Water Resource Management as the Basis of Conflicts in the Indus Basin

Firdos Ahmad Batt
Assistant Professor (Contractual), Department of Political Science, Aligarh Muslim University, Aligarh, UP, India

Abstract

During the course of history various developments took place in the Indus Basin in order to increase its utility for the prosperity of the region and then came the era known as the British Raj where water resource management in the Indus Basin was carried out not for the welfare of the region but to benefit their own markets. The aim of this paper is to map the various techniques that were engaged during the British rule that in one way enabled to increase the utility of Indus Basin manifold but eventually becomes the basis of water conflicts between different geographical regions of the subcontinent. This paper enables to have an overview of various cunning efforts put by our colonial masters which had become the cause of various water related conflicts in the Indus basin.

KEYWORDS: British Raj, Indian Subcontinent, Indus Basin, Water Conflict, Water Resource Management

1. Introduction: Indus River(also called as Sindhu or Abāsīn) is a major south-flowing river in South-Asia and together with its tributaries (Chenab, Jhelum, Ravi, Sutlej and Beas) comprises the Indus Basin.It is one of the largest river basin in the world. Of the total Indus Basin in terms of area 93 percent comes in Pakistan, 5 percent in India (mostly state of Jammu & Kashmir) and the 2 percent in the western part of Tibet (China) where the mighty river originates (Tibetan Plateau in the vicinity of Lake Mansarovar). In terms of inhabitants living around this basin 72 percent are Pakistani and 23 percent Indian(out of total 190 million).[1]The people living in this region are mostly dependent on agriculture and for its development the water from this basin plays the major role. Indus Valley Civilization, the first major human settlements in the subcontinent once flourished in the Basin.[2]

The tributaries of Indus gets a huge flow of waters and the rains helps these rivers to carry the silt making the adjoining tracks very fertile and productive. This is the reason for its most productive land helping the socio-economic development of the continent. Best irrigation and water management system was practiced in this basin so as to improve the production of agriculture. Rain water harvesting was also done by storing and channelizing it.This paper is focussing on these management tools which were incorporated during the course of history particularly during the British Raj and how it were used to create trouble between different geographical regions of the subcontinent leading to water conflicts which can be seen even today.

2. Historical Background of the Water Resource Management in the Indus Basin

2.1. Developments before Mughals

Even before the Britishers invaded Indian subcontinent many rulers and dynasties were involved in developing the Indus Basin for the prosperity of the region which in turn helps them in strengthening and expansion of their rule. For expansion, Empire needs more sustenance fulfilled by more advanced agricultural activities. The canals

systems were very much taken care of by the Muslims rulers of the region.The Sultans of Delhi Sultanate built water storage systems and artificial lakes as there was a dire need to give waters to the plain areas of Punjab which is extremely hot and the land there was dry.[3] These built sources were used for both drinking as well as irrigation purposes. Clean drinking water was provided when Sultan Iltumish built the first multi-purpose lake in the 12th century and then Western Yamuna Canal was constructed by Sultan Feroz Shah Tughlaq in 1355 which helped to take water from Yamuna River to Hissar (Haryana). Same period witnessed some diverse strategies and methods to upgrade the agricultural efficiency and irrigation techniques. Emperor Muhammad Bin Tughlaq urged the farmers to build their own rain water wells and reaping frameworks and then only the farmers of Punjab plain were able to develop two yields in a year.[4]

2.2. Developments during Mughals

The development of water management took new priority when the Mughal dynasty was established by the Babar in 1526 by defeating the last ruler of Delhi Sultanate. The Mughals developed and improved their irrigation system, constructed wells and Baolis (water tank), which were ideally spaced at three-mile intervals on all roads.Mughals constructed a perennialcanal system with permanent head-works.[5]These canals were very helpful in supplying water to cultivable land almost throughout the year.

During Aurangzeb period the Mughal irrigation system was at its zenith which the Valley of Indus had never seen before as of his interest in developing lakes, tanks and canals for the betterment of agriculture and its production.

Mughal rulers had a great love for gardens and thus built some canals which was not only for irrigation but also to provide water to the parks and gardens of the Mughal royalty.[6] Dug wells and Karez (underground water canals) were constructed after the sixteenth century for the ground water to be used for agricultural and irrigation purposes and these methods are largely in practice even today in these plains. Kalhora and Talpur dynasties also built some canals in Sindh during the later stages of 18th century and without the best knowledge of hydraulic engineering, their irrigation system was more efficiently managed. And with these developments a large part of barren land of Sindh was made fertile and productive.

2.3. Developments during British

The British Colonial rule started in India after the Battle of Plassey in 1757 and when Robert Clive of the East India Company ousted the Nawab of Bengal they gained control of almost all the sub-continent. After vanquishing the Punjab in Anglo-Sikh war of 1849 by beating the successors of Maharaja Ranjit Singh they started diverse projects to regularize yield from the farming which has always been the primary source of revenue.

In the beginning, the Britishers had no issue with the irrigation system, as it was at that point there for the modern agricultural framework. In addition, the measure of water for water system was bounty in light of standard rainfall. To build up the water system framework on present day lines, they overviewed the perennial, non-perennial canals, the inundation canals and Mughal works. The British enthusiasm for building up the water resources Indus Basin was firmly related with arrangements for

substantial scale agricultural production in the subcontinent which in this way would help the British Empire.

Under the colonial policy of the British, various dams and embankments were built over the Indus River and its five tributaries. The inclination was given to the recovery of substantial infertile and abandoned lands and changing them into profitable land.[7]

The alteration of vast desert and infertile land into one of the leading agricultural regions was the excellent technicalsuccess of the British. The idea of development was totally new, presenting perennial and rotational canal framework in the Indus Basin. Inundation canals were changed over into perennial canals in Punjab and Sindh.

In 1859, the Upper Bari Doab Canal (UBDC) from Ravi River was built with newtechniques and advancements. This is considered to be the first confrontation of water in the region wherein Punjab and Sindh were the two riparian states and Sindh being the lower riparian confronted the project by claiming that it has potential dangers to its agriculture and economy.[8] Then the Sirhind Canal was built in 1872 for the development of vast land (about a million acres) which is between the Punjab and neighbouring royal states. After an extreme famine hit the north India in 1878 and to meet the rising difficulties like the requirement for the nourishment creation different water systems plans were presented by British government and they thought of producing the Indus plain as the storehouse of India.

Totally new and unique concept of link canals was embraced by the British specialists to utilize the waters of one particular river to fill another river in need. In 1892, a noteworthy link canal, the Lower Chenab Canal, was developed to convey water to wasteland between the Chenab and Ravi rivers. Also, the work on the Lower Jhelum Canal was embraced in 1901 to give water to the wasteland between the Jhelum and Chenab rivers. Construction of such a huge irrigation network was the result of excellent engineering works. By these advancements, the infertile and unoccupied land changed into productive lands. The British rule which had given the Indus Basin the most widespreadwater system for irrigation in the world and also developed modern techniques which are even used now in the irrigation systemproviding the framework for achieving maximum growth.

During the British, existing canals were renovated and the inundation canals were made into perennial canals and Punjab was focussed to be the main region of canal building and augmentation activity. The post of Inspector General of Water Systems was created in 1867 to look into the matter of great concern those days which was the extension of the water system network.

3. Emergence of Water Dispute in the Indus Basin

3.1. Water Resource Management as the cause

The colonial powers were misusing and exploiting the resources from Indian sub-continent to produce the raw materials for their own development of the European market and they were well equipped to do so and thus vast scale development of the water resources was done in the region. The motive was to abuse the greatest agricultural potential and upgrade the European industrial growth and market.[9]

The water development administration was given to the provincial department which failed to provide water to each region which they guaranteed. The physical joining of

the channel framework and scattered population made the improvement of water resource an issue of encounter among territories and states. These contentions were generally reflected by the clashing requests of the territorial, provincial and state levels and brought about water clashes.[10]

The other reason for water disputes were the non-availability of storage facilities of water for the irrigated lands and the canals developed during the British were extending the gap between provinces over water distribution. The provincial governments proceed with the improvement of their own irrigable land for the creation of income without considering the fact that this will lower the yield of the agricultural land of other local bodies and they came to seek the allotment of water, thus brought about the clashes.

3.2. Partition as a cause

The Radcliffe line which tear apart the two new independent nations cut right through the Indus basin which comprises rivers flowing from India into Pakistan. The partition was not able to specify as how the waters were to be divided and thus the boundary disrupted its well-developed irrigation canal network.[11]And the main issue which needed to be focussed was that the canal system was located in India while the land to be irrigated by thesecanals fell in Pakistan. India was in control of the waters of the canal system which Pakistan was dependent on for its irrigation and this created a dispute over the right to the use of Indus Basin water.[12] The dispute was there before partition also between the states of British India but then the executive order of the Central Government of India was there to resolve these disputes.The dispute over water became international in its character only after the demarcation of new political boundary, which increased the tension between the two newly independent nations.[13]

The line that partitioned the two countries failed to provide the mechanism for the continuation of the water systems and the Commission which was given the job to demarcate the boundary line was very well aware of the fact that this will create a water tension as both the nations are highly dependent on the canal systems for their agriculture.[14]In this situation, Radcliff contacted the leaders of both countries, Jawaharlal Nehru and Muhammad Ali Jinnah, and suggested them to have the Punjab irrigation system as a joint venture which should be run by both the countries but neither of the two accepted this. Redcliff was well aware about the need for joint control of canal head-works, but could not do more than hope for joint India-Pakistan control of a head-works. Hence the tension with regard to use of water system started between the two nations and only when the international community was involved this dispute was to some extent tried to get the possible solutions and in 1960 Indus Water Treaty was signed brokered by World Bank.

4. Conclusion

As from the past many millenniums this region of Indus Basin has always been the best land in the sub-continent and the reason being the best of the resources present in the area in the form of these rivers (Indus and tributaries). These resources need a little attention so to utilize them at their fullest for the irrigation purposes to improve the agricultural yields. Water development in the basin was done from so long as everyone wanted to utilize the rivers in the best possible way. The most important development was done during the British as many new type of underground and inundatedcanals were developed, though very helpful but their desire was always to earn more and more from their colonies and to transfer the raw materials to their own

European markets and agricultural yields from these lands was all they wanted. However we can still consider these headways as blueprints to help us develop these areas further. And when they left, India and Pakistan were not able to make peace relating to many matters and water is one of the most important issue which remains there as a big confrontation between these two neighbouring countries. Though with the help of World Bank a cooperative step in the form of Indus Water Treaty is there signed in 1960 which is still in-force but surely not for long.

References:

1. Jean Fairly. (1975). *"The Lion River: the Indus"*. London: Purnell Book Services, 1975, p. 175.
2. Aloys Arthur Michel. (1967). *"The Indus Rivers: A Study of the Effects of Partition"*. London: Yale University Press, 1967, p. 595.
3. IqtidarHussain Siddiqui. (2006). *"Authority and Kingship under Sultans of Delhi: Thirteenth-Fourteenth Centuries"*. New Delhi: Manohar Publishers, 2006, p. 260.
4. Firdos. A. Batt and Nigar Zuberi. (2017). "Water Resource Development in the Indus Basin: A Historical Perspective (From 12th Century to 1947)". *Indian Journal of Politics, Vol. 51, No. 1-2, January-June 2017*, pp. 167-173, 2017.
5. ShaistaTabassum. (2004). *"River Water Sharing Problem between India and Pakistan: Case Study of Indus Water Treaty"*. Colombo: Regional Centre for Strategic Studies, 2004, pp. 29-30.
6. N. Laghari, D. Vanham and W. Rauch. (2011). "The Indus Basin in the Framework of Current and Future Water Resource Management". *Hydel Earth Systems*, Vol. 8, pp. 1063-083, 2011.
7. J. S. Mehta. (1988). "The Indus Water Treaty: A Case Study in Resolution of an International River Basin Conflict". *Natural Resources Forum*, Vol. 12, pp. 70-74, 1988.
8. RasoolBuxPalijo. (2011). *"Sindh-Punjab Water dispute 1859-2003"*. Sindh: Centre for Peace and Civil Society, 2011, pp. 9-10.
9. N. D. Gulhati. (1973). *"Indus Water Treaty: An Exercise in International Mediation"*. Bombay: Allied Publishers, 1973, pp. 31-46.
10. Asit K. Biswas. (1992). "Indus Water Treaty: the Negotiation Process". *Journal of Water International*, 17, 1992, pp. 201-09.
11. J. M. Kenoyer. (1998). *"Ancient Cities of the Indus Valley Civilization"*. Karachi: Oxford University Press, 1998, p. 6.
12. Ashok Swain. (2002). *"Environmental Cooperation in South Asia"*, eds. Ken Conca and Geoffrey D. Dabelko. Washington, D.C: Woodrow Wilson Press, 2002, p. 66.
13. Zaigham Habib. (2005). "Water Issues and Politics in Pakistan", *Journal of South Asia Free Media Association*, Lahore, Pakistan, p. 65, 2005.
14. Sadique A. Gill. (2005). "Indus River and the Irrigation System in Pakistan". *Journal of South Asian Studies* Vol. 20, (2), pp. 7-10, 2005.