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Water War Thesis: Perspective from South Asia

Muhammad Imran Mehsud and Tariq Anwar Khan

Abstract

Water war thesis argues that water scarcity due to climate change and population surge has resulted in water disputes in different arid regions of the world. Absence of water treaties amongst co-riparian states of a river, or stress in the treaties, hydro-hegemonic behavior, and deviation from international water law on the part of a regional power, domestic water disputes and the subsequent pressures for more water could snow ball the water disputes into water wars. Such a water war could take place in the Middle East. This paper analyzes the basis premises of the water war thesis in the context of regional hydro-politics of South Asia. It argues that the region of South Asia is equally vulnerable to the water war thesis and recommends serious consideration.

Keywords: China, India, Pakistan, Water War, South Asia

Introduction

In the wake of the Cold War, Environment Security emerged as a new genre of non-traditional security. Climate change, population, pollution, diseases, and famines became the topics of popular debates in media, academia and politics. Water, its scarcity and its spin off effect for food crises, mass migration, violence and international conflict was treated on priority basis. Some of the analysts projected water scarcity and its implications for international conflict to alarming levels. It was argued that water scarcity would trigger international water wars in the twenty-first century. Similar warnings were issued by renowned political practitioners including the Secretary General of UNO, Kofi Anan who pressed that "…fierce competition for fresh water may well become a source of conflict and wars in the future."[1] Such assertions and warning were commonly referred to as water war thesis.

Water war thesis argues that water scarcity due to climate change and increase in population has resulted in water disputes in different arid regions of the world. Absence of water treaties amongst co-riparian states of a river, or stress in the treaties, hydro-hegemonic behavior, and deviation from international water law on the part of a

[1] Kofi Annan had made this statement in New York on March 1st, 2001 during a speech to the 97th Annual Meeting of the Association of American Geographers. The speech became popular in the context of Environmental Security as it was for the first time that a world leader brought to fore the threats of climate change and water scarcity.

*Authors are PhD Scholar, School of Politics and International Relations, Quaid I Azam University Islamabad and Lecturer, Department of Political Science, Hazara University Mansehra.

regional power, domestic water disputes and the subsequent pressures for more water could snow ball the water disputes into water wars. Such a water war could take place in the Middle East.

This paper offers a critical analyzes on each premise of the water war thesis in the context of South Asian hydro-politics. It also analyzes few additional regional hydro-political dynamics that are relevant to the water war thesis. This paper argues that the region of South Asia is equally vulnerable to the water war thesis. The region is in the grip of water demand-supply gap due to climate change and population increase. Owing to the water crises, old water disputes are spiraling out of the dispute resolution capacity of the already installed water treaties and new water disputes are emerging.

The first section of the paper presents few of the premises of the water war thesis. The second section applies and analyzes each of the premises on different aspects of the hydro-politics of the region of South Asia. Few additional dynamics of the regional hydro-politics that are relevant to the water war thesis or the critique of the thesis are also analyzed in this section.

Premises of Water War Thesis

Basic premises upon which the water war thesis rested could be summarized in the following points.

First, water supply has diminished in different arid regions of the world due to climate change, and the same will diminish further as global temperature will increase in future. Second, water demand has outstripped water supply and the same will aggravate further due to population surge, industrialization, urbanization and change in life style in the population thick regions. Third, the water demand-supply gap has resulted in many water disputes. The already existing water disputes will snow ball into water wars and many more water disputes will be triggered as water supply tightens and its demands heightens. The water wars are most likely to happen in the Middle East (Dolatyar, 2002). Fourth, there is lack of water governing treaties amongst many of the competing co-riparian states of many rivers. If there exists a water treaty, it is under stress due to water crises.

Fifth, in order to assuage intra-national water disputes, and meet its rising agrarian, industrial, hydel and domestic demands, state machineries are seeking to acquire more water resources at the cost of other riparian states. Sixth, pursuit of hydro-hegemony on the part of a regional power could serve as a catalyst in water wars. Seventh, many international political disputes have latent but strong hydrological dimensions. Such hydrological dimensions of the disputes will unfold more clearer as water demand-supply deficit widens, making the disputes nettlesome. Water may not be an objective of the wars fought in the modern history, but nations have resorted to use water as a tool of war and diplomacy. Eighth, international water law governing water apportionment amongst sovereign nations is limited and is not observed and the parties to the water disputes and water related issues are proliferating.

In a nutshell, water war thesis asserts that in order to meet its rising agrarian, industrial, domestic and hydel needs, states will strive to acquire water resources without taking care for its impact upon its neighbors. Since co-riparian nations do not share a river but an ecosystem, therefore, a drive by one nation to meet its water demand would directly impact the finite water supply of the other riparian. This action would result in a reaction and a chain of similar actions would lead to a domino-effect, thereby, leading to water war.

Water War Thesis in South Asian Perspective

Climate change is a universal phenomenon and apparently its effects seem even across planet earth. But climate change has affected different regions differently. There are regions which are less exposed to climate change whereas some regions are badly affected by the change in climate. Similarly, water resources are distributed unevenly across the globe. There are regions with sufficient water resources and there are regions where water is scarce. Coupled with the effects of climate change, many arid regions of the world underwent water scarcity.

Owing to the vitality of water for daily life and national development, water scarcity resulted in the contestation of water resources amongst different regional powers and has resulted in water disputes. These regions included Africa, Middle East, Far East, Central Asia and South Asia. As discussed above, one of the important premises of the water war thesis is that the thesis would find its primary realization in the water scarce region of the Middle East.[2] However, the region of South Asia is equally vulnerable to water wars and needs attention in this regard.

River Indus and its tributaries are already contested between India and Pakistan. The Indus Waters Treaty 1960 successfully managed India-Pakistan water relations for four decades. But the treaty is under stress in the face of Indian numerous dams, few completed, much under-construction, on the western rivers, the rivers allotted to Pakistan under the treaty, and Pakistan expressed displeasure with the dams in different forms. The treaty suffered another crude shock in September 2016 when the Indian Prime Minister Narendra Modi threatened to use water as a weapon against Pakistan in the wake of a terrorist attack in Kashmir. The premier threatened Pakistan that, "Blood and water cannot flow simultaneously" (The Times of India, 2016)

Moreover, River Kabul, the sixth tributary of the Indus, is also contested between Afghanistan and Pakistan. Similarly, the Ganges and Brahmaputra and its tributaries are disputed between India and Bangladesh, and Nepal and India. Above all, Indian media and think tanks have projected serious concerns about Chinese possible

[2] The former UN Secretary General and Egyptian statesman Boutros Boutros-Ghali had stated in 1985 that, "The next war in the Middle East will be fought over water, not politics."

structures on the headwaters of the Indus, Brahmaputra and Ganges in Tibet (Holslag, 2011). It is, therefore, imperative to analyze the hydro-political dynamics of the region of South Asia in the light of the aforementioned premises of water war thesis. Few additional factors that could serve as a catalyst in water wars are also discussed.

Water Supply and Climate Change in South Asia

Main sources of water in South Asia are rivers, rainfall and groundwater. Major rivers watering South Asian states are the Indus, the Brahmaputra and the Ganges. River Indus originates in the Himalayan glaciers in the Tibetan plateau of China. It enters India and creeps into Pakistan and ultimately empties off into the Arabian Ocean. One of its tributaries, the Kabul, originating in Chitral district of Pakistan, waters Afghanistan and then join the Indus at district Attock in Pakistan. The Brahmaputra and the Ganges also originate in the Himalayan glaciers in the Chinese territories of Tibet and passes through India and both joins in Bangladesh and then empties into the Bay of Bengal. These three rivers are collectively called as Indus-Ganga-Brahmaputra (IGB) system.

Major sources that feed these rivers are the Himalayan glaciers and the monsoon rains. Both the monsoon and the Himalayan glaciers are badly affected by climate change. Climate change has resulted in melting of glaciers globally, however, the Himalayan glaciers are the worst hit glaciers of the climate change. According to glaciologists, some of the glaciers especially in the Karakorum Himalaya have experienced expansion which is referred to as the Karakorum Anomaly. Yet, majority of the Himalayan glaciers are the sharpest melting glaciers of the world and are retreating at 10-60 m per year, depending on height and snowfall (Morton, 2011). Such a rapid melting of the Himalayan glaciers which is also called the world's biggest water tower, is a serious cause of concern for the water supply of the region of south Asia.

Climatologists have also analyzed that monsoon pattern is changed notably by the global warming. Instead of being spread over four months- June to September- the period of rainfall has decreased to forty days. Heavy rains during the mentioned short period causes floods, the massive water of which escapes the installed reservoirs and wreak havoc downstream. Such a havoc could be seen in the devastating floods experienced in Pakistan in 2010, in India in 2009 and Bangladesh and Nepal in 2007 and 2004 respectively. Similarly, rainfall as direct source of water for irrigation and other uses has dropped from 4400 mm in 1940s to 2000 mm in 2010 (Mehsud, 2012) Thus, in one-year cycle, South Asia experiences either too much or too less of water. Flooding in the months from July to August represents too much of water whereas the rest of the year experience too less of water.

Groundwater is also utilized in South Asia as a main source of waters. Particularly, India, Pakistan and Bangladesh rely on ground water for many uses. Since river basin is a single ecological unit, water drawn through dug well or tube wells in one part of

the basin has diverse impacts on other parts of the basin. Too much drawing of water in Indian Punjab in past has resulted in dropping of water tables in Pakistani part of Punjab. Similarly, water drawn in Bangladesh has resulted in drooping of water tables in India. Associated with the dropping of water tables are the problems of salinity and pollution. In a word, water supply in South Asia has decreased alarmingly due to climate change and over-exploitation.

Water Demand and Population Surge

On the demand side, increase in population in the states of South Asia is resulting in water crises. According to estimates, the total population of the region of South Asia was 1.68 billion in 2010 which, if went with the same pace, will increase by 32 per cent reaching 2.22 billion in 2040 (Gareth, 2014).

Such an increase in population will need more waters for more irrigation, more food and increased hydel generation. In addition, urbanization, industrialization and change in life style have also resulted in increased water demand. With improved life style, from simple to modern urbanized one, water demand increase in the shape of sanitation, industrialization, energy consumption, increased agriculture output, diet shift from simple to water intensity foods, fruits and vegetables. The economies of South Asian nations are primarily agrarian and rely heavily on water but with rapid industrialization, water consumption by agriculture sector will not be subsidized as the agriculture sector will flourish side by side with the industrial sector.

Such a demand-supply gap has resulted in water crises in the region of South Asia. These regional water crises will aggravate as climate changes with the dismal projected rate, and population too balloons with the same projected pace. According to a UN Food and Agriculture Organization (FAO) 2014 report, India and Pakistan have already crossed the water stress level i.e. having less than 1,700 cubic meter water per capita per year at the turn of the present century and Afghanistan too has reached the water stress level in 2012. Such a bleak picture of demand-supply gape in water resources in the region of South Asia makes the region highly vulnerable to the water wars thesis.

However, water war thesis revisionists state that water scarcity does not necessarily lead to war. Accordingly, water crises have often propelled states to cooperate in water apportionment. In case of South Asia, water is scarce, but water scarcity has triggered more water cooperation than water wars in the shape of different water treaties amongst the nations of South Asia.

South Asian Water Treaties

The IGB system is shared by six south Asian states; the Indus by India, Pakistan, Afghanistan and China, which is external to the region, Brahmaputra and Ganges by Nepal, India, Bhutan and Bangladesh. On the Indus, India and Pakistan has signed a historic treaty, the Indus Waters Treaty in 1960. On the Ganges, India and Bangladesh

has signed the Ganges Treaty in 1996. On the Brahmaputra, India and Nepal has signed many treaties including the Gandak Agreement, the Kosi Treaty and the Mahakali Treaty. In the context of South Asia, water war thesis is questioned on the grounds that all the important basins of the region are governed by water treaties with the exception of Afghanistan and China, who has not signed a formal agreement with any of its co-riparians.

It is further pointed out that not only are these treaties comprehensive but that they have sustained tense political relations including wars and border skirmishes. The Indus Waters Treaty in particular is applauded internationally as a model treaty which has sustained the vicissitude of India-Pakistan relations including the wars of 1965, 1971 and the Kargil episode of 1999. The same treaty is argued to provide as a model for a future multilateral treaty amongst all the riparian states of the Indus basin. Many renowned writers applauded the treaty as like Stephen P. Cohen who claimed that "the Indus Waters Treaty is a model for future regional cooperation, especially on energy, environmental concerns, and even the management of the region's impressive water resources" (2005). The treaty is appreciated for its robust dispute resolution mechanism and its success in resolving water disputes between India and Pakistan. Salman and Uprety have praised the treaty as:

It is indeed a complete Treaty in view of its objectives. It has normative as well as functional values as it contains, in addition to the substantive rules regarding the regime of the Indus system of rivers, provisions regarding the implementation of an administrative and institutional mechanism and the management of the basin resources (2002).

Similar praised are the treaties between India and Bangladesh and between India and Nepal as successful treaties on the grounds that they have prevented water war between the signatories.

However, water war theorists find faults with these regional water treaties. In the case of the Indus basin, the Indus Waters Treaty in place is argued to be poorly negotiated and under severe stress and strain on many grounds. Two of the riparians, China and Afghanistan are absent from the treaty altogether. Both these co-riparian states have already expressed their due share over the waters of the Indus River System (Salman, 2008). Any future emphatic demand of china and Afghanistan will knock the treaty out of its legal basis. Few other factors that have pushed the treaty to stress are the grievances of the Kashmiris against the Indus Waters Treaty and failure on the part of the architect of the treaty to take into consideration future climate change and its implications for water availability.

Similarly, in addition to threats of abrogating the treaty by an Indian leader no less than the Premier of India, discussed in the beginning of this paper, there is a strong suggestion from a number of water analysts of India for building another treaty, called

Indus-II.[3] This paper agrees with the fact that the Indus Waters Treaty is under stress and there is enough need and room for another treaty to be called, the Grand Indus Treaty (GIT). GIT will not only encompass all the riparians including Afghanistan, and China and all the issues of environment, climate change, and Kashmiris aspirations, but could pose a win-win situation for both India and Pakistan. India could tame upstream Chinese hydro-behavior under the rules of the treaty and Pakistan could ensure its quest for water security by balancing possible Indian hydro-hegemony through Chinese membership in the GIT.

India and Bangladesh share fifty-four rivers but only one treaty, the Ganges Treaty. The treaty was signed for 30 years and is going to expire in 2027. The treaty was to resolve the dispute of the Farrakha barrage which had served as a sting first in India-Pakistan relations and after 1971 in India-Bangladesh relations (Uprety & Salman, 2011). But the treaty is under stress due to environmental and political issues. Differences are arising out of the water management under the barrage and the management of the waters of the Teesta River being share by India and Bangladesh. Moreover, the treaty did not provide for any dispute resolving mechanism in case the two governments failed to resolve the dispute. In addition, the treaty also stressed upon reaching agreements on the remaining fifty-three rivers. However, no single agreement has been arrived at on the rest of the rivers.

India and Nepal signed the Gandak Agreement in 1959 and the Kosi Treaty in 1954. But Nepal considered both the treaties unfair and both were revised in April 1964 and in December 1966 respectively. Nepal is still insisting to further revise the treaties in its favor. Similarly, despite having an elaborate mechanism of arbitration, Nepal is unhappy with the Mahakali Treaty which came into force on 5 June 1997 and has labelled the treaty a "cheating" by a powerful neighbor (Patz, Lang, King, Hillmann, & Condon, 2009)

These South Asian water treaties are under pressure due to climate change, upstream-downstream anxieties, and absence of some riparians from the treaties. As the effects of the climate change become more profound in future and water crises unfolds subsequently, water disputes amongst the riparians of the regions will become intractable. In such a scenario, the present dispute resolving capacities of the water

[3] An interesting debate about the nature of the Indus Waters Treaty and Indus-II is available in B. G. Verghese's article "Water conflicts in South Asia," *Studies in Conflict & Terrorism* 20, no. 2 (1997) and Ramaswamy R. Iyer's article "Indus Treaty: A Different View," *Economic and Political Weekly*, July 16-22, 2005. Verghese applauds the Indus Waters Treaty and asks for building Indus-II on its pattern. Ramaswamy considers the Indus Waters Treaty a "coda" to the partition of India and doesn't support the idea of building another treaty on the pattern of the Indus Waters Treaty.

treaties will prove insufficient in preventing the water disputes snowball into larger conflicts and water wars.

International South Asian water disputes

India-Pakistan, India-Bangladesh, India-Nepal, Pakistan-Afghanistan and China-India have water disputes of one kind or another. India is constructing, in the words of a renowned Harvard Professor and analyst on India-Pakistan water relations, John Briscoe, "a veritable caravan" of projects (Briscoe, 2010) on the western rivers, out of which no less than a dozen is officially contested by Pakistan. Pakistan argues that these Indian projects on the rivers allotted to Pakistan are beyond the limits permitted by the Indus Waters Treaty. The prominent few amongst these disputed projects include Baglihar, Kishangaga and the Wullar Barrage. Pakistan precisely charge India of water storage, diversion and flooding and scarcity downstream. Pakistan fears, which John Briscoe believed are legitimate fears, that if completed these Indian structures would empower India of the control of the water flow into Pakistan and, thus, help India achieve its strategic hydro-hegemony vis a vis downstream Pakistan. India, in its turn objects on the Neelum-Jhelum and Diamer-Bhasha dam projects on the grounds that these dams are located in territories under Indian claims.

India and Bangladesh are at loggerhead with one another over the Farrakha barrage and its subsequent downstream affects like flooding, water scarcity, negative effects on fisheries and salinity and silt. India and Nepal have disputes over river Kosi, Kalapani and flooding. Similarly, Afghanistan is constructing twelve dams with Indian assistance on river Kabul (Bakshi & Trivedi, 2011). These dams will store, as Pakistan fears, and divert the waters of the Kabul river which flows into Pakistan.

China too, as per Indian allegations, is diverting the waters of the Brahmaputra under a gigantic South-to-North Water Transfer Project launched in 2003. Brahma Chellaney, a Professor of Strategic Studies at the Center for Policy Research in New Delhi and with inclination towards the water war thesis, has stated that

Diversion of the Brahmaputra's water to the parched Yellow river is an idea that China does not discuss in public, because the project implies environmental devastation of India's northeastern plains and eastern Bangladesh, and would thus be akin to a declaration of water war on India and Bangladesh (Chellaney, 2009).

Intra-national water disputes

One of the important dimensions of international water disputes is intra-national water disputes in the region of South Asia. These disputes operate inside the states of the region, however, they acts as a catalyst in brewing international water disputes. In the case of India, the states of Punjab, Haryana, Rajasthan, Tamil Naidu, and Kerala are fighting over water resources. In the case of Pakistan, the provinces of Punjab and Sindh, Punjab and KPK, and Sindh and Baluchistan are fighting over water resources.

Since the rest of the states of the region like Afghanistan, Nepal, and Bangladesh are unitary, therefore, intra-national water disputes in these states are at other levels.

Such intra-national disputes have two important implications for regional security. One, such disputes results in centrifugal and ultimately secessionist tendencies. Inter-federating unit discord over water apportionment has resulted in serious crises for the two federations of India and Pakistan. A renowned expert on the hydropolitics of South Asia, Daanish Mustaffa, has analyzed that the secessionist Khalistan movement in India had a strong hydrological dimension (Mustafa, 2007). Similarly, the inter-provincial water row in Pakistan has the potential to endanger the federation of Pakistan. Second, such intra-national water feuds result in aggressive international hydro-behavior and foreign policy. The Indian premier Narendra Modi displayed such an aggression when he stated to a rally in the Indian Punjab that:

Now every drop of this water [The western rivers of the Ravi, Beas and Sutlej] will be stopped and I will give that to the farmers of Punjab and Jammu and Kashmir. I am committed to this (The Dawn, 2016).

The upper riparian's hydro-hegemony

China is upper riparian to India. River Indus, Brahmaputra and Ganges flow from Chinese territory of Tibet into India. As discussed earlier, Indian media and think tanks have already expressed their lower riparian anxieties and alleged China of pursuing hydro-hegemony. Similarly, India is upper riparian to Pakistan and Bangladesh on the stated rivers. Both the lower riparians of Pakistan and Bangladesh have expressed displeasure with the Indian upstream hydro-behavior. However, Pakistan in particular is vocal in this regard. Pakistan has alleged India of storing and diverting the western rivers, entitled to Pakistan under the Indus Waters Treaty, to achieve hydro-hegemony against downstream arch-rival Pakistan.

Pakistan fears that the Indian dams on the western rivers, few of them already built and many more yet to be built could be a source of downstream Pakistan's economic and strategic vulnerabilities. The dams will empower India to store water and use the same as a weapon against Pakistan. The stored waters could be used to destroy the agrarian based economy of Pakistan by either withholding waters or releasing the same to flood downstream vast agriculture lands of Pakistan. The same dams could pose strategic threat to Pakistan's territorial integrity in two ways. First, by withholding the waters through the dams, Pakistan's defense canals, built on the eastern India-Pakistan border, could be turned futile and easily crossable. These canals had served as Maginot Lines against the Indian attack on Pakistan in 1965 and had, thus, served as a strong bulwark against the Indian invasion (Nawaz, 2008). Two, the Indian dams could be used to release waters in its natural course of the western rivers and trap Pakistani forces in between the vast lands between the rivers and, thus, reduce Pakistan's armed forces strategic maneuverability.

For Pakistan, the Indian assistance to Afghanistan's dams on the river Kabul is the extension of Indian hydro-hegemony from Kashmir to Kabul.

In order to withstand any future Indian hydro-aggression of one kind or another, Pakistan has added a strong hydrological dimension to its nuclear doctrine. One of the four nuclear red lines elaborated in its nuclear is about Indian attempt at stemming the water flow into Pakistan. Pakistan has made it clear that in case India stemmed the flow of water into Pakistan, it will retaliate with nuclear weapons (Kumar-Sinha, 2008). Political atmosphere laced with such strategic posturing on the part of Pakistan and Indian threats of stemming the water, and that too from a Premier, leaves the water war thesis at the heart of the regional political terrain.

Political atmosphere

South Asia is a region rampant with political trust deficit on many fronts. India and Pakistan have many nettlesome political disputes like Kashmir that had already triggered two total wars in 1948, in 1965 and one half-war in 1999, Siachen Glacier, Rann of Kach, and mutual allegations of involvement in cross border terrorism. Similar political trust deficit reigns in India- Bangladesh and India-Nepal political disputes. Pakistan and Afghanistan are also lacking trust due to the Durand Line issue. China and India too are bound to compete and contest in the long run with many unresolved border disputes and mutual contradictory territorial claims.

All these issues have created a gulf of political trust deficit amongst the nations of South Asia and this lack of trust has spilled over unto water disputes as well. Unless the regional political environment improves, water war thesis will remain relevant in the international hydro politics of South Asia.

Hydrological dimension of international political disputes

Recent research on the hydro-politics of South Asia have discovered interesting hydrological dimension to the political disputes discussed in the preceding section. The Kashmir dispute, for instance, is projected in many facets as an ideological feud, a proxy war, a freedom movement, a case of state terrorism and many more. However, it is the waters of Kashmir that has made the region of Kashmir precious for both India and Pakistan. It was, indeed, "not sheer coincidence" that a regular division of Pakistani military entered Kashmir after the Indian Punjab government stem the flow of few of the canals flowing into Pakistan on April 1, 1948 (Wirsing, 2008). Similarly, Pakistan's proposal of dividing Kashmir across the Chenab river at many occasions from 1950s until Pervez Musharraf proposed Chenab formula speak volumes for the fact under discussion (Bisht, 2011).

Equally visible has the issue of immigration between India and Bangladesh a strong hydrological aspect. Indian stemming of waters through the Farrakha barrage has caused downstream effects on fisheries and agriculture and resultantly people are immigrating into India for livelihood. The issue of Kalapani between India and Nepal

also has a strong hydrological dimension. Dr Iram Khalid of the Department of Political Science at the University of Punjab has brought to fore this fact that the region of Kalapani is origin to many rivers thereby making the control of the region precious for both the states of India and Nepal (Khalid, 2010). Therefore, with looming water crises, these political disputes have the potential to unfold itself more clearly in terms of water and thus result in wars with clear water objectives and strategies.

History of water wars in south Asia

History of water wars in south Asia also reveals interesting facts in this regard. One of the oldest water wars, "The Dasarajna (Dashradnya) Yuddha -A War of Ten Kings or Ten Tribes" with one king, Sudasa of Vedic age (1500 BC – 500 BC), found in the annals of history was fought in the South Asia, in the Indus basin precisely. The war was fought when ten kings of the then surrounding polities tried to divert the course of river Parusni (the Ravi) (Kosambi, 1965). The second notable water dispute (war) could be found from the period of Buddha (563 BC–483 BC) when two clans of Sakyan and Koliyan waged a war over sharing of river Rohini (Present day Nepal). Following poetic verses explain the dispute as follows:

When the Sakiyas and Koliyas waged a terrible war

About sharing the river Rohini,

Blood, gushing like a spring, flooded the waters,

The Buddha, coming to know of it,

Did what was needful,

To end the long-drawn discord and,

To bring both sides together,

All shall be well if good men try (Guhan, 1993).

However, in the modern history no example of "pure international water wars" could be found in South Asia. Yet, as climate changes more radically, and water crises entails, international water wars hold a rational chance of its occurrence in the region of South Asia.

International Water Law and the new breed of water disputes

No doubt, the regional water treaties like the Indus Waters Treaty, the Ganges Treaty, the Mahakali and Kosi treaty, attempted at ensuring the commonly accepted third principle of limited territorial integrity or sovereignty of international water law. The third principle of international water law balances the rights of the upstream states with that of the rights of the downstream states (Koberwein, 2008). However, owing to water crises, the upstream China, as per the lower riparian Indian allegations and

the upper riparian India, as per allegations of its lower riparian Pakistan and Bangladesh, are either behaving devoid of international water law or stress on the clauses of the treaties that are biased towards rights of the upstream states. Such a hydro-behavior not only pushes the regional water treaties to stress and strain but jeopardizes the uniform application of international water law in South Asia.

Similarly, the parties to the water disputes and water related issues are also proliferating in the region of South Asia. Individuals, districts, and communities on racial and religious grounds, other legal entities and MNCs are also becoming parties to water disputes. Different sectors and divisions like agricultural and industrial, domestic and environmental, urban and rural, sects and castes, energy and trade purposes are at feud over water distribution. For example, in the Keoladeo National Park Rajasthan issue in India, the agriculture and recreational and environmental stakeholders disputed water apportionment, whereas in Kalabagh Dam issue in Pakistan, the irrigation and the energy sectors added to the inter-provincial disputed nature of the dame (Mehsud, 2012). Now, water disputes have assumed a complex nature involving not only water quantity but its quality, access, rights, pricing, privatization, dams, displacement, immigrations, salinity and diseases. The addition of these new breeds of disputes at domestic level finds its manifestation in the shape of aggressive hydro-behavior at international level.

Conclusion

The region of South Asia is vulnerable to water war thesis. The regional limited water resources are contested by regional states. Such a contestation has assumed a serious nature as the water treaties are no more considered sufficient to resolve the water disputes. Intra-national water disputes and its implication for international water disputes, hydro-hegemonic behavior on the part of India, deviation from international water law, and the spill-over effect of tense political atmosphere presents a bleak picture of the future of the regional hydro-politics.

Historically, India has stemmed the water flow into Pakistan in 1948 and its premier has also threatened to repeat the same in 2016. Pakistan's threat of the use of nuclear weapons in response to Indian action of stemming the flow of water adds to such a sorry state of affair. However, it doesn't imply that a water war is around the corner. The region of South Asia is vulnerable to water war theory but not bound to such an eventuality. If sanity prevails and the nations of South Asia sit together to resolve their water disputes, the prophets of the water war thesis could be proved wrong.

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