kabul Water Treaty” *Environmental Change and Security Program*. December 12, 2011. Accessed on April, Accessed from <http://www.newsecuritybeat.org/2011/12/why-south-asia-needs-a-kabul-water-treaty/>

¹³ Michael Kugelman, Ahmad Rafay Alam, and Gitanjali Bakshi “Peace through Water” *The Foreign Policy Group*. December 12, 2011. Accessed on April, Accessed from [http://Southasia.Foreignpolicy.Com/Posts/2011/12/02/Peace Through Water](http://Southasia.Foreignpolicy.Com/Posts/2011/12/02/Peace_Through_Water)

¹⁴ “Secondary Data Review on Afghanistan” ACAPS, Geneva. 20 July, 2011. Accessed on April, accessed from https://docs.google.com/viewer?a=v&q=cache:z8JUCmjUr24J:www.acaps.org/img/documents/secondary-data-review-afghanistan-secondary-data-review---afghanistan.pdf+afghanistan+overall+2,775+water&hl=en&gl=us&pid=bl&srcid=ADGEEShRFiKFTasXtgmfl_C22_Mob7jpWW7YTL9_iTm1Mb9-965AnfexTKax7W8evFm4x22kNGIl44VkoIHRWN-fee6nlK5GFIP1j74lvkuUd-fO-8rDt9hSCSt1IgmHpKDXW16iZnrG&sig=AHIEtbT-CRH9SmBi-6LaF4SyVXxxIPwwWg

¹⁵ Towards Kabul Water Treaty: Managing Shared Water Resources – Policy Issues and Options, page number 1-2, 2010

interference in Afghan plans to develop its water resources. He said, “Yes, there are interferences from our neighbors to interrupt work on water dams in Afghanistan,”¹⁶

“We know that some of our neighboring countries do not want our dams to be built and do not want us to have our own electricity. We have used our waters less throughout history and the neighbors have used them more. We know this, but we want to manage it in good relations with them.” (Hamid Karzai)¹⁷

As Mr. Karzai had shown his resolve, Afghanistan plans to construct four projects on Punjshir sub-basin, four Logur-Upper Kabul sub-basin and four more in the Lower Kabul sub-basin. Overall, the cost of these 12 dams is estimated to be 7.079 billion US dollar. The World Bank will provide the funding in terms of previously mentioned digits. The total storage capacity of these dams is 4.7 million acre feet (MAF) which is approximately the same as the Mangla dam.¹⁸

¹⁶ Frud Bezhan, Insecurity Springs from Afghan Dam Projects, published in Daily DAWN on 22 March 2013.

¹⁷ Scott Peterson, “Why a dam in Afghanistan might set back peace” 30th July, 2013. Accessed from <http://www.csmonitor.com/World/Asia-South-Central/2013/0730/Why-a-dam-in-Afghanistan-might-set-back-peace>

¹⁸ Khalid Mutafa, “India to help Afghanistan build 12 dams on Kabul River”. *International The News*. 12 May, 2011. Accessed from <http://www.thenews.com.pk/Todays-News-13-5933-India-to-help-Afghanistan-build-12-dams-on-Kabul-River>

Tables¹⁹ below illustrate the detailed plan of these dams.

Table 1: Planned projects on Punjshir sub-basin

Details	Totumdara Project	Barak Project	Panjshir Project	Baghdar Project
Cost US \$	332 million	1.174 billion	1.078 billion	607 million
Generation of Electricity	200 MW	100 MW	100 MW	210 MW
Storage Capacity	332510 acre feet	429830 acre feet	1054300 acre feet	324400 acre feet

Table 2: Planned projects on Logur-Upper Kabul sub-basin

Details	Haijana Project	Kajab Project	Tangi Wadag Project	Gat Project
Cost in US \$	607 million	207 million	356 million	51 million
Generation of Electricity	72 MW	15 MW	56 MW	86 MW
Storage Capacity	178420 acre feet	324400 acre feet	283850 acre feet	405500 acre feet

Table 3: Lower Kabul sub-basin

Details	Sarobi Project	Laghman Project	Konar Project	Kama Projects
Cost in US \$	442 million	1.434 billion	1.094 billion	---
Generation of Electricity	210 MW	1251 MW	94.8 MW	11.5 MW
Storage Capacity	324400 acre feet	233568 acre feet	---	---

¹⁹ Authors own compilation from Khalid Mustafa, "India to help Afghanistan build 12 dams on Kabul River". International The News. 21 May 2011. Accessed from <http://www.thenews.com.pk/Todays-News-13-5933-India-to-help-Afghanistan-build-12-dams-on-Kabul-River>

Impact on Pakistan; Policy Options

Pakistan shares nine rivers with Afghanistan but the Kabul River is the main tributary of its Indus River. According to an estimate, the total flow of these rivers towards Pakistan is slightly over 18 MAF. The Kabul River alone contributes 16.5 MAF to the system. However, the Chitral River, which originates in Pakistan and called Kunar River in Afghanistan, contributes 8.5 MAF²⁰ to the Kabul River, which means the net share of Afghan water of Kabul River that flows into Pakistan is 8 MAF. As such, the right of Pakistan on Kabul River is very unique as it has both the upper and lower riparian status on the Kabul river.

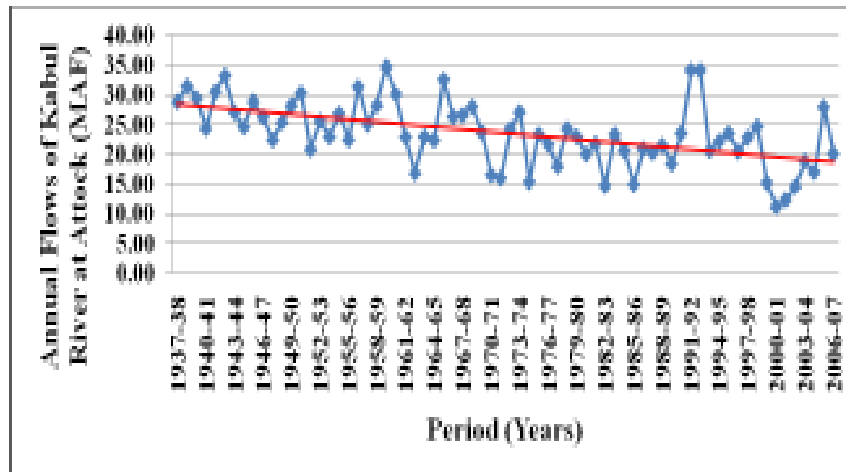
Afghanistan is bound to manage its water reservoirs as its water storage capacity stands amongst the lowest.²¹ If the above-mentioned plan is materialized, it will adversely impact the water flow into Pakistan. This will cause a decrease of around 17 per cent in its annual water flow.²² There is already a gradual decrease in the flow of Kabul River over the past decades. As the Table 4 indicates, a gradual decrease in the water of Kabul River can be observed.

²⁰ Vincent W. Uhl, Uhl, Baron, Rana & Associates Inc, "Afghanistan: An Overview of Ground Water Resources and Challenges". Lambertville, NJ 08530; vuhl@vuawater.com

²¹ Michael Kugelman, Ahmad Rafay Alam, and Gitanjali Bakshi "Peace through Water" *the foreign policy group*. December 12, 2011. Accessed on April, Accessed from http://Southasia.Foreignpolicy.Com/Posts/2011/12/02/Peace_Through_Water

²² "Sharing water resources with Afghanistan". Daily DAWN. 13 November, 2011. Accessed from <http://www.dawn.com/news/673055/sharing-water-resources-with-afghanistan>

Table 4: Decrease in the annual flow of Kabul River



Pakistan is not ready for such a disaster. Pakistan so far has not fully exploited the opportunities to build big dams on its rivers and store water. Much of its surface water is wasted into the ocean. With the growing population the per capita water has already decreased. If the situation continues like this Pakistan will become country with acute water shortage. But the process will be expedited if the flow of Western tributaries is also curtailed. This will be a disastrous situation for Pakistan. This crisis like situation will deeply undermine the relation between the two countries.

This impending scenario is unavoidable unless both the countries decide to resolve this in an efficient and equitable manner. Once the dams are built, Pakistan would be in a less privileged situation to wrest control or ask for fair share in the water. As the focus of Pakistan is currently on strategic aspects of situation in Afghanistan, this non-traditional threat to its security gets little attention. This issue cannot be taken lightly as it would be the one which will determine Pakistan’s future security concerns.

Legal Framework for Shared Waters

The dispute over water is as old as the recorded history of mankind. The first ever recorded dispute was between Sumerian city-states of Lagash and Umma in 2500 BC. The two city states resolved the conflict by entering into an agreement.²³ But this history of violence and cooperation goes hand in hand. In the last 50 years, 37 acute disputes involving violence have been recorded, whereas 150 treaties have been signed to resolve water conflicts.²⁴ This shows that in the recent past there have been frequent water disputes. This may be the result of water degradation in the face of growing population. If this trend continues, we may see more disputes in the coming future.

Nevertheless, if we take stock of how the countries or communities handled these disputes, the balance is in the favor of cooperation. United Nations Food and Agriculture Organization has recorded some 3,600 treaties related to international water since 805 AD. The majority of these treaties were about water navigation and the demarcation of boundaries. The shift in water disputes occurred in the last century towards the water use, its development, and protection and conservation.²⁵ These treaties have proved endurance even at the outbreak of wars. The Indus Water Commission has survived two wars between Pakistan and India and the continued bitter rivalry. There is a consensus at international level that international water disputes can best be resolved through treaties instead of conflicts as evidenced by the data.

²³ “Transboundary Waters,” The United Nations, accessed May 23, 2014, http://www.un.org/waterforlifedecade/transboundary_waters.shtml

²⁴ “Transboundary Waters.”

²⁵ “Transboundary Waters.”

However, these treaties have some weak areas as well. There is lack of proper workable monitoring provisions, enforcement mechanisms, and water allocation provisions to take into account the flow of water and the changing needs, hydrological events, and changing basin dynamics.²⁶ There are international instruments like the 1997 United Nations Convention on Non-Navigational Uses of International Watercourses which address the shared water resources. Its two key prescribed principles on water courses: “equitable and reasonable use” and “the obligation not to cause significant harm” to neighbours can guide the conflicting states. The instrument has left it to the countries themselves to interpret it regarding their disputes about watersheds. But there is a need of credible third party for support of developing the watersheds and arbitration in case of any dispute.

By taking into consideration these examples and legal framework, it can be stated that there are more chances of co-operation rather than conflict over Kabul river between Afghanistan and Pakistan.

Policy Options and Recommendations to Manage Water in Kabul River

The concerned stakeholders can take certain steps in order to reach a consensus over the issue and materialize the agreement on the Kabul Water. This supposed Kabul Water Treaty would tantamount to a right step in the improvement of relations between the two neighbouring states. Some of the policy recommendations are as follows:

²⁶ “Trans-boundary Waters.”

- Leadership in both the countries should show seriousness, sincerity and will to tackle this issue in amicable way.
- Most importantly, what the two riparian countries can do is to delink the Kabul River from other grievances between them.
- Sensitizing the public about the issue and taking them into confidence over the political dispensation of the issue. Water should be portrayed as an existential issue and be kept away from rhetoric or any political scoring in both the countries.
- International instruments and treaties shall be consulted and best practices in the successful management of watersheds should be adopted.
- International and regional institutions and agencies like SAARC, World Bank should be tapped for their funding, expertise and technical input.
- The treaty should include clauses regarding the changes in the basins and population.
- There should also be a mechanism for dispute resolution and treaty enforcement.

Cooperation over Kabul River

As water resource is depleting,²⁷ the water planners should be cognizant of the importance of this precious resource for the survival of their communities. In light of the recommendations of the UN, an adequate mechanism is needed to share the water of the Kabul River between Pakistan and Afghanistan on equitable bases without causing harm to each other. With the emerging hydropower

²⁷ Dilip Kumar Markandey and Neelima Rajvaidya, "water: characteristics and properties". 2005. A.P.H Publishing Corporations.

politics in South Asia there is strong need for institutionalized co-operation on shared water resources.²⁸ Both the countries can avail the services of World Bank or any other donor organizations which are active in this sector. These agencies cannot only develop the water basins but also provide platform for conflict resolution. Pakistan has already availed the services of these institutions like the World Bank on Indus River Commission and has developed its Indus basin with the funding from the bank. Afghanistan, too, is seeking the help of these institutions in order to develop its Kabul River basin. Both these countries can work with the third party or bilaterally to address this issue in its nascent stage.

This need of cooperation has been underlined from time to time by different stakeholders albeit it has not been taken up seriously by the respective governments of Pakistan and Afghanistan. The Norwegian Institute of International Affairs in its study in 2008 underlined this need. The report states that water scarcity and management are major challenges for not only Afghanistan but the whole region.²⁹ There is no doubt in the fact that if both these countries show a strong resolve and will to manage the Kabul River, they can reach a treaty well before the onset of a crisis.

Conclusion

This paper dwelt upon the Kabul River as a significant trans-boundary river, involving stakes of upper and lower riparian states,

²⁸ Brahma Chellaney, "Water: Asia's new battle ground" 2011. Harper Collins publisher India with joint venture with India Today group.

²⁹ Rainer Gonzalez Palau, (2011) Afghanistan's Transboundary Water Resources: Regional Dimensions. Civil military fusion centre. Available at https://www.cimicweb.org/Documents/CFC%20AFG%20Infrastructure%20Archive/CFC_Afg_Monthly_Transboundary_Water_Resources_July2011.doc.pdf. accessed on 10 December 2013

i.e. Afghanistan and Pakistan. Both these countries are at unique position on the Kabul River as both are lower and upper riparian at the same time. Till now, most of the flow of the river was uninterrupted but Afghanistan is planning to build a dozen dams on it in order to take care of its growing need of water. This will adversely affect the flow of water to Pakistan and create a crisis like situation. This can lead to conflict between the two countries as both the countries have no legal treaty regarding sharing rivers' water.

But the practice of international community of states suggests that countries would prefer to resolve water issue through negotiation. Several examples can be found even in our own region. Although the leadership of both the countries has not taken up this issue very seriously yet there is a hope they will go for treaty. The treaty should be such that the water is shared in equitable manner with no harm to each other. International cooperation can be sought in order to reach consensus where both the parties are in win-win situation.

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