

# WATER MANAGEMENT IN THE AGE OF DECOLONIZATION: AN ACCOUNT OF THE DEVELOPMENT OF THE GANGES AND TEESTA WATER DISPUTE IN SOUTH ASIA

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## Abstract

This paper seeks to address factors that were responsible for the making of the Ganges and Teesta water dispute, a transboundary water dispute between India and Bangladesh, after the start of decolonization of South Asia. Drawing on both primary and secondary sources, it seeks to explore historical, political and socio-cultural circumstances behind the making of a bitterly contested international water dispute spanning over sixty years. No study of contemporary South Asian law and politics is complete without a critical analysis of the democratic institutions, structures and processes that were involved in the creation and development of one of the most intractable international water crises of the second half of the twentieth century. The roles of the respective governments of these two South Asian neighbours in the manifestation and resolving of this dispute is evaluated in the context of the Indian government's legitimate demand for the use of the waters of these two rivers for the successful implementation of its interlinking of rivers project.

## I Introduction

THE TWENTIETH century has witnessed the rise of inter-dependence of South Asian states on each other for livelihood and economic as well as ecological sustenance. When the British left South Asia in 1947 the subcontinent was divided into two successor states, *i.e.* India and Pakistan. Deep tensions and hostilities remained dormant for several decades after the departure of the British from the region. The mistrust between these two nations was mostly political in nature, although economic and ecological factors played their part in deepening the rift between India and Pakistan. One fault-line that still separates these two countries is the conflict over water sharing in the region. The politics of water has been an “emotive and politically charged” issue in the subcontinent which has historically shaped the course of domestic and international politics in South Asia.<sup>1</sup> It has played a crucial role in the development of the relationships between India and its neighbours, especially Pakistan and Bangladesh. A number of water treaties have been signed between India and Pakistan as well as between India and Nepal.<sup>2</sup> Quite a few of them turned into full fledged disputes,

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1 Brahma Chellany, *Water Asia's Battleground* 278 (Washington D.C., Georgetown University, 2011).

2 Some of these treaties were the Indus River Treaty between India and Pakistan (1960), treaties between India and Nepal for the equitable sharing of the water of the Kosi (1954), Gandaki (1959) and the Ganges Water Sharing Treaty (1996); for more details see *Political Economy Analysis of the Teesta River Basin* (San Francisco: Asia Foundation, Mar. 2013).

underlining the mistrust with which South Asian governments view each other since the beginning of the process of decolonization in the subcontinent.

An United Nations report states that there are two key challenges for policy-makers dealing with the management of the waters of transboundary rivers in the twenty first century. These challenges are: *firstly*, the willingness to depart from inward looking national strategies for the fostering of multilateral cooperation, and *secondly*, to be able to place human development at the centre of transboundary cooperation and governance.<sup>3</sup> According to a report of the United Nations Development Program (UNDP), water governance has to imply a range of political, economic, social and administrative systems that have to be put in place to regulate the development and management of water resources and provisions for water services at different levels of society. In such approaches the roles of hydrocrats and technical experts are dominant. Since the early twentieth century, when multilateralism through international interventions emerged as a tool for ensuring the equitable distribution of water, there has been low level transparency, accountability and limited opportunities for civil society participants in the management of water, especially in cases of sharing of the waters of South Asian rivers.<sup>4</sup> In such a partisan approach favouring state actors in the management of the waters of both national and international rivers, factors such as basin-wide ecosystem services, social inclusion, and institutional and human behavior have remained largely peripheral. According to the UN, both India and Pakistan have not shown adequate concern with regard to the vital need to take into account the importance of social inclusion, *i.e.* the participation of indigenous communities in water management and preservation of ecosystems.

One major hindrance to the successful resolving of the conflict over the sharing of the waters of South Asian rivers, especially those of transboundary rivers, is the absence of regional cooperation at the subcontinental level. There is a clear need for fresh local and sub-national perspectives on water management, the absence of which continues to prevent sustainable development and successful management of transboundary water resources for the improvement of livelihood, food security, reduction of poverty, and effective adaptation to climate change in a region that is increasingly becoming extremely susceptible to the global warming process. A nuanced understanding of the political economy of the South Asia with regard to the effective management of its water resources would succeed in offering some solutions to long standing disputes over the sharing of the waters of the Ganges and Teesta. There are

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3 United Nations Development Program, Human Development Report, *Beyond Scarcity: Power, Poverty and the Global Water Crisis* 204(New York, UNDP, 2006).

4 Jayasree Vivekananda and Sreeja Nair, "Climate Change and Water: Examining the Interlinkages" in David Michael and Amit Pandya(eds.), *Troubled Waters: Climate Change, Hydropolitics and Transboundary Resources* 8-9(Washington D.C., The Henry L. Stimson Centre,2009).

bound to be winners and losers in these negotiations, but the first and foremost task of the subcontinent's officials, whichever side they may belong to, India or Bangladesh, is to ensure that in the long run disputes arising over water sharing in the region are settled without causing too many collateral damages to the standard of living of the large majority of indigenous communities that continue to live in areas that are most likely to be effected by the building of dams and barrages for irrigation and hydro-electric projects.

The sharing of the waters of major transboundary rivers in South Asia, such as the Ganges, Brahmaputra, Meghna/Barak and Teesta has led to the emergence of "raspy hydro politics"<sup>5</sup> between India and Bangladesh. Efforts at cooperating over water sharing arrangements have been consistently stymied by the unwillingness of officials in both Delhi and Dhaka to clearly comprehend the ecological, social, economic and political concerns of the respective Governments. There is also a clear lack of clarity in policy initiative in understanding the legitimate concerns of officials in Calcutta with regard to the West Bengal government's right to a share of the waters of the Ganges and Teesta. West Bengal is the upper riparian state through which both the Ganges and the Teesta flow before entering Bangladesh, the lower riparian state, through which these two rivers flow from north to south before draining into the Bay of Bengal. Officials in Calcutta are in a position to control the flow of the waters of the Ganges and Teesta into its neighbouring state, Bangladesh, and can potentially regulate or even block its flow causing, as has been claimed by officials in Dhaka, considerable amount of damage to the ecology and agrarian economy of Bangladesh, which depends heavily on the benefits that accrue from the use of the waters of these two rivers. The original conflict over sharing the Ganges' and Teesta's waters originated in the conflicting claims of officials in Delhi, Calcutta and Dhaka. These claims were mostly accusatory in nature, both India and Pakistan and then Bangladesh accusing each other of maintaining double standards over the question of sharing the waters of transboundary rivers which they claimed belonged firstly and most importantly to themselves and their people. Such claims were, in the late 1940s and early 1950s, firmly located within the context of the emerging contours of the politics of partition, which not only divided the lands and the people living in those territories, but also the rivers that were instantly divided by them.

The Ganges and Teesta water dispute is one of the oldest and most intractable disputes in the contemporary history of South Asia. The Ganges, which flows down from the Himalayan Nada Devi range through India, Bangladesh, Bhutan, Nepal and China,<sup>6</sup> is economically, socially and spiritually crucial to the lives of the people living

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5 *Supra* note 1.

6 M.A. Hafiz and N. Islam, "Environmental Degradation and Intra/Inter State Conflicts in Bangladesh" in G. Bachler and K.R. Spillman (eds.), *2 Environmental Degradation as a Cause of War* 5-6 (Verlag Ruediger, Zurich, 1996).

in the regions through which the river flows. More than half-a-billion people are dependent on this river's water for their livelihood and existence. Its importance lies in such diverse fields as hydro-electricity, industry, agriculture and navigation.<sup>7</sup> Most of the river flows through India before joining the Brahmaputra and Meghna in Bangladesh.<sup>8</sup> India's claim on the larger share of the Ganges' water is indeed legitimate. It is significantly more legitimate than the claims made by its subcontinental neighbours, even though the Ganges has been recognized as an international river after 1972, which the Indian Government has indeed recognized. Delhi rightfully lays its claim on the use of the river's water for the Central Government's irrigational purposes since it is one of the main water courses of the country on which not only the people of the Gangetic plains, but also communities belonging to several other water scarce regions of the subcontinent have to depend on a regular basis for their water resources.

Through a discussion on the origin and growth of the Ganges and Teesta water dispute, the paper delves on three things: *firstly*, it addresses the status of bilateral talks over the water sharing formulae in the subcontinent. It examines the extent to which the role of the South Asian bureaucracy can be attributed to the development of the Ganges and Teesta water crisis. The paper seeks to suggest that the official mind of the nationalist bureaucracy, to whose hands power was transferred in South Asia after its independence from British rule, played a significant role in the making of this dispute, the roots of which can be traced to the absence of transparency and accountability of the policy makers who demonstrated a clear lack of understanding of the dynamics of a water dispute in the early years of the subcontinent's journey into decolonization. Regional commercial interests have played a significant role in impeding the arrival at a lasting solution to this crisis which continues to hamper water related talks between India and Bangladesh and damages the confidence building measures undertaken between India and Bangladesh in the late twentieth century. *Secondly*, the paper seeks to suggest that the origins of the dispute can be placed within the context of an inaccurate representation of the cultural and spiritual importance

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7 N.I. Nazem, "The Impact of River Control of an International Boundary: The Case of the Bangladesh India Border" in Carl Grundy-Warr (ed.), *Eurasia* 109 (Routledge, London, 1994); A. Nishat, "Impact of the Ganges Water Dispute on Bangladesh" in A. Biswas and T. Hashimoto (eds.), *Asian International Waters: From Ganges Brahmaputra to Mekong* 69-79 (New Delhi, Oxford University Press, 1996); M.G. Rahman, "Reducing the Flow of the Ganges: The Consequences for Agriculture in Bangladesh" in E. Goldsmith and N. Hildvard, *The Social and Environmental Effects of Large Dams* 269-275 (Wadebridge Ecological Centre, Camelford, UK, 1984); C.J. Gulati, *Bangladesh: Liberation to Fundamentalism* 117 (Commonwealth Publishers, New Delhi, 1988); N. Islam, *Indo-Bangladesh Common Rivers: The Impact on Bangladesh, in Contemporary South Asia* 215-223 (1992).

8 Over 92% of the Ganges flows through India while only 8% of the river flows through India's neighbours in the South Asian subcontinent; see *supra* note 6 at 8; Nazem, *id.* at 103.

of the Ganges to the large majority of the population of South Asia, *i.e.* the Indians, by India's neighbours, such as Pakistan and Bangladesh, to the international community led by the UN. The role of policy failure with the knowledge of the international community at all levels of South Asian society and polity contributed to the making of this water dispute. *Thirdly*, the paper examines India's felt and stated need for the building of the Tipaimukh Dam on the Barak river and the Interlinking of Rivers Project (ILR) for the establishment of an irrigation network that would help the Central Government harness the waters of these rivers for the benefit of water scarce regions in South India, without damaging the ecological balance of large segments of concerned lower riparian river basins in Bangladesh. Both the livelihood and ecological interests of indigenous communities living in these regions in Bangladesh have been cited as stumbling blocks to the progress of the river linking project that the Indian Government had and continues to envisage for areas lying outside the eastern zone.

## II Tracing the origin of the Ganges and Teesta water dispute

The discussion on the need for irrigation and the development of ports, especially the port in Calcutta, began within the closed circle of colonial civil servants, engineers and public works department officials of Bengal in the late nineteenth and the early twentieth centuries. This discussion remained dormant for over half a century, finally peaking in the period between 1925 and 1947. Much talk of the development of what had by the beginning of the 1930s become a creaky but still functioning edifice of the colonial bureaucracy dominated the official discourse of mid-nineteenth century Bengal. Bengal as a province saw very little investment in irrigation during the entire colonial period. The rate of return to the government from any investment in irrigation was nil as the revenue accruing to the colonial government arranged under the Permanent Settlement Act of 1793 was fixed.<sup>9</sup> In spite of canals being supposedly built by the British in Bengal, the want of irrigation in the province was one of the chief reasons for widespread and regular occurrences of crippling famines throughout the province.<sup>10</sup> The East India Company's reluctance to develop such a network of irrigation or repair old works was commented upon by Montgomery Martin, who in his standard work, *The Indian Empire* (1858) wrote that the old East India Company "omitted not only to initiate improvements, but even to keep in repair the old works upon which the revenue depended".<sup>11</sup> The unwillingness of the colonial officials to initiate any meaningful talks on the development of public works and water resource

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9 Prabhat Patnaik, "All for a New Bengal" 27*Frontline* (Jan. 30 – Feb. 12, 2010).

10 Bikramjit De, "Imperial Governance and the Challenges of War: Management of Food Supplies in Bengal, 1943-44" *Studies in History* (2006).

11 The Colonial Legacy—Myths and Popular Belief, in Archaeology Online, *available at*: <http://archaeologyonline.net/artifacts/colonial-legacy> (last visited on Oct. 14, 2014).

engineering in Bengal continued well into the first half of the twentieth century. The first constructive talks on the need for effective use of the Ganges' and Teesta's waters for purposes of irrigation began to be discussed in the context of the beginning of decolonization process from the middle of the twentieth century, *i.e.* in the period between 1930 and 1950, when colonial officials began to reluctantly accept that any process of decolonization had to be preceded by lasting solutions to water management in the subcontinent.

The little water resource engineering that took place in the subcontinent before independence was aimed at the possible expansion of irrigation in the region for ensuring food security for an ever-growing population. The need for the development of an extensive and efficient network of irrigation in Bengal was felt especially after the outbreak of successive famines that threatened food security in the province in much of the first half of the twentieth century. Irrigation began to be seen as the central objective behind the construction of 96% of 4,291 dams that were built in South Asia in the pre-independence era, although very few of these developments affected the lives of the bulk of the Bengali people living in the province. Before Independence, officials in Bengal sincerely believed that Ganges and Teesta did not have the potential to provide enough water for irrigating fields in Bengal, not to speak of some other parts of India, such as in South India. This misconception of the colonial and early Indian policy makers was however dispelled with the progress and development of the Ganges and Teesta water dispute which increasingly revealed the tremendous potential of these two rivers for providing enough water for the purpose of both irrigation and hydro-electric power generation to not only Bengal but also to South Indian states. With this realization came another proposal, *i.e.* the setting up of the Tipaimukh Dam for providing hydro-electric power to Indian states.<sup>12</sup>

The English East Company also demonstrated a genuine concern for the long term viability of the Calcutta port which by the middle of the nineteenth century had started to decline as a major port in the eastern region of the British Empire. The Calcutta port had started silting from this period due to normal hydrological reasons. Sir Arthur Cotton, a leading engineer of the East India Company suggested that the Ganges should be diverted into the Hooghly to help in clearing the Calcutta port of the increasing sedimentation, which was blocking the entry and docking of large ships near Calcutta, leading to a decline in the commercial activities in and around the capital city and its hinterland.<sup>13</sup> Several other British engineers of this period supported this view although they disagreed with each other on the location of the barrage.

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12 Kalyan Rudra, "The Encroaching Ganga and Social Conflicts: The Case of West Bengal and India" *available at*: <http://gangapedia.iitk.ac.in/sites/default/files/Rudra.pdf> (last visited on Oct. 14, 2014).

13 *Id.* at 6.

Talks on the building of the barrage remained largely unaddressed for the next eighty years and the future of the Calcutta port continued to hang in balance. Meanwhile the early years of the twentieth century saw the rise of the ship-building industry in India, the Calcutta port acting as a central location for building activities. Until the early 1930s, this port continued to enjoy its predominance as one of the most important ports of the British Empire, with Bengal acting as the British bridgehead to the east. At the high-noon of the British Empire, the decline of the Calcutta port was still not foreseen or taken too seriously by the large majority of colonial policy-makers and other officials. Any plans for the utilization of the Ganges and Teesta waters for irrigation and reinvigoration of new life into the Calcutta port still did not inform the official discourse on the management of ports and rivers in Bengal.<sup>14</sup>

The idea of using the Ganges and Teesta waters for flushing out excessive sedimentation in the Hooghly near the Calcutta port was formally mooted for the first time by colonial officials from the middle of the 1930s. Officials first suggested that these two rivers are ideally suited for the purpose of irrigation and can be tapped for hydro-electric power in 1935.<sup>15</sup> When these discussions officially began all proposals for the development of these two rivers as well as improving India's water bureaucracy and irrigation facilities were still strictly within the confines of the colonial discourse that was, among its other contributions, directly responsible for the development of a strong water bureaucracy in the Madras Presidency as well.<sup>16</sup> The Bengal National Chamber of Commerce and Industry (BNCCI) also took it upon itself to initiate a debate on the proposal for the development of the Calcutta port from this time. Even though this proposal seemed a sensible and attractive one, it was rejected by the official mind of the colonial bureaucracy. The origins of proposals for the creation of a water bureaucracy in Bengal along the lines of Madras and the utilization of the Ganges and Teesta waters for irrigation can also be attributed to extensive discussions on the viability of this proposal amongst the business elites of Calcutta, mostly belonging to mercantile agency houses, both inside and outside the BNCCI. Commercial concerns informed the premises and postulates of policy governing the equitable distribution and sharing the waters of two of the most important rivers of eastern India. The

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14 The same initiative was however evident in the development of a strong water bureaucracy in Madras from the end of the eighteenth and beginning of the nineteenth centuries; for a more detailed account of how a water bureaucracy developed in the former Madras Presidency, see De, 'The Colonial Government's Role in Water Management', in P. Ishwara Bhat (ed.), *Interstate and International Water Disputes: Emerging Laws and Policies* 253-274 (2013).

15 D.C. Sarkar, B.K. Pramanik, A.I. Zerin, and I. Ara, "Climatic Impact Assessment: A Case Study of Teesta Barrage Irrigation Project in Bangladesh" 11 *International Journal of Civil and Environmental Engineering, IJCEE-IJENS* at 76.

16 De, "The Colonial Government's Role in Water Management", *supra* note 14 at 273-274.



origins of the Ganges and the Teesta water dispute can be traced to the felt need to use the waters of these two rivers amongst the shipping magnates and other commercial houses, headquartered in Calcutta and operating in and around the Calcutta port. The commercial interests of the Empire in the east played a significant role in the making of this dispute. The need to use the Ganges and Teesta's waters for irrigating agricultural fields in Bengal in the pre-independence period was indeed in the interests of a declining colonial state that was still not prepared to admit that by the middle of the 1930s it was in retreat in South Asia. The need to bolster the colonial state's commercial exigencies in one of British Empire's principal ports to the east of the Suez Canal closely informed the policies that eventually governed the official decision to use the waters of two eastern rivers flowing through Bengal.

After 1947, the proposal to divert the Ganges' water into the Hooghly for desilting the river was once again mooted by the new nationalist officials. The transfer of power from British to Indian hands in the middle of the 1940s witnessed a transfer of policy initiatives at all levels of the administrative edifice, including the water bureaucracies of Bengal and Madras. In the late 1940s and early 1950s, officials in Calcutta were beginning to demonstrate their willingness to address the need to use the Ganges and Teesta waters for irrigation and generation of hydro-electric power. It was also realized by the Calcutta officials that the first and the most important reason for building a barrage on the Ganges at Farakka in North Bengal was to ensure and maintain proper navigability of the Hooghly. The officials firmly believed that this would ensure that the port in Calcutta remained operational, in spite of increasing sedimentation of the deeper part of the estuary around the port.<sup>17</sup> Thus the origin of the talks dealing with the use of the Ganges and Teesta waters can be traced to the growth of the official thinking of a new South Asian bureaucracy, informed by a nationalist zeal to Indianise all governmental discussions. Indianisation of talks implied addressing the issues from an entirely Indian point of view, especially with an emphasis laid on national interest which since India's independence necessarily sought to protect the interests of all those people who opted to remain or cross-over to the Indian side of the partition line that separated West Bengal from East Pakistan. This national interest also coincided with India's growing commercial concerns in the region, especially with regard to the strengthening of a pre-dominantly agrarian economy,

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17 C.K. Tiwary, *Security in South Asia: Internal and External Dimensions* 120-121 (University Press of America, Lanham, 1989); A. Swain, "Conflicts Over Water: The Ganges Water Dispute" 24 (4) *Security Dialogue* 429-431 (1993); S. Bhasin, *India-Bangladesh Relations: Documents 1971-94* 390-91, 442-43, 469 (Siba Exim, Delhi, 1996); B.G. Verghese, "Towards an Eastern Himalayan Rivers Accord" in A. Biswas and T. Hashimoto (eds.), *Asian International Waters: From Ganges-Brahmaputra to Mekong* 50 (New Delhi, Oxford University Press, 1996).



that the Indian policy makers inherited at the time of the country's independence and the growth of hydro-electric power potentials that was brought under the central list of the Indian Constitution. The urgent development of areas which were until then abysmally poor and underdeveloped guided the official thinking of the new Indian state which could be achieved in a mixed economy through active collaboration between public funding and a limited amount of private capital. The creation of the Ganges and Teesta water talks leading to the still not resolved dispute has to be examined in the context of this growing cooperation between India's burgeoning commercial interests in the region and the growth and spread of public sector undertakings through the strengthening of the bonds of centralization at rural and local levels of governance.

Administrative concerns also guided officials in Delhi in the post-independence period in their decision to build a barrage at Farakka. Farakka's centrality on the route to Assam from West Bengal was one of the main reasons for Delhi and Calcutta to seriously consider the proposal to build a barrage. Until 1947, the old rail links between Bengal and Assam were via the Hardinge Bridge, which after the partition fell inside East Pakistan 30 kms from the border. It would have been very costly for the Government of India to divert the rail line and the National Highway No. 34 from Murshidabad over to Birbhum and up to Rajmahal. Such a move did not make any geographic, strategic and economic sense to the officials of the Indian Government in the late forties and early fifties. So the diversion of the rail line and the highway by a few kilometers to the west of Murshidabad and Birbhum through Farakka was the only option left to the officials.<sup>18</sup> Administrative and logistical concerns backed by economic considerations in an era of fiscal prudence and austerity were the hallmark of judicious governance in a mixed economy, which contributed considerably to the growing demand for a barrage at Farakka. This demand could increasingly be heard within the official circles in Delhi as well as in Calcutta, especially among the nationalist bureaucrats, still committed to the Congress. This felt need soon became a bone of contention for the respective governments of India and Pakistan. The building of the barrage came at a time when national planning within a framework of centralization was the touchstone of economic policy making, and its conception can be attributed to the Delhi officials' ambition to control the flow of the Ganges and Teesta waters from India to East Pakistan from the corridors of power in Delhi, sometimes even overlooking the legitimate concerns of the state government in Calcutta.

Through the early fifties, the Farakka issue remained unresolved. In West Bengal, Bidhan Chandra Ray, an eminent doctor and a close friend of Pandit Jawaharlal Nehru,

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18 "Indo-Bangladesh Water Treaty" *Ganga*, available at: <http://www.ibaradio.org/India/ganga/radio/radio5/sd5.htm> (last visited on Oct. 14, 2013).

became the second chief minister of the state. Ray is credited with the building of modern Bengal, which included the building of the satellite town of Durgapur, and the university town of Kalyani. Water management was an area where his officials, working closely with officials of the Central Government, left an indelible mark. Delhi with the cooperation of Calcutta invited W. Hensen in 1957 to investigate the causes of the decay and death of the Hooghly and to suggest methods of remedying the situation leading to its and the Calcutta port's gradual resuscitation. After considerable amount of discussion on the matter and close investigation of the factors governing the sedimentation of the Hooghly, Hensen suggested the construction of a barrage on the Ganges at Farakka which could regulate the upland discharge of the Bhagirathi-Hooghly. This upland discharge could also prevent the long-term deterioration of the river leading to a slow but gradual improvement of its existing condition. Following the advice of Hensen and his team of investigators, the construction of the Farakka Barrage as a part of the Teesta Barrage Irrigation Project (TBIP) was started in 1962 by the Central Government in Delhi and was finally completed nine years later in 1971. The Calcutta officials' drive with the support of the Delhi officials to modernize Bengal and to maintain the state's pre-eminence as a front-ranking state in India, in spite of having lost much of its sheen as an imperial capital played a significant role in the decision to improve the states' water works, clean up its rivers, upgrade the port in Calcutta, and build a state-of-the-art barrage in North Bengal which it was hoped would lead to development and prosperity. Some development did take place as a result of the barrage being built, but little prosperity could actually be seen in the state. The potential for hydro-electric power generation grew after the Farakka Barrage project was completed, and the people of the state marginally benefitted from this initiative of the politicians, officials and policy makers. But the immediate result of the decision to build the barrage was the creation of tension between the Indian and Pakistani governments, from which the Bangladeshi government inherited its hostility towards Delhi regarding the question of water sharing. The need for modernization did play a role in the glavanisation of the Ganges and Teesta water dispute in the first two decades of South Asia's journey into independence and decolonization.

With the progress of the building of the Farakka Barrage two points of conflict arose between the governments of India and Pakistan. Firstly, right from the start of the mootng of this proposal, Pakistan opposed the construction of the barrage on the grounds that it would divert the Ganges and Teesta waters away from entering into East Pakistan. India insisted that the barrage was vitally needed for the benefit of the Indian people since its construction was in her national interest. The Pakistani government consistently ignored this claim and pointed out that a barrage at Farakka could damage the ecological balance and the economic livelihood of its people living in East Pakistan. Secondly, another conflict arose between the two governments over

the status of the Ganges as an international or a national river. Initially, Delhi did not want to acknowledge the international status of the Ganges. Delhi pointed out that since 92% of the river flows through India, India's claim over the majority of the water of the Ganges was greater than all other countries through which the river flows. But in July 1970, considerably amount of international and diplomatic pressure, drummed up by Pakistan at the UN, and rapidly changing geopolitical and strategic considerations in South Asia finally led India to accept that the Ganges is indeed an international river. This somewhat late realization of the status of the river with which the Hindus associate themselves closely both in terms of religion and spirituality, led the Central Government in Delhi to agree to arrive at a consensus over the sharing of the river's water with its neighbouring countries, such as Pakistan and Nepal.<sup>19</sup> But the conflict between India and Pakistan and later Bangladesh remained unaffected by this admission. The intractable process of bilateral talks between the two countries, and then Islamabad and Dhaka's refusal to acknowledge the Ganges' status as a site for religious worship contributed in no small measure to the heightening of tensions between India, Pakistan and later Bangladesh. The origins of the tension between these neighbours can be traced to the disregard shown by Pakistan and Bangladesh towards the religious and cultural sentiments of the Hindus. By insisting on the internationalization of the Ganges, Pakistan once again demonstrated their utter unwillingness to acknowledge the concerns and requirements of devotees whose lives revolve around religious festivals associated with the Ganges. That the Ganges is an international river cannot be doubted, but had Pakistan and then Bangladesh accepted the Ganges' centrality to the cultural conventions of the entire Hindu people, including a large segment of those who do identify themselves with rational and secular concerns, then the bitterness that surrounds the Ganges and Teesta water dispute may never have arisen. This water dispute owes its origins to differences in socio-cultural perceptions between two culturally different people, one committed to a Nehruvian liberal and secular interpretations of religion and culture, the other committed to Mohammad Ali Jinnah's two nation theory. Cultural nationalism centred around varying perceptions of the importance of the Ganges to the social bonds of the Hindus played a significant role in the making of the tension and dispute over the sharing of the waters of these two rivers.

While Islamabad severely criticized Delhi for following a partisan policy on the distribution of the Ganges and Teesta waters, it decided to follow the same policy of building a barrage, *i.e.* the Dalia Barrage, on the Teesta after the river's entry into East Pakistan. The reasons given by the Pakistani Government were much the same as the

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19 Ishtiaq Hossein, "Bangladesh-India Relations: The Ganges Water-Sharing Treaty and Beyond" *Asian Affairs* 25, 133 (1998).

reasons given by the Indian Government, which the Pakistani officials attacked and challenged at all levels of decision making and dialogue, especially in the UN. Islamabad has consistently maintained double standards on the issue of the distribution of the waters of the Ganges and the Teesta. The Dalia Barrage on the Teesta at the Daoni-Lalmonirhat point has and continues to exclusively serve the Bangladeshi people, irrespective of the economic, agricultural and national interests of India, which Delhi and Calcutta have equally consistently pointed out to the governments in Islamabad and Dhaka. When work for the building of the barrage had started the Pakistani Government claimed that this barrage was necessary for the development of irrigation in East Pakistan. Islamabad's refusal to acknowledge the same needs of the South Asian people on the Indian side of the Indo-Bangla border and the Indian Government's need for such an irrigation and hydro-electric power facility contributed considerably to the growth of tension and the continuance of a festering wound between the two governments which has still not healed fully. This refusal of Islamabad to admit Delhi's and Calcutta's genuine concern about the risks of Pakistan building the Dalia Barrage on the Teesta keeps the water dispute between India and Bangladesh alive in the twenty first century.

The work on the Dalia Barrage was formally started in 1960. A preliminary report was submitted by Haigh Zinn Associates in collaboration with Associated Consulting Engineering. Proper work for the completion of the barrage could not commence before 1979. So, the decision to construct the Dalia Barrage was finally taken by officials in Dhaka in the post-Mujib era, owing their allegiance to the military rulers of Bangladesh, who wanted to replicate the Farakka Barrage on the Teesta inside Bangladesh. Replication of an Indian model for dam building guided the collective decision making process of a nascent country that was almost from the start besieged by coups and a complete repudiation of all norms of democracy in an age when democratic governance was cited as the only viable mode of governance by the United States and America and the UN. Responsibility for the continuance of the dispute over the Dalia Barrage can be attributed to the Bangladeshi officials and army officers whose handling of this issue amply demonstrates its reluctance to view the Ganges and Teesta water dispute in its entirety. To decision makers in Dhaka issues governing the building of the Dalia Barrage in Bangladesh and the Farakka Barrage in India seem to be different from each other even though the claims and needs stated by both the governments are more or less the same. Double standards guided the decisions of policy makers and implementers in Dhaka with regard to the building of a dam on their side of the Teesta and opposition to the building of a dam on the Indian side of the same river. The government in Bangladesh dragged their feet on the completion of the entire canal system of the barrage which took more than ten years to be finally built. Initial work on the canals started as late as in 1984-85, while it was finally

completed in 1990, the barrage becoming fully operational in 1993. Right from the start Dhaka demonstrated a willingness to spend handsomely for building a most advanced and not so cost-effective gravity irrigation barrage.<sup>20</sup> To officials in Dhaka a very costly gravity irrigation project for the benefit of the Bangladeshi people was and still is both ethical and welcome, but the same principle when applied for the benefit of the Indian people is unacceptable. The roots of the Ganges and Teesta water dispute lie in the double speak of and prismatic notions of ethical standards exercised by officials in Dhaka.

The construction of the Dalia Barrage, which is accompanied with a highly developed irrigation system, demonstrates Dhaka's willingness to make modernity and development in a predominantly agrarian economy two important issues of governance. Yet, this modernity and development is aimed at the partisan interests of the Bangladeshi people only, ignoring similar and legitimate claims of those who live on the Indian side of the Teesta. Such a partisan approach contributes to keeping alive the wounds that still divide the two countries since the time of the second partition of Bengal. Such an inconsistent stand helps in continuing this water dispute which has now entered its sixth decade of existence. India did not build the Farakka Barrage overnight. It allowed the Pakistani and Bangladeshi governments' adequate time to consider the risks that such a construction could pose to the ecology of eastern South Asia before the building of the barrage could commence full-stream. The barrage was built in several phases over a long period of time, starting in the late 1950s and ending in the late 1970s.<sup>21</sup> Other barrages have also been built on the Indian side of the Teesta, such as the Galzoldoba Barrage in Jalpaiguri district of West Bengal, which was completed in the mid-1980s, which have been contested by the Bangladeshi officials as well. India's stand on the utility of these two barrages has to be perceived to be consistent. It does not ignore any ecological risks posed to the inhabitants of the region.

### **III Development and progress of bilateral talks leading to the Ganges and Teesta water dispute**

In 1971, after India's victory over Pakistan in the 3<sup>rd</sup> India-Pakistan war, and after the carving out of Bangladesh as a new nation, Indian signed the Treaty of Friendship, Cooperation and Peace in 1972. This treaty was aimed at the promotion of goodwill

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20 M. Fakrul Islam and Yoshiro Higano, "Equitable Sharing of International Waters: A Proposal for Optimal Utilisation of the Teesta River", *available at*: <http://www.bdiusa.org/Journal> (last visited on Oct. 15, 2014).

21 *Supra* note 12 at 6-7.

between India and Bangladesh.<sup>22</sup> The early 1970s witnessed the start of a long process of bilateral talks between a fledgling nation and its closest ally at that time, India, which helped it to gain independence from Pakistan, which politicians, civilians and academicians in Bangladesh called oppressive, exploitative and undemocratic. The new talks process between India and Bangladesh was to be located within the parameters set by the United Nations, but were meant to honour the national interests of both the nations, and commitments that political parties of both the countries had made to their electorates. Under article VI of the Friendship, Cooperation and Peace treaty, India and Bangladesh agreed “to make joint studies and take joint action in the field of flood control, river basin development and development of hydroelectric power and irrigation”.<sup>23</sup> Right from the start both the governments committed themselves to the cause of the development of irrigation and hydroelectricity in eastern India and Bangladesh, a commitment which was, as we shall see shortly, not always honoured by all those who by virtue of being in government were the signatories of the treaty.

Progress of the talks was followed with a slew of other agreements between the Indian and Bangladeshi governments and the establishment of several committees and commissions for the better management of the Ganges and Teesta waters. In 1972 an Indo-Bangladesh Joint Rivers Commission was set up to conduct a comprehensive study of river systems and monitoring of all successive agreements between the two countries.<sup>24</sup> In spite of these successive treaties and agreements, all of which were written with the active encouragement of the UN, India’s and Bangladesh’s respective stands on the sharing of the Ganges and Teesta water began to rapidly decline, both parties refusing to see each other’s points of view on the equitable sharing of the waters of these two rivers. Rumblings of discontent began to be heard from both the sides on the exact nature of water sharing in the region. Dhaka began to air grievances against India for the Big Brother treatment that it was being given by Delhi. Throughout the talks, officials in Bangladesh consistently ignored the Indian officials’ claim that the Ganges and Teesta waters were needed not only for the use of water scarce regions of West Bengal but also for the even more water scarce regions in other Indian states. Initially, irrigation was not considered to be the

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22 Emma Condon, Patrick Hillman, Justin King, Katherine Lang and Alison Patz, “Resource Disputes in South Asia: Water Scarcity and the Potential for Interstate Conflict”, prepared for the Office of South Asian Analysis, US Central Intelligence Agency, Workshop in International Public Affairs, Robert M. La Follete School of Public Affairs, University of Wisconsin-Madison, Madison 9(2009).

23 Iram Khalid, “Bangladesh Water Concern” *South Asian Studies* 25,80(2010).

24 *Supra* note 19 at 134; Rakesh Tiwary, “Conflicts Over Interenational Waters” 41 *Economic and Political Weekly* at 1688.

most important factor for building the barrage and the dam on the Teesta and thus signing these treaties. But over the decades, especially by the time Bangladesh gained independence, both the governments realized that irrigation was indeed one of the crucial necessities of the regions through which the Ganges and Teesta flow. The realization that the respective governments of India and Bangladesh could not ignore their respective irrigational needs which were no less important than the flushing out of sedimentation from the Hooghly had indeed set in to the collective official understanding by the time Bangladesh became an independent country.

In 1975, hoping to arrive at a lasting agreement on equitably sharing of the Ganges and Teesta waters, the governments of India and Bangladesh signed another treaty, a temporary allocation agreement which, however, lasted for only 41 days. Both the governments could not and did not want to renew this agreement after it expired.<sup>25</sup> Clearly, the will to arrive at a lasting solution over the equitable sharing of the Ganges and the Teesta water was missing in the official talks leading to the signing of the relatively abortive agreements between the governments of India and Bangladesh. The inability of the official mind of the newly decolonized South Asian republics to work towards a successful set of agreements was responsible for the outbreak and then the continuance of the Ganges and Teesta water dispute. Whether this failure can be attributed to the immaturity of two newly established nationalist bureaucracies in South Asia is still debatable, committed as they were and still are to prismatic views of official involvement in modernization and development, but clearly the initial years of decolonization in South Asia did witness the inability of two well educated, polished and well heeled bureaucracies to arrive at a reasonable agreement over the water rights of an upper riparian and a lower riparian river basin. New concepts of democratization and importance of excessive multilateralism of international bodies and the involvement of western powers in the official talks which tied in well with the politics of polarization during the hey days of the Cold War contributed to the sharpening of the prismatic lenses through which the water establishments of both India and Bangladesh viewed the progress of the Ganges and Teesta water dispute.

Aggrieved by the high-handedness of the Indian officials, the Central Government in Bangladesh raised the Ganges and Teesta water dispute at the 31<sup>st</sup> session of the UN General Assembly in 1976. Bangladesh's representatives at the UN claimed that the Indian Government, by building and controlling the flow of water from the Farakka Barrage, was not allowing enough water to flow into Bangladesh for the use of its people living in water scarce regions. The Bangladeshi diplomats suggested that the

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25 Ariel Dinar, Shlomi Dinar and Stephen McCaffrey, *Bridges Over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation, Case Study 2: The Ganges Basin :with focus on India and Bangladesh* 248( 2007).



Indian Government's intractable position on the sharing of the waters of these rivers clearly violated the rules and principles governing the equitable sharing of a river's waters, especially that of the Ganges, which is an international river.<sup>26</sup> The UN agreed to give India and Bangladesh sufficient time to resolve this matter amicably over a reasonable period of time.<sup>27</sup> But the confidence shown by the UN in the intentions of both the Indian and the Bangladeshi governments has not yet been fully justified, both the government's until now failing to come to an agreement over sharing the waters of both the Ganges and the Teesta. Intervention of the UN, the role of a third party in the talks, multilateralism in the dialogue over sharing the Ganges' and the Teesta's waters notwithstanding, official and non-official policy makers of both India and Bangladesh have as of now not been able to sort out their differences over the sharing of the waters of these two rivers equitably. Multilateralism has indeed made an attempt to resolve the dispute, but the outbreak and the continuance of the Ganges and Teesta water dispute can be placed at the doorsteps of bilateral disagreements, not the least due to conflicting national interests of two countries with similar socio-cultural and political compulsions. The festering Ganges and Teesta water dispute can be attributed to the failure of policy initiative and dialogue of two civil services that have still not been able to rise above the mundane concerns of their own personal power equations, overlooking the greater interests of a unified community of South Asian people with similar socio-economic imperatives. That the South Asian bureaucracy, divided as it is into national bureaucracies of multiple countries, remains deeply colonial in its outlook, still incapable of conceiving a fresh approach to the problem of a water dispute that has its roots in the era of decolonization is evident from both the Indian and Bangladeshi government's near total refusal to think completely afresh on the issue of how to share the waters of these two rivers. The bilateral dialogue remains firmly mired in the discourse of the colonization of South Asia, and in the need for de-silting the Hooghly, a concern raised initially by colonial officials at a time when the Calcutta port was one of the most important ports of the British Empire. Neither does the Calcutta port enjoy the same status now, nor are recommendations made more than half a century ago still that relevant.

Another agreement was signed between India and Bangladesh two years later in 1977. This time the agreement was signed for the next five years. Officials of both the governments hoped that the period of the agreement would be sufficient for them to find a reasonable solution to the growing conflict of interest between India and Bangladesh. The 1977 agreement, backed by the UN as well as a strong body of international opinion favouring the political, ecological and commercial interests of a

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26 Rakesh Tiwary, "Conflicts over International Waters" 41*Economic and Political Weekly* at 1680.

27 *Supra* note 19 at 136.

new and small nation such as Bangladesh against a much bigger and more democratically evolved neighbour, such as India, was clearly more lenient towards Bangladesh. Clearly, the 1977 agreement witnessed the emergence of an articulate body of international opinion that perceived India to be the local and regional hegemon of South Asia, and sought to act as a regulatory watchdog keeping an eye on the activities of an aspiring Big Brother *vis-à-vis* its newer neighbour. The Ganges and Teesta water dispute in the initial years of the formation of the new state of Bangladesh can be attributed to the prismatic view of India's role in the development of South Asia that was held by the majority of the members of the UN Security Council and the General Body who considered themselves to be close to the erstwhile colonial powers representing the capitalist bloc. In an age of decolonization, India, a leader of the third world and still the most powerful country in the non-aligned movement, could not, in the eyes of her former colonizers and their supporters in the comity of nations actually play a constructive role in the resolving of a water dispute in which the lower riparian basin was inhabited by a people and a government that was the younger and perceptibly less evolved democracy. It mattered little to the harshest critics of India's handling of the Ganges and Teesta water dispute that India definitely needed the waters of these two rivers to not only clean the increasing sedimentation of one of its inland rivers, the Hooghly, but also needed the water to irrigate its relatively dry agricultural fields. Article 8 of the agreement encouraged India and Bangladesh to come to a long term solution for the sharing of the waters of the Ganges and the Teesta especially in the dry seasons when large tracts in Bangladesh and West Bengal become extremely water scarce. Bangladesh was guaranteed as much as 80 per cent of the share of the water in the lean periods. This was further supported in article 12 of the agreement which stated that Bangladesh's share of the water could not be reduced under any circumstances while the treaty was in effect.<sup>28</sup> Clearly, these two articles were aimed at increasing Bangladesh's right over the waters of the Ganges and the Teesta, to which India had an equally strong claim, considering the greater number of people who were to benefit from the use of the two rivers' waters on the Indian side. So, the UN played a significant role not only in the management of the Ganges' and Teesta's waters, it also sought to play a meaningful role in initiating and continuing negotiations between the respective governments of India and Bangladesh, both advertently and inadvertently contributing to growing tensions between the two countries over the question of the equitable sharing of the two rivers' waters.

This stated position of the UN was diluted five years later when a new agreement

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28 Salman M.A. Salman and Kishore Uprety, "Hydro-Politics in South Asia: A Comparative Analysis of the Mahakali and Ganges Treaties" *Nat Resources J* 39 308(1999); *supra* note 19 at 25, 137.

was signed between India and Bangladesh. In 1982, India and Bangladesh signed a memorandum of understanding (MoU), which was not lenient towards the Central Government in Bangladesh, excluding the clause guaranteeing a minimum of 80 per cent of the Ganges' and Teesta's waters to that country. Clearly, officials in the UN were beginning to realize rather late in the day that there was a need for drawing up a balanced treaty which would ensure equal share of the waters of these two rivers to the governments of India and Bangladesh. In 1985 a second MoU was signed between these two countries which remained valid for the next three years.<sup>29</sup> In this agreement the rights of these two governments were acknowledged in equal measure, although the prevailing view in Dhaka and the countries defending its lower riparian rights was still heavily stacked against India's rightful claim to an equitable share of the waters of the Ganges and Teesta. Through the 1980s the Ganges and Teesta water dispute gained momentum due to the refusal of the UN and the Bangladesh government to acknowledge the rights of an upper riparian state, *i.e.* India, to its share of the waters of two major rivers that flow mostly through Indian territory. Political turmoil due to frequent regime changes in Dhaka and the inability of policy makers there to establish democracy on a firm footing in a new nation prevented the emergence of a coherent policy on the Ganges and Teesta water dispute.

The next treaty between India and Bangladesh, which has a lifespan of 30 years, and has still not expired, was signed in 1996. It is mainly concerned with the allocation of the waters of the Ganges and the Teesta, which is stated under article II and annexures I and II of the treaty. The method of deciding the allocation of the Ganges and Teesta waters between India and Bangladesh is explicitly mentioned in the provisions of this treaty. The provisions of the treaty state that if the share of water falls below 50, 000 cusecs in any 10 day period then the respective governments of India and Bangladesh will have to "enter into immediate considerations to make adjustments on an emergency basis, in accordance with principles of equity, fair play and no harm to either party".<sup>30</sup> By the middle of the 1990s the two national governments were becoming increasingly more aware of the ground-realities of the Ganges and Teesta water dispute and were now prepared to accommodate each other's needs keeping an eye on the exigencies of water sharing and the imperatives of national interest. The water dispute had certainly not been resolved by this time, but both India and Bangladesh were slowly progressing towards an understanding of each other

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29 Mohammad Mizanur Rahaman, *The Ganges Water Conflict: A Comparative Analysis of 1997 Agreement and 1996 Treaty* at 202.

30 *Supra* note 28 at 327-329; Ramaswamy R. Iyer, "Conflict-Resolution: Three River Treaties" 34 *Economic and Political Weekly* at 1515; Abu Raihan M. Khalid, "The Interlinking of Rivers Project in India and International Water Law: An Overview" 3*Chinese J Int'l L* 559(2004).

needs for water. The continuance of this water crisis could neither be placed at the doorsteps of either party, nor was the UN any longer directly involved in resolving this dispute. The provisions of the treaty have still not been fully implemented, with India not agreeing to fully cooperate with Bangladesh on the validity of all the provisions of this treaty as late as in the period between February-April, 1997.<sup>31</sup> But respective national interests, fuelled by geo-political, strategic and commercial concerns of both the countries have played a significant role in the simmering of discontent between the governments of India and Bangladesh over what each government termed as inequitable distribution of the waters of the Ganges and Teesta for the twin purposes of the development of hydro-electric power potentials and the irrigation of large tracts of land in both the countries. Also, the unwillingness of South Asian policy makers, who drew up the treaty, to establish a firm dispute resolution mechanism for resolving this dispute, in spite of the insertion of articles 4 and 7, which provide for the constitution of a joint committee, constituting nominated members from India and Bangladesh in equal numbers, and detail out the dispute resolution mechanism, as well as recommend the formation of a Indo-Bangladesh Joint Rivers Commission for resolving the dispute, contributed in no small measure to the continuance of the dispute between India and Bangladesh over the sharing of the waters of Ganges and Teesta.

The Ganges and Teesta water dispute continues well into the present century. The governments of the two countries have indeed shown the willingness to resolve the crisis. Entry 17 of list II of schedule 7 of the Indian Constitution states that if a state government feels that a treaty can potentially damage the prospects of development in the state or cause any harm to its people, then the state government reserves the right to take any necessary step to block the implementation of the provisions of that treaty. A new agreement was signed between Manmohan Singh and Sheikh Hasina Wajed to resolve the protracted crisis over the sharing of the Ganges and Teesta waters in the second term of the former Prime Minister of India. The present state government in Calcutta, invoking the relevant provision of the Indian Constitution, has called off the latest agreement at the eleventh hour in September 2011. Officials in Calcutta have suggested that the crisis over Teesta's water has larger ramifications on the sharing of the waters of several other rivers of Bengal, such as Feni, Manu, Dharla, Gumti and Khowai.<sup>32</sup> Without resolving the large dispute and

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31 *Supra* note 28 at 327-329; Ramaswamy R. Iyer, *id.* at 1515.

32 Praveen Swami and Haroon Habib, "Mamata's objection threatens to unravel PM's visit" *The Hindu* Sep. 2011; Imtiaz Ahmed, "Teesta, Tipaimukh and River Linking: Danger to Bangladesh-India Relations" *Economic and Political Weekly* 47,52 (2012).

paying adequate attention to the needs of local and indigenous communities residing in Bengal, the state government in Calcutta cannot allow an agreement to be conclusively signed between India and Bangladesh. So the Ganges and Teesta water dispute continues into the second decade of the twenty first century, with little sign of abetting. But what is increasingly becoming evident is that in a water dispute over the sharing of the waters of one or more rivers the rights of both the upper and lower riparian basins have to be heeded. A water dispute cannot be resolved without ensuring adequate allocation of water to all the regions through which the river flows, including the upper riparian basin and the lower riparian basin. Also, what clearly emerges from this conflict is that a crisis of the magnitude of the Ganges and Teesta water dispute largely depends on the whims and fancies of the government that comes to power not only at the centre, but also in Calcutta. In a recent statement, the newly inducted External Affairs Minister, Sushma Swaraj, has admitted that the Ganges and Teesta water dispute will remain a long protracted dispute, which can be resolved over a long period of time and with the intervention of several key players in the crisis keeping in mind the various demands of all the different parties and communities that stand to benefit from the eventual resolving of this crisis.<sup>33</sup>

#### IV Crisis over the building of the Tipaimukh Dam on the Barak River

The origin of the Ganges and Teesta water dispute can also be traced to Dhaka's responses to Delhi's decision to build the Tipaimukh Dam on the Barak and India's Interlinking of Rivers Project (ILR), which was and still is a bone of contention between India and Bangladesh.<sup>34</sup> India wants to build a dam, called the Tipaimukh Dam, on the Barak for generating hydroelectric power, which Bangladesh is blocking, on the grounds that the construction of this dam would divert water away from Bangladesh and would cause severe environmental and socio-economic hazards for the people of that country. The construction of the Tipaimukh Dam is cited by officials in Dhaka as a potential source of a major environmental and ecological disaster for Bangladesh. Dhaka believes that officials in Calcutta and Delhi are impervious to the ecological concerns of the Bangladeshi people, a grievance that has contributed considerably to the continuance of the tension that surrounds the Ganges and Teesta water crisis.<sup>35</sup>

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33 Salahuddin Mahmud Meem, "Trying for Consensus on Teesta: Sushma Swaraj" *Hindustan Times*, Dhaka, 26 June 2014.

34 Pritika Rai Advani, "Dividing Shared Waters: Exploring the Legal Dimensions of the Indo-Bangladesh Water Conflict" in P. Ishwara Bhat, *Interstate and International Water Disputes: Emerging Laws and Policies* 151 (Lucknow, 2013).

35 Pia Malhotra, "Water Issues between Nepal, India & Bangladesh: A Review of Literature", (Institute of Peace and Conflict Studies Special Report, 95, July, 2010).

The intractability of the talks between the respective governments and the Bangladeshi officials' view of Delhi acting as a regional superpower in South Asia does not help to reduce this tension that continues to plague the relationship between two of South Asia's most committed democracies.

The Bangladesh Government has argued since the early 1970s that the building of the Galzaldoba Barrage, which was conceived along with the building of the Tipaimukh Dam, would severely damage not only its ecology and affect its flora and fauna, but will also reduce the availability of water in that country in the dry seasons. The release of water by the Indian authorities later in the monsoon season could then lead to devastating floods and bank erosion along the Teesta downstream in Bangladesh, which being the lower riparian basin of the Teesta is affected by the lack of availability of water during the monsoon season.<sup>36</sup> From the very beginning of the bilateral talks, Dhaka has maintained double standards on the question of the construction of dams. While it has not always honoured the treaties signed between India and Bangladesh for the constructions of dams on the Indian side, consistently opposing the building of barrages in India and the initiation of the river linking project, both of which are meant to benefit the Indian people, it has gone ahead with its own policy of building a barrage, the Dalia Barrage, on its side of the Teesta which is meant to benefit the interests of only the Bangladeshi people. Such a partisan approach to the construction of dams and barrages on the Teesta clearly contributes significantly to the continuance of the Ganges and Teesta water dispute, which can be seen as a result of Dhaka's diplomatic offensive against India at all levels of bilateral and multilateral dialogue.

Historically, the Teesta or Trisrota was an integral part of the Ganges river system. Until the seventeenth century, it flowed south from Jalpaiguri in North Bengal in three different streams, Karatoya, Purnabhaba and Atrai. A massive flood in 1787 changed its course. The river now started travelling southeast before joining the Brahmaputra.<sup>37</sup> Clearly, the Teesta was a north Indian river in the medieval period of South Asia's history, serving the people who inhabited the region which now falls under the jurisdiction of the Indian Government. Even after the second partition of Bengal in 1947, the river continues to serve the people of both India and Bangladesh considerably, although the Indian peoples' dependence on the water of the Teesta is clearly greater than the Bangladeshi people. Much of the river still flows through North Bengal serving a large segment of the Bengali population living in that region. Nearly 95% of Sikkim is still drained by the Teesta.<sup>38</sup> It covers as much as 3,225 kms

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36 "Steep Decline in Teesta Water Flow" *The Daily Star* 3 Feb., 2012.

37 *Political Economy Analysis of the Teesta River Basin* 13(Asia Foundation, 2013).

38 *Carrying Capacity Study of Teesta Basin in Sikkim: Executive Summary and Recommendations* 9(Centre for Inter-disciplinary Studies of Mountain and Hill Development, University of Delhi, Delhi, 2006).

of land in West Bengal, flowing through Darjeeling and Jalpaiguri districts before entering Bangladesh in Dimla Upazila in Nilpahari district. According to one estimate more than 21 million people of India and Bangladesh taken together benefit from the use of the river's water. The Indian Government never denied its centrality to the Bangladeshi economy since its flood plains cover nearly 14% of the total cropped area of Bangladesh and provides livelihood opportunities directly to 9.15 million people or 7.3% of the population of that country.<sup>39</sup> But that does not diminish North Bengal's claim on the use of the water of this river. The importance of Teesta to the livelihood of the people of the entire eastern region of South Asia is immense, a stated position of Delhi that Dhaka has until now not been able to fully grasp. This lack of comprehension demonstrated by officials in Dhaka has clearly hampered the progress of the talks meant to resolve this water crisis.

The Indian Government has mooted a proposal for building a hydroelectric project, the Teesta Barrage Project (TBP), with plans of developing 67.50 megawatts of hydropower,<sup>40</sup> which is going to be one of the largest projects in the whole of eastern India. It includes the Teesta Barrage at Galzaldoba and two other barrages on the Mahananda and Dauk rivers and has a planned target of irrigating as much as 9,22,000 hectares of land in six districts of North Bengal. The Indian Government has rightly pointed out that the Teesta's water, which flows at high velocity through narrow valleys throughout Sikkim and North Bengal, falling rapidly from a high altitude,<sup>41</sup> is meant to be used for "irrigation, hydropower generation, navigation, and flood control".<sup>42</sup> But this explanation has still not been fully accepted by the Bangladeshi Government which questions the very basis of the argument for the initiation of this project, which the officials in Dhaka have cited as being highly detrimental to the interests of the citizens of Bangladesh living in the regions through which the river flows. Also, the pace of progress of this project has been extremely slow. It was started way back in 1976, but has remained stalled for over three decades. As late as in 2009 the Central Government in Delhi agreed to generously fund the project so that the state government in Calcutta can complete it by 2015. But the acquisition of land for building the project remains a major hurdle even now, which has become an important factor in the delay in the commencement of the work for the building of barrages and dams envisaged in the project.<sup>43</sup>

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39 *Statistical Yearbook of Bangladesh* (Bangladesh Bureau Statistics, 2011).

40 "Irrigation Sector: Teesta Barrage Project" in *Irrigation and Waterways Department, Government of West Bengal, available at*: [http://wbiwd.gov.in/irrigation\\_sector/major/teesta.htm](http://wbiwd.gov.in/irrigation_sector/major/teesta.htm). (last visited on Oct. 14, 2014).

41 *Supra* note 38 at 42.

42 *Supra* note 40.

43 "Barrage Locked in Land Dilemma" *Tebelka* 9 Sep. 2011.



Contemporary political considerations, guided by commercial and industrial concerns of big business lobbies in both India and Bangladesh, whose interventions make land acquisition extremely difficult, continue to contribute to this delay. These considerations closely govern the continuance of the Ganges and Teesta water dispute, especially the crisis surrounding the building of the Tipaimukh Dam. The question of land acquisition spells trouble for state government officials in West Bengal, who have to walk a tightrope between different interest groups in favour of and against the acquisition of often very fertile tracts of land. The interests and exorbitant demands for land made by industrial houses make the question of land acquisition that much more intractable and slows down the process of land acquisition which plays a role in the creation of a state of political turmoil in West Bengal. This in turn stalls all talks meant to facilitate the resolving of the crisis over the sharing of the waters of the Ganges and the Teesta. The last one decade in Bengal has seen close links between the politics of land acquisition for furtherance of commercial interests in the state and the politics of water, which has a longer and still more intractable history than land acquisition. The origins of the dispute over building the Tipaimukh Dam on the Barak can be traced to the failure of the West Bengal government to acquire enough land for its construction, which can be traced to commercial compulsions of both state and non-state actors as much to political considerations of the state government.

The bilateral talks between India and Bangladesh on the building of the Tipaimukh Dam and the interlinking of rivers' program of the Indian Government have been mostly technical in nature with little emphasis laid on ecological and humanitarian problems faced by the governments of both the countries. Social issues have not featured adequately in these discussions. In the last ten years numerous joint committees, commissions and technical groups have carried on lengthy discussions on the nature of the problem, but have failed to resolve the issue mainly because Delhi and Dhaka have not been able to rise above their own narrow political and commercial concerns which they have conveniently dubbed as their respective national interests. These talks have indeed been intractable, leaving little space for non-state actors to make any meaningful contributions to their progress. In May 2012, the then External Affairs Minister of India, S.M. Krishna announced that the Government of India was working "to develop a political consensus in India" on the issue of sharing Teesta's water and was in the process of holding extensive consultative talks with state government representatives in Calcutta to resolve the issue at the earliest.<sup>44</sup> In March, 2013, President Pranab Mukherjee said that the Indian Government was looking to arrive at "a fair, reasonable solution" of the Teesta water dispute, which has been

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44 Dipanjan Roy Chowdhury, "Trying to Build Political Consensus on Teesta Deal: Krishna to Bangladesh Foreign Minister" *India Today* May 5, 2012.

going on for just too long". He too stated that the state government in Calcutta is integrally involved in this bilateral discussion and the consent of officials and ministers in Calcutta is absolutely necessary for finding a lasting solution.<sup>45</sup> This clearly shows that both the central and state governments in India are increasingly becoming aware of the need to immediately address the Ganges and Teesta water dispute through the furthering of mutually acceptable bilateral talks. Indian officials and politicians are fully aware of the need for finding a solution to the problem without hurting India's and Bangladesh's national interests as well the ecological balance of the entire eastern region of South Asia. The origins of the Ganges and Teesta water dispute then can be traced to the inability of two national governments to amicably settle talks arising from the endless discussions held in a plethora of committees and commissions set up for finding a solution to the problem. Presidential interventions and ministerial level admissions notwithstanding, a crisis continues to besiege South Asian policy-makers well into the seventh decade of the water dispute. The failure of elected and nominated representatives of both India and Bangladesh to develop a clear political consensus based on viable policy initiatives on this water dispute has played an important role in its making and continuation.

The harnessing of the waters of the Ganges and Teesta as well as other major rivers in eastern India, such as the Brahmaputra, is needed not only for the benefit of the people of the West Bengal, but also for the people of other states in India. Delhi rightly does not view these rivers as international or eastern Indian rivers. In the Indian Government's perception, these rivers are not for the exclusive use of the international community, especially India's South Asian neighbours, which lay excessive claims on the use of the waters of these rivers. In official circles in Delhi, especially in the central water bureaucracy, these rivers are viewed as national rivers which are meant to benefit Indian citizens, living in different parts of the country to which the water of these eastern rivers can be reached through an extensive network of canals. The river linking project has been initiated in addition to the Farakka Barrage and Tipaimukh Dam projects for precisely this purpose, *i.e.* to allow states with water scarce regions to irrigate agricultural fields in their respective states. Most of these states are in south India. The river linking program is aimed at linking Himalayan rivers with peninsular rivers, especially the Ganges with the Brahmaputra. The river linking project also aims at allowing the Indian Government to use the water of the Teesta for irrigational purposes in far flung south Indian states by diverting the river's water through 30 inter-basin canals and dams to drought prone areas in southern India. The eventual aim of the Central Government in Delhi is to be able to irrigate

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45 "Pranab Assures Bangladesh of Early Conclusion of Teesta Deal" *The Deccan Herald* Mar. 3, 2013.

30 million hectares of land and generate 20,000 to 25,000 megawatts of power in the whole of India.<sup>46</sup> This project is one more constructive attempt of the Indian Government to provide water to communities still living without adequate water by modernizing its powerful central water bureaucracy, and by linking not only the east Indian rivers, but also by integrating agricultural, irrigational and interrelated commercial interests of the different Indian states so that the country can move into the twenty first century as a nation which has a strong apparatus for the management of its water resources. In this endeavour the Central Government has the active support of the Supreme Court of India which has ordered the setting up of a special committee for expediting this project as soon as possible. The Supreme Court believes the completion of this project and strengthening of the country's water bureaucracy is indeed in India's national interest,<sup>47</sup> although this proposal has as usual met with stiff opposition within the official circles of Dhaka.

The Bangladeshi officials believe that the completion of the river linking project will lead to increased threat to the lives of the Bangladeshi people due to the real and present danger of extensive flooding as well as the lack of water supply in the dry seasons. Officials in Dhaka also feel that this measure of the Indian Government will endanger the state of food security of Bangladesh which is clearly not in Bangladesh's national interest. The conflict over the distribution of the river linking project continues into the early decades of the twenty first century. The dragging on of this conflict can be attributed to Dhaka's unwillingness to accept India's rights over rivers that have originated in India and clearly benefit a large segment of its population. The UN's role in encouraging this conflict to continue seems to be no less. Just as in the 1970s, in the last one decade, the UN has consistently used its laws and conventions, such as the United Nations Convention on the Law of International Watercourses, 1997, and Helsinki Rules on the Use of Waters of International Rivers, 1996 to either prevent or stall the progress of the river linking project, thus supporting the Bangladeshi government's claims, which does not always acknowledge the Indian government's legitimate demand for the equitable sharing of the waters of the Ganges and Teesta for its national use.<sup>48</sup>

## V Conclusion

The origin of the Ganges and Teesta water dispute can be attributed to the role of policy failure in water management in South Asian countries. The absence of a set

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46 *Economic Impact of Interlinking of Rivers Program* (National Council for Applied Economic Research, New Delhi, 2008), available at: <http://nwda.gov.in/writereaddata/mainlinkfile/File277.pdf> (last visited on Oct. 14, 2014).

47 SCC, 2012, 4, para. 51, 52.

48 *Supra* note 22 at 11.

of coherent and cogent policies in the management of water resources in the subcontinent can be seen as a direct consequence of initially two and then three newly emerging nationalist bureaucracies' inability to be able to devise a new water policy for the subcontinent independent of the exigencies of the earlier colonial water establishment. In the absence of such a strong body of officials specially appointed for the management of water resources in the subcontinent, nationalist officials, on both sides of the partition line dividing India and East Pakistan, could not fully comprehend the factors governing the causes and consequences of the conflict that arose between the two countries over the sharing of the waters of the Ganges and the Teesta immediately after the partition of the subcontinent. The ineptitude, inefficiency and inexperience of two post-colonial bureaucracies contributed considerably to the widening of the rift between the two successor states of the British Empire in South Asia over the exact nature of the water sharing. The lack of transparency, delay in bureaucratic procedures needed for resolving the water crisis, and intractability of bilateral as well as multilateral talks contributed no less to first the outbreak and then spiraling of tension between India, Pakistan and Bangladesh. This failure of the nationalist bureaucracies of South Asia to be able to devise a proper policy on water sharing was witnessed at a time when the subcontinent and its people were experiencing the first rush of decolonization. Management of water resources as an element in an already complex politics of water became a serious concern of the majority of emerging policy makers of the subcontinent from the fifties onwards, committed as they were to the twin causes of anti-imperialism and decolonisation. New thinking on management techniques had still not emerged in both India and Pakistan, one consequence of which was the official failure to fully comprehend the exigencies of modernization and development.

The Ganges and Teesta water dispute can be attributed to a difference of perceptions in official circles regarding the entitlement of India and Bangladesh to the use of the Ganges' and Teesta's waters. The prevailing international opinion which supports the claims of the Bangladeshi officials is that the use of the water of these two rivers should not necessarily be restricted for building of hydroelectric power plants since such a development will hurt the environmental interests and livelihood of the majority of the Bangladeshi people. Such a perception does not pay any heed to the Indian government's legitimate insistence on the need for the use of the Ganges' and Teesta's waters for hydroelectric power generation without damaging the ecological balance of the lower riparian basins of these two rivers in Bangladesh. Conflict of perceptions, created by several years of mutual mistrust between the two nations, has contributed to the continuance of the Ganges and Teesta water conflict. This conflict of perception lies as much in political and economic considerations of the Indian and Bangladeshi states, as in cultural differences and animosities between the people of India, Pakistan and Bangladesh in the years of decolonization. The failure of India

and Bangladesh to unite after the disappearance of the British from the South Asian subcontinent played a major role in the escalation of this water crisis.

Cultural differences, which can be traced back to the creation of Pakistan in the late 1940s and its founder, Mohammad Ali Jinnah's, insistence on the validity of the two nation theory contributed in no small measure to the widening of the gap between India and Pakistan which contributed to the sharpening of the politics of water in the late twentieth and early twenty first centuries. These cultural disjunctions between the two successor states of the British Empire gained in prominence especially in the age of decolonization and with the advent of the Cold War years, when a transboundary water dispute was sought to be misused to drive a further wedge between two erstwhile contiguous zones. The politics of water became a tool in the hands of the advocates of cultural nationalism, on both sides of the partition line, who rediscovered real and imaginary fault-lines between two neighbours. The politics of partition acted as a background to the growth of this divisive tendency and a context within which the politics of water could then be located to gain the maximum mileage for the widening of a rift between two culturally hostile denominational communities. The politics of water and water disputes owed their roots in South Asia in the cultural exigencies of the new state system of a decolonized sub-continental entity.

The origin of the Ganges and Teesta water dispute can also be attributed to emerging policies on the management of the Ganges river basin for commercial purposes. Commercial concerns related to Ganges and Teesta water sharing issues closely informed colonial policy makers, leading them to refer the matter to the BNCCI. In the pre-independence era colonial officials did not have to be concerned with the equitable distribution of these two rivers' waters, since Bengal was still united. But talks related to both the development of the Calcutta port and de-silting of the Hooghly close to Calcutta, and the development of irrigational and hydro-electric projects on the Ganges and the Teesta close to Farakka had started not only for administrative reasons, but also for clear commercial gains realised by colonial big business elites and administrators. The British sensed commercial opportunities and the development of a pre-dominantly agrarian economy in the development of the Farakka barrage. The same commercial concerns informed the nationalist civil servants of the post-independence era who sensed in the building of the Farakka Barrage and other interrelated projects a chance to gainfully inherit a rich colonial legacy of using the waters of the Ganges and Teesta for hydro-electric development, which implied direct commercial ramifications for the Indian public sector. The Pakistan Government and later the Government in Bangladesh showed no less an eagerness to use the Dalia Barrage to develop their hydro-electric potential which too had strong commercial implications. Commercial concerns have indeed informed policy making which has affected the sharing of the waters of most of the major rivers of South Asia.

A fresh approach to this problem is needed in both Delhi and Dhaka for the respective governments to come to a lasting understanding over the sharing of these two rivers' waters. No quick solution is possible. This water dispute has to be located within the historical context of the long standing demands made by both the national governments. The element of cultural nationalism affecting the dispute notwithstanding, talks for resolving this crisis must be placed within a secular discourse on the historic role that the governments of India and Bangladesh have to play in settling the crisis which has been going on for just too long. Perhaps it is still too early to decide on the nature of the final denouement of the dispute, but it is by now clear that any mutual understanding between the two governments must take into account the ecological, commercial and strategic interests of the two governments, without hurting the local and regional interests of the indigenous communities of both the countries that are bound to be affected by any agreement on the nature of water sharing. The interests of a united subcontinent, which can be an oasis of peace in future, lie at the centre of this crisis, which makes it all more necessary for the respective bureaucracies of India and Bangladesh to set aside their own narrow parochial interests in the greater good of an united South Asian community committed to the cause of a secular, democratic, republican state system.