



**RESEARCH PAPER**

**Hydro-politics in Iran and Afghanistan: An Overview**

Prof. Dr. Iram Khalid<sup>1</sup> Sitwat Zahra<sup>2</sup>

1. Chairperson, Department of Political Science, University of the Punjab, Lahore, Punjab, Pakistan
2. Ph. D. Scholar, Department of Political Science, University of the Punjab, Lahore, Punjab, Pakistan

**PAPER INFO**

**Received:**

October 19, 2019

**Accepted:**

December 25, 2019

**Online:**

December 31, 2019

**Keywords:**

Afghanistan  
Hydro-politics  
Iran

**Corresponding  
Author**

iramkrc.polsc@p  
u.edu.pk

**ABSTRACT**

This paper is an overview of the water issue that is escalating for past few years both in Iran and Afghanistan. There is no such dispute that has been ever reported between these two countries that are on the territory unlike the regional countries with the likes of Pakistan and India. The basic issue that is compromising the relationship of these two countries is the water from Helmand River. Both the countries are almost landlocked countries and they have very few resources through which they can complete their need for water and hence the Helmand River is important for both of the countries. Both the countries are building dams without proper research. They are bent on building more dams and wells without authentication of environmental institutes which is a major cause of the environmental change in the area. Both the countries are harvesting crops which are not suitable for the environment and hence they have a very low production rate. It is very important for both of these countries to come to agreements and solutions for their disputes as it will clarify a lot of issues between these countries. The United States of America played an important role and tried to bring both the countries on the same page. This was important to assure peace in the area and help these two countries to come up to an agreement.

**Introduction**

The dispute between Iran and Afghanistan on the issue of water dates back to 1870, it was the period when Afghanistan was under British Colonial rule and it was due to a British officer who drew the border of Iran and Afghanistan along the main branch of River Helmand which was the main source of water supply for both the countries. It was in the year 1939 due to the efforts of both the governments of time which were led by Reza Shah Pahlavi of Iran and Zahir Shah of Afghanistan, managed to sign a treaty over the water usage and sharing of the river but the Afghans were not able to ratify the treaty (Ahmed, 1980).

There was another attempt in order to resolve this issue which took place in the year 1948 which had its roots in Washington. Iran and Afghanistan agreed on a three-person commission which will investigate the problem and recommend a solution to the problem. Helmand River was about twenty-two cubic meters per second. This decision was not accepted by Iran as they wanted a larger share of the water. A lot of time was spent on renegotiating the policies and the decisions. Asadollah Alam was the minister of the court and he wrote in his diaries that Afghans were willing to provide Iran with more water if Iran provides Afghanistan with more improved access to its ports (Ahmed, 1980).

It was in the year 1973 that Iran and Afghanistan came upon on an accord and treaty to maintain the flowing water and keep everything smooth. This treaty was due to the efforts of Prime Minister of both the countries who took this problem as a serious threat to the Iran-Afghan relation. They signed a treaty according to which Iran will have access to twenty-two cubic meter of water per second but they will be entitled to buy extra four cubic meters per second in normal days. This treaty was not implemented to its full and nor it was ratified. There were a number of reasons behind this which halted the treaty such as the 173 martial law in Afghanistan, Iranian revolution in the year 1979 and the again Soviet take over in Afghanistan which was followed by Taliban insurgency in 1995 (KATSUFUJI, 1995)

### **Irrigation Canals and Dams**

Afghanistan always tried to make its irrigation system better and increase productivity in its agriculture by building irrigation canals and dam in the Helmand Valley along the river Helmand. A lot of countries tried to ensure the irrigation system in Afghanistan. Germany and Japan both these countries tried to build and reconstruct the ancient canal system in Afghanistan but their efforts failed due to defeats in the World War. Afghan government then engaged a US firm which was known as Morrison-Knudsen to reconstruct the irrigation canals. This was in the year 1946 that the firm started to build irrigation canals and roads in the southern part of Helmand valley. (Ahmed, 1980) This project started due to the US aid program and halfway through the project they decided to use the previously built reservoirs in order to save money. This act and decision were not thoroughly thought and they had to pay the price as it was a failure and proved to be a fatal weakness.

Iran and Afghanistan have no significant regional issues, in contrast to Afghanistan and Pakistan or Pakistan and India. Notwithstanding, a rotting difference over designation of water from the Helmand River is compromising their relationship as each side experiences dry spells, environmental change, and the absence of legitimate water the board. The two nations have kept on building dams and burrow wells without ecological overviews, redirected the progression of water, and planted yields not reasonable for the evolving atmosphere. Without better administration and worldwide assistance, there are probably going to heighten emergencies. Improving and explaining existing understandings is additionally

indispensable. The United States once assumed a basic job in interceding water debates among Iran and Afghanistan. It is in light of a legitimate concern for the United States, which is endeavoring to support the Afghan government and the locale everywhere, to help settle contradictions among Iran and Afghanistan over the Helmand and other shared waterways.

In 2014, Afghanistan tried to needs the improvement of its water assets and the advancement of dams. Iran and Pakistan, it's downstream (and dry spell inclined) neighbors, were less excited about this turn of events, considering it to be a danger to their own monetary objectives. There has been doubt in the past that Iran has upheld the Taliban, incompletely to attempt to disturb Afghanistan's dam-building desires. Iran has offered help to the Taliban previously (however their help has been less broad than their help to Shia-sponsored gatherings), which loans believability to the hypothesis. Previously, there have been empowering signs that Iran and Afghanistan may one day co-work over trans-limit water issues. The Helmand River Commissioners Delegation was made quite a long while back and meets on a quarterly premise to advance water co-activity. Thus, the two nations have put forth an attempt to restore the Hamsun wetlands, which rides the Afghan-Iranian fringe. While these means have demonstrated that the two nations are fit for co-working over water issues, question is still high on the two sides.

While Tehran has commonly been strong of advancement in Afghanistan, especially when it would be helpful for Iran, its requirement for water has subverted its generally commonsense Afghan improvement strategy. Kabul, then, has little motivation to wish to arrange the flow understanding, as any dealings could prompt the nation holding a lesser portion of water that it frantically requirements for monetary turn of events (the Afghan economy is generally agrarian). Afghanistan additionally battles that it doesn't have the ability to quantify inflows and surges, because of a thirty-year hole in estimating information, powerless specialized limit and an absence of faculty prepared in worldwide law and exchange. That contention may be a slowing down strategy, in any case, as the United States has offered to give arbitrators to contend Kabul's side.

In spite of the fact that question over water issues is high among Afghanistan and Iran, the two nations desperately need to reevaluate their water the executives rehearses. Iran's serious farming practices have caused huge natural harm and are key drivers of its water uncertainty. In the interim, Afghanistan's ability to create economical practices has been hampered by many years of contention. The uncontrolled utilization of water and an absence of thought for riparians could fuel further strains, particularly when there are elevated levels of water weight on the two sides. For whatever length of time that Afghanistan and Iran neglect to discover feasible answers for their trans-limit water question, these strains will proceed into what's to come.

The rivalry between the Iranian and Afghan state over the issues related to water has different aspects to discuss. These aspects include the decreasing precipitation, droughts and the way water resources have been handled. All these

aspects has vastly affected the growing crops, the food security and fresh water availability between the two states. There has been times when there has been retaliatory attitude among the states. Iran has at times initiated retaliatory exercises against the state of Afghanistan. Afghanistan accuses the Iranian Revolutionary guards for assisting the Taliban aggressors along with sabotaging the adventures of the dam in the region of western and southern Afghanistan.

It was in the year 1952 when the Arghandab Dam was completed. The dam was almost 145 feet long and stretch across 18 miles in the northeast of Kandahar, the dam had a huge capacity of storing 388,000-acre-feet of water. (KATSUFUJI, 1995) It was after a year when another dam namely Kajaki Dam was built, these were a huge success for Afghanistan and solved most of their water problems. These dams provided Afghans with electricity, irrigation of land and other water uses. It also prevented the floods to enter the cities and contained those floods in the dams.

There were some drawbacks of these dams and one of the main reasons for these drawbacks to occur was the lack of appropriate research and studies. There were no soil and topographic studies conducted which resulted in environmental effects. These negative effects included water logging and salinity in the areas near dam Arghandab. The role of Kajaki Dam has been somewhat nit determined as it allows the water flow towards Iran in the dry season but in the season of rains and flood it also prevents rain to flood the city. Without the 1973 agreement, the situation could have been much worse. The water supply in Afghanistan is deprived of glaciers and most of the rivers of the country flow in neighboring countries. (KATSUFUJI, 1995) Most of the water capacity of Afghanistan is surface water and Afghanistan can only use twenty-five percent to thirty percent of the total water flow.

Helmand River is the main source of water for the people of Afghanistan. Almost ninety percent of Helmand river flows through Afghanistan and it are an important resource for the southern provinces. This fact has made Helmand River a national issue for both Iran and Afghanistan and that is why this issue has not been able to resolve as no country is backing down of their stance.

### **The Hamouns**

Hamouns are lakes which are present in between the two countries and are also a cause of the dispute. These lakes are located on the Iran-Afghan border. Hanoun-e-Sabari is on the border whereas the other two Hamoun-e-Helmand and Hamoun-e-Puzak are on Iran and Afghanistan respectively. These three lakes are fed and brought to life by water from the Helmand River (KATSUFUJI, 1995).

The Hamouns are now barren and dry there is no water at these places, once these lakes were famous for plant and animal diversity and they were part of ancient Persian literature. The basic cause which got these lakes to dry off was the water diversion and droughts which changed the course of water.

The dams, canals and irrigation schemes that were built in Afghanistan on the river Helmand also lowered the water level in the region and contributed to the drying of these lakes. Hamoun lakes are almost disappeared now and with that, all the animal and plant diversity has vanished. There is no source for the local population to thrive, they were once dependent on the animal and plant diversity in the region and carried out their livelihood through that. These negative changes were more enhanced when Taliban took over as they blocked the Kajaki Dam and deprived Iran of all the water of the area. This period was known as the worst droughts and with blockage of water, it started to cause dust storms which caused a lot of breathing diseases in people of Iran and Southwest Asia. The economic situation in both the countries and the shortage of water led to smuggling and illegal acts which promoted drug trafficking as most of the people were not employed and had no jobs. A similar situation occurred in Iran, where the Urumiyeh Lake had a similar situation but it received media attention so much that it was brought up as an issue on the international forum whereas there are a few people who know about the Hamouns (MacLean, Weiner & Banuazizi, 1995).

### **Water as Leverage**

Helmand always remained a bone of contention between the two countries as Iran has many times accused Afghans of making the issue of Helmand as a political tool to force Iran into decisions which they do not want to take intentionally. Whereas Afghans have a common idea that Iran is using the Afghan refugees in Iran in order to put pressure on the Afghan government and get extra water from the Helmand River. An Iran official was talking to media and he claimed that there could be a possible backlash against all the Afghan refugees in Iran if the people of Iran come to think that there Kabul is trying to blackmail Tehran. (MacLean, Weiner & Banuazizi, 1995)

Whereas officials from Afghanistan which included the likes of Najeeb Fahim who is an expert in Foreign affairs discarded this allegation and claimed that Iran has already taken the greater amount of water in last forty years than what there was accorded in the treaty. This issue has been discussed on international platforms by both of these countries and they promised to give their best in solving the hamouns issue and the water dispute. They also agreed upon the fact that the earlier this issues get resolved the better it is for both countries.

### **Iranian Agriculture Practice**

Iran is bent on solving the issue of Hamouns and they are doing everything in their power to do so. This is because they want to restore the natural ecosystem which is very much disturbed in the region. The deputy for natural resources and biodiversity in Iran told media that they are planning on removing the border dykes which are hindering the water path. He also confessed that Iran was thinking in only one direction and that was to restore its agricultural production instead it should have been more focused on the climate and ecosystem preservation and that instead

of bargaining for more water they should have made combined efforts to protect the ecosystem

### **Other Dams**

Salma dam has just been inaugurated and it was due to Afghan-Indian friendship. This dam faced many setbacks. It was due to the insurgents in the area who tried their best to stop it from constructing and a number of soldiers, security officials and engineers were targeted. Finally, this project was complete and at the inauguration ceremony the Indian Prime Minister acknowledged the efforts of India in this crucial project and granted it as a gift to Afghanistan. The Afghan Prime Minister, on the other hand, defended his stance of getting the fair share of water. This dam has a capacity of holding 640 million cubic of water and it was designed with intention of storing drinking and irrigation water (MacLean, Weiner & Banuazizi, 1995). It also generates forty-two megawatts of electricity and can irrigate almost eighty thousand hectares of land. It was designed to make Afghanistan self-sufficient in its energy resources.

During the building stages of the dam, Afghanistan always saw Iran with a suspicious eye and believed that Iran is aiding the militant group in order to delay the completion and get more water for them but Afghan officials were happy after the completion and stated that it was built despite the disruption from the enemy. The Afghan government recently made an animation in which they showed their future plans and vision for the water management. To Afghanistan, it is a very dire situation and in their view, the only to solve country's water issue is by creating and building more dams. The ministry of water and Energy in Afghanistan is very much worried about water level and storage and they believe that building dams are their only way out of this problem. On the other hand, Iran also has a major issue that is the construction of Kamal Khan Dam which has the potential to be built on the lower Helmand River which is located in the Nimroz province of Afghanistan.

The basic problem in this context is the fact that water is measured at the Kamal Khan Dam, according to the treaty signed in 1973. (MacLean, Weiner & Banuazizi, 1995) Building a dam at this point will complicate the issue. Both Iran and Afghanistan have different views on the project and they think in a perspective which is favorable to their state. Iran believes that this dam is the best possible way to minimize the issue and strengthen the neighborhood. They believe that in this ways Iran will get its right and Afghanistan will be able to manage all the water that is being shared by these two countries and Afghanistan thinks that this will intensify the issue and matters will become even more complex. Iran has a benefit that if water is correctly measured at this location, all the water will be flown into Iran without any wastage.

### **Urgent need for better Water Management in Afghanistan**

Taliban and the militant groups were overthrown by the Afghans with the help of international aid in which the United States of America played an important role. However, even after they overthrew Taliban group, Afghans have not been able to establish a strong water management and storage system. In Afghanistan almost eight million hectares of land is fertile but only two million out of that land is cultivated. It is because of water shortage and droughts that the land fertility of the area has dropped. There is an urgent need to come up with a better water management system and make sure that they revive their agriculture department but it seems very difficult to achieve as there is the lack on international aid now which is a major drawback in the cause.

### **More Dams are not the answer**

The Afghan president has recently announced that there will be more than twenty dams that are to be built all across the country at the time to come. Iran has managed to build a lot of dams in recent years and the country has a number of dams all over the country. Iran has the third spot on the global list in terms of dams in the country and Iran has been able to learn it the hard way that there is no use of building the huge amount of dams unless proper research is done and there are no consequences reported on land and environment by building the dam. According to an Iranian expert of sustainable environment building of dams will turn earth into a desert which very much true (Aman, 2013).

These dams cause a great amount of landfill and water logging in the areas near the dam and hence the fertility of the land is lost because of deposited salt. Iran is also depleting its water resources by drilling. According to an estimate, the country has more than six hundred thousand wells. Iran is not planning to slow down the process of drilling, they are very much frustrated on the fact that the country is depleting off its water resources. Recently the minister of Energy in Iran called a Russian company in order to search for underground resources of water within the range of one thousand meters underground. This decision is criticized by many as Russians do not have a good track record of completing projects in Iran and according to some officials; this decision is based on lack of knowledge and authority.

### **Changing Crops**

It is very important for both Iran and Afghanistan to choose and cultivate such crops which will grow without the use of huge amount of water. This has to be planned because if they continue to grow crops like rice and corn it will provide them with more harm than good. It should be noted that crops like corn and rice use almost 90 percent of water and they contribute by 15 percent of the GDP. The usage of the single person in Iran is also very high which reaches to approximately 66 gallons per day which should be minimized as early as possible.(Aman, 2013)

## **Water Shortages and Poppies**

Due to the shortage of water, the farmers and cultivators in Afghanistan have to switch to the production of poppies which require the minimum amount of water and is also lucrative than other crops. For decades Afghanistan has been number one producer of opium and Iran is its best transit route to carry all the opium to the outside world. The Iranian government has devoted so much of their resources in controlling the flow of drugs from their country but smugglers always find a way to use their land for transporting drugs. Iran claims that Afghanistan is using their water to cultivate poppy whereas Afghanistan claims that Iran is already getting water more than their share.

When this tension between these countries gets high the toll is taken on the Afghan refugees who are living in Iran and they are targeted with all the anger and the rage. The Iran government claims that there are approximately four million Afghans living in Iran and if they use one gallon of water daily they all use 4 million gallons of water and hence in this way Afghans are depleting the resources of Iran. Some also blame the west for it as they believe that west has somehow been able to capture all the clouds and they are preventing rains to happen in this part of the world. This very alarming situation for both the countries and they need to come up with proper solutions and policies in order to pass through these difficult times.

The improvement of the dams has been the key focal point for both the states to decrease the level of rivalry. The time during the 1970's was very essential to manage the countries decreasing water resources and focusing more on the factor of feasibility.

The Afghan government has shown the cultivation decline by 45 percent in the year 2019. The reason behind the decline is fundamentally to be the extending water inadequacy. In one of the ISNA gathering the Afghani ambassador to Tehran, Nasir Ahmad Noor mentioned the decline in water resource by 60 percent due to the decrease in the precipitation. The experts highlight that there has always been the war of words between these states. Tehran needs the Afghan government and promoter countries focusing on dam improvement in state of Afghanistan to converse with Iranian state before dams that may influence the movement of Afghanistan's water resources into Iran – a proposition Kabul and donor nations like India have excused.

Iranian experts and news sources foresee that pressure due to hydro resources between the two neighbors will just fuel because water need has been expanding in the wider zone. The Iranian outlet Farrar this week repeated the worry, seeing that Afghanistan "is effectively looking for new help to assemble two additional dams and expansion the tallness of its stream dams".

The Afghan government raced to react to Rouhani's comments. Abdul Basir Azimi, the expert pastor of Afghanistan's organization of centrality and water, excused Rouhani's charges and underlined that the Afghan government manages its water assets reliant on the nation's open inclinations and in general shows. The two nations have kept on building dams and burrow wells without ecological overviews, redirected the progression of water, and planted yields not reasonable for the evolving atmosphere. He joined that Afghanistan's economy is truly dependent on agribusiness and water the heap up causes the nation to maintain its economy, decline poppy improvement and urge Afghans not to leave the nation. Azimi focused on that if Iran needs Afghanistan to be steady and prosperous it ought not accept headway to be dams in Afghanistan as a danger and rather help Kabul in such plans. Previously, there have been empowering signs that Iran and Afghanistan may one day co-work over trans-limit water issues. The Helmand River Commissioners Delegation was made quite a long while back and meets on a quarterly premise to advance water co-activity. Thus, the two nations have put forth an attempt to restore the Hamsun wetlands, which rides the Afghan-Iranian fringe.

As appeared by Hayatullah Hayat, the definitive head of southern Helmand region, the IRGC has given the Taliban present day weapons to impede a piece of the country's dams with the target that Tehran could get a more prominent fragment of water from the Helmand River. Likewise, Jamila Amini, the top of the normal office of Farah, an Afghan locale flanking Iran's Sistan and Baluchestan Province, rebuked the IRGC for legitimately helping Taliban contenders with upsetting the progression of Bakhtabad dam in the area. Sistan and Baluchistan has been wrestling with escalating water needs and Iranian pros have beginning late conveyed that the work on the second season of the British-created Kajaki dam in Helmand is "shockingly stressing to Iran" as well.

Iranian pioneers charge neighboring nations' water the board moves close, the nearness of US powers in the area, and air changes for Iran's making regular issues, yet they all around ignore sully and spoil in the nation also as misinformed government techniques subject for the decaying emergency the nation over, especially in young eastern and western areas. Iran's help for attacker and devotee social events in the district has also added to the declining water and typical issues.

## **Conclusion**

Water is a very important resource and all of the life thrives on the basis of water. In this scenario water is a depleting resource which is also politicized and this has made the issue worst and has complicated the issue. The main focus should be on bringing the two countries on the same page and bring them towards a feasible solution which is accepted by both the countries. It is important for the rest of the world to make sure that they bring these countries together and solve their problem for them. Iran and Afghanistan have no significant regional issues, in contrast to

Afghanistan and Pakistan or Pakistan and India. Notwithstanding, a rotting difference over designation of water from the Helmand River is compromising their relationship as each side experiences dry spells, environmental change, and the absence of legitimate water the board. The two nations have kept on building dams and burrow wells without ecological overviews, redirected the progression of water, and planted yields not reasonable for the evolving atmosphere.

Without better administration and worldwide assistance, there are probably going to heighten emergencies. Improving and explaining existing understandings is additionally indispensable. The United States once assumed a basic job in interceding water debates among Iran and Afghanistan. It is in light of a legitimate concern for the United States, which is endeavoring to support the Afghan government and the locale everywhere, to help settle contradictions among Iran and Afghanistan over the Helmand and other shared waterways. It is very important to come up with a solution as early as possible and before the situation gets worse. The technology-based water management system needs to be employed in the countries which will help them in administering their water levels on regular basis. Moreover, research should be conducted in order to make sure that all these steps are not affecting the environment and the ecosystem in a negative way. It is important for both of the countries to express their expectations and talk openly with each other in order to make sure that they resolve these issues and the superpowers in the region and in the world should help them in finding a feasible solution.

## References

- Ahmed, E. (1980). What's Behind the Crises in Iran and Afghanistan? *Social Text*, (3), 44.
- KATSUFUJI, T. (1995). Arnold J. Toynbee In Iran And Afghanistan. *Orient*, 30and31, 133-141.
- Afghanistan: An Overview of Ground Water Resources and Challenges. (2006). *Ground Water*, 44(5), 626-627.
- Ramazaniandarzi, A., &Javadikouchaksaraei, M. (2015). US Presence and Grounds for Cooperation between the Islamic Republic of Iran and United States in Afghanistan. *International Journal of Multicultural and Multireligious Understanding*, 2(2),
- MacLean, D., Weiner, M., &Banuazizi, A. (1995). Politics of Social Transformation in Afghanistan, Iran, and Pakistan. *Pacific Affairs*, 68(1), 138.
- Hussain, I., Abu-Rizaiza, O., Habib, M., &Ashfaq, M. (2008). Revitalizing a traditional dry land water supply system: the karezes in Afghanistan, Iran, Pakistan and the Kingdom of Saudi Arabia. *Water International*, 33(3), 333-349.
- Afghanistan. Joint Way Forward on migration issues between Afghanistan and the EU 2.10.2016. (2017). *Diritto, Immigrazione E Cittadinanza*, 12(3), 369-373.
- Fakhari, G., &Yunas, S. (2004). *Dispute between Iran and Afghanistan on the issue of Hirmand River*. Peshawar: Area Study Centre (Russia, China and Central Asia), Peshawar University.
- Aman, F. (2013). *Water Dispute Escalating between Iran and Afghanistan* (pp. 21-35). New York: Amanda group of publishers.
- Arzani, N. (2010). Water Harvesting and Urban Centers in Dryland Alluvial Megafans: Environmental Issues and Examples from Central Iran. *International Journal of Environmental Science and Development*, 38
- Allouche, J. (2005). *Water nationalism*. Geneve: Institutuniversitaire de hautesetudes internationales.7-391.
- Badran, A., Murad, S., Baydoun, E., &Daghir, N. *Water, energy & food sustainability in the Middle East*.
- Ismael, T. *The international relations of the Middle East in the 21st century*.

Pramasto, A. (2020). Islamization, Shia, And Iran: The Historical Background of Shia-Iran Sensitive Issues. *Islamuna: Jurnal Studi Islam*, 7(1).

The Geographical Dimensions of Hydro-politics: International Freshwater in the Middle East, North Africa, and Central Asia. (2020). <https://www.tandfonline.com>

Hajihoseini, H., Hajihoseini, M., Morid, S., & Delavar, M. (2015). Hydrological Simulation of the Upper Hirmand Transboundary Catchment Using SWAT Model. *Journal of Water and Soil Science*

Miyanaga, K. (2019). Kenji Otsuka. Ed, 2019, Interactive Approaches to Water Governance in Asia. *Journal of Water and Environmental Issues*, 32(1), 32-33.

Zhiltsov, S., & Zonn, I. (2019). Role of Water Resources in Central Asia. *Post-Soviet Issues*, 6(3), 228-237.