THE FARAKKA BARRAGE DISPUTE: CONFLICT AND COOPERATION IN BANGLADESH-INDIA RELATIONS

by

KAZI ASADUL MAMUN

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Department of Political Science

The University of British Columbia
2075 Wesbrook Place
Vancouver, Canada
V6T 1W5

Date: August 15, 1984
Abstract

The origins of the Farakka Barrage dispute go back as far as 1951 when Pakistan protested against the Government of India's plans to construct a massive barrage across the Ganges River only eleven miles from the East Pakistan border. Pakistan, and since 1971 Bangladesh, argued that Indian diversion of Ganges water would seriously threaten the agrarian economy and the overall ecology of the lower delta. Although two interim agreements on sharing of Ganges waters have been reached between India and Bangladesh, these agreements have not covered all aspects of riverine development. As a result, the conflict has continued and as of 1984, no solution is imminent.

Two analytical approaches -- to international river disputes and to power relations between unequal states -- are helpful in explaining the Farakka Barrage dispute. The international river dispute literature explains why there is a dispute at all, what hydrologic-economic factors make this dispute difficult to resolve, and why India and Bangladesh have presented the types of proposals they have for developing the river basin. Analysis based on unequal power relationship (the "asymmetric dyad") which exists between these two states reveals the superordinate position of India which, in addition to being the more powerful state, is also the upper riparian. Therefore, the strategies that Bangladesh -- as the subordinate state and the lower riparian -- can employ are limited.

This thesis outlines in considerable detail the political as well as the hydrologic-economic aspects of the dispute and
tries to demonstrate the correlation of overall power relations between India and Bangladesh with the political strategies they employ. The main argument is that both India and Bangladesh have acted according to their interpretation of the political costs and benefits involved in resolving the dispute. Bangladesh, for its part, has pursued a variety of strategies ranging from cooperative to retaliatory in an attempt to secure what it considers an equitable solution. Each of these strategies is analysed in turn for its effectiveness. Overall, although periodically Bangladesh has been able to extract marginal concessions from India, the latter, because of its predominant political-economic position, has controlled the direction of negotiations over sharing and augmentation of Ganges waters.
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I. INTRODUCTION

The relations between India and Bangladesh were amicable for the first few years after the former helped the latter gain its independence from Pakistan in December, 1971. Since then, however, relations have deteriorated considerably on a number of issues, the most important of which is India's construction of the Farakka Barrage and its consequences for the distribution of the waters of the Ganges River between the two neighbouring states. India's primary purpose in undertaking the Farakka Barrage project was to prevent the silting and to improve the navigability of the port of Calcutta by diverting via a feeder canal a quantity of water from the Ganges to flush out the Bhagirathi-Hooghly River, on whose bank the city is located. Bangladesh maintains that the diversion of water away from western Bangladesh is having a disastrous effect on its agrarian economy.

Although the Farakka Barrage was not commissioned before 1975, the origins of the dispute go as far back as 1951 when Bangladesh was still a part of Pakistan. The Pakistan government tried its best to prevent India from constructing the Farakka Barrage but was unsuccessful in its attempts. When Bangladesh came into being, the onus of negotiating with India fell squarely on the shoulders of the new government in Dhaka. While the Bangladesh government was basically arguing along the lines pursued by Pakistan, there were two important changes which had an important effect on the ongoing negotiations. The first was that Pakistan had negotiated with India from a
position of equality whereas Bangladesh, being a much weaker country compared with undivided Pakistan and certainly vis a vis India, had a much more difficult task to confront. The second important change was that while Pakistan was negotiating with India before the latter had started actual construction of the barrage, Bangladesh had to accept Farakka as a *fait accompli*. As negotiations went on and both sides acknowledged that there was not enough water to meet their respective needs, the substantive issue shifted from the question of equitable "sharing" to that of "augmentation." Thus, while the dispute originated with the construction and commissioning of the Farakka Barrage by India, it subsequently centred on how to remedy the scarcity of water in the Ganges to meet the respective demands of India and Bangladesh.

This thesis analyses the efforts made by Pakistan/Bangladesh to influence India, as the upper riparian, to cooperate on the vital question of sharing and augmentation of Ganges waters. The central question this thesis will attempt to answer is: what are the strategies that Bangladesh, as the lower riparian, might employ to extract an equitable solution from its preponderant neighbour?

Chapter II examines the problem of upstream-downstream conflicts from a theoretical standpoint. What potential is there for an equitable solution in disputes like Farakka? If an equitable solution seems unlikely, what options are available to the lower riparian? In order to answer these questions I outline a number of strategies that a downstream country can
employ in an effort to extract an equitable solution from a more powerful upstream country. These strategies are derived from the works of river dispute analysts and international relations theorists. This chapter also discusses the conditions under which certain strategies are likely to succeed and those where they are likely to fail. In short, I attempt to determine the relationship between certain structural conditions--particularly political ones--and the success and failure of certain strategies.

In Chapters III and IV, I have compiled a comprehensive picture of the entire Farakka Barrage dispute between India and Pakistan/Bangladesh from newspaper accounts, government publications, and a few scholarly works written on the topic. In these two chapters, the strategies adopted by Pakistan/Bangladesh to influence India during the Farakka Barrage dispute are examined in their historical context.

In Chapter V, the strategies outlined in Chapter II are re-examined in light of Pakistan/Bangladesh's actions in the Farakka Barrage dispute and the success or failure of each is analysed. My ultimate objective is to derive theoretical conclusions with regard to upstream-downstream conflicts in general in the hope that some of these conclusions may be applied to international riparian disputes elsewhere.
A. THE GANGES AND ITS BASIN

A brief description of the Ganges River and its basin will enable us to understand the hydrologic-economic aspects of the dispute. Although the Ganges River or Ganga—as it is called in most of the Indic languages—is only the fifteenth longest river in Asia, its basin supports a concentration of 300 million people, a population larger than that of any country on earth with the exceptions of India and the People's Republic of China. The river itself is 1,557 miles (2,506 km) long. It rises in the southern Himalayas on the Indian side of the Tibetan border and follows a southeasterly course before it empties into the Bay of Bengal, through its main distributary, the Padma in Bangladesh. For most of its course it is a sluggish river, flowing through one of the most fertile and densely populated tracts of territory in the world.

The Ganges basin can be divided into three broad divisions—the Upper Ganges basin which includes the state of Uttar Pradesh and part of the state of Madhya Pradesh in India; the Middle Ganges basin which includes the states of Bihar and West Bengal in India; and the Lower Ganges Basin or Delta area which falls entirely within Bangladesh. In the Upper Ganges basin, the river is fed by five headstreams—the Bhagirathi, the Alaknanda, the Mandakini, the Dhauli Ganga, and the Pindar. These five streams rise in the Uttarkhand division of the state of Uttar Pradesh. Of these, the two main headstreams are the Alaknanda which rises about thirty miles north of the Himalayan peak of Nanda Devi, and the Bhagirathi, which originates 10,000
feet above sea-level in an ice cave at the foot of the Himalayan glacier known as Gangotri. The true source of the Ganges, however, is considered to be at Gaumukh, about thirteen miles south of Gangotri. After the Alaknanda and the Bhagirathi unite at Devprayag, they form the Ganges' mainstream which cuts through the outer (southern) Himalayas to emerge from the mountains at Rishikesh. The river then flows on to Hardwar, a sacred place for the Hindus.

Although there is seasonal variation in the Ganges' flow, its volume increases markedly as it receives more tributaries and enters a region of heavier rainfall. From April to June, the melting Himalayan snows feed the river, while in the rainy season from July to September, the rain-bearing monsoons cause floods. In the Upper Ganges basin, the principal right-bank tributaries are the Jumna (Yamuna) and the Tons rivers. The left-bank tributaries in this region are the Ramganga, the Gomati, and the Ghagara.

In the Middle Ganges basin, the main tributaries from the Himalayan region to the north are the Gandak, the Burhi Gandak, the Ghugri, and the Kosi. The most important southern tributary is the Son. In West Bengal, the last Indian state through which the Ganges flows, the Mahananda joins it from the north. The river then skirts the Rajmahal Hills to the south and flows southeast to Farakka, at the apex of the Delta.

The westernmost distributary of the Ganges in the Delta area is the Hooghly, on the east bank of which stands the Indian city of Calcutta. The Hooghly itself is joined by two
tributaries flowing in from the west, the Damodar and the Rupnarayan. In Bangladesh, the Ganges is joined by the mighty Brahmaputra (called the Jamuna in that country), near Goalundo Ghat. The combined stream, now called the Padma, joins the Meghna River above Chandpur. The waters then flow into the Bay of Bengal through innumerable channels, the largest of which is known as the Meghna estuary.

Apart from the Hooghly and the Meghna, the other distributary streams which form the Ganges delta are: in West Bengal, the Jalangi; and in Bangladesh, the Mathabhanga, the Bhairab, the Kobadak, the Gorai (Madhumati), and the Aリアル Khan.

In the Delta region, the Ganges, as well as its tributaries and distributaries, is constantly vulnerable to changes in its course. Such changes have occurred in comparatively recent times. In 1785, the Brahmaputra flowed past the city of Mymensingh; it now flows forty miles west of it before joining the Ganges.\textsuperscript{15} There are also indications that the Bhagirathi, or one of its several branches (Hooghly, Sarasvati, Adi Ganga, or "Tolly's Nullah") was the most important distributary of the Ganges in the seventeenth century. However, it has been silting at least since 1770, when the Damodar, which helped to keep it clear, shifted its mouth 80 miles to the south.\textsuperscript{16} The lower reaches of this line, the Hooghly proper, retain their vitality, being fed by streams such as the Rupnarayan and the Damodar.

The rivers in the West Bengal area are very sluggish and have been described as dead or dying. Little water passes down them to the sea. The rivers in the Bangladesh delta region, on
the other hand, are broad and active, carrying large quantities of water to the Bay of Bengal. They are also interconnected by innumerable creeks.

The Ganges basin contains the largest river system in the subcontinent (see Map-1). As has been mentioned earlier, the water supply is dependent partly on the rains brought by the monsoon winds from July to October, as well as on the melting Himalayan snows in the hot season from April to June. Precipitation in the river basin accompanies the southwest monsoon winds, but is also related to cyclones that originate in the Bay of Bengal between June and October. Only a small amount of rainfall occurs in December and January. The average annual rainfall varies from 30 inches at the western end of the basin to over 90 inches in the eastern end.\(^1^7\) The delta region experiences strong cyclonic storms both before the commencement of the monsoon season, from March to May, and at the end of it, from September to October. Since there is little variation in relief over the entire surface of the Gangetic Plain, the rate of flow of the river is slow.\(^1^8\)

The importance of the Ganges and its numerous tributaries and distributaries for the inhabitants of the basin cannot be overemphasized. From the beginning of civilization, capital cities of kings and emperors flourished on the banks of this mighty river. Pataliputra (now Patna), Delhi, Allahabad, and numerous other cities had sprung up on the banks of the Ganges and thrived as important political and commercial centres. Today the river not only represents the major source of
livelihood for the inhabitants of its great basin, its waters are also held sacred by the Hindu community. It is believed by Hindus that those who bathe in the Ganges are absolved of all sins. The river also provides a constant source of fresh fish, a food, which, combined with rice, forms the primary nutrition for the greater majority of the population in West Bengal and Bangladesh. The constant flooding during the rainy season deposits a rich alluvium over the land which makes the Gangetic plain one of the most fertile tracts of territory in the world. The overcrowded and alluvial Gangetic basin, therefore, draws its life-blood from the river itself and its numerous tributaries and distributaries.

Before Partition in 1947, there was never any doubt that the area now forming Bangladesh (East Pakistan until December 1971) was entitled to draw supplies of water from the Ganges (Padma in Bangladesh). Historically, the people of the Gangetic plain had not only enjoyed the benefits of the river but had also, on occasion, been subject to its tremendous wrath. Almost every year, cyclones originating over the Bay of Bengal cause colossal floods all over the Ganges basin and these floods claim lives and destroy crops and livestock with alarming regularity. When the two different states of Pakistan and India were created, therefore, it was expected that the use of this traditional river would go on as before. When India decided to construct the Farakka Barrage exactly at the apex of the delta, it was not at all surprising that Pakistan raised a cry of protest.
B. THE FARAKKA BARRAGE

The Farakka Barrage is situated at latitude 24 degrees and 45 minutes North and longitude 87 degrees 50 minutes East on the Ganges River in the district of Murshidabad in the Indian state of West Bengal. It is about 300 km. north of the city of Calcutta and about 18 km. west of the Bangladesh border. The barrage itself is about 2455 metres long and supports on its back both a rail link and a motor road. Just upstream of the barrage begins a feeder canal which runs 42.6 km. southward to meet the Bhagirathi-Hooghly River just downstream of another barrage (designed to prevent water that spills over the Farakka Barrage in the monsoon season from entering the Bhagirathi-Hooghly) at Janjipur. There is also a cross regulator across the Bhagirathi-Hooghly just upstream of the feeder canal to control the water entering it directly when the Ganges floods. The Farakka Barrage also includes several high velocity sluices, known as silt excluders, which are intended to allow silt to flow down the Ganges. The barrage was designed so that silt-free water would be diverted down the Bhagirathi-Hooghly and the sediment load of the Ganges would be carried by the remaining flow in that river on to Bangladesh and the Bay of Bengal. The canal has the capacity to handle 40,000 cubic feet of water per second (cusecs)\(^2\) and contains locks at both ends to provide navigation from the Ganges through to Calcutta. The Barrage was completed in 1970 and the feeder canal in 1973. The project began its first official operations on April 21, 1975. (For a graphic understanding of the Farakka Barrage and the feeder
Figure 2
canal, consult Map-2).

C. CONFLICTING INTERESTS OVER FARAKKA

India's construction of the Farakka Barrage and its subsequent effect on the total volume of water passing through the Padma into East Pakistan (later Bangladesh) came under heavy criticism not only from Pakistan (and later Bangladesh) but also from other quarters in the regional and the international arena. According to Ishtiaq Hossain:

Of the various issues responsible for deteriorating Indo-Bangladesh relations, construction and commissioning of a dam at Farakka... has perhaps attracted the most attention from the rest of the world.\(^2\)

This was in large part due to Pakistan's consistent and concerted efforts to stop the Indian government from starting construction on the project site before the two governments had a chance to discuss the implications. India, however, managed to start negotiations and start construction simultaneously. India has consistently defended its move by claiming that it was an effort to save the port of Calcutta from silting.

The Bhagirathi, which had been the principal distributary of the Ganges until about two hundred years ago, began to degenerate into a silt-laden river when the Ganges regime began a general eastward shift about that time. When this occurred the Padma assumed the role of main channel and distributary. As a result the Hooghly began to experience an ever increasing siltation problem. Moreover, since the Hooghly is a tidal river, the tidal bores began to affect the navigability of the
river by depositing huge amounts of sand. Over the decades, the headwater supply diminished and this overturned the balance between the sea tides and the headwater flow. In other words, as the headwater supply reduced, tidal waters began to penetrate more and more inland.

There are indications that the British rulers expressed fears about the future of the port of Calcutta as early as 1795. Since the closure of this vital port would mean a decrease in the volume of raw materials and agricultural goods transported to the mother country, a committee was appointed to inquire into the condition of the Hooghly. Thus, the British had been aware as early as 1795 that unless the headwater flow of the Hooghly could be increased through artificial means, there was a danger that Calcutta port would have to be shut down.

At independence in 1947, there is documented evidence that the Boundary Commission went to the length of violating the main principle of division of territory between India and Pakistan—majority religion—in order to enable India to take suitable measures for the diversion of Ganges waters to the Hooghly. Although Farakka belonged to the Muslim majority district of Murshidabad, it was the obvious place where a barrage across the Ganges could achieve this diversion. The Commission decided to award the entire Murshidabad district to India. According to Sir Cyril Radcliffe, the chairman:

...to prevent the Hooghly from languishing altogether and ruining the health and industry of Bengal, it is absolutely necessary that the headwaters of the
Hooghly should be under the control of the West Bengal state.\textsuperscript{35}

Pakistan received the Hindu majority district of Khulna by way of compensation.

The construction of the Farakka Barrage was considered to be the "only technical solution to the problem by the Indians."\textsuperscript{26} It was projected that by the judicious operation of the Farakka Barrage, it would be possible not only to prolong the upland supplies into the Hooghly but also to "even out the sharply fluctuating hydrographs in the river"\textsuperscript{27} thus counteracting the deteriorating effects of the preponderance of the tidal flow.

Pakistan and subsequently Bangladesh have argued that diversion of waters at Farakka will have disastrous economic effects. As negotiations dragged on, the ill effects of Farakka were presented in a more detailed fashion to impress on the Indian government the urgency of the situation. A summary of Pakistan/Bangladesh's claims are given below. They argued that removal of water from the Ganges/Padma would produce seriously detrimental effects on East Bengal's economy by:

\begin{itemize}
\item 1) lowering the water table in Bangladesh's eastern part and thus reducing the moisture content of the soil immediately after the monsoons and causing a serious deterioration in the summer output of those high yield rice strains whose growth depends on an abundant supply of water;
\item 2) adversely affecting the navigability of the Padma and its spill channels, especially the Gorai-Madhumati, both by drastically lowering or eliminating the water levels of these water courses and by causing the Padma River bed to rise as a result of the silting caused by such reduced flow. Transportation in about
1,355 km. of major waterways in Bangladesh was expected to be negatively affected as a drop in water levels of up to six feet was anticipated in the dry season;

3) aggravating the monsoon floods in Bangladesh by limiting the amount of flood water which would normally drain off into the Bhagirathi-Hooghly and by decreasing through dry season siltation the capacity of the Padma river bed to accommodate the wet season flow;

4) damaging the agriculture of the coastal areas of Khulna, Barisal, and Patuakhali districts as well as parts of nearby districts like Jessore and Faridpur by allowing saline water to penetrate deep inland into an area of more than 20,000 square kilometres. The resulting loss of cultivable land would probably reduce the amount of farm employment, further increasing the nation's hardship;

5) decimating the forests in the coastal areas, causing them to become poorer in density and to produce lower quality wood. An example are the Sunderban forests in Khulna district where in addition to the expected loss in district revenues and the reduced supply of timber for housing and other construction, the changed ecological balance of the forest regions would seriously affect forms of animal life presently residing there;

6) reducing in both quality and quantity the water supplied to the urban industrial centres in Bangladesh's lower delta, thereby hurting their growth, creating difficulty in the disposal of their effluents and raising the death rate due to water-borne diseases and the decline in sanitation;

7) decreasing the extraction of food in the Bangladesh delta since fishing would be eliminated as a source of livelihood for thousands of fishermen and dealers. An important source of protein for many Bangladeshis would thus be curtailed. The expected change in the hydrographic conditions of the Padma's lower reaches would stop the movement of many fresh water fish varieties up the river. In addition, a large part of the water system would go dry in the months between December and May and many other varieties of fish and prawn would become land-locked and die;

8) retarding the successful planning or execution (both present and future) of land and water development projects in the area by either severely reducing or making unpredictable the necessary
supplies of Padma water. The most prominent example is that of the Ganges-Kobadak project, intended to irrigate almost two million acres in Kushtia, Jessore, and Khulna districts. All in all, it has been estimated that eight to nine districts in Bangladesh—containing thirty million people (one-third of the total population of Bangladesh) and about one quarter of the cultivable land—will be adversely affected by the Farakka project.

India has naturally gone to great lengths to refute Bangladesh's claims by maintaining that the latter's technical data are inaccurate or by providing a different interpretation of them. A summary of India's responses to Bangladesh's claims is given below:

1) In attempting to refute the basic claim that Bangladesh needs more of the Ganges-Padma water than India is willing to allow, Indian officials note that whereas the Ganges basin in India is relatively arid, the delta area in Bangladesh is always green. They note that Bangladesh's rainfall averages 190 cm. per year as opposed to 63-127 cm. on the Indian side, and the rainfall of the wet season is so great that despite a short, dry season, Bangladesh's subsoil is not dried out sufficiently to inhibit the growth of forests. They also contend that monsoon rains are sufficient to saturate the soil for at least two months after the rains, until about the end of December.

2) To Bangladesh's emphasis on an adequate supply of water in the dry months of March, April, and May, the Indians counter that during that period even with the locks at Farakka being closed, the waterflow of the Ganges-Padma in Bangladesh is normally superior to that at Farakka. They also claim that there is a regeneration of almost 20,000 cusecs and therefore it is unnecessary for India to reduce its own meagre allotment.

3) The Indians emphasize that Bangladesh is not lacking in water, but rather overrun with it, and that its agriculture would actually gain by having the flow of water reduced, especially in the summer months when
floods inundate extensive areas of the Bangladesh countryside.

4) To counter Bangladesh's claims regarding losses to inland navigation, the Indians point out that there has not been previously any organised navigation along the Padma, and that spill channels like the Gorai are seasonal in nature and only navigable during the floods.

5) To Bangladesh's claims about silting due to diversion of the Ganges waters at Farakka, the Indians counter that silting is no problem in the dry season because the river is then relatively silt-free. The Indians also argue that in the rainy months the increased percentage of silt in the Bangladesh river system which results from diversion of 40,000 cusecs of silt free water at Farakka is insignificant.

6) Regarding salinity, the Indians claim that since the total discharge of water by the rivers Meghna and Brahmaputra, even in the dry months, is approximately 200,000 cusecs, the problem of seawater intrusion should not occur. The Indians have been silent on the issue of deleterious effects of salt water on fish, forests, or urban areas.

7) India also flatly denies that the Farakka Barrage will hurt Bangladesh irrigation projects on the grounds that a) the reduction in the flow will be so insignificant as not to be missed, b) the requirements of planned and existing projects are so small as to put no burden on present or future water supplies, and c) the region's morphology involving flat ground, annual floods, and shifting rivers is impractical for big irrigation schemes. In any event, they suggest an extension of Bangladesh's pumping system should be an alternative or superior source of irrigation.29

Thus India has assembled a variety of technical arguments which in combination attempt to show that no matter how important the Ganges-Padma waters may be to Bangladesh, they are much more vital to India and to projects it has allotted them. In fact, when the Farakka Barrage project was still in the planning stage
it was calculated that besides the preservation of the Bhagirathi-Hooghly and the port of Calcutta, there would also be a number of side benefits. The project would improve Calcutta's water supply, facilitate the drainage of the region, improve communications, and increase the mileage of inland navigation.

The principal conflict in the Ganges dispute is over the dry season flow of the Ganges. The seasonal fluctuation in the flow makes water scarce during the period January through May. In this period, India's rising needs for water to flush the Hooghly and for irrigation are in conflict with Bangladesh's demand for water to maintain the ecology of the Ganges delta and to promote industry, irrigation, and navigation.

India as the upper riparian country, has had the power to implement projects on the Ganges to provide for its needs. East Pakistan and its successor Bangladesh have suffered the consequences of Indian decisions but have had only limited power to influence them. The dispute over sharing of the Ganges is about attempts by Pakistan and Bangladesh to influence Indian policy.

Although the government of Morarji Desai signed a five-year treaty with Bangladesh in November 1977, and this has been renewed for another two years after it expired in November 1982, the question of sharing and augmentation of Ganges waters is far from resolved. This thesis attempts to discuss the substantive issues of sharing existing dry season flow and examining alternative methods of augmenting this flow from a bargaining perspective and explores various strategies which could assist
Bangladesh in persuading its upstream neighbour to cooperate.
NOTES

1. Unfortunately, the history of Indo-Bangladesh relations since 1971 presents a dismal picture. A number of issues have not only clouded their relations but have also led to the exchange of fire between the two countries' border security forces over disputed territory. Below is a list of some of the more contentious issues between these two countries:

a. Dispute over the maritime belt;
b. Indian support for pro-Mujib guerrillas;
c. the sharing of Ganges waters;
d. disputes over Muhurir Char (an islet on the Muhuri River, the boundary between Bangladesh and the Indian state of Tripura);
e. dispute over the Purbasha island in the Bay of Bengal;
f. smuggling operations carried on both sides of the border;
g. dispute over illegal border crossings on both sides of the border; and most recently,
h. dispute over India's plans to construct a barbed wire fence around the 1700 miles of the Indo-Bangladesh border.

2. The 7000-foot long barrage was completed in 1970 and the 26.5 mile long feeder canal took another four years to complete. The barrage and feeder canal were finally commissioned in 1975 following an interim agreement signed between India and Bangladesh on April 18, 1975.

3. When Indian plans to construct a dam at Farakka were made public through Indian press reports, the Pakistan government sent a note of protest to New Delhi. The origins of the Farakka Barrage dispute can be traced to this date. When Pakistan was dismembered in 1971 and Bangladesh achieved independence, the new government in Dhaka pursued the case with India along the lines adopted by the Pakistan government from 1961-1971.

4. Dhaka is the capital city of the People's Republic of Bangladesh. Before November 1982, it was spelled "Dacca" when it was officially changed by Presidential Order. The new spelling is closer to the phonetic usage and this version has been used throughout the thesis.

5. The construction of the Farakka Barrage was completed in 1970 before Bangladesh had achieved independence (1971). The feeder canal, however, was not completed until 1973.

6. The word "riparian" denotes a country through which a river flows. In the case of an international river flowing through two countries, therefore, the upstream country is called the upper riparian, and the downstream country, the lower riparian. Both countries are collectively referred to as co-riparians.

7. To date, only two major works have been written on the Farakka Barrage dispute. Of these, the only published work has
been written by B.M. Abbas who was directly involved in negotiations with India over a period of ten years. The following is the bibliographic reference: B.M. Abbas, The Ganges Water Dispute, (Dhaka: University Publications Limited, 1982). The other is a Ph.D. dissertation by Ben Crow in the University of Edinburgh in 1980. It is entitled The Politics and Technology of Sharing the Ganges. This dissertation has not yet been published.

8. The Ganges River is called the "Ganga" in all the Indian languages including Bengali. In Bangladesh where the official language is Bengali, people refer to the river as the Ganga although officially the anglicized name has been retained. In this thesis, the name Ganges will be used to avoid confusion.


10. Ibid.

11. Ibid.

12. In the terminology of fluvial morphology, right-bank tributaries refer to those which join the mainstream on the right if one stands with his back to the source and looks downstream. By this method, the rivers joining the mainstream on the left are called the left-bank tributaries.

13. See footnote 12.


18. In the delta region of Bangladesh, the average seaward gradient is five inches per mile.

19. The word "Partition" refers to the creation of two new nations--India and Pakistan--from the single Dominion of India in August 1947.

20. A cusec equals 1 cubic foot per second. In fluvial morphology, a cusec is a measure of the volume of water in cubic feet flowing through a particular cross section of a river in one second.

pp.1115-1128.


27. Ibid.


29. Ibid. See also Jayanta Kumar Ray, op. cit.

II. INTERNATIONAL RIVER DISPUTES AND BARGAINING STRATEGIES: SOME THEORETICAL CONSIDERATIONS

International river disputes are a common phenomenon in the contemporary world scene. The alarming rate of growth of the world's population has made fresh water a very valuable commodity. The rapid advancement of technology has provided the means to make more efficient use of this vital resource. However, although the use of international fresh waters is also vitally important, the difficulty of getting basin states to cooperate makes these waters less readily exploitable than national water resources. Political boundaries present real obstacles to efficient use and are often more difficult to overcome than physical ones. It is not at all surprising, therefore, that there should be a problem of sharing the waters of an international river between riparian states.

The Farakka Barrage dispute between India and Bangladesh is primarily a river dispute between two neighbours. In order to analyse the dispute I aim in this chapter to elicit theoretical formulations from work done on international river disputes as well as from literature dealing with relations between unequal states. It will soon be clear that in any river dispute which is international—that is any river dispute which occurs between two or more sovereign political units as opposed to two or more autonomous units within one sovereign state—the chances of an equitable solution depend on a number of factors not all of which are hydrologic-economic. The overall state of relations between the co-riparians, the stakes involved for each of them,
their general foreign policy objectives, the bargaining techniques they chose to employ and, more importantly, the bargaining chips each holds, may also be important factors in the final outcome. According to David G. LeMarquand:

The complex international political reality in a basin is often unrelated to a natural system. Demands on the shared resources differ between basin countries due to many factors including population growth, economic development, cultural practices, foreign policy objectives, and the availability and accessibility of other domestic water resources.²

It is not surprising, therefore, that solutions to international river disputes encompass much more than purely hydrologic-economic issues.

Although the literature dealing with international river disputes is vast and detailed, most of it is legalistic. It is my contention, however, that most solutions to international river disputes are the results of years of self-interested planning and lobbying, and strenuous political bargaining, both open and secret. The final outcome is more a result of short and long term political considerations affecting the disputing riparians than it is of hydrologic-economic considerations.

One of the most comprehensive works on international river disputes has been written by David G. LeMarquand.³ What sets LeMarquand apart from other authors dealing with international river disputes is that, while recognising the importance of hydrologic-economic issues, he stresses the point that the final solution is the result of political considerations. To clarify the latter's importance, he divides relationships among
international co-riparians into the following four categories:

a) public goods;
b) common pool resources;
c) integrated development opportunities; and
d) upstream-downstream conflict.

The first two relationships are most conducive to cooperation among basin states. A "public goods" relationship exists when all states have equal and unrestricted access to the resource, and when none of the states is able to exploit the resource to the other users' detriment. States' navigation rights represent the closest approximation of a public goods relationship on an international river. The second relationship, "common pool resources," occurs when two states share a river or lake as a boundary, but no upstream-downstream relationship is involved. In this instance, use of the common resource by one country may diminish the benefits to the others but may also eventually harm its own interests. If, for example, all riparian countries dispose of their effluents in the river, all will suffer from the reduced quality of the water. On the other hand, all will benefit from concerted action to reduce the effluents. In this category of disputes, the incentives to reach agreement will be quite high because the basin states will benefit through cooperation.

Should conflict arise in the third and fourth relationships, the chances of reaching early settlement are much less as one country is able to receive benefits from the resource without an agreement. In the third category of
"integrated development opportunities," two or more countries are in an upstream-downstream relationship on a river. An upstream country may decide to build a dam which, while providing benefits to itself, also brings benefit to a downstream country in certain forms. Flood control is a good example of such benefit. The upstream country will want to reach an agreement with the downstream country by which the latter will pay for the benefits received from the upper riparians actions. The main problem here lies in calculating an "equitable division of costs and benefits" between the country which undertakes the project and the country which profits as a result.

The final category can also be found where the basin states are in an upstream-downstream relationship. In this case, however, the upstream country uses a river for its sole profit. Its utilisation does not benefit the downstream country and may well be detrimental to the latter's interests if, for example, it makes consumptive use (such as for irrigation) of the water, diverts it, pollutes it excessively, or regulates the flow of the water such that the downstream country's needs cannot be satisfied. In such cases, the economic incentives to reach an agreement are extremely low because the upstream state receives maximum benefit by exploiting the river in accordance with only its own users' demands. The dispute between India and Bangladesh over sharing of the Ganges waters falls in this last category of hydrologic-economic relationships.

LeMarquand's typology is helpful insofar as it spells out
which disputes can be solved easily and which with a greater degree of difficulty. He also states that since even a cursory examination of case studies of upstream-downstream conflicts reveals that agreements have been reached, there must be other factors besides hydrologic-economic ones which may persuade the upstream country to cooperate. As an example he cites the case of the United States and Mexico where the U.S. agreed to desalt part of the water it passes down to Mexico in the Colorado River.  

As an explanation for these agreements, LeMarquand offers a set of internal and external variables which the decision-makers of the upstream countries have to take into consideration. Internal factors refer to the types of domestic policy-making which may have important repercussions on a river dispute. These types include bureaucratic, executive, and non-executive approaches to policy formulation. External factors refer generally to a country's foreign policy objectives and, specifically, to such factors as a country's concern about its international image, its willingness to adhere to the principles of international law, its willingness to link the riparian dispute with other areas of mutual concern with the co-riparian(s), its desire for reciprocity, and the value it places on sovereignty. LeMarquand contends that this cluster of variables acts in certain variations for different conflicts and, depending on the specific situation, brings about a solution or non-solution.  

While there can be no doubt about the contribution of
LeMarquand's typology of international river disputes and their potential for resolution, his analytic framework is by no means all-encompassing. To be fair, LeMarquand admits this himself;⁸ but I want to point out some of the terms and concepts he has used which, I believe, need some elaboration.

LeMarquand makes a keen observation when he states that in an upstream-downstream conflict, there is no economic incentive for cooperation when an upstream country uses an international river to the detriment of the downstream country and the latter has no reciprocal power over the former.⁹ The term power is very ambiguous in international politics and to this day nobody has been able to give it a satisfactory meaning. One definition of power in the international context states that it is the general capacity of a state to control the behaviour of others.¹⁰ Power has certain attributes: geographical advantage, natural resources, industrial capacity, military capability, and population usually form the core of "power attributes."¹¹ Most authors also recognise, however, that such tangible attributes may not always constitute power. Morgenthau, further, argues that intangible concepts such as national morale which he defines as "the degree of determination with which a nation supports the foreign policies of its government in peace and war" are yet another element of power.¹² These attributes, however, give the impression that power is a static concept. In a relational context, power assumes a psychological dimension in that we perceive one country to be more powerful than another. The basis of our perception, however, is based on a comparative
assessment of the attributes of power possessed by these countries. Sullivan makes an interesting point when he asks why "one should focus on certain attributes, certain assets or liabilities relating to the power of countries," and not on others when making a comparative assessment. Power, therefore, is relative and it is by no means guaranteed that in a specific contest between two countries, the country that is more "powerful" will automatically be the "winner." Seen in this context, LeMarquand's contention about the upstream country having no economic incentive to negotiate where this country is using an international river to the detriment of a downstream country (unless that country has reciprocal power over the former) becomes ambiguous. "Power" must include the capacity of the downstream country to negotiate a settlement. It is a relative term: all downstream countries do not have equal bargaining power vis-a-vis their respective upstream countries in upstream-downstream conflict situations.

Closely related to the concept of unequal bargaining power is the concept of "asymmetric dyads." Asymmetric relationships figure prominently in the works of integration scholars such as Robert Keohane and Joseph Nye. Other scholars such as the group from Carleton University have conducted extensive research on relations between two unequal countries, and specifically, between two unequal neighbours. Although their work is based on Canadian-American relations between the years 1963-1972, their conclusions apply to asymmetric dyadic relations elsewhere:
.... (the theory) provides a context for the analysis of shifts in integration and the quest for enhanced autonomy in Canadian-American relationships. (In a broader sense), the history of this particular relationship serves as a rich illustration of dyadic relations where the subordinate country continues to be attracted to the superordinate one as a result of expected economic gains, while periodically trying to reassert an arm's length relationship with the latter in order to avoid the perceived political costs of increased integration.  

What emerged most clearly from their analysis was a notable discrepancy between growing Canada-United States economic integration and continuing disintegration in the realm of policy. Surprisingly, however, what their study leaves out is how specific issues are settled.

Based on Lemarquand's category of upstream-downstream conflicts and the Carleton group's concept of asymmetric dyads, I aim in this section to outline a set of strategies that a subordinate/downstream state may adopt in seeking a solution to an upstream-downstream conflict with a superordinate/upstream country. Before proceeding, there are certain terms which have to be defined to clarify their meaning. The term "strategy" is defined as "the science and art of employing the political, economic, psychological and military forces of a nation or a group of nations to afford the maximum support to adopted policies in peace or war." 17 Strategy is also defined as the art of devising or employing plans or stratagems toward a goal. 18 In other words, strategy involves both the planning and implementation of a state's course of actions in its efforts to achieve a solution to a dispute it has with another state.
Strategies may be implemented through peaceful means (e.g. negotiation) or through the conduct of war. Given the realities of power relations between two unequal states, however, very often the weaker state in a dyad finds that the number of strategies it can use against its preponderant neighbour is limited. Another important consideration when discussing strategies is that different categories of dispute evoke different reactions by states in the theory and practice of international relations. For instance, it is not usual for a country to launch war against another country unless the latter directly threatens the sovereignty of the former in a tangible way. By the same reasoning, international river disputes between riparian states are not usually settled through violent means. This is not to say, however, that wars have not been fought over riparian rights. Usually, however, strategies adopted by countries are proportionate to the objectives they are intended to achieve. This is substantiated by Holsti who contends that international river disputes ordinarily fall into the "middle-range" category of foreign policy objectives of a state thereby implying that two states rarely, if ever, wage war against each other to settle an international river dispute.

In a superordinate-subordinate relationship where the upper riparian is also the more powerful of the two states, there is little likelihood that the downstream state would achieve a resolution of the riparian dispute by employing strategies which could lead to war. Pursuing a violent strategy against a more powerful country would not only fail to achieve its objective,
the subordinate country may also leave itself open to pressures in areas which it considers vital to its national survival. Another important factor which must be remembered while discussing strategies is that while the overall power configuration generally tends to favour the superordinate/upstream country, how this affects the outcome of specific "mid-level" disputes vis-a-vis a weaker country is by no means certain. According to Keohane and Nye:

The translation from capabilities to outcomes depends on the political process. Skill in political bargaining affects the translation. States with intense preferences and coherent positions will bargain more effectively than states constrained by domestic and transnational actors.²¹

Therefore, if the subordinate/downstream country can prepare its strategies carefully and bargain effectively with its preponderant neighbour, it is quite possible that it can achieve an optimal solution to the riparian dispute despite the overall inequality in their relations.

In an upstream-downstream conflict where the upstream country is using an international river to the detriment of the downstream country, the status quo suits the interest of the upstream country. The objective of the downstream country is, therefore, twofold: first, the subordinate/downstream country has to convince the upstream country that as a result of the unilateral action taken by the latter on an international river, the downstream country is being adversely affected. This is the first phase of the dispute. The objective in this phase is to persuade the superordinate/upstream country to acknowledge that
a problem indeed exists. The second phase begins once the superordinate/upstream country acknowledges that there is a problem and agrees to negotiate with the subordinate/downstream country.

The subordinate downstream country has a variety of strategies it can employ to influence the superordinate/upstream country to cooperate. In order to make the upstream country acknowledge that a problem indeed exists, the lower riparian may do the following things:

1) It may lodge a formal complaint with the upper riparian state with regard to the latter's unilateral action on an international river emphasising that such action would cause harm to the lower riparian state. This was the case with Pakistan which protested against India's action of developing irrigation systems on the Indus River largely to meet the needs of East Punjab (in India) to the exclusion of West Punjab and Sind (in Pakistan).\(^{22}\) Lodging a formal complaint with the upper riparian compels that country to respond in the interest of diplomatic courtesy. It also constitutes an important first step in the downstream country's overall strategy to achieve an optimal solution to the dispute. The primary objective, however, is to signal its concern to the upstream country and persuade it to negotiate.

2) The subordinate/downstream country may exchange diplomatic notes emphasising the legal rights of lower riparians.\(^{23}\) The objective of this strategy is to keep channels of communication with the upstream country open. The upstream country usually
responds by citing an international norm or precedent which supports its own position in relation to the specific dispute. The exchange of diplomatic notes also signifies that the upstream country is willing to negotiate.

The second phase of the dispute begins when the superordinate/upstream country agrees to negotiate with the subordinate/downstream country. Negotiation is defined as a diplomatic technique for the peaceful settlement of differences and the advancement of national interests. The objectives of negotiation are accomplished by compromises and accommodations reached through direct personal contact. Reaching agreement through negotiation implies a willingness on both sides to make mutually acceptable concessions (quid pro quo). Ultimatums, threatening speeches, boycotts and walkouts are often related to negotiation and may affect its ultimate success or failure. Skillful negotiation involves agreement at the least cost (while leaving the other side relatively satisfied) to good future relations.

The willingness of the superordinate/upstream country to negotiate, however, should not be automatically interpreted as a sincere desire to achieve a solution to the riparian dispute. In fact, it may agree to negotiate with the intent of procrastination. The upstream country's decision will be influenced by a few important factors. First, this country will be concerned about its image. In the Colorado River dispute between the United States and Mexico, the United States government entered into negotiation with Mexico despite the fact
that it had no economic incentive to do so. The United States felt that by pursuing its own interest, it would damage its relations with Mexico and it would project to the rest of Latin America and the third world the image of a strong powerful country that pursues its own national interest heedless of the consequences to its poorer neighbours. Second, agreement with a neighbour on an international river scheme may be used to gain concessions on other bilateral issues, such as favourable trade arrangements or support for a multilateral trade policy. LeMarquand calls this connection in bargaining of issue areas "linkage." According to Holsti, linkage between policy areas may be typical of countries where a high level of conflict is characteristic. In countries where relations are more routinized and where there is a tradition of easy communication, such as between the United States and Canada, "issue area isolation" is more common.

In the second phase of the dispute, when actual negotiation begins, the subordinate/downstream state can employ certain strategies in order to achieve an optimal solution to the riparian dispute. These strategies can be classified into two broad categories: cooperative and coercive. Cooperative strategies are those which are employed by the subordinate/downstream country in a gesture of cooperation and in good faith to achieve its objective. As such cooperative strategies may also include responses to queries made by the superordinate/upstream country pertaining to technical or legal aspects of the riparian dispute. Coercive strategies, on the
other hand, are those which are employed by the subordinate/downstream state to put pressure on the superordinate/upstream state in order to resolve the dispute. Coercive strategies may be implemented by the use of positive or negative inducements. Positive inducements are those which are in the nature of a quid pro quo. In other words, the downstream country may offer the upstream country something it wants in exchange for a solution to the riparian dispute. Negative inducements are those which involve retaliatory measures and may include intervention by a stronger third party into the dispute at the behest of the subordinate/downstream country.

The following table lists probable strategies a subordinate/downstream country may adopt in an upstream-downstream conflict with a preponderant neighbour.

### UPSTREAM-DOWNSTREAM CONFLICTS

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Coercive Strategies

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Before analysing these strategies, it would be worthwhile to remember that while all these strategies can be used by the subordinate/downstream country during the course of the dispute individually or in certain combinations, the success or failure of their achieving the objective depends on the state of relations between the co-riparians. For instance, when there is a climate of confidence in bilateral relations, cooperative strategies including economic tradeoffs may achieve an optimal solution to the dispute. When, for some reason, relations are characterised by mutual suspicion and hostility, coercive strategies have a better chance of succeeding.

Since lodging formal complaints and exchange of diplomatic
notes have already been discussed, we will start with the third strategy on our list.

A. **COOPERATIVE STRATEGIES**

3) It is always fruitful for leaders of two states to hold formal or informal talks over a wide range of bilateral issues. If the leader of the subordinate/downstream country were to hold talks with his counterpart in the superordinate/upstream country, the river dispute could be treated as one of many "problems." Besides, where there is a strong commitment by the national leadership to cooperate, the negotiators will have the authority to make compromises necessary to reach agreement, or at least to develop a flexible bargaining strategy.\(^2^9\) In 1972, President Echeverria's (of Mexico) state visit to Washington and talks with Nixon broke the deadlock on the Colorado salinity issue.\(^3^0\)

It must be remembered, however, that a breakthrough in negotiations is possible only when the river project is of low or mid-level priority to the superordinate/upstream state. For instance, when President Ayub (of Pakistan) and Prime Minister Jawaharlal Nehru (of India) decided to speed up negotiations over the Farakka Barrage dispute by promoting talks to the ministers' level, Indian engineers and West Bengal politicians to whom the project had a high priority prevented discourse between ministers from both countries for ten years.\(^3^1\)

4) The subordinate/downstream country may suggest joint survey of the international river in order to ensure efficient joint management of the region's water resources. This constitutes
the overall strategy of the downstream country to create a joint body to ensure equitable distribution of benefits from common rivers. In the Canadian-American case, the International Joint Commission was set up in 1909 under the Canada-United States Boundary Waters Treaty. Its functions are to approve or reject projects that will affect the natural level of boundary waters at the border and, at the request of the two national governments, to conduct investigations that will recommend solutions to water resource and other boundary problems. However, the creation of a joint body does not necessarily ensure smooth negotiation or even proper technical evaluation of available data. In a hostile situation, it is more likely that even if such a joint body were created, representatives of either side would reflect the opinion of their respective governments. The creation of a joint body, however, is helpful inasmuch as it lends an institutional outlook to resolving a riparian dispute.

5) The subordinate/downstream country may offer to exchange technical data pertaining to the particular riparian dispute. This it may do on its own initiative or in response to the superordinate/upstream state's request. An offer to exchange technical data constitutes the downstream state's strategy to continue negotiations on the one hand, and also to dispose of technical problems in an effort to seek a political solution on the other. Most international river disputes are settled after years and even decades of negotiation. The delay is primarily caused by the massive amount of technical data that have to be
collected, produced, scrutinized and evaluated before a solution can be reached.

The exchange of technical data, however, can be turned into a double-edged weapon by the superordinate/upstream state if it so chooses. Sometimes conflicting data produced by the two sides can create a deadlock in negotiations. If the upstream country decides to procrastinate, there is a good chance that it will demand more and more "relevant" data from the downstream state.

6) The subordinate/downstream country may appeal to the upstream country saying that resolving the riparian dispute will in fact be in the long-range interest of the superordinate/upstream country. In many asymmetric dyadic relations around the world, the population in the subordinate/downstream state is in a less favourable economic situation compared with that of the superordinate/upstream country. If these countries are neighbours, as is the case with, say, Mexico and the United States, then people in the subordinate country living near the border of the superordinate country, may be tempted to move to the country of greater economic opportunity. The upstream country ordinarily does not want to take in additional population or cope with illegal immigration. The influx of people could create economic as well as political problems for the superordinate country. The negotiators from the downstream country may convince the government of the upstream country that its unilateral action on the international river could only worsen the economic situation in the downstream country.
Therefore, an equitable and immediate solution to the problem would also be to the advantage of the upstream country in the long term.

B. COERCIVE STRATEGIES

This category of strategies may be applied by the subordinate/downstream state within the issue area itself or outside the issue area. In the case of two states which have a tradition of easy communication, quid pro quo within the issue area is more common whereas between two states where relations are strained extra-issue or issue-area linkage is practised more often. Intra-issue linkage

7) The subordinate/downstream state may put pressure on the superordinate/upstream state to upgrade talks from the level of bureaucrats to the level of political decision-makers. In order to do this the downstream country may arrange a talk between the leaders of the co-riparian states or may even have to concede some points in its negotiations with the upstream state. For instance, if they are negotiating quantities of flow of an international river, the downstream country may have to accept a quantity less than the amount it had originally demanded. In the interest of a quick solution which can be found only at the political level, however, this concession is very minor.

8) The subordinate/downstream state may sometimes go ahead with a project of its own with the intent of putting pressure on the upstream state. This of course depends on the two countries and the topography of their terrain. For instance, if the
downstream country were in a position to build a reservoir to store the waters of the international river in question and release it in such a manner as to cause harm to crops by flooding areas upstream, the upstream country might be persuaded to settle the original dispute. The reaction of the upstream country will depend on the technical feasibility of such a project and its perception of the determination of the downstream country to see the project through.

9) The subordinate/downstream country may threaten the upstream country by declaring its intention to settle the dispute through arbitration. Although both parties have to agree to submit to arbitration, the upstream country may be persuaded to make progress in bilateral negotiations once the downstream country raises the question of arbitration. In a dyadic situation where mutual suspicion and hostility reign supreme, arbitration may provide a fruitful method of resolving a riparian dispute. This was how India and Pakistan signed the Indus Waters Treaty in 1960.36

10) The downstream country may politicize the river dispute domestically and create unfavourable opinion against the government of the upstream country. In the interest of maintaining cordial bilateral relations and also to preserve the image of a "friendly" neighbour, the upstream country may be persuaded to settle the riparian dispute. However, if the river project is of top priority to the upstream country this strategy is likely to fail.

11) The downstream country may create unfavourable opinion
internationally against the upstream country by portraying the latter's unilateral action on the international river as unethical, illegal and a violation of human rights. This can be done by internationalizing the issue. This, however, is easier said than done. The bringing up of an issue of this type in the General Assembly of the United Nations, for example, involves a long and tedious process of lobbying through several subcommittees. The downstream country can expect to come up against opposition from representatives of the upstream state at all stages of internationalizing the issue. Because of this, the downstream state can never be entirely sure of the wording of the final resolution in the General Assembly even if the issue comes to a vote. Once it comes to a vote, it is quite possible that a significant number of states may decide to remain uncommitted. These states may not want to antagonize the superordinate state for a number of reasons. First, they may sincerely believe that an international riparian dispute is essentially a bilateral issue and should therefore be resolved through bilateral negotiation. Second, by voting in favour of the downstream country they might antagonize the upstream state with which they may have economic and/or political relations. Third, some of these countries may have similar problems with their neighbours where their own positions are equivalent to the superordinate/upstream country. These states do not want, by taking sides in the dispute, to create an international precedent which might later conflict with their interests. And finally, it must be kept in mind that any international
organisation operates not on the basis of equality but on the basis of the power wielded by member states. All these factors may combine in favour of the upstream state when the issue is internationalized. There is additional problem with internationalization. In the unlikely event that the downstream country gets a favourable vote, most U.N. General Assembly resolutions of this nature are recommendatory rather than obligatory. Therefore, it is very likely that the downstream country may find itself in the unenviable position of having to resume negotiations with the upstream state after spending months of hard work and money in its efforts to internationalize the issue.

Internationalization, therefore, is a strategy which a downstream state employs in desperation. When there is no tangible progress in bilateral negotiations and the upstream state takes a non-compromising stand, internationalization may be the only way to break the deadlock. Through internationalization, the riparian dispute becomes publicized and may cause some embarrassment to the superordinate/upstream country. For fear of tarnishing its international image, the superordinate/upstream country may decide to agree to an optimal solution to the international river dispute.

12) The subordinate/downstream state may also put pressure on the government of the upstream state by approaching the leader of the latter state through the superpowers. Although there is very little probability of the superpowers doing anything on an official level, they may informally request the leader of the
superordinate/downstream country to settle the riparian dispute equitably. The subordinate/downstream state may also put pressure on the superordinate/upstream state by approaching other co-basin states in the region. The superordinate/upstream state may feel threatened if all the states in the region could align themselves in a formal or even informal organisation. Bangladesh's proposal to create the South Asian Regional Cooperation (SARC), a regional organisation of all the states of South Asia, for instance, was viewed as a threat to its predominance by India although it was to be an important member.38

The above-mentioned strategies may be used individually or in combination with others by the subordinate/downstream state to achieve an equitable or at least optimal solution to the riparian dispute. It must be remembered, however, that the overall inequality in the relations between the superordinate/upstream country and the subordinate/downstream country precludes the downstream country from pursuing many courses of action. Although the aforementioned strategies may all be pursued by the subordinate/downstream country during the different stages of an upstream-downstream conflict, there are times when a particular strategy is the only course of action which it can pursue. For instance, when there is no progress in bilateral negotiation, internationalization may be the only course open to the subordinate country despite the fact that this strategy does not bring about an immediate solution. Also, relations between co-riparians may vary during the course of the
dispute for different reasons and some strategies may prove useful during particular periods and futile at other times. Therefore, although these strategies are options open to the downstream state for application against a superordinate/upstream country in an upstream-downstream conflict, the success or failure of each alone or in combination with others depends on the relations between the two states and the priority the superordinate/upstream country places on the river project. The higher the priority placed by the superordinate/upstream country, the more positive and/or negative inducements it has to be offered by the subordinate/downstream country in order to agree to a settlement.

The foregoing approach to understanding superordinate/upstream versus subordinate/downstream riparian disputes will now be applied in trying to analyse the negotiating process which was initiated over the Farakka Barrage dispute between India and Bangladesh. The India-Bangladesh dyad is a useful example of two countries in a structural asymmetrical relationship. Negotiators representing Bangladesh (and their Pakistani predecessors before 1971) have time and again been thwarted in their efforts to persuade India to reach an equitable solution. However, when an interim treaty was signed in 1977 between the governments of India and Bangladesh, there was speculation from neutral quarters that the problem had been finally resolved. This was unfortunately not to be because as soon as the treaty expired in November, 1982, a Memorandum of
Understanding extended the previous treaty for another two years in the absence of a comprehensive settlement. Our task is to explain both the achievement and tenuousness of this agreement and analyse the factors which are obstructing a permanent and equitable solution. We will also analyse the actions taken by Bangladesh in the context of the framework laid down in this chapter and speculate on the possibility of a permanent and equitable solution with India over sharing of the Ganges waters.
NOTES


2. Ibid.

3. Ibid. LeMarquand presents an analytic framework and discusses four case studies using his framework to explain each case. The four case studies are:
   a. The Colorado salination problem between the United States and Mexico.
   b. The Columbia River Treaty signed between the United States and Canada.
   c. The Skagit Valley and Ross Dam issue between the United States and Canada.
   d. The Rhine River pollution problem between Switzerland, West Germany, and the Netherlands.

4. Ibid., p.8.

5. Ibid., p.10.


8. Ibid., p.19.

9. Ibid., p.10.


16. Ibid., pp.332-333.


18. Ibid.

19. The best example of an armed conflict over an international river was the 1967 Middle East war between Israel and Jordan. Although, the war ostensibly occurred over the waters of the River Jordan, it is clear that there were other basic political and religious reasons. This establishes the correlation between the level of hostility between two states and the chances of armed conflict. Hence, as a rule war does not take place between two states over riparian rights.

20. Holsti, op. cit., pp. 148-151. Holsti states that these objectives are generally concerned with satisfying domestic, social, and economic demands through international agreements or by maintaining amicable relations with neighbouring countries.


22. J.D. Chapman (ed.), The International River Basin, (Vancouver: University of British Columbia Publications Centre, 1963), pp. 35-36. The Indus Waters Treaty was signed between India and Pakistan in September 1960. The treaty could be negotiated only because both sides agreed to World Bank mediation and intervention.

23. International Law Association. Helsinki Rules on the Uses of the Waters of International Rivers, (London: The International Law Association, 1966), pp. 8-11. The Helsinki Rules authored by the International Law Association (ILA) in 1966, provide the most important and widely accepted legal guidelines for use in settling international river disputes. While the Helsinki Rules do not have the force of international law, they have been both applied and cited in international and interstate river disputes. The central underlying principle is that each basin state is entitled within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin. The downstream country usually finds the "equitable and reasonable" clause of the Helsinki Rules favouring its stand on an international river.

24. F.J. Berber, Rivers in International Law, (New York: Oceania Publications Inc., 1959), pp. 14-19. It is interesting to note that amongst the innumerable volumes on norms and precedents on international river disputes, there is almost always a norm or precedent which supports a particular state's position in a specific dispute. For instance, in direct opposition to the Helsinki Rules' "equitable and reasonable apportionment" stands the principle of "absolute sovereignty" or
"first principle." This principle was first espoused by American Attorney-General Harmon in 1895 in connection with the dispute with Mexico over the utilisation of the Rio Grande. Harmon ruled that the U.S. could do whatever it wanted with the waters of the Rio Grande within U.S. territory regardless of any possible ill-effects the U.S. action might have on Mexico. The Harmon Doctrine, therefore, supports the upstream country's position in an upstream-downstream conflict although in recent times, this rule is hardly cited by any riparian nation because of its imperialistic connotation.


27. Ibid., p. 13.


29. LeMarquand, op. cit., p. 17.

30. Ibid.

31. See Chapter III of this thesis.

32. LeMarquand, op. cit., p. 56.

33. The Columbia River Treaty signed between the United States and Canada in 1961 was preceded by more than twenty years of negotiation. The five-year Ganges Waters Treaty signed between India and Bangladesh in November 1977 was preceded by twenty-five years of negotiation and bargaining.

34. K.J. Holsti, "Canada and the United States," in Steven L. Spiegel and Kenneth N. Waltz (eds.), Conflict in World Politics, (Cambridge, Massachusetts: Winthrop Publishers Inc., 1971), p. 384. Taking the Canadian-American situation, Holsti maintains that Canadian negotiators frequently emphasise the nature of the Americans' own long-range interests. They appeal to the oppositions' self-interest, but from a time perspective that may be different from that of American negotiators. In an upstream-downstream conflict, negotiators from the subordinate/downstream country may try a similar bargaining ploy.


36. See footnote no. 24.

Zacher makes the point that the United Nations is an institutionalised representation of the world's power brokers and not a global police station as is commonly supposed. In this sense, therefore, powerful countries hold more sway even in the General Assembly.

38. The concept of South Asian Regional Cooperation was first proposed in May 1980 by President Ziaur Rahman of Bangladesh. It is interesting to note that the idea was floated when Mrs. Gandhi's government threatened to scrap the November 1977 Ganges Waters Treaty. See, Rajendra Sareen, "South Asian Regional Cooperation," in Indian and Foreign Review, 20:20 (August 1-14) pp. 12-15.

39. The Memorandum of Understanding was drawn up collectively by the foreign ministers of Bangladesh and India during Gen. Ershad's visit to New Delhi at the beginning of October, 1982. Although this Memorandum has been called a two year extension of the 1977 Treaty, a few important modifications have been made in some of the provisions and the revised version tends to favour India. This would indicate that the problem of water sharing, far from being resolved, is still very much a disputed issue.
The Farakka Barrage dispute has a thirty-three year history highlighted by over thirty official bilateral meetings since 1960. Negotiations over Farakka can be divided into four distinct stages. The first stage began with Pakistan's protest to the Indian government about the alleged construction of a massive dam across the Ganges, which was reported in the Indian press in 1951, and ended in 1960 when the path was cleared for the first meeting of technical experts from both countries. The second stage began with the experts' meeting in June 1960 and continued until the independence of Bangladesh in December 1971. The third stage spanned about six years beginning with the creation of Bangladesh and lasted until the signing of the interim treaty in November, 1977 between the Indian and Bangladesh governments. The fourth stage started when negotiators from both sides sat down to redefine the concept of "equitable apportionment" since the 1977 treaty aroused considerable criticism from certain quarters both in Bangladesh and India. Current negotiations over the Farakka issue can also be included in the fourth stage for two important reasons: first, the 1977 treaty over Farakka was renewed for a period of two years in November 1982, without any important changes having been made; and second, the substance of negotiations still revolves around the problem of equitable sharing. The fourth stage of negotiations also deals with the larger question of augmentation of the dry season flow of the Ganges.

Division of the Farakka negotiations is not merely an
attempt at maintaining chronological order. It shows that
during each of these stages negotiators on either side had a
different order of priorities — priorities which were often in
sharp conflict with those of the other side.

A. THE FIRST STAGE: A BARRAGE ACROSS THE GANGES?

It is debatable whether or not the exchange of diplomatic
notes and letters between the governments of India and Pakistan
regarding India's plans to construct a barrage across the Ganges
qualify as negotiations. There are certain reasons, however,
which suggest that the 1951-60 period was the first stage of
negotiations between Pakistan and India over the Farakka Barrage
issue. First, these diplomatic exchanges paved the way for more
"meaningful" negotiations between the two countries in the
succeeding stages. Second, it was during this period that the
two governments recognised there was a dispute which had to be
resolved before the actual construction of the Farakka project
could begin. Third, it was during the 1951-60 period that the
Pakistan government suggested arbitration by a third party in
order to reach a solution. In fact, the 1951-60 period can be
called the primary stage of the dispute as Pakistan, being the
lower riparian, managed to persuade India that there was indeed
a problem.

In 1951 the first news of India's plans to construct a
barrage on the Ganges at Farakka, eleven miles upstream from its
point of entry into East Pakistan, came to Pakistan's notice
through Indian press reports. In a note dated October 19, 1951
Pakistan expressed concern and pointed out that it should be
consulted before any schemes likely to prejudice its vital interests were put into operation. The Indian government replied on May 8, 1952 pointing out that the Ganges Barrage project was only at a preliminary stage and therefore the Pakistan government's fears were "purely hypothetical." The note also suggested cooperation. Pakistan wrote another note to the Indian government in 1952 but this was not replied to until May 22, 1953. In this reply India repeated the desirability of cooperation adding that the "cooperation would have to be reciprocal." This was a request for information on Pakistan's Ganges-Kobadak irrigation project, a project which would suffer from Farakka water diversion but which could not influence conditions in India because it was downstream from India and incapable of causing changes upstream. In 1954, Pakistan furnished India with some details of the Ganges-Kobadak project but no similar information was forthcoming from India on the proposed Farakka Barrage. Instead India merely suggested cooperative steps toward flood control in the Ganges and Brahmaputra basins. In May 1955, the Pakistan government took up this suggestion by proposing a joint survey of the upper reaches of these two rivers. India's reply in February, 1956 advised Pakistan to set up a flood control commission on the model of those set up by India.²

In 1957, the Pakistan government, frustrated by India's delaying tactics, proposed arbitration of the dispute. The specific proposals of the Pakistan government were:

1) A United Nations technical program should be
requested to assist in the development in the eastern river system;

2) the projects in both countries should be examined jointly by experts from both countries before implementation; and

3) the U.N. Secretary General should be requested to appoint an engineer to participate in experts' meetings.²

The Pakistan government's suggestion of involving the United Nations in the matter hastened the onset of actual negotiations. Although India rejected the specific proposals put forward by Pakistan, the Indian government reluctantly agreed to a limited exchange of technical information thereby setting the stage for actual negotiations in the future. In line with this, the Nehru government officially notified the Indian parliament of its intention to hold bilateral meetings of a technical nature with Pakistan.³

The first stage of negotiations over Farakka, therefore, was limited to the exchange of diplomatic notes between the two countries. While the notes sent by Pakistan reflected some urgency, Indian reaction was slow and even reluctant. India finally agreed to exchange a limited amount of technical information but this occurred only after the Pakistan government informed the Indian government of its plans to request a United Nations technical programme to assist in the development of the eastern river system.
B. THE SECOND STAGE: NEGOTIATIONS OR DELAYING TACTICS?

The first meeting of technical experts of both countries took place from June 28 to July 3, 1960 at New Delhi. During this meeting India did not supply any information related to the Farakka project; it supplied only a note on the Teesta project, a barrage to be built across the Teesta River in the north of West Bengal.

The second meeting of technical experts took place at Dhaka between October 1 and 3, 1963 and it was at this meeting that a "project report for the preservation of the port of Calcutta" was provided for the perusal of the Pakistan government by experts from India. India also provided a record of the Ganges' flows between 1948 and 1960 and additional information on the Teesta. The third meeting of experts was also confined to an exchange of data. 5

The fourth meeting of technical experts which took place at Dhaka between December 27, 1961 and January 8, 1962 was "successful" in that both sides expressed the view that considerable progress had been made in the exchange of data. 6 At this point the Indians demanded more data but since most of these were considered irrelevant by Pakistan, the smooth operation of meetings between experts was considerably hindered. By 1963 the Pakistan side requested a final meeting but when no reply was forthcoming, a reminder was sent by diplomatic note to the Indian government in May, 1965. India eventually replied in August 1965 agreeing to a fourth meeting of experts. This meeting, however, could not take place before May, 1968 because
war had broken out between India and Pakistan in September 1965 and it took three years for normal diplomatic relations between these countries to be restored.

The fifth (and as it turned out, final) meeting of technical experts from both countries took place in May, 1968. The two sides could not reach any agreement with the Indian side demanding more technical information and the Pakistan side accusing the Indians of unnecessarily delaying the proceedings. Helmut Kulz describes the atmosphere which pervaded this meeting:

...it is not surprising, after all these delays, that the last meeting showed wide divergence of views between the two delegations on almost all issues. While the Indian delegation insisted on further meetings to exchange data, the Pakistan delegation maintained that enough data had been exchanged and that the problem required immediate tackling at the political level to achieve a solution of the problem acceptable to both countries if necessary through the mediation of a third party.  

The five meetings of technical experts represented an "upgrading" of the talks over the Farakka issue by the Indian government. Though the Pakistan governments wanted to force the issue and "promote" talks to the political level, the Indian side resisted as long as they could. Most observers--both neutral and those from Pakistan-- have suggested that the real reason behind India's reluctance to discuss the issue at the political level was the direct result of a policy of procrastination. The Indian government wanted meaningful negotiation to occur only after the Farakka Barrage was
completed and operational.

This stage of negotiations was also characterized by a conscious effort by the Pakistan government to discuss the Farakka issue at the political level with the Indian government. President Ayub Khan of Pakistan and Prime Minister Jawaharlal Nehru of India were in London for the Commonwealth Prime Ministers' conference in March 1961. They met to discuss a number of topics including the Farakka project. Nehru described the discussion some months later in a speech to the Indian parliament. He said that he had suggested to Ayub Khan that the two countries should cooperate over the Farakka project. He also told Ayub Khan:

"Let us do it in such a way as to benefit each other... and let us decide this at ministerial level."  

He further recounted how they had agreed that there should be a meeting of ministers but that this could only be fruitful if the necessary technical data had first been gathered. Nehru went on to say:

"I hope that after the next meeting, which is going to take place fairly soon, both parties would be in possession of these facts. Then the time will come, if it is considered necessary, for ministers on both sides to meet and discuss, that is not to allow matters to be dealt with by officials who cannot decide things."  

Nehru's promise to discuss the Farakka issue at the political level was taken up by Ayub Khan. He sent a letter to Nehru (dated March 27, 1961) attaching a tentative list of
points for discussion at the ministerial meeting, and a brief history of the case. In this letter, Ayub Khan also expressed his desire that "such a meeting should be arranged early." Nehru's reply was somewhat tentative in the sense that it expressed the hope that the full exchange of data--also from Pakistan's side--would be completed as soon as possible to "enable the ministers' level meeting to be held soon." To the East Pakistan Ganges-Kobadak project, a reservation was made that "Pakistan has been proceeding with its construction and increasing the scope of the project, without giving us the information, and without consulting us," thereby implying that the demands for this project could not be taken into consideration by India. Ayub Khan's reply (dated May 19, 1961) pointed out that the lives of the people of East Pakistan would be jeopardized if waters from the Ganges and Teesta rivers were disturbed in any way. He also stated that a ministerial level meeting would be appropriate. Nehru's letter dated July 6, 1961 expressed doubts as to whether the necessary exchange of data would be completed by the fourth meeting of experts. The letter also made the following general remarks:

One more matter to which I must also refer, is the distinction you still seem to make between the rights of the upper and lower riparian in paragraph 7 of your letter, which implies that the lower riparian can proceed unilaterally with projects, while the upper riparian should not be free to do so. If this was to be so, it would enable the lower riparian to create, unilaterally, historic rights in its favour and go on inflating them at its discretion thereby completely blocking all development and uses of the upper riparian. We cannot, obviously accept this point of view, especially when three-fourths of the length of the Ganges lies in Indian territory, which gives India
the priority of interest in this river.\textsuperscript{13}

It is interesting to note that India had already started construction on the Farakka Barrage at the time these letters were exchanged. Pakistan had lodged a formal protest with the Indian government against beginning the construction of the Farakka Barrage without previous agreement between the two countries. The protest was rejected by India in two separate notes dated June 20 and 29, 1961.\textsuperscript{14} Understandably, there was no further direct correspondence between the two leaders.

The Nehru-Ayub meeting of March 1961 was very important because it was the only agreement between India and Pakistan concerning the Farakka Barrage, and it set the pattern for the dispute throughout the 1960s until Bangladesh was formed in 1971. However, since there was no written agreement, within a few months of the understanding being reached, there was disagreement over its interpretation. This is clearly illustrated by the correspondence between the two leaders.

In an effort to reach a solution and realising that the technical exchanges with India were going nowhere, the Pakistan government decided to internationalize the issue. This course of action was first made public by Pakistan's foreign minister before the press in Dhaka on December 14, 1967 after he had completed touring the region threatened by the Farakka Barrage.\textsuperscript{15} The foreign minister stated that "the Farakka Barrage threatens the entire ecological pattern of the delta region of East Pakistan" and that for Pakistan, "the question assumes an
importance which transcends purely economic considerations;" Pakistan would approach "the international agencies concerned, if her efforts to solve the problem through negotiations did not yield any results within a reasonable time."\textsuperscript{16}

As part of their campaign to bring up the Farakka Barrage issue in the United Nations, the Pakistan government informed the superpowers of the dispute and apparently obtained some support from the Soviet Union. Mr. Kosygin despatched a letter to Indira Gandhi, who became prime minister in 1966, urging a solution along the lines of the Indus Waters Treaty.\textsuperscript{17} India also publicly rejected an offer from the World Bank that it play a mediatory and conciliatory role similar to the one it had played in the negotiations leading up to the Indus Waters Treaty.\textsuperscript{18} However, the foreign minister of Pakistan, Arshad Hussein, raised the question with the World Bank's president while he was visiting the United States to attend the U.N. meetings. A number of conversations were held between the Bank and Hussein, on the one hand, and the Bank and Morarji Desai, then India's foreign minister, on the other. Desai apparently told the Bank that India would be willing to consider mediation by the World Bank.\textsuperscript{19} Nothing further was heard of the proposal. In an interview with Ben Crow, Hussein apparently expressed the feeling that had Ayub not fallen in 1969, the Bank's proposal could probably have been pursued.\textsuperscript{20}

India's actions during this stage of negotiations certainly reflect typical upstream country behaviour where there is no economic incentive to cooperate with the downstream country and
the downstream country holds no reciprocal power over the upstream country.\textsuperscript{21} To redress the imbalance, however, the Pakistan government followed a retaliatory strategy for a short time. This strategy was neither well planned nor financially feasible at the time. However, the mere mention of it seemed to make an impression on Indian policy makers.

Pakistan's threat to retaliate came in the form of plans to construct a barrage on the Ganges downstream of the Farakka Barrage. Work on this project was never started although several consultants' reports had been discussed in several meetings of the two governments.\textsuperscript{22} The proposed barrage, known simply as the Ganges Barrage, would have been built in the vicinity of Hardinge Bridge, in East Pakistan, probably at the off-take of the Gorai-Madhumati River. Its ostensible purpose was to irrigate huge areas in the west and southwest of East Pakistan. The barrage was also intended to store water for dry season use. The reservoir would have extended into India, almost certainly as far upstream as the Farakka Barrage. This reservoir could have flooded certain areas in India. Understandably, India reacted to this project proposal with a strong protest. K.L. Rao, Indian minister of irrigation and power, had these comments to make to the Lok Sabha about the project:

\begin{quote}
If (the project is) executed (it) will cause harm to large tracts of territory belonging to India by way of submersion and erosion, etc. The Government of India have lodged a strong protest with the Government of Pakistan and have urged that no construction should be undertaken on (the) Padma which may injure the upstream area of India.\textsuperscript{23}
\end{quote}
There was a subtle irony embedded in Pakistan's proposal. The height of the Ganges Barrage would depend on how much water India agreed to release at Farakka. If India agreed to release very little, then the Ganges Barrage would have to store more water, and this might pose a threat to West Bengal in India. Since no work was done on the project, the whole thing may have been planned by the Pakistan authorities merely as a bargaining tool.

The 1968-71 period during this stage of negotiations over the Farakka Barrage also witnessed an "upgrading" of the level of talks. The last five meetings held during this period were attended by secretaries (senior civil servants) of the relevant ministries from both countries rather than by technical experts or engineers. In the first three meetings Pakistan pressed for substantive talks on the framework for a settlement regarding equitable sharing of Ganges waters between the two countries for which purpose adequate data were already available, and also to devise machinery for securing an adequate quantity of water. Pakistan wanted to evolve such a framework for consideration by the two governments at the political level. India disagreed on the plea that the data available were still incomplete and inadequate.

In the fourth meeting of secretaries held at Islamabad from February 24 to March 2, 1970 the Pakistan delegation recorded the final position taken regarding all the technical issues and pointed out the futility of further discussion of these issues except in the context of agreed allocation of water from the
The fifth and last secretaries' meeting was held between July 16 and 21, 1970 in New Delhi. Pakistan's specific recommendations on this occasion were:

1) that the point of delivery of supply to Pakistan of such quantum of water as may be agreed upon will be at Farakka;

2) that constitution of a body of one representative from each of the two countries for ensuring delivery of agreed supplies at Farakka is acceptable in principle; and

3) that a meeting be held in three to six months' time at a level to be agreed upon by the two governments to consider the quantity of water to be supplied to Pakistan at Farakka and other unresolved issues relating thereto and to eastern rivers which have been the subject matter of discussion in these series of talks.

Agreement on the "point of delivery" ended, presumably, the technical argument surrounding regeneration; agreement that the next meeting should discuss water sharing signified the end of technical exchanges. This can be called the turning point in the negotiations in the sense that what Nehru and Ayub had agreed to almost a decade previously was becoming a reality. There was agreement in January 1971, at India's suggestion, that another meeting should be held. The new rigidity of Pakistan's position over the issue, which was published in a pamphlet titled *India's Farakka Barrage and its Adverse Consequences on East Pakistan*, and the ensuing struggle for independence by the majority of Bengalees in East Pakistan on which the Indian and Pakistan governments took diametrically opposite stands, created an impasse in the talks. With the independence of Bangladesh
in December 1971, the onus of negotiating with India fell on the nascent Bangladesh government.

Any discussion related to this stage of the negotiations over Farakka would be incomplete if no mention were made of the attempted intervention of the Pugwash movement into the dispute. During the Addis Abbaba conference of the Pugwash movement held in January 1966, the members discussed among other things, development problems in India and Pakistan. The Pugwash group resolved that some organisation, outside of both India and Pakistan, should identify problems common to both nations on which they might work on a cooperative basis. Professor Roger Revelle, director of the Center for Population Studies at Harvard University, offered to provide the services of his research staff to write a prospectus for such a study. It was agreed that there was a need to look in some detail at the natural resource development of the basins of the Ganges and Brahmaputra rivers.29

Revelle was particularly well qualified for the task because he had directed a large scale desalination programme in West Pakistan.30 The Pugwash initiative seemed to make some headway initially when both Ayub Khan of Pakistan and Indira Gandhi of India expressed enthusiasm, but met with a stumbling block when the Indian Prime Minister's office refused to meet with the Pugwash team. No explanation for this refusal was offered by the Indian government. However, the team did meet with Ayub Khan.

Since preliminary studies of cooperative development of the
Ganges basin had already been completed, the group continued with a study of the Pakistan portion of the basin, with funding from the World Bank and other international agencies. From this study emerged a concept known as the "Ganges water machine,"\(^3\) proposal to use a massive system for increasing underground water storage in the Ganges basin and suggesting induced groundwater recharge as a solution. During the dry season, heavy pumping would lower the groundwater table and provide water for irrigation and other uses. In the wet season, various measures would increase the rate of percolation so that the flood waters could be used to recharge the underground reservoirs. By this means, the Harvard researchers estimated that nearly thirty per cent of the annual general flow of the Ganges River could be stored, providing enough water for both India and East Pakistan. Such a proposal, therefore, undermined the basis of the entire Farakka Barrage dispute.

This proposal was rejected by the Indian government. There were certain people in India, however, who believed that it had some merit.\(^3\) One of the reasons forwarded by the Indian government as a justification for its rejection was the dubious motives it saw lying behind offers of massive foreign aid. Another probable reason was the fact that the Farakka Barrage was almost completed and, at this late stage, the Indian government was not interested in abandoning a project which had been so carefully conceived.
C. INDIAN OBSTINACY OR PAKISTANI WEAKNESS?

Twenty years of negotiations over the Farakka issue showed no real progress toward a solution. After innumerable diplomatic notes and ten meetings (five at the technical experts' level and five at the secretaries' level), the year 1971 saw the Farakka Barrage well on its way to completion. During this period, Indian negotiators took an obstinate stand that largely derived from their assertion that the Ganges was essentially an "Indian" river as opposed to an international one. Therefore, any "discussion" with Pakistan must be on India's terms. It is interesting to note that although Pakistan missed no opportunity to press for negotiations on the Farakka issue, Indian official documents refer to these requests as "talks." Even Prime Minister Nehru, who had shown some inclination to negotiate with the Pakistan government, was reported to have said at one time that "what India does with India's rivers is India's business." Its basin includes parts of India, Nepal, Tibet, and Bangladesh.

During this stage of negotiations, the 1961 Nehru-Ayub agreement in London was the only discussion by political leaders on the topic. However, any jubilation the Pakistan government might have felt was short-lived. Soon after this understanding was reached, not only was there disagreement as to its interpretation, but the Indian government also started construction on the Farakka Barrage without having reached any formal agreement with the Pakistan government.

During the next few years no negotiations took place
between the two sides as relations between them deteriorated over many territorial issues. In September 1965, war broke out between India and Pakistan and, although it lasted only a few days, several years elapsed before normal diplomatic relations were restored. During this interval, construction work on the Farakka Barrage continued at full swing. In September 1968, the Pakistan government brought the issue to the General Assembly of the United Nations. Pakistan's position was supported by most members but no pressure was put on India. As a result, Pakistan went back to the negotiating table; only this time, the secretaries of both countries were present.

This part of the negotiations represents an "upgrading" of talks by one more notch in the diplomatic ladder. There was no actual progress in negotiations, however, because the secretaries from either side reflected the opinions of the respective political leaders much as had their technical predecessors. Despite these constraints, some technical points were resolved but only because the negotiators from Pakistan agreed to some of the Indian demands. Whereas until 1962, Pakistan was trying to impress upon India that a barrage at Farakka would be damaging to the economy of East Pakistan and the general ecology of the area, from 1968 onwards they were negotiating percentages of total Ganges' flow.

Throughout the 1960-1971 period, the Pakistan government employed several bargaining techniques, none of which, unfortunately, could elicit any major concessions from India. First, Pakistan tried to elicit cooperation from India by
emphasising the legal rights of co-riparians whenever one country undertook a project likely to be prejudicial to the interests of the other. Second, when this tactic got nowhere, Pakistan tried to put political pressure on India by talking to Soviet and American leaders. Third, keeping the option of bilateral negotiations open, the Pakistan government brought up the issue in the General Assembly of the United Nations. Fourth, hoping to put direct pressure on India, Pakistan raised the question of building a Ganges Barrage which, besides irrigating large parts of western and southwestern East Pakistan, would also have underground reservoirs that could flood parts of West Bengal in India.

Why could Pakistan not prevent the Indians from having their way on the Farakka issue? There are two logical explanations. One is that Pakistan did not care enough about its eastern wing and therefore did not advocate its position strongly. The other possibility seems to be that India, bent on completing the Farakka project, was only stalling for time. The Awami League tended to give credence to the first cause. In their election manifesto, they claimed that "the criminal neglect of earlier governments has allowed the Farakka Barrage to become a fait accompli." While it is certainly true that the Farakka Barrage had become a fait accompli, it is very doubtful that the Pakistan government had allowed this to happen by doing nothing about it.

The second possible explanation, that there was a deliberate policy of procrastination pursued by India, seems
closer to the truth. The constant and ever increasing delay in Indian answers to Pakistan's notes, the evasive nature of all Indian statements and the contradictions in some of its replies to Pakistan, all strongly support the view that India's attitude and procedure had from the beginning been calculated to gain time and establish a *fait accompli* with its Farakka project without openly repudiating the principle of "cooperation." India's refusal to meet with the team from Harvard which had devised a technically sound way to undermine the basis of the dispute is also illustrative of the Indian government's actual intentions.

D. THE THIRD STAGE: SOLUTION ON THE HORIZON?

This stage of negotiations which started in the early months of 1972, soon after the independence of Bangladesh, and ended with the signing of a treaty over the sharing of the Ganges waters, differed from the two earlier stages in several respects. First, the conditions surrounding these negotiations were peaceful and there was no sense of the strain which had characterised negotiations between Pakistan and India. Second, as a direct result of India's and Bangladesh's newly found friendship, negotiators on both sides were more tolerant of each other's views and were willing to at least examine the proposals presented by the other side. Third, each, recognising the water needs of the other side, was willing to create a joint body which was charged with the task of chalking out an appropriate formula for sharing Ganges waters between the co-riparians.

Despite a mutual recognition of each other's needs,
however, it took India and Bangladesh almost six years to agree on a water sharing formula. The dispute, however, did not end with the signing of the November 1977 Treaty embodying such a formula. No sooner had the treaty been signed than critics from both sides of the border launched scathing verbal and editorial attacks aimed at the signatory governments. A brief history of the events leading up to the signing of the 1977 Treaty between Bangladesh and India will enable us to understand the different forces which negotiators on both sides had to contend with before any sort of agreement could be reached.

Discussions about outstanding bilateral issues including the Farakka Barrage project started from early 1972 and continued for the next two years. Ministers came from India to meet their counterparts in Bangladesh and Bangladesh ministers returned their visits. B.M. Abbas went to New Delhi in January 1972 to talk to K.L. Rao, Indian minister of irrigation and power. On January 24, Abbas told the press that suspicions which had previously hampered the negotiations between India and Pakistan were no longer there.

The prime ministers of the two now friendly countries met in January, February, and March of 1972. The joint statement issued at the end of the February meeting said:

The two Prime Ministers emphasized that the geography of the region provided a natural basis of cooperation...They discussed the problem of flood control, Farakka Barrage and other problems.

At the conclusion of the prime ministers' meeting in March the treaty of Friendship, Co-operation and Peace was signed. This
treaty was to be valid for twenty-five years, and specifically included agreement to:

make joint studies and take joint action in the fields of flood control, river basin development, and the development of hydroelectric power and irrigation.  

In the discussion among officials which took place simultaneously with the prime ministers' meetings, the decision was taken to establish a Joint Rivers Commission. Within four months of the independence of Bangladesh, the co-riparian states agreed to establish a joint body:

so that the water resources of the region can be utilised on an equitable basis for the mutual benefit of the peoples of the two countries.

The Statute of the Joint Rivers Commission signed in November 1972, included the following provisions:

Article 4

(i) The Commission shall have the following functions in particular:

a) to maintain liaison between the participating countries in order to ensure the most effective joint efforts in maximizing the benefits from common river systems to both countries...

b) to study flood control and irrigation projects so that the water resources of the region can be utilised on an equitable basis for the mutual benefit of the peoples of the two countries.

(iii) The Commission shall also perform such other functions as the governments may, by mutual agreement, direct it to do.

The Joint Rivers Commission was intended to act as a forum for cooperation in all areas of river development. The Statute laid
down that each government should appoint to the Joint Rivers Commission a chairman and three members (two of whom should be engineers) and provide adequate secretarial and supporting staff. The chairmanship of the Commission was to alternate between the two governments in successive years. Article 7 of the Statute ruled out public scrutiny of the Joint Rivers Commission's proceedings:

All meetings shall be closed meetings unless the Commission desires otherwise.

The Farakka dispute is not specifically mentioned in the Commission's terms of reference but the paragraphs from the Statute quoted above gave the governments freedom to refer the topic to the Commission if they so chose.

The first meeting of the Joint Rivers Commission was held in June 1972, before the Statute had been signed. If anything, this was indicative of the importance attached to river development by both India and Bangladesh and of their desire for mutual cooperation. A press note issued at the end of the first meeting said:

The Commission considered river development works in the Ganges-Brahmaputra-Meghna System in general and will take it up in detail in its next meeting.\textsuperscript{50}

It is important to note that while on the surface it seemed as if the Farakka dispute was on its way to being resolved, Indian statements issued after meetings with Bangladesh officials avoided any mention of Farakka and referred generally
to "river development" in the region. What the Indian government wanted to achieve through the adoption of this tactic will become clearer when we analyse Indo-Bangladesh actions in Chapter V of this thesis.

In a statement issued by K.L. Rao, Indian minister for irrigation and power, after he met with Khandakar Moshtaque Ahmed, his Bangladesh counterpart, in April 1972, it was mentioned that there was complete agreement on power, flood control, and irrigation. Rao also added that Bangladesh's misconceptions about Farakka had been cleared up. On his return from Dhaka, Rao gave more details about the meeting with Khandakar Moshtaque Ahmed. He said that sharing of the water would be settled at the meeting of the two prime ministers, but that Farakka was no longer a problem. The proportion of water going to each country was yet to be settled, but the doubts and misgivings of Bangladesh had been removed.51

It was not made public what Bangladesh's doubts and misgivings were, or how they were "cleared up." For, when it came down to actually devising a formula, Bangladesh's and India's position were diametrically opposed. If Rao's statement is to be accepted at face value, one probable explanation can be given for Bangladesh's willingness to discuss broader river problems rather than Farakka: Bangladesh was hoping to convince India of its good faith in settling the Farakka issue and other outstanding bilateral issues. As it turned out, however, most issues between these two countries were settled when Indira Gandhi and Sheikh Mujibur Rahman met in 1974, but not the issue
of the Farakka Barrage.

In the meantime, events were taking place within India and Bangladesh and in other interested quarters which were to have a bearing on the outcome of this dispute. In August 1972, political leaders in West Bengal began lobbying the Indian central government for what they saw as their share of Ganges waters. In the Rajya Sabha (upper house of the Indian parliament), Rao, the minister for irrigation and power, made a statement confirming that the legitimate interests of Bangladesh would be kept in view, and that no arrangement of the operation of the Barrage would affect that country.

The chief minister of West Bengal returned from Delhi with what the press reported as an "agreement" on the operation of the Farakka Barrage. According to this "agreement":

- the feeder canal of the barrage would be completed by December, 1973;
- for five years after that 40,000 cusecs could be diverted down the Hooghly and, for the following two years, the diversions would be varied experimentally;
- at the end of seven years there would be a review.\(^5\)\(^2\)

During 1972, the World Bank was maintaining a close watch on river development schemes in Bangladesh. The Bank also employed a well-known consultant to, among other things:

- evaluate the water supply picture (of the Ganges-Brahmaputra-Meghna basins) and to examine the possibility of maintaining or even augmenting the low flows of the rivers... (and) to examine the need and possibilities for international cooperation between the countries situated in the river basins.\(^5\)\(^3\)
The consultant recommended that consideration be given to the establishment under United Nations auspices, of a Ganges-Brahmaputra-Meghna Coordinating Committee, with five member countries—India, Bangladesh, Nepal, Sikkim, and Bhutan. Whatever role the World Bank may have played, it made no public intervention in the dispute. The Joint Rivers Commission met again in December, 1972. The press were informed that the Commission had:

\[
\text{decided to consider a framework for preparation of long term plans for the development of major basins common to India and Bangladesh.}
\]

The Commission also recommended a programme for joint survey of the River Ganges from Farakka up to the Gorai off-take to enable the planning of development works of mutual interest... Two groups have been set up for the study of certain rivers in Bangladesh and India, on possibilities of augmenting water discharges in these rivers. The Commission also received basic data on works executed or under execution in the Ganges-Meghna-Brahmaputra river basin and decided that this should be supplemented further.

This release indicates that the question of the Farakka Barrage and its effects were being discussed in the Joint Rivers Commission. However, it is not clear whether or not this matter was given a high priority.

In 1973, several more meetings of the Joint Rivers Commission were held but little was published about the subjects they discussed. In July of the same year, Khandakar Moshtaque Ahmed led a Bangladesh delegation to New Delhi. It met with an Indian team led by Sardar Swaran Singh, Indian minister of external affairs. The Indian team also consisted of two other
ministers: D.P. Dhar, minister for planning; and K.L. Rao, minister for irrigation and power. This unannounced "upgrading" of talks over the Farakka Barrage issue by India came as a pleasant surprise to the Bangladesh government. However, both sides were slowly realising that even in an atmosphere of friendly bilateral relations, the issue could prove difficult to resolve.

The meeting reaffirmed that a final decision on sharing of Ganges waters would be taken when the two prime ministers met. The press release issued after the talks belaboured the possible effects the Ganges diversions might have on flooding inside Bangladesh:

The discussions dealt mainly with the commissioning of the Farakka Feeder Canal and its impact on Bangladesh...the Farakka project might increase the flood intensity in Bangladesh by reducing natural spill discharges in the Bhagirathi. This point was discussed and the Indian side assured the Bangladesh side that the feeder canal and the Jangipur Barrage will be so operated that the Bhagirathi will continue to receive during the monsoon period as much water as before, or more if possible. It was accepted by the government of India that the Farakka Barrage Project will not increase the flood intensity of the Padma in Bangladesh.

There was discussion about the Farakka Barrage Project and its impact on both countries. It was agreed that the two sides would meet again and continue the discussions with a view to arriving at a solution to the problem. The two sides further agreed that a mutually acceptable solution will be arrived at before operating the barrage.

This last sentence, though it provided no basis for a solution, was the first definite and public commitment by the Indian government that it would not act unilaterally.
The early months of 1974 were also taken up by other pressing issues mainly concerning the government of Bangladesh but also relating to the subcontinent. The most prominent issue was Bangladesh's attempt to get recognition in the United Nations and acceptance at the Islamic Summit. The People's Republic of China was successfully wielding the threat of veto against Bangladesh's entry in the United Nations. Presumably, mainland China's position reflected an alliance with Pakistan which wanted to prevent war crime trials of 195 high-level prisoners of the 1971 Indo-Pakistan War.  

Indian foreign minister Swaran Singh came to Dhaka in February 1974 at the invitation of the Bangladesh foreign minister, Dr. Kamal Hossein. There was a long joint communique at the end of their meeting. The portion relevant to the Farakka Barrage is given below:

Both sides availed of the opportunity to discuss the use of the water resources of the two countries for the common benefit of the peoples of Bangladesh and India. They agreed that to meet this objective the Joint Rivers Commission should continue, as a matter of priority, its investigation of the development of the water resources of the region. The two Foreign Ministers also discussed the question of the distribution of the waters of the Ganges between India and Bangladesh and the need for an early decision on the matter. They were confident that their discussion on this subject had advanced their common approach for an early solution to this issue. Both the Foreign Ministers agreed that a mutually acceptable solution will be arrived at before operating the Farakka Barrage Project.

Whether this could be called progress toward a solution is doubtful. The agreement that a "mutually acceptable" solution
must precede operation of the Barrage had first emerged with almost identical wording, in Swaran Singh's earlier discussion with Khandakar Moshtaque Ahmed. That it was reiterated at the meeting of the two foreign ministers can hardly be called progress. There was an indication, however, in this joint communique, that the Joint Rivers Commission was giving the Farakka question priority in its discussions. Till this point in the dispute, the only positive sign toward a solution was a mutual reassurance that a formula would be worked out before the Farakka Barrage was operational.

In March 1974, Khandakar Moshtaque Ahmed was transferred from the Ministry of Water, Power, and Flood Control to the Ministry of Foreign Trade in Bangladesh. There are a number of explanations for this transfer and we can only make educated guesses as to the probable ones. The economy of Bangladesh was taking a turn for the worse. A below average rice harvest in the 1973-74 season as a result of massive flooding of the entire rice-growing acreage, an unprecedented increase in the rate of population growth and a staggering inflation rate all helped to create a huge deficit in foreign exchange reserves. Khandakar Moshtaque Ahmed, who was known to be favoured by both the Americans and the Arabs, would be the appropriate person to head the Ministry of Commerce and Foreign Trade to attract outside capital to redress this imbalance and thus put the new country back on its feet. The other probable explanation for Ahmed's transfer was more sinister and had a direct bearing on his views toward the Farakka Barrage. The correspondent of the Hindu
could not resist linking K.L. Rao's and Ahmed's removal from the irrigation ministries of India and Bangladesh almost simultaneously. K.L. Rao, he wrote, "was known to dig himself deep, in a stance based on old arguments." And Khandakar Moshtaque had a "reputation of being a hard-liner on the Farakka question." The reporter also noted that the transfer of Khandakar Moshtaque Ahmed was giving rise to speculation in Dhaka that a new approach to the Farakka question might be adopted.\(^6\) As later events were to indicate, the Farakka issue proved to be too important to the vital interests of both countries to be resolved by mere "upgrading" of talks or by the transfer of ministers to other portfolios. Gradually but surely, there was a realisation by negotiators and leaders on both sides that agreement on sharing of Ganges waters would be a very tough proposition at best.

The two prime ministers finally met in May 1974 in the immediate wake of the Simla Tripartite Conference between India, Pakistan, and Bangladesh. A lot of outstanding bilateral issues were successfully resolved.\(^6\) The exception to these successes was the Farakka Barrage issue. In the joint declaration of May 16, 1974 they agreed that there would not be enough water to meet the needs of both countries:

The two Prime Ministers took note of the fact that the Farakka Barrage Project would be commissioned before the end of 1974. They recognised that during the period of minimum flow, there might not be enough water to meet the needs of Calcutta Port and the full requirements of Bangladesh and, therefore, the fair weather flow of the Ganga in the lean months would have to be augmented to meet the requirements of both countries. It was agreed that the problem should be
approached with understanding so that the interests of both countries are reconciled and the difficulties removed in a spirit of friendship and cooperation. It was accordingly decided that the best means of such augmentation through optimum utilisation of the water resources of the region available to the two countries should be studied by the Joint Rivers Commission. The Commission should make suitable recommendations to meet the requirements of both the countries.

It was recognised that it would take some years to give effect to the recommendations of the Commission as accepted by the two Governments. In the meantime, the two sides expressed their determination that before the Farakka Project is commissioned they would arrive at a mutually acceptable allocation of the water available during the period of minimum flow in the Ganga.64

The importance of the prime ministers' meeting lies in the fact that it gave the Joint Rivers Commission a mandate to discuss augmentation of the flow of the Ganges. Unfortunately no forum or method of negotiation was laid down for settlement of the more urgent question of how to share the existing dry season flow of the river. Negotiations on this sharing finally took place in February 1975 in New Delhi, between Abdur Rab Serneabat, Bangladesh prime minister Sheikh Mujibur Rahman's brother-in-law and the new Bangladesh Minister for Water and Power, and Jagjivan Ram, India's newly appointed Minister for Agriculture and Irrigation. However, they made little progress in their discussions.65

They met again in April 1975. There was optimism on both sides and, within two days, an interim "understanding" had been reached.66 Under this agreement, India could divert small quantities of water for forty days beginning the 20th of April.
India would receive a fraction of the water it had originally demanded but the agreement constituted an important precedent inasmuch as Bangladesh conceded that India could begin operation of the Barrage. However, too much should not be made of this agreement. The understanding settled neither of the outstanding principal questions of the conflict: discussions on both sharing and augmentation were to continue. The government-owned Bangladesh Observer noted:

The agreement will not disturb the discussions regarding the allocation of fair weather flows of the Ganges during the lean months as envisaged in the Prime Ministers' declaration of May 1974. The agreement was only an interim one allowing experimental operation of the Farakka Barrage. Joint teams were to observe the effects of the diversions at Farakka, on the Hooghly River and inside Bangladesh.

Though this understanding constituted a step forward, there were criticisms on both sides of the border. The absence of Serneabat, the Bangladesh minister, from the official opening of the Farakka Barrage was interpreted as an expression of Bangladesh's misgivings. Moreover, a West Bengal minister was quoted as describing India's share of the water as "driblets...in quantities that do not serve our purpose." Nevertheless, water started flowing down the newly built feeder canal into the Bhagirathi and joint observation teams set out to observe the effects of these diversions.
E. THE QUESTION OF AUGMENTATION

While the two ministers were negotiating an interim allocation of the existing flow, the Joint Rivers Commission was discussing methods of increasing that flow. Although the Commission met monthly from June 1974, its discussions came to a standstill by December. The two teams were advocating two different methods of augmenting the flow and "the Joint Rivers Commission could not, therefore, come to any agreed conclusions on the subject." 69

Bangladesh proposed that the dry season flow of the Ganges should be augmented by the construction of storage reservoirs on the river's Himalayan tributaries for release later in the year when water becomes scarce. The Indian team opposed this concept, arguing that a canal to transfer surplus water from the Brahmaputra into the Ganges was a more "realistic" alternative. 70 The two proposals are discussed in detail in Chapter IV.

On August 15, 1975, Mujib was killed in a coup d'etat. The last year of Mujib's rule had alienated the Awami League from the majority of the population in Bangladesh. It was quite easy for the military in Bangladesh to take over the reins of power once Mujib was eliminated. Amidst all this chaos in the internal politics of the new born country, the Indians went on diverting Ganges water at the rate of 40,000 cusecs at Farakka and continued to do so for the remainder of 1975. 71 For reasons undetermined, Bangladesh did not protest until early 1976.
Just before the outbreak of renewed, vociferous dispute, representatives of the two sides met in New Delhi to discuss the issue. Representatives of Bangladesh's new president met Mrs. Gandhi, the Indian foreign secretary and other relevant officials but at the end of the visit only a strained and uninformative statement was released. On January 15, 1976 a Bangladesh protest note started a year of public dispute. Bangladesh alleged that Indian withdrawals at Farakka after the end of the forty-day understanding constituted a breach of the agreement. The Indian government responded saying that it was "surprised and pained" at such propaganda, particularly because it had been agreed at the previous month's meeting that both sides would refrain from "hostile propaganda."

In February and March, the Bangladesh government protested frequently, in several forums and by a variety of media. During all this time, with the low dry season Ganges' flow imminent, Indian withdrawals of Ganges waters were continuing at or near the maximum mark allowed by the Farakka Barrage Project. Simultaneously Bangladesh was suffering from armed attacks along the Indian border. Awami Leaguers and other elements, opposed to the new regime in Bangladesh, were making intermittent raids into the country.

Before negotiation on the Farakka issue could resume, there were some preconditions set by both India and Bangladesh which had to be met. Bangladesh's position was that negotiations could start only when the Indian withdrawals stopped. India wanted to meet only if the talks were confined to the sharing of
water during the period March 15 to May 15.\textsuperscript{77} Both sides also made some positive suggestions, even at the height of the dispute. Bangladesh proposed the creation of international commissions for the Ganges and Brahmaputra rivers\textsuperscript{78} and, toward the end of March, after Bangladesh had relaxed its precondition for talks, India announced a concession. Mrs. Gandhi reportedly told the Bangladesh High Commissioner in New Delhi:

\begin{quote}
India is taking steps to keep up the downstream flow at the March 15th level during the rest of the lean season to the extent possible on the basis of the availability of waters. It is now Bangladesh's turn to choose its response in a helpful manner to pave the way for restoration of mutual confidence.\textsuperscript{79}
\end{quote}

At the same time Mrs. Gandhi told Bangladesh that the offer India had made -- for the Joint Rivers Commission to study the effects of withdrawals on Bangladesh -- remained open. Bangladesh accepted the offer and talks resumed the following month in Dhaka. These were technical talks on a restricted topic. They were reminiscent of the 1960-1971 period of negotiations between India and Pakistan. India again reasserted its former position, saying that before any agreement could be negotiated, technical problems had to be sorted out.\textsuperscript{80}

The talks occurred in a period when relations between the subcontinental neighbours were at a low ebb. A few days before the talks were announced, India had protested against two shooting incidents on the border.\textsuperscript{81} The officials met for two rounds of discussions, and travelled through southwestern Bangladesh, up the Hooghly River to the Farakka Barrage. Neither side issued details of what they had achieved, but
within a few days of the return of the Bangladesh team, B.M. Abbas was quoted as saying that Indian figures for withdrawals from the Ganges did not tally with Bangladesh's measurements. In April 1976, the first consolidated protest against Indian withdrawals at Farakka was beginning to emerge within Bangladesh. Maulana Abdul Hameed Khan Bhasani, a peasant leader of considerable political importance called upon the general public in Bangladesh to organise a protest march to condemn the Indian action of unilateral withdrawal of Ganges waters at Farakka. The threat was carried out ten days after the end of the talks. Estimates of the size of the march range from hundreds of thousands to half a million people. The march was peaceful with Maulana Bhasani at the head. The procession stopped six miles short of the Indian border and there were no unpleasant incidents. The importance of this march was symbolic. People in Bangladesh who had only been aware of the Farakka Barrage now rallied with the Bangladesh government. This incident also indicated to the Indian government that anti-Indian feeling could be aroused in Bangladesh if the government in that country made it a point to publicize the issue domestically.

Soon after this incident, India's foreign secretary, Jagat Mehta, led a "goodwill" mission to Dhaka in mid-June and the public clamour over the dispute died down for almost two months. At the beginning of August, however, Bangladesh announced that it had decided to take its case to the United Nations. One final round of talks was held before the issue was
raised in the United Nations. Rear Admiral M.H. Khan of Bangladesh led a delegation to New Delhi but no agreement was reached. The disagreement between India and Bangladesh centred on four different points: Bangladesh was in favour of augmentation within the Ganges Basin; India did not accept Bangladesh's right to veto upstream withdrawals; there was a difference of opinion as to the length of the dry season; and, India rejected outright any proposal which would include Nepal in talks regarding augmentation.  

F. PROCEEDINGS AT THE UNITED NATIONS

Bangladesh's attempt to muster international support during the first half of 1976 had not been particularly successful—only Beijing and Islamabad had wholeheartedly supported the position advocated by Dhaka. Among the various ways in which a dispute of this nature could be brought up in the United Nations, the Bangladesh government narrowed its options down to two. The first was to include the World Bank in any further negotiations over augmentation. This option was suggested to the Bangladesh government by one of its diplomats on secondment to the United Nations. He proposed that:

at an appropriate stage of negotiations (Bangladesh) may agree to discuss the Indian proposal for a link canal between the Brahmaputra and the Ganges provided that India agrees to a World Bank role in the realisation of a project involving Ganges-Brahmaputra basin development.  

The second option was to bring the whole issue up in the United Nations General Assembly. The Bangladesh government chose the
latter course. In preparation for this, first Bangladesh and then India published pamphlets setting out their cases.\textsuperscript{89}

In order to raise their grievance successfully, Bangladesh diplomats had to negotiate a course through the preparatory proceedings of the General Assembly: an item had to be included in the agenda of the Assembly; the item then had to be maneuvered into a committee with appropriate concerns; and, finally, that committee had to be persuaded to recommend a favourable resolution for the consideration of the General Assembly.

In the first procedural stage India opposed consideration of the dispute but the item was accepted. At the next stage, India pressed for the question to be considered by the Economic Committee rather than by the Political Committee. Again India was defeated; the item was referred to the Special Political Committee, in line with Bangladesh's wishes.\textsuperscript{90} The first two stages, however, were only preparatory skirmishes. India's representatives were able to recoup their losses in the backstage war which followed.

After a postponement, Rear Admiral M.H. Khan put the Bangladesh case to the Special Political Committee and India's foreign secretary, Jagat Mehta, replied. At that stage, the public proceedings ceased and there followed what amounted to an embarrassing delay while both parties lobbied and negotiated, through intermediaries, behind the scenes. The Bangladesh resolution was withdrawn and replaced by a consensus statement which had been evolved with the assistance of an ad hoc
mediation committee, consisting of representatives of five non-aligned countries: Algeria, Egypt, Guyana, Sri Lanka, and Syria. There is no doubt that the consensus resolution was a way of saving face.

Most of the membership of the General Assembly were willing to express their concerns for Bangladesh's plight. However, it was quite another matter when it came to translating this concern into votes. In the backstage war, Bangladesh realised that India, as one of the champions of the non-aligned cause, had a lot of support from all over the third world. While non-aligned countries all expressed their sympathies, they were unwilling to take sides in the Assembly. One factor influencing the course taken by Bangladesh was its assessment that many of the major powers were themselves, at home, upper riparian states like India.

As an attempt to mobilize support, or to obtain third party intervention, Bangladesh's action in the U.N. was not very successful. Bangladesh did achieve publicity for its case, and the consensus resolution which the General Assembly endorsed did contain one concession to Bangladesh's objective:

It is open to either party to report to the General Assembly at its thirty-second session on the progress achieved in the settlement of the problem.

The next chapter will analyse the negotiations leading up to the five-year agreement reached between India and Bangladesh for sharing the dry season flow of the Ganges in November 1977.
NOTES

1. The Ganges Kobadak Project is a canal irrigation project drawing water from the Ganges at Bheramara, in Kushtia district. The project was started under the United Nations Technical Assistance Programme in 1951, and the Pakistan government gave its approval in 1954. The project has been bogged down both by technical difficulties and by the inappropriateness for agriculture. Irrigation only started in the late 1960s. However, unlike some other projects which seemed to have been hurried through in order to establish Pakistan's right to historic usage of the water, the Ganges-Kobadak project was sanctioned prior to the approval of the Farakka Barrage. Its construction was started first and it started consuming the Ganges waters before the Farakka diversion.


4. The Indian minister of irrigation and power made the following statement to the Indian Lok Sabha: "...Government of India have agreed to a meeting of experts of India and Pakistan for a limited purpose of discussing procedural details and arrangement for exchange of information."


5. The Hindu, August 6 1960, "Talks on Eastern Rivers."


7. Ibid.


   With the exception of most of the Indian writers, both neutral observers and writers from Pakistan/Bangladesh are of the opinion that while the barrage was being constructed, India deliberately put off meaningful negotiations.

10. Ibid. See also Kulz, op. cit., p.723.

11. Ibid.

12. Ibid., pp.723-724.

13. Ibid., p.724.


15. Ibid.


17. Dawn, Karachi, July 16 1968, "India rejects Kosygin's suggestions on Farakka."

18. Only on a very few occasions has India accepted any course other than bilateral negotiations for the settlement of disputes. The U.N. mediated in the Kashmir dispute in 1949 but reached an impasse. The World Bank provided conciliation and mediation for the Indus dispute, and some broader disputes were settled by an arbitral tribunal in 1948.

19. It is interesting that the 1977 Treaty with Bangladesh was signed after Morarji Desai became prime minister of India as the leader of the Janata coalition which defeated Indira Gandhi's Congress Party at the polls earlier in the same year.


22. The technical studies were carried out by Tibbett, Abbot, McCarthy, Scratton of the United States and Associated Consultants and Engineers of Karachi, Pakistan.


26. Ibid.

27. Ibid., p.14.

28. Water Investigations Directorate, EPWAPDA, Dhaka. See also Dawn, June 2 1971, "East wing's water needs for eastern rivers
established," in which an aide-memoire sent to India is published.


32. Ben Crow, op. cit., p.121.

33. The Barrage itself was complete but the 26.4 mile feeder canal was not finished until December 1973.

34. Kulz, op. cit., p.724.

35. There were outstanding disputes between India and Pakistan in areas of Kashmir and the Rann of Kutch, bordering the Rajasthan Desert.

36. See Appendix D. for Consensus Statement put on the agenda of the United Nations General Assembly.

37. Dawn, Karachi, July 16 1968, "India rejects Kosygin's suggestions on Farakka." Pakistan's foreign minister at the time Arshad Hussein had several talks with Roger Revelle and also the president of the World Bank regarding a multilateral approach to Farakka.

38. The Awami League, under the leadership of Sheikh Mujibur Rahman won 167 out of 169 seats in the National Assembly in Pakistan from East Pakistan in December 1970. Since the Awami League wanted to capitalize on the Farakka issue, it is unlikely that their views would have reflected the actual state of affairs. As it turned out, their own attitude toward India regarding the Farakka Barrage was as strong as the Pakistan government's had been after Bangladesh was created.


41. As early as February 1972, the prime ministers of Bangladesh and India met and decided to create the Indo-Bangladesh Joint Rivers Commission to look into the problem of sharing the water resources of the region. See Appendix A for
the Statute of the Joint Rivers Commission for a detailed description of its functions and responsibilities.


43. B.M. Abbas was the alternate leader in the first five experts' meetings held between India and Pakistan. After the independence of Bangladesh, Abbas became Advisor to the Prime Minister on flood control, irrigation, and power, and, in that capacity was Bangladesh's chief negotiator on the Farakka issue with India. He was also the first chairman of the Indo-Bangladesh Joint Rivers Commission.


47. Satish Kumar, op. cit.

48. Appendix A.

49. Appendix A.


52. The Times of India, August 2 and 15, 1972, "Farakka will not hit Bangla's interests: Dr. Rao," and "Bengal Chief Minister happy."


54. Ibid., p.20.

56. Taking the issues in order:
"Major river basins" could apply to the Brahmaputra, to the Ganges, or, stretching the "major" somewhat, to the Teesta. The scarcity of dry season water is much less on the Brahmaputra. The likelihood is that the press release is primarily referring to the River Ganges.
"Development works of mutual interest" in the stretch of the Ganges referred to could be (1) the Farakka Barrage, (2) the Ganges-Kobadak Project, or (3) the proposed Ganges Barrage.


58. The Times of India, July 19 1973. "Farakka decision left to PMs."


60. During the independence struggle in Bangladesh from March 25 to December 16, 1971 the Chinese government had always supported the position of the central government in Islamabad. To some people in Bangladesh this was a cop-out and others were perplexed because Mao's philosophy is full of revolutionary struggles. In the matter of Pakistan versus Bangladesh, the government in Beijing was always clear. In fact the Chinese recognition of Bangladesh came only after Mujib had been assassinated. Also the hostility between China and India is well known. As long as a suitably anti-Indian government prevails in Dhaka, token Chinese support can be counted on.


63. The May meeting in 1974 between Mrs. Gandhi and Sheikh Mujibur Rahman is reported to have been very successful. A number of bilateral issues were resolved and new areas of cooperation agreed upon. The following is a complete list of things discussed and their result:
i) many small boundary disputes were settled;
ii) closer trade cooperation was agreed upon;
iii) both countries pledged to increase exports to meet balanced trade targets set at earlier talks;
iv) establishment of four joint industries, taking raw materials from one country to labour and machinery in the other, was agreed upon;
v) it was agreed that a joint survey would be carried out for a rail link to connect Calcutta with Agartala (a district of India lying to the east of Bangladesh); and
vi) protocols were signed making new Indian credits available to Bangladesh.
64. Foreign Affairs Record, May 1974, "Indo-Bangladesh Joint Declaration" of May 16 1974, p.55; also, The Hindu, May 17 1974, "India, Bangladesh sign political, economic, pacts."


66. The Hindu, April 17 1975, "Short-term solution to Ganga waters problem."

67. Bangladesh Observer, April 19 1975, "Bangladesh will get 44,000 cusecs in lean period."


70. Ibid., pp.14-16.

71. In a statement printed in The Hindu, February 19 1976, "Ganga waters: India refutes Bangla claim," an Indian ministry of external affairs spokesman wrote: "It is no secret from any one that the Farakka Barrage has been operating at near or optimum capacity 40,000 cusecs since June 1975."

72. The Statement only indicated that the Indian government was alarmed about Bangladesh's treatment of Hindus in Bangladesh and that Bangladesh had complained of guerrilla attacks from within India. Foreign Affairs Record, December 1975, "Indo-Bangladesh Joint Statement" of December 8 1975, pp.319-333.

73. Keesing's Contemporary Archives, October 15 1976, "Bangladesh: the Farakka Dispute."


75. Ziaur Rahman, Bangladesh's chief martial law administrator told a Swedish newspaper that: "The Indians have sent several thousand men across the border in the north. They are Bangladesh citizens but are equipped and supported by the Indian army."


76. Bangladesh Observer, March 15 1976, "Talks meaningless unless India stops withdrawal of Ganges water unilaterally."

77. Xinhua News Agency, March 16 1976, "Indian precondition for talks on Ganges waters rejected."
78. The Hindu, March 19 1976, "Bangla raises extraneous issues for talks on Farakka."

79. The Hindu, March 30 1976, "PM stresses Indo-Bangla amity with the envoy."


81. Ibid.

82. Bangladesh Observer, May 12 1976, "Indian figures do not tally with actual observations."

83. Bangladesh Observer, April 19 1976, "Bhasani plans silent March to Farakka;" see, also, Dawn, April 20 1976, Bhasani plans peaceful march on Farakka."


86. Keesing's Contemporary Archives, October 15 1976, "Bangladesh: the Farakka dispute."

87. Foreign Affairs Record, September 1976, "Official Statements on anti-Indian propaganda on Farakka," of September 4 an 10; see, also Bangladesh Observer, September 12 1976, "Absurd Indian ideas thwart Farakka issue."


90. United Nations Document (Summary Record) A/BUR/31/SR.1, pp.7-10 and 13-14, records this discussion.


92. This account is based on interviews conducted by Ben Crow with Bangladesh diplomats in New York and with a delegate to the Special Political Committee who was present when the item was raised. See Crow op. cit., p. 407.
93. See consensus statement in Appendix D.
IV. THE 1977 BREAKTHROUGH AND ITS AFTERMATH

The discussion of the Farakka issue in the General Assembly of the United Nations neither hastened the process of negotiation between India and Bangladesh nor offered any new formula for a quick solution. Although there were many in Bangladesh who felt that their government's bluff had been called, almost eight years after the fact it seems that some sort of progress was achieved. First, if internationalization of the issue had been the Bangladesh government's intention, this was achieved in some measure. More states became aware of the Farakka Barrage issue and the respective stand taken by the disputants. Second, the fact that Bangladesh brought up the issue in the U.N. General Assembly against the express wishes of India must have embarrassed the latter country. Third, the fact that the treaty was signed between India and Bangladesh just one year after the issue was raised in the U.N. indicates that the Bangladesh move had paid some dividends. However, too much should not be made of Bangladesh's U.N. strategy because during the same period, the Indian domestic political scene underwent several important changes which undoubtedly had an effect on the outcome of the Farakka question.

At the end of 1976, Emergency Rule in India came to an end. In the general elections of March 1977, Morarji Desai at the head of the Janata coalition was voted into power by an overwhelming majority. While the importance of the domestic political change should not be overrated, it is interesting to note that within nine months of the Janata Party's coming to
power in New Delhi, a treaty over sharing the waters of the Ganges was signed between India and Bangladesh.

This chapter examines the process by which the 1977 Treaty emerged, discusses some of the limitations of the treaty, and records the progress of discussions about increasing the Ganges' dry season flow. It is argued that while the Janata government's "softer" stand on Farakka helped reach agreement, it was by no means the only or the most important reason. Bangladesh played a very crucial role in arriving at the terms of the treaty by putting the right amount of pressure at the right time on the Indian government. The approach Bangladesh used once it became certain that the Janata government was willing to reach agreement was that of "maximizing benefits and minimizing costs."

In the 1977 Treaty both India and Bangladesh agreed in principle that there was not enough water flowing through the Farakka Barrage in the dry season. Both parties concluded that the dry season flow of the Ganges would have to be augmented. The last section of this chapter deals with the problem of augmentation of the dry season flow of the Ganges and analyses the stands taken by Bangladesh and India on this question.

A. PRELUDE TO THE GANGES WATERS TREATY

Representatives of India and Bangladesh met in December, 1976 but no progress was made. There was one important difference from previous meetings, however. This meeting was headed by Vice Admiral M.H. Khan who was then the navy chief of Bangladesh and, on the Indian side Jagjivan Ram, India's new
agriculture minister headed their delegation. Although the substantive issues were still the same, the meeting between important political leaders of both countries raised the hopes of many in Bangladesh that a solution was in sight. This was unfortunately not to be for some time yet because the meeting between these two leaders was adjourned, resumed, adjourned again and then resumed again in New Delhi before being broken off altogether. Reports indicate that the discussion was focussed on the important issue of water sharing. One report says that India offered Bangladesh "more than half" the dry season flow but Bangladesh was not willing to accept India's diversion of more than 15,000 cusecs. After the New Delhi meeting ended, the Indian government announced that the talks had ended without agreement. A Bangladesh government spokesman, however, elaborated on the deadlock in the following words:

The negotiations were not successful because the Indian side failed to recognise the urgency of the situation and the serious adverse effects on Bangladesh of the continuous withdrawals of Ganges water at Farakka, especially with the onset of the dry season since November.4

The details of the talks, described a month later in the Far Eastern Economic Review, reveal that the Bangladesh delegation was snubbed for Indian domestic political reasons. Two scheduled meetings were unceremoniously cancelled to the chagrin of M.H. Khan who was leading the Bangladesh delegation. Before the Bangladesh team left for home, however, Jagjivan Ram and the head of India's policy planning division, G. Parthasarathy, called on Admiral Khan to tell him "off the record" that the
Indian government could not initiate any new move on its own, and could not consider any proposal presented by Bangladesh because, "such a move would have serious adverse effects on the Congress Party's election chances, especially in West Bengal." Cancellation of scheduled meetings with the Bangladesh delegation may also have been India's way of showing displeasure with Bangladesh's move in the United Nations. It was almost as if India was telling its subordinate neighbour that internationalization would not help Bangladesh's cause in any way.

Although negotiations were broken off and the possibility of an immediate settlement seemed remote, neither side used the breakdown of negotiations to generate propaganda. The Bangladesh government knew full well that to blame the breakdown of talks on the Indians would draw domestic attention to the limitations of the U.N. resolution. The Indians for their part, were content to keep a low profile since the status quo suited their own interests.

During the early months of 1977, President Ziaur Rahman of Bangladesh paid state visits to the People's Republic of China and Iran. During these visits, the Bangladesh president tried to gain international support for his country's stand on the Farakka issue. He was successful in extracting declarations of support from Chinese leaders in January 1977. After the failure of M.H. Khan's visit to New Delhi, Zia visited Iran but the Shah tactfully avoided making any commitment, saying that he hoped the two nations would be able to settle their
Bangladesh could therefore muster only limited international support for its stand on Farakka in the early months of 1977. In the words of Ben Crow:

Bangladesh could muster the support of only a few friendly nations. Amongst the more powerful, only China was willing to make public declarations of support and, since China and India and not resolved the differences which had caused the 1962 war, that support could not be readily converted into pressure on the Government of India.

Bangladesh's position in the negotiations seemed to take a propitious turn at this point. In March 1977, Mrs. Gandhi's faction of the Congress Party was defeated at the polls by the Janata coalition headed by Morarji Desai. The new government in New Delhi was pledged to a policy of "good-neighbourliness." Although Indira's Congress government had also been committed to a similar policy, any manifestation of good-neighbourliness was noticeably absent in India's relations with Bangladesh especially after the assassination of Sheikh Mujibur Rahman in August, 1975. The Janata government, on the other hand, had sought tangible results from its policy of "good-neighbourliness" right from its inception. Some concessions were made on both sides and, within weeks of the Indian election, negotiations were resumed once more.

Jagjivan Ram, who was now the Janata government's defence minister, headed the Indian delegation to Dhaka in April. It was a dramatic occasion by most accounts but when it came to actual negotiations, there was more drama than agreement. The following report from the Far Eastern Economic Review records
the events immediately after the meeting of April 15, 1977:

In a rare if not unprecedented outburst of rage India's Babuji Jagjivan Ram shouted at pressmen, waiting at the state guest house here (in Dhaka), "Take it from me, nothing has been settled..." And half an hour later at the airport, while Khan and Ram remained behind closed doors in the VIP lounge, Jagat Mehta (India's foreign secretary) read out a one-sentence statement to newsmen: "An understanding has been reached the details of which are to be worked out at a meeting of the officials of the two governments to be held in Delhi as soon as possible."  

When Mehta was asked to elaborate, however, he replied that they should not ask him any more questions in the "interest of Indo-Bangladesh friendship."

It seems that some sort of agreement was reached, however, and that India had made a concession on the quantity of water to be given Bangladesh in the driest ten-day period of the year. Although the details of this "understanding" have never been authoritatively published, they can be tentatively pieced together from what different parties told the newspapers at the time.

In January, the Indian delegation had been willing to concede that the withdrawals at Farakka in the driest periods might be reduced to 25,000-27,000 cusecs. One newspaper report covering the April round of discussions suggested that the figure of 20,500 cusecs, to be withdrawn by India during the driest period, was agreed upon by both sides. Since this is the quantity specified in the treaty signed the following November, it seems probable that this report was correct. If that is the case, then the Indian delegation had conceded
between 4,500 to 7,000 cusecs, whilst Bangladesh had given away only 500 to 3,500 cusecs.\(^5\)

The other important concession made by India involves the length of the dry period. Earlier, India had insisted on a lean season, the period of lowest Ganges flow defined by them as the period from mid-March to mid-May, whereas Bangladesh had wanted a seven-month, November to May, dry season. In the November 1977 Treaty, a five-month period of sharing, from January to May, was agreed upon.

Certain issues, however, remained unresolved in the so-called understanding of April. The most important issue in this category was the division of water between the two countries throughout the remainder of the five-month period. The long-term problem of augmentation of the Ganges' flow also remained unresolved.

The question of augmentation was raised in subsequent meetings between B.M. Abbas of Bangladesh and Jagat Mehta of India in New Delhi. Bangladesh proposed third-party technical help to plan projects but India rejected this proposal. The meeting therefore ran into a deadlock. It is quite possible that the impasse was reached because of contradictory views presented by both parties with regard to increasing dry season flow of the Ganges.\(^6\) The deadlock was finally broken by agreement in principle that both countries' proposals would be studied at a later meeting.\(^7\) One report states that the first meeting between Jagat Mehta and B.M. Abbas was postponed because agreement would have prejudiced the forthcoming
legislative assembly elections in West Bengal.¹⁸

There are reports that Bangladesh was trying to extract a promise from the Indian government not to encourage guerrilla operations into Bangladesh territory from bases in India.¹⁹ In its negotiations with India over the Farakka issue, the Bangladesh government had tied in the issue of guerrilla attacks. In June 1977, the Commonwealth Conference once again provided an opportunity for President Zia and Prime Minister Desai to meet in London informally. At this meeting Desai agreed to "see that no shelter was given to criminal elements from across the border, whatever might have taken place under the previous regime."²⁰

From this point onward, a degree of confidence was restored in negotiations over the Farakka issue. India had now made two concessions from Bangladesh's point of view: first, the quantity of water to be released to Bangladesh during the five-month period was acceptable and, second, the Indian government promised to prevent further guerrilla attacks into Bangladesh territory. Bangladesh, viewing India's concessions as a sign of willingness to reach a solution over Farakka, decided to put forward its own proposal regarding the long-term augmentation question, suggesting that in any future discussion the People's Republic of China and Nepal should also be included.²¹

Jagat Mehta and B.M. Abbas met in Dhaka in August. During this meeting the differences between the two sides were, according to the official statement, "narrowed down."²² Other accounts, however, were less sanguine. Bangladesh was
apparently sticking to its case that long-term development programmes were not a matter for bilateral, but for quadrilateral discussion.\(^2\)\(^3\) Despite the fact that consensus had not been reached on all aspects of the Farakka issue, there were indications that the Indian government was preparing for a settlement. Jagjivan Ram visited West Bengal and told the Merchant Chamber of Commerce that "it would not be fair to flood Bangladesh during the monsoons and leave it dry in the summer months when it too needs water."\(^2\)\(^4\) West Bengal leaders were not convinced and lobbied the Central government, demanding the maximum diversion at Farakka, but to no apparent effect.\(^2\)\(^5\) It was clear from Jagjivan Ram's statement that Desai's government was ready to put its policy of "good-neighbourliness" into operation.

Talks between India and Bangladesh resumed in September when B.M. Abbas led a Bangladesh delegation to New Delhi. It was at this stage that the Bangladesh government, envisaging a treaty in the future, decided to extract the maximum benefit from India. Early in September, Prime Minister Desai referring to the April meeting between Jagjivan Ram and B.M. Abbas, said that agreement had been reached. Bangladesh, however, sharply rebutted this statement, saying that it was only a verbal understanding.\(^2\)\(^6\) By mid-month the talks reached a snag because of Bangladesh's insistence on including China and Nepal in future discussions over the long-term question of augmentation. India, of course would have nothing to do with this proposal. The reasons behind India's refusal are lucidly explained in this
editorial by G.K. Reddy in The Hindu:

India cannot afford to let Nepal line up with Bangladesh and to look to China for inspiration...And whatever King Birendra's (of Nepal) fixation, India has to display all possible patience and imagination in making him realise in his own way where Nepal's own interests lie in the geopolitics of the subcontinent.²⁷

Toward the end of the month, there were hints that a summit meeting between Zia and Desai would be necessary before agreement could be reached. The main details of an agreement had been achieved but the real hurdle was a lingering suspicion of each other's basic intentions.²⁸ As it turned out, however, the summit was not required. Talks were held up for a while because Desai was in the south of India and Zia was visiting in Egypt. Upon their return, the Political Affairs Committee of the Indian cabinet met, and B.M. Abbas shuttled backwards and forwards between New Delhi and Dhaka,²⁹ receiving final instructions on what would and would not be acceptable to Bangladesh. Since verbal agreement had already been reached on a) setting the division for the leanest ten-day period; b) a five-month, January to May, dry season; and c) the principle that the long-term development should be studied and therefore set aside for the time being, the only unresolved question that remained was how to divide the water between the two countries during the remaining fourteen ten-day periods of the five months. In the April understanding, agreement had only been reached on how much water each country would receive during the period April 21 to April 30, this period being the driest spell.
The five-month dry period was divided into fifteen ten-day periods and agreement had not yet been reached on how much water India and Bangladesh would receive in the remaining fourteen ten-day periods.

The final problem seems to have been on a choice between a linear distribution of the flow or an asymmetric division. A linear division would have presumably given Bangladesh five-eighths of the Ganges' flow for the whole of the five-month period of sharing. An asymmetric division, on the other hand, would give India an increasing proportion of the flow. From Bangladesh's standpoint, an asymmetric division which meant that India would receive an increasing proportion of water after April 30 was an acceptable alternative. However, Bangladesh accepted this only when Desai had agreed to meet Bangladesh on an extended period of sharing. In the early morning of September 30, 1977, the agreement was initialled. The Ganges Waters Treaty (text in Appendix B) was signed on November 5, by M.H. Khan of Bangladesh and Surjit Singh Barnala, the new Indian Minister of Agriculture.

B. THE GANGES WATERS TREATY: ITS LIMITATIONS AND IMPLICATIONS

The Ganges Waters Treaty consists of three parts and fifteen articles. The first part consisting of seven articles describes in detail arrangements for the sharing of waters of the Ganges at Farakka. The second part consisting of four articles addresses the important issue of long-term arrangements for increasing the dry season flow of the Ganges. The final part containing four articles deals with clarification of the
terms of the treaty and also sets down a time limit for future discussions.

While the treaty itself implied success for the Bangladesh government, there were some articles within the document which especially protected its interests. Article II (ii) of the treaty, for instance, states:

...Provided further that if during a particular ten-day period, the Ganga flows at Farakka come down to such a level that the share of Bangladesh is lower than 80 per cent of the (agreed share), the release of waters to Bangladesh during that ten-day period shall not fall below 80 per cent of the (agreed share).³²

This was the "safeguard" clause requested by the Bangladesh government (and assured by the Janata government) to ensure that continued upstream withdrawals would not dip into whatever share of the waters was allocated to Bangladesh. The Bangladesh government was well aware that the waters reaching the Farakka Barrage (in West Bengal) where division of the waters would take place would dwindle as irrigation was extended in India. This clause would guarantee Bangladesh's share during the driest ten days at the end of April at 27,600 cusecs, 80 per cent, that is, of 34,500 cusecs.³³

The Indo-Bangladesh Joint Rivers Commission (JRC) was empowered under Article IX of the treaty to produce schemes for augmentation and propose a solution which would be "economical and feasible." The treaty further provided that the JRC would have to submit its recommendations to both governments within the first three years of the treaty's duration. If Bangladesh had any doubts about India's sincerity, Article XII, which
stated that the "quantum of water agreed to be released to Bangladesh at Farakka...shall not be reduced," provided some measure of assurance.

At first glance, the 1977 treaty seems to have resolved an historic dispute over the sharing of Ganges waters between India and Bangladesh. On closer scrutiny, however, it becomes clear that this treaty only solved the immediate problem of sharing the existing flow. To resolve the more complicated issue of augmentation, the treaty only established negotiating procedures and a deadline for discussions. The five-year time limit during which the treaty would be effective also indicates that while this temporary solution was acceptable to both sides, it was in no way the most efficient way to manage the water resources of the Ganges. By signing the treaty both India and Bangladesh signalled their mutual desire for a solution, while simultaneously recognising that a long-range solution would require hard bargaining as before because of the rising needs of the population on both sides of the border. In the words of a lawyer, the treaty was a pactum de contrabendo or an agreement to conclude a later final agreement.\textsuperscript{34}

The treaty, therefore, cannot be interpreted as an ideal agreement for the development of an international river. It is the product of its historical circumstances, the disputes which forced the two countries to enter into an agreement. These circumstances dictated that negotiation should concentrate only on one aspect of the development of the river, augmentation of the dry season flow. Future treaties may be required to resolve
C. NEGOTIATION OVER THE QUESTION OF AUGMENTATION

Although negotiations started immediately after the signing of the Ganges Waters Treaty, the meetings continued only intermittently and little progress was made. During 1978 and 1979, most of the discussions between representatives of India and Bangladesh centred on procedural issues. There were no meaningful examinations of the alternative augmentation schemes. In several meetings of the Indo-Bangladesh Joint Rivers Commission (JRC) during the 1978-1979 period, no achievements were announced.

In late 1977, President Ziaur Rahman of Bangladesh visited India. During his visit it was decided that the JRC would be upgraded to include the relevant ministers from each government. By virtue of this decision, the JRC was transformed from a purely technical body with only recommending powers, to a political and technical commission with "greater" powers. The upgrading of the JRC by mutual agreement is an indication that both governments recognised that the technical and political aspects of increasing the Ganges flow were intertwined. It is only ironic that this "upgrading" had no influence whatsoever on the JRC's efficiency—the new ministerial-level commission made no more progress than its predecessor.
D. THE INDIAN PROPOSAL FOR AUGMENTATION

In March 1978, the governments of India and Bangladesh exchanged what can be called formal proposals for the augmentation of the dry season flow of the Ganges. It is important to be familiar with the details of these proposals because they represent not only the respective political views of the two governments but the technical aspects of these schemes have remained the cornerstone of each side's bargaining strategy. The Indian proposal is entitled Proposal for Augmentation of the dry season flow of the Ganga. Henceforth, this document will be referred to as the Indian Proposal for convenience.

The Indian Proposal contains a detailed description of how the augmentation of the Ganges' flow can be effected. The Indian plan basically involves the construction of a barrage across the Brahmaputra and a canal to take water from that river to the Ganges at Farakka. At a later stage India intends to construct three storage reservoirs in the eastern foothills of the Himalayas to supplement the dry season flow of the Brahmaputra. The whole project includes five separate structures and the estimated cost at 1978 prices would be about six billion U.S. dollars. The Proposal also offers the following arguments to justify the Indian plan for augmentation:

1) Shortage in the Ganges Basin cannot be overcome by schemes within that basin;

2) all feasible reservoir sites within the Ganges cannot store enough water for the combined needs of India and Bangladesh;
Figure 3

MAP SHOWING THE INDIAN PROPOSAL ON AUGMENTATION OF GANGES FLOWS
3) the needs of Indian drought areas outside the Ganges basin must be considered, and since the Ganges is the nearest source of the water any plan to augment the Ganges flow should also be able to meet the needs of these areas;

4) there is unused water available in the Brahmaputra and the Meghna river basins at times of the year when shortages in the Ganges are most acute.

The following is a brief description of the Indian Proposal and the function of each component:

**The Brahmaputra Barrage**

The Indians propose to construct a barrage across the River Brahmaputra at Jogighapa, in Assam, about 70 miles downstream of the state's capital, Gauhati. The length of this barrage would be approximately 1.5 miles and the structure would be similar to the one at Farakka. The purpose of the barrage is to raise the river level so that water will flow by gravity into a canal.

**The Canal**

Indian planners project a 200 mile-long canal which will transport the water to the Ganges at a point just upstream of the Farakka Barrage. The Indian Proposal suggests that this Ganges-Brahmaputra canal should have a capacity of 100,000 cusecs, and a depth of 30 feet. In this case the width of the waterway would be nearly 900 feet. According to Indian estimates, the canal would occupy 20,000 acres of land in Bangladesh and about 44,950 acres in India.

**The Dams at Dihang, Subansiri, and Tipaimukh**

The River Brahmaputra is called the Dihang as it turns south from China to India. It falls through a distance of 7,500
feet in 200 miles. The hydroelectric potential is, therefore, considerable.® The Indian government proposes to build a rock-fill dam at a site 25 miles north of the Assam plain. The dam will be 80 feet high, 1.5 miles long, resting on hard, jointed basalt foundations. The estimated gross storage capacity of this dam will be about 26.5 million acre feet (MAF). The live storage of the reservoir would be 17.2 MAF, and a hydroelectric power generator built at the dam would provide 7,500 MW (at 60% load factor). The Indian government estimates that this reservoir alone could store enough water to augment the dry season flow of the Brahmaputra from 60,000 to 120,000 cusecs. However, the reservoir would flood an area of 137 square miles in the midst of which lies the Indian town of Along.

The Indian Proposal suggests that the second dam would be built on the River Subansiri, which is the first major tributary to join the Brahmaputra on the plains of Assam. This dam would be a 700 feet high rock-fill dam to be built at a gorge 40 miles north of the Assam town of North Lakhimpur. The reservoir behind the dam would be able to store an estimated 7.5 MAF of water and this could augment the dry season flow of the Brahmaputra by about 25,000 cusecs. About 1,800 MW of electricity would be generated by this dam. When operational, however, the dam would flood 41 square miles of territory and a large village called Daparijo in India would be flooded.

According to the Indian Proposal, the third dam would be constructed at a place called Tipaimukh on the River Barak. This would be a much smaller one compared with the other two and
would provide a live storage of 6 MAF and 600 MW of hydroelectric power.

The Indian Proposal also states that flooding in the Bangladesh districts of Dhaka and Sylhet along with Kochar in India could be prevented.¹¹ A number of potential reservoir sites are also mentioned but no detailed descriptions are provided. **Level-Crossings**

The projected Ganges-Brahmaputra link canal crosses a series of rivers in northwestern Bangladesh and could disrupt the north-south flow of natural drainage. In particular, the canal crosses the River Teesta at a point northwest of the district of Rangpur in Bangladesh. Anticipating objections from Bangladesh on this point, the Indian Proposal justifies its position in the following way:

> For major rivers it would be more convenient to have level crossings which would permit navigation also along the rivers being negotiated.¹²

A four-way river canal junction, similar to a road junction, is envisaged for the Teesta crossing and also possibly elsewhere. This would be a major engineering project, possibly the largest in the world. Indian engineers believe that such a level-crossing could be operated with one barrage across the river and one regulator at the outfall of the canal.¹³
E. THE BANGLADESH PROPOSAL FOR AUGMENTATION

The Bangladesh government's proposal for augmentation is called **Proposal for the Augmentation of the Dry Season Flow of the Ganges**. It will be called the Bangladesh Proposal henceforth for convenience. The main thrust of the Bangladesh argument rests on the premise that there is enough water in the Ganges basin to meet the needs of the three countries (including Nepal). The Bangladesh Proposal identifies a total of 83 reservoir sites of which 52 are located in India and the remaining 31 in Nepal. This document is considerably weaker in technical detail compared with the Indian Proposal. There are no details of the design of the proposed reservoirs, their operating procedures, or the cost of these reservoirs. The Bangladesh Proposal, however, presents an estimate of the additional dry season flow which could be generated if all these reservoirs are built. Bangladesh planners concentrate on twelve major reservoirs in Nepal on the three main trans-Himalayan systems: the Karnali, the Gandaki, and the Kosi river systems.

The Bangladesh proposal implies that Nepal should be included in any future discussions on the question of augmentation. The Proposal also implies that the water stored in the projected reservoirs in Nepal should be allocated for the needs of Calcutta port in India and of western Bangladesh. It is interesting to note that until now, development of these reservoirs in Nepal was a subject of discussion between India and Nepal. Indian had offered to finance the construction of some of these reservoirs and buy hydroelectric power from Nepal.
Figure 4

MAP SHOWING THE BANGLADESH PROPOSAL ON AUGMENTATION OF GANGES FLOWS

SCALE 1:4,000,000
The Bangladesh proposal further estimates the total amount of flow generated from Indian and Nepalese reservoirs at an additional 310,000 cusecs. This could be made available during the dry season to meet the needs of the three countries. This estimate constitutes the crux of the Bangladesh proposal.

F. THE CHRONOLOGY OF NEGOTIATIONS OVER AUGMENTATION

Despite the exchange of detailed proposals for alternative projects to augment the Ganges' flow, negotiations did not proceed beyond this preparatory stage. The reason for this was that the important question of whether two countries, or three, or more, are vitally concerned in the augmentation of the Ganges. Until this vital political question could be resolved, the chances of reaching a consensus on the technical question of augmentation were virtually nil. The Indian government has consistently argued that the question of augmentation of the Ganges is a bilateral concern, to be discussed by Bangladesh and India. The view is embodied in the 1977 Treaty which makes no provision for the involvement of other governments. The Bangladesh government, however, has actually insisted that the interests of Nepal cannot be ignored. Nepal is situated in the Ganges basin, its rivers contribute most of the dry season flow of the Ganges and Bangladesh's proposal for augmenting the Ganges would be carried out mostly within Nepalese territory. For these reasons, Bangladesh argues, Nepal must be a party to the negotiation of augmentation.

In May 1979, the third meeting of the Indo-Bangladesh Joint
Rivers Commission (JRC) after the 1977 Treaty had been signed, the Indian side conceded that the Nepalese government would be "approached." This slight concession was made because of prime ministerial intervention. Just prior to the JRC meeting Prime Minister Morarji Desai had visited Bangladesh and suggested that Nepal be approached. However, the concession was made by India on the understanding that it did not prejudice the "basic bilateral character of the negotiations of the augmentation of the flow." The exact status which the Nepalese government might have in the negotiations was not publicly clarified. Judging from India's actions even today, it becomes clear that the Indian government never envisaged a formal trilateral commission. This ambiguous concession from India was not acceptable to the Bangladesh government. It is quite natural, therefore, that there was no agreement to commence surveys of the alternative schemes for augmenting the dry season flow of the Ganges.

India's insistence on bilateralism on the issue is clearly illustrated by reference to the response given to a third party intervention which was made in January 1978. In a speech to the Indian parliament, President Carter of the United States offered assistance for the development of the region's rivers. Two days later the Prime Minister of Britain, James Callaghan, made a similar offer in Bangladesh. The interventions were welcomed in Dhaka but rebuffed in New Delhi. Nothing more has been heard of them since.

With the return of Mrs. Gandhi as prime minister in
January 1980, the Indian attitude seems to have become non-compromising. During Mrs. Gandhi's election campaign, she gave notice that the fence-mending agreements made by the Janata government should be undone. In subsequent months, the focus of Indian concern moved from the question of augmentation back to the short-term sharing of the existing dry season flow.

President Ziaur Rahman visited New Delhi in February 1980 to address a U.N. conference. During this visit he took the opportunity to meet Mrs. Gandhi to discuss the question of augmentation. The following report quoted from the *Hindu* is a good indication of the change in Indian attitude:

> The new government's policy toward neighboring countries is to continue to strive for a consolidation of relations with them in mutual interest. (But) the Indian view is that one-sided concessions do not lead to lasting friendship, but only end up by distorting the relationship and doing more harm in the long run. So it is necessary to aspire to a certain degree of reciprocity to give both sides an abiding stake in the preservation of equally beneficial relations.

The new position can be interpreted in two ways. First, it is quite possible that the new government was not willing to accept the short-term sharing of the flow negotiated by its predecessor. Second, by bringing up the question of sharing existing dry season flow, the Indian government may have been trying to put pressure to Bangladesh to accept the Indian proposal for augmentation. In my opinion the latter seems to have been the case.

In the March meeting of the JRC, the new Indian irrigation minister, Kedar Pandey (who had previously been the irrigation
minister for the state of West Bengal) warned that India would invoke her right to review the Treaty in November if no progress were made in investigating augmentation proposals. However, when he was questioned later in the Lok Sabha, the minister did say that since it was a bilateral agreement, they would stand by it. That the Indian threat to scrap the treaty was a ploy aimed at getting Bangladesh's acquiescence on the matter of the Inedian proposal for dry season augmentation is further illustrated by G.K. Reddy's report on the minister's statement in *The Hindu*:

The Minister... is missing no opportunity to do some plain speaking to Bangladesh on the Ganga waters problem. He has been sounding a note of warning, presumably with the prior knowledge of his senior Cabinet colleagues, that the 1977 Farakka agreement, in its present form, will have to be scrapped if Bangladesh continued to drag its feet over the question of augmentation of the flow during the dry season.

During most of March and April of 1980, the Farakka issue became polarized. Bangladesh insisted on Nepal's participation in any discussion over the question of augmentation and India threatened to scrap the 1977 Treaty unless the Bangladesh government relented. The following report in the *Times of India* is a reflection of the Indian government's displeasure over Bangladesh's policy to include Nepal in discussions of augmentation:

..Instead of cooperating with this country (India) in making the agreement work in right earnest, Bangladesh has persisted in a negative and dilatory attitude which amounts, for all practical purposes, to a
refusal to implement some crucial clauses of the agreement. For instance, a commitment to formulate a long-term plan to augment the flow of the Ganga is as much a part of the agreement as the provision for a guaranteed minimum supply of the Ganga waters to Bangladesh during the lean months for a period of five years. For if no progress could be made in the long-term plan within the specified time-frame, India will have no option but to ask for the scrapping of the five-year formula for water sharing during next year's review of the 1977 agreement which has also been specifically provided for in the accord itself."

After the 17th meeting of the JRC in New Delhi which took place between February 27-29, an official of the Indian external affairs ministry issued the following statement:

"Whether it is the issue of the augmentation of the flow of the Ganga or the sharing of the Teesta waters or indeed the question of the waters of any of the common rivers, the true meaning and significance of the interim Farakka accord must not be distorted or else the future of this agreement might be jeopardized."

The Indian government was attempting to show that Bangladesh had reneged from its position as signatory to the 1977 Treaty and therefore there was no reason for the Indian government to observe the Treaty anymore. The Indian position of not agreeing to include Nepal in discussions was defended on the grounds that India did not like "a multilateral approach to a bilateral issue."

Relations between India and Bangladesh deteriorated once again during most of 1980 and 1981. The feeling of trust that had been restored by Desai's government was now replaced by mutual suspicion. Under these circumstances, it is not unusual that Bangladesh adopted an ambiguous negotiating strategy -- a
strategy which involved displaying a keen interest in finding a long-term solution and yet not budging from its insistence on trilateral involvement. Bangladesh's strategy is described accurately by Inder Malhotra in the *Times of India*:

In all fairness it must be recognised that not only does the Farakka issue affect the lives of millions of people in Bangladesh, it is also a highly emotive question in that country. Moreover, all the complexes arising from the close proximity between India and Bangladesh and the disparity in their sizes come into play whenever Dhaka takes up the Ganga water problem with Delhi. A curiously ambivalent negotiating strategy is the result. On the one hand, Bangladesh pleads for magnanimity and generosity from its bigger neighbour; on the other it attempts overtly and covertly to internationalize the purely bilateral issue.\(^5\)\(^5\)

The Indian government was clearly unimpressed with Dhaka's stalling tactics. Through official statements and press releases, New Delhi made it clear that if Bangladesh did not agree to the Indian proposal of long-term augmentation, India might have to consider the option of scrapping the Treaty altogether. Sensing the central government's uncompromising attitude toward Bangladesh, the government of the state of West Bengal wasted no time in its attempts to pledge its support for the Indian position. The West Bengal assembly unanimously adopted two resolutions requesting the Union government to try to modify the Indo-Bangladesh Ganga waters agreement to ensure a minimum of 40,000 cusecs of water in the Hooghly in the leanest part of the year and to take necessary conservation steps to maintain and improve navigability of that river.\(^5\)\(^6\)

The 18th meeting of the JRC was held in New Delhi in April.
Although Jamaluddin Ahmed, Bangladesh's Deputy Premier (Deputy Prime Minister) and leader of its delegation to the New Delhi talks, said that the talks were "friendly," no solution had been actually reached. In fact, the two positions were in such sharp conflict that the two sides had not been able to agree even on the minutes of the meeting.\(^5\) Inder Malhotra reflected the Indian attitude:

Only those out of touch with reality could have been surprised by the failure of the latest round of Farakka talks between this country (India) and Bangladesh. The divergence between the approaches of the two sides has been so great that to look for a meeting ground between them is like expecting two parallel lines to meet. For once the Joint Rivers Commission appointed under the Farakka accord, signed by the Janata government in November 1977 has even dispensed with the formality of recording the two sides' agreement to disagree. And although another meeting of the JRC in Dhaka has been mooted, it is clear that the deadlock cannot be broken at the technical level at which the Commission functions. A way out of the impasse can only be forced at the highest political level.\(^6\)

Malhotra's main point is significant: the technical nature of the JRC made it all the more difficult to find a solution which is essentially political.

The Bangladesh government had tried to include Nepal in discussions of augmentation by referring to Morarji Desai's willingness to "approach" Nepal in 1979. It was revealed later that the former Indian defence minister, Jagjivan Ram, at the time of signing the treaty had also exchanged with his Bangladesh counterpart a "confidential" letter. In this letter, it seems Mr. Ram had affirmed that in discussing the long-term arrangements to augment the Ganges' flow, the two countries need
According to one report, Bangladesh was trying to treat this letter as an integral part of the 1977 understanding.\textsuperscript{59}

The 19th JRC meeting was held during July 8-11, 1980. While this meeting also failed to bring about any change in the Indian and Bangladesh positions, the joint statement issued at the end stated that "it had been agreed to continue the discussions at the JRC, and where necessary, at other levels also."\textsuperscript{61}

The Dhaka meeting also decided that the 20th meeting of the JRC would be held in New Delhi at the end of August. It was also decided that this would be followed by a meeting of the two foreign ministers, P.V. Narashima Rao and Shamsul Haque of Bangladesh. It was hoped that all the details could be worked out by the 20th JRC meeting and during the foreign ministers meeting so that the final decision could be taken during the summit, meeting between Mrs. Gandhi and Ziaur Rahman in September in New Delhi.\textsuperscript{62}

As it turned out, however, the 20th meeting of the JRC was held on August 30, after the foreign ministers' meeting. This indicates that both sides had presumably realised that such a meeting would be pointless unless the basic issues were sorted out at a higher level. The Indian external affairs minister Narashima Rao and the Bangladesh foreign minister Shamsul Haque met in Dhaka on August 16-17 to discuss a number of bilateral issues. The issue of long-term augmentation of the Ganges' flow figured prominently in their talks. The joint statement issued at the end of their talks stated:
India and Bangladesh should continue their efforts to maintain a climate of mutual trust and understanding and further consolidate and strengthen the friendly relations between them.  

Regarding Farakka, the joint statement contained the by now inevitable line:

Efforts should be intensified to find a mutually acceptable solution at an early date to the problem of the long-term augmentation of the dry season flow of the Ganga at Farakka.

In other words, the Farakka issue was still as far from being resolved as ever. It was clear that both sides were exercising great restraint and both sides were aware that negotiations had to continue if a solution was to be reached.

The 20th session of the Indo-Bangladesh Joint Rivers Commission (JRC) was held in New Delhi but, to no one's surprise, it did not make any progress. The joint statement issued at the end of the New Delhi talks stated that it was decided to hold the next meeting of the JRC in Dhaka very early "with a view to make a renewed attempt to submit its recommendations concerning the augmentation of the dry season flow of the Ganges within the time limit specified in the agreement."  

The date of the review was due in two months on November 5, 1980. It was extremely unlikely that the agreement over the augmentation question could be reached in two months where every previous meeting of the JRC had failed to produce any results. Meanwhile, the domestic political situations in both Bangladesh
and India had taken a turn for the worse. Mrs. Gandhi was preoccupied with the volatile situation in Assam and Ziaur Rahman was more concerned about the opposition he was facing from members of the Awami League because the economy had deteriorated.

The next round of talks over the augmentation question could not be held before November 5 in Dhaka. The talks were in the nature of a review as provided for by the 1977 Treaty. The Indian delegation was headed by Mr. Kedar Pandey who reported that in the last dry season the port of Calcutta received only 10,000 to 12,000 cusecs and this situation could not continue any longer. He also said that India had agreed to the 1977 formula for sharing existing dry season flow in the hope that Bangladesh would agree to the Indian proposal of a link canal through Bangladesh territory thereby joining the Ganges and Brahmaputra Rivers. Kazi Anwarul Huque, the Bangladesh Minister for Power, Water Resources, and Flood Control, responded to the Indian minister’s statement by saying that Bangladesh had to be satisfied with only 34,000 cusecs for the last three years during the lean season whereas historic usage has never been below 44,000 cusecs. The review of the 1977 Treaty, therefore, achieved nothing in terms of solving the augmentation problem but was confined to "considering the impact, implementation, and progress of the 1977 agreement."

The Bangladesh government was trying its best, meanwhile, to interest Nepal in taking a more vocal role in the affairs of the region in general and especially, regarding joint management
of the eastern rivers. President Ziaur Rahman of Bangladesh visited Nepal in an effort to secure its commitment to a formal stand on river development issues. The Nepalese government apparently succeeded in getting a tactical postponement of a formal stance in the dispute, but agreed that the Ganges was an international river and as such discussions over the augmentation of its dry season flow should include all the co-basin states. The government of India looked at this courtship with suspicion. There was a report in the Times of India on April 13 which stated that officials in New Delhi saw these moves by Dhaka as a conscious attempt to subvert the policy consistently followed by India with its neighbours—that all bilateral problems between neighbours should be solved bilaterally. The same report also stated that the Indian government was inclined to view the Bangladesh campaign as nothing short of an "unfriendly act."

The question of augmentation of the dry season flow of the Ganges was still not decided. By May 1981, both Bangladesh and India realised that concessions would have to be made on both sides if the deadlock were to be broken. Bangladesh was trying to broaden the scope of the discussions by including a broad range of issues of mutual concern to both countries. On May 3, 1981 Mr. Muchkund Dubey, Indian High Commissioner to Bangladesh, announced in Calcutta that a high-level Indo-Bangladesh meeting to discuss the entire range of bilateral issues would be held shortly.

The meeting, however, could not take place for a long time.
During the month of May, Indo-Bangladesh relations reached a new low over the question of ownership of a new island which had sprung up at the mouth of the Hariabhanga River in the Bay of Bengal. The island, known as New Moore in India and South Talpatty in Bangladesh was formed by deposits of sediment carried down by the River Hariabhanga. As soon as the island emerged, the Indian government sent a naval ship and raised the Indian flag. Because the island was so close to the Indian border, the Bangladesh government suggested a joint survey to verify ownership. The idea was categorically rejected by the Indian government. Answering questions in the Rajya Sabha (India's Upper House), Indian external affairs minister Mr. Narashima Rao said:

India's title to New Moore island is clear. The question of joint survey requested by Bangladesh is premature and not relevant at present. 

The talks on augmentation were once again interrupted by an unexpected event. President Ziaur Rahman was assassinated on May 31, 1981 while he was visiting the city of Chittagong in Bangladesh. Justice Abdus Sattar, who had been Zia's Vice-President was declared the new president of Bangladesh. In the ensuing general elections of November 1981, the Bangladesh Nationalist Party (BNP) under Justice Sattar was once again voted to power. Sattar could only rule for a few months, however, because on March 25, 1982 Lieutenant General H.M. Ershad, Bangladesh's army chief declared martial law throughout the country. Although Ershad made some important changes in
the domestic sphere, the Chief Martial Law Administrator's office issued a directive to the effect that Bangladesh's foreign policy would remain unchanged.

Indo-Bangladesh relations improved under Ershad's leadership. After Mujib had been assassinated in August 1975, the Indian government had viewed the Bangladesh leadership with suspicion. Zia's growing ties with the Muslim world and his constant wooing of Nepal and the other smaller countries in the subcontinent did not find favour in India. Besides, A.Z.M. Obaidullah Khan, Ershad's advisor on agriculture had indicated to an Indian journalist that the military rulers were anxious to solve the Farakka Barrage issue with India.76

The next round of talks were held in Dhaka during August 27-31, 1982. The Bangladesh delegation was led by A.Z.M. Obaidullah Khan who had by now become Minister of Agriculture for the military government. The Indian delegation was led by Mr. Kedar Pandey, Union Minister for Irrigation. The joint press release issued at the end of the talks stated that the two sides "achieved a greater measure of understanding on the elements to be taken into consideration for finding an equitable solution."77 While not a great deal can be read from this press release, it was clear that the two sides had decided to continue in their efforts to find a mutually acceptable solution and also agreed to meet as often as necessary at appropriate levels.
G. A MEMORANDUM OF UNDERSTANDING

Further negotiations between representatives of India and Bangladesh had cleared the way for a formal understanding to be drawn up on a number of issues. In early October 1982, Gen. Ershad paid his first official visit to India. During his visit, Mr. P.V. Narashima Rao, Indian External Affairs Minister and Mr. A.R. Shams-ud-Doha, Bangladesh Foreign Minister, drew up a Memorandum of Understanding which was reported as a two-year extension of the Farakka agreement of 1977. This, however, is essentially a misrepresentation. During the October visit, Mrs. Gandhi and Gen. Ershad discussed the 1977 agreement on Farakka and agreed that the agreement had not proved suitable for finding a satisfactory and durable solution. On that basis, the 1977 agreement was agreed to be extended for another two years with the understanding that the Indo-Bangladesh Joint Rivers Commission (JRC) would undertake and complete technical and feasibility studies within 18 months of the signing of the Memorandum of Understanding to augment the flow of water and ensure equitable sharing between the two countries. What the joint press release did not say is that the new understanding omits the 80 per cent clause which guaranteed Bangladesh's share during the driest ten days at the end of April at 27,600 cusecs. The Gandhi-Ershad Memorandum of Understanding has a clause which directs the JRC "to ensure that a full and final agreement is arrived at."

The Memorandum of Understanding is an understanding which favours the interests of India over those of Bangladesh.
Without the 80 per cent "safeguard" clause, any arrangements to divide the Ganges waters at Farakka are, from the Bangladesh perspective, increasingly irrelevant. At current rates of irrigation expansion in India, there might not be enough water in Farakka during the next decade or so. Thus the first function of the 1977 Treaty -- that of sharing the existing flow -- will remain unchanged but there will be one important difference: whereas the 1977 Treaty guaranteed Bangladesh a steady supply of water, the Gandhi-Ershad Memorandum promises only a share of a dwindling supply. This will not matter only if the flow in the Ganges does not fall seriously below average during the next two dry seasons and the two countries can reach an agreement over augmentation by that time. Since past discussions have proved intractable we can assume that future discussions will prove to be every bit as difficult.

The second function of the 1977 Treaty was to establish procedures for negotiations of augmentation. The new Memorandum of Understanding significantly modifies the circumstances in which the negotiations will take place. The JRC was asked to study alternative augmentation proposals and make its recommendations to the two governments within three years. It was unfortunate that neither side accepted the other's position with the result that no surveys could be conducted. In the Memorandum of Understanding, the JRC has been directed "to ensure that a full and final agreement is arrived at." Nepal will not be involved in discussions and the nature of the clause indicates that the economic and technical aspects will be
discussed, eschewing the political implications. On both the obstacles which prevented progress in the past, Bangladesh has been overruled: the link canal is to be considered, ignoring its political implications; the Bangladesh scheme will be studied but without the involvement of Nepal.

The Memorandum of Understanding, therefore, is not a continuation of the 1977 Treaty but a new agreement which heavily favours the Indian side. In terms of content, the new understanding is as much concerned with the hydrologic-economic aspects of river development as the previous one, and both religiously avoid political solutions. As long as the continuing political issues involved are not recognised and sorted out, the understanding over augmentation has little chance of success.
NOTES

1. This is especially true when one considers that for almost twenty-six years the two sides had been negotiating without any results. Bangladesh's bringing the issue up in the U.N. in September 1976, and Desai's assuming the reins of power in New Delhi in March 1977, occurred within the space of a few months, therefore complicating the correlation of the two events to the actual signing of the treaty in November, 1977. It is clear, however, that bringing up the issue in the United Nations helped the Bangladesh government regain its confidence and play its cards carefully in the negotiations.

2. Foreign policy is said to be a rational continuum evolved over decades by various governments and also through the interaction of different government departments. Therefore, although the thrust of policy might change with a change in government, the actual process of policy formulation remains the same. It is quite unlikely for governments to make a 180 degree turn from an existing pattern, especially on a substantive issue.

3. The Hindu, January 24 1977, "No accord on Ganga: Bangla team leaves."


6. A similar argument is made in Holiday, January 23 1977, "What prospect for talks."


10. The Janata Party manifesto, Both Bread and Liberty, says: "The Party will strive to resolve such outstanding issues as remain with some of its neighbours and will consciously promote a good neighbour policy." (p.25).

11. Ever since Mujibur Rahman was assassinated on August 15, 1975 the Indian government became unsure of how the new military government in Dhaka would react to Indian paternalism. One of the better known freedom fighters, a certain Kader "Tiger"
Siddiky along with his followers refused to accept the new government and in a bid to put up violent opposition to the new regime in Dhaka crossed over to Indian territory. Here his band of men were given shelter and protection. Occasionally, Kader Siddiky and his troops would enter Bangladesh and raid and plunder the border areas. The government of Bangladesh requested the Congress government to put a stop to Siddiky's activities and hand him over to Banghgladesh. The Indian government did not comply.

12. *Far Eastern Economic Review*, May 6 1977, "As you were at the Ganges Talks."

13. Ibid.

14. The negotiations concentrated on the flow during the period April 21-30, the ten days of lowest flow, and there was agreement that the total flow in this period should be taken as 55,000 cusecs, the 75% availability value. The details of this period come from:

1) *Financial Times*, April 27 1977, "Ganges water agreement near."
2) *The Hindu*, April 15 1977, "Jagjivan to decide other issues besides Farakka."
3) *The Hindu*, April 20 1977, "Concessions to Bangla over Ganga waters."
4) *The Hindu*, April 26 1977, "Bengal Minister criticises Farakka accord."

15. Ibid.


19. *The Hindu*, April 15 1977, "Jagjivan to discuss other issues besides Farakka;" see, also, footnote #11.


24. *The Hindu*, August 30 1977, "India may settle for less water
with Dhaka."


29. On the morning of September 28, a full meeting of Zia's Council of Advisors was discussing the final instructions to be given to B.M. Abbas before he returned to Delhi. They were interrupted by the news that a hijacked Japan Air Lines plane was asking permission to land in Dhaka. See, Sunday, Delhi, October 1977, "The coup coupland." In the subsequent chaos caused by the hijack, two rebellions were attempted, one in Dhaka and the other in Bogra. Neither succeeded and though a few people were killed in the attempts, several hundred people were executed later. Despite all this, the instructions were given to B.M. Abbas and he got back to New Delhi in time to initial the treaty on September 30, 1977.


31. Ibid.

32. *Indo-Bangladesh Agreement on Sharing of Ganga Waters at Farakka*, Article II (ii), See Appendix B.


36. *The Hindu*, December 20 1977, "Zia's fruitful talks with P.M."

37. *India. Ministry of Agriculture and Irrigation, Department of Irrigation, Proposal for augmentation of the dry season flow of the Ganga*, New Delhi, March 1978, p.83. 1 billion equals 1,000,000,000 in the American tradition.

38. Ibid., p.68.
39. The depth and discharge are given, the slope appears to be similar to that of the Farakka Barrage feeder canal. The cross sectional area and width can therefore be calculated.

40. Maasland has calculated that the power potential of the unregulated minimum flow in this region is 30 GW at 60% load factor. Water development potentials of the Ganges-Brahmaputra-Meghna basins, World Bank, Washington, 1973, p.20.

41. Indian Proposal, op. cit., p.8.

42. Ibid., p.67.


44. The Hindu, May 13 1979, "India's gesture to Bangla."

45. USIA, Delhi, "Toward our common goals: texts of remarks and speeches," Delhi, 1978, p.18.

46. The Hindu, January 7 1978, "Callaghan gets warm welcome."

47. The Economist, December 8 1979, "Back to Indira Raj."


52. Times of India, March 1 1980, "Delhi-Dhaka talks adjourned."

53. Times of India, March 4 1980, "Bangla statement is incorrect and unfair."

54. Ibid.


56. Times of India, April 8 1980, "Review of Farakka urged."


58. Ibid.
59. Ibid.

60. Ibid.

61. Times of India, July 12 1980, "Ganga waters issue goes to summit."

62. Ibid.

63. Times of India, August 19 1980, "Delhi-Dhaka to stop illegal entry."

64. Ibid.

65. Times of India, September 2 1980, "Bangladesh obdurate on river waters issue."

66. Times of India, November 7 1980, "Dhaka talks extended: India suggests long-term pact on Ganga."

67. Ibid.

68. Times of India, November 9 1980, "Talks on Ganga waters in Delhi next week."

69. Bangladesh Times, May 16 1981, "India takes stubborn stand on Ganges: Bitter campaign launched against Bangladesh."

70. Ibid.

71. Ibid.


73. Bangladesh Times, May 9 1981, "India rejects joint survey proposal on South Talpatty."

74. Ziaur Rahman was assassinated in a plot to overthrow him led by Maj.-Gen. Abul Manzur. The coup attempt was unsuccessful. All those involved were executed and Zia's President Justice Abdus Sattar took over as President of Bangladesh.

75. Lieutenant General H.M. Ershad was the army chief at the time Zia was assassinated. He was the one responsible for sending army detachments to Chittagong to subdue the mutineers and punish the officers responsible. When Sattar was elected President in the general elections of November 1982, the armed forces under the leadership of Ershad demanded that they should have a constitutional position in the ruling of Bangladesh. Justice Sattar refused and the armed forces took over power on March 25, 1982 in a bloodless coup ostensibly to fight the corruption practised by the politicians who had been in power
and which, according to the army, had eroded the very fabric of society in Bangladesh.


77. Times of India, September 1 1982, "Farakka talks end on hopeful note."

78. Times of India, October 8 1982, "Farakka accord to be scrapped."

79. Ibid.


81. Ibid., p.2098.

82. Ibid., p.2097.

83. Ibid., p.2098.

84. Ibid.
V. ASYMMETRIC DYADS AND UPSTREAM-DOWNSTREAM CONFLICTS

The Farakka Barrage dispute between India and Pakistan/Bangladesh provides scholars with a useful study of an upstream-downstream conflict over an international river. Over the thirty odd years that the dispute has been going on, the conflict has evolved through many stages. This chapter analyses the strategies adopted by Pakistan/Bangladesh as the lower riparian state in its attempt to influence India in negotiating an equitable and long-range solution throughout the different stages in the Farakka Barrage dispute. My central argument has been that an equitable and long-range solution has not been reached so far because of the inherent inequality in the overall relations between India and Bangladesh.

In any riparian dispute between two neighbours, there are bound to be hydrologic-economic issues which have to be settled before an agreement can be reached. However, an analysis of case studies dealing with international riparian disputes reveals that the final outcome depends on other factors as well. The overall state of relations between the co-riparians, the stakes involved for each of them, their general foreign policy objectives, the bargaining techniques they choose to employ and, more importantly, the bargaining resources each commands, may also be important factors in the final outcome. In other words, the final solution is more a result of short and long term political considerations affecting the disputing co-riparians than it is of purely hydrologic-economic considerations.

The first factor which is important in determining the
relative ease or difficulty with which an international riparian dispute can be settled between two countries is their relative position vis-a-vis an international river. According to LeMarquand, relationships among international co-riparians can be divided into four categories. Of these, the disputes most difficult to resolve are the ones he calls "upstream-downstream conflicts." In this category, the upstream country uses a river for its sole profit. Its utilisation does not benefit the downstream country and may well be detrimental to the latter's interest if, for example, it makes consumptive use (such as for irrigation) of the water, diverts it, pollutes it excessively or regulates the flow of the water such that the downstream country's needs cannot be satisfied. In such cases, the economic incentives to reach agreement are extremely low because the upstream state receives maximum benefit by exploiting the river in accordance with only its own user's demands. The Farakka Barrage dispute between India and Bangladesh falls in this last category of international river disputes.

In an upstream-downstream conflict, there is very little the lower riparian can do unless this country has reciprocal power over the upper riparian. By reciprocal power I mean whether or not the lower riparian possesses the capacity to influence the upper riparian to cooperate. The superordinate-subordinate relationship between India and Bangladesh can be fruitfully analysed using the conceptual apparatus of a group of scholars from Carleton University. According to them, in an asymmetric-dyadic relationship (their terminology for two
countries in an unequal relationship), the subordinate country although economically dependent on the superordinate country tries to maintain an arm's length relationship with its superordinate partner in order to avoid the perceived political costs of increased integration. Translated into an upstream-downstream conflict situation where the upper riparian is also the superordinate state, the downstream country is in a very vulnerable position. However, even in such situations agreements have been reached. The subordinate/downstream country can attempt to engage the superordinate/upstream country in negotiations over the riparian dispute. How successful the downstream country will be depends on the specific conflict and the nature of relations between two co-riparians. However, with a prudent application of the strategies outlined in Chapter II, subordinate/downstream countries may be able to persuade superordinate/upstream countries to cooperate. Getting the superordinate/upstream country to cooperate does not assure an equitable solution but it is my contention that by initiating negotiations, the subordinate/downstream country can maximize its chances of winning concessions from the superordinate/upstream country. In the final analysis, however, it is the superordinate/upstream country which has the upper hand.
A. THE FIVE STAGES OF THE FARAKKA BARRAGE DISPUTE

The Farakka Barrage dispute has not remained static over the thirty odd years that it has been going on. Based on the nature of the overall pattern of power relations between the co-riparians, the dispute has evolved through five stages. Each stage had its own particular character which, to a large extent, influenced the bargaining style adopted by each riparian. The classification of the dispute into stages helps us to analyse the actions and reactions of the disputants in an historical context. It also saves us, as political analysts, from committing ourselves to a simplistic analysis of the strategies used by Pakistan/Bangladesh as the lower riparian state. While the strategies employed by Pakistan/Bangladesh were very instrumental in persuading India to cooperate, their success or failure at particular periods of the Farakka Barrage dispute depended to a great extent on the changing pattern of power relations between the superordinate/upstream and the subordinate/downstream state. The following analysis of the power relationship which existed between India and Pakistan/Bangladesh during the five stages of the Farakka Barrage dispute will clarify the structural context of the dispute and also enable us to appreciate the importance of certain strategies a subordinate/downstream state may use to achieve a solution to an upstream-downstream conflict.

a. The Exchange of Diplomatic Notes: The first stage of the Farakka Barrage dispute spanned a period of nine years. As
mentioned earlier, it began on October 19, 1951 with a formal complaint lodged by Pakistan with the government of India regarding the latter's plans to construct the Farakka Barrage across the Ganges a few miles from the East Pakistan border. It ended in June 1960 with the first meeting of technical experts from both countries.

Relations between India and Pakistan were "diplomatically correct" which is another way of saying that although diplomatic channels were open, relations were less than friendly. In terms of power, Pakistan and India were roughly equal with India having a slight edge owing to its larger population and greater land area. As co-riparians on a number of major international rivers, such as the Indus, the Ganges, and the Brahmaputra, India was in an advantageous position by virtue of being the upper riparian. During this stage of the Farakka dispute, both countries were newly independent and therefore mostly occupied with domestic reconstruction and development. They were very wary of each other especially since they had fought a small scale war over the disputed Kashmir area in 1948.

During this preparatory stage Pakistan simply wanted to get India to acknowledge that a problem existed, and, in order to do this, Pakistan formally protested about the alleged construction of the Farakka Barrage. Pakistan was quite persistent in the sense that when no reply was forthcoming from India, Pakistan sent reminders. The Pakistan government's efforts paid off because after a while the Indian government agreed to cooperate with Pakistan on a reciprocal basis. However, although Pakistan
supplied the Indians with information on the Ganges-Kobadak project, the Indians withheld any information pertaining to the Farakka project. India did agree to exchange a limited amount of technical information with Pakistan but this concession came only after plans for the Farakka project were finalized and the Indian parliament had approved it.

b. Wallowing in Technical Data: The second stage of the Farakka Barrage dispute began with the first experts' meeting in June 1960 and lasted until the Indo-Pakistan war of 1971. Relations between India and Pakistan deteriorated during this decade to such an extent that they engaged in war three times: first in May 1965, then in September 1965, and finally in December 1971. This last confrontation dismembered Pakistan and what used to be East Pakistan became the independent state of Bangladesh.

A comparative power assessment of India and Pakistan during this period would recognize a rough balance between the two until Pakistan was split up. India gained some stature in the international system because of its originating, along with Egypt and Yugoslavia, the concept and practice of non-alignment. On the other side, Pakistan was integrated into the American system of alliances and became a member of the Central and South East Asian Treaty Organisations (CENTO and SEATO). The two wars between India and Pakistan proved that neither's economy could sustain a long, drawn-out confrontation. India's border conflict with the People's Republic of China in 1962 exposed India's vulnerability. However, the border
confrontations with China only increased India's determination to strengthen and modernize its armed forces. This it proceeded to do with Soviet and American help. Despite attempts by both India and Pakistan to achieve superiority, both sides were about equal in military capabilities.

Negotiations over the Farakka issue started between experts from both countries. The substantive technical issues that were discussed included an assessment of the needs of Calcutta port and East Pakistan. In order to find out how much water would be available during different months of the year, surveys of discharge measurements had to be carried out along different points of the Ganges. By the fourth experts' meeting which ended on January 8, 1962 considerable progress was made in the exchange of data. However, further progress could not be made because of India's demand for more and more data.

During this stage, there was a definite shift in the focus of the dispute. In the first stage Pakistan's efforts were unsuccessfully directed toward stopping India from building the Farakka Barrage without being consulted first. Once construction on the Farakka project was underway, the focus of the dispute (from Pakistan's standpoint) shifted to an equitable allocation of the Ganges' flow. The question of allocation spurred technical exchanges. Despite Pakistan's frustrations with these so-called technical meetings, it had no choice but to follow India's lead. The presence of the Farakka Barrage across East Pakistan's western border had changed the focus of discussions from an argument over a "principle" to an argument
over "sharing."

Had India not insisted on more and more data during this stage and allowed political exchanges to take place, it is quite probable that representatives from India and Pakistan could have hammered out an agreement which would have ensured efficient joint management of Ganges waters. However, that was never India's intention. It is not surprising that the Indian government was unwilling to decide anything until the Farakka Barrage was complete and operational.

c. Paternalistic Embrace: The third stage of the Farakka Barrage dispute spanned more than four years beginning with the creation of Bangladesh in December 1971 and ending with the assassination of Sheikh Mujibur Rahman in August 1975. Negotiations over the Farakka assumed a new dimension in light of the changed circumstances in the subcontinent. The dismemberment of Pakistan not only weakened that country, it also established Indian predominance in the subcontinent. Bangladesh, now an independent but politically weak country, was negotiating with a stronger more confident India. The conditions surrounding these negotiations were peaceful and initially there was no sense of the strain that had characterized negotiations between India and Pakistan.

Within four months of Bangladesh's independence, the two governments decided to create a joint body in order that "the water resources of the region could be utilised on an equitable basis for the mutual benefit of the peoples of the two countries." This joint body was called the Indo-Bangladesh
Joint Rivers Commission (JRC). Negotiations over the Farakka issue went ahead at full speed. Besides regular sessions of the JRC, the Indian government surprised Bangladesh leaders by proposing ministerial level meetings.\(^5\) This generosity on India's part had a lot to do with the state of the Farakka Barrage and the feeder canal. The Barrage had been completed in 1970 but the feeder canal would not be ready until late 1973.\(^6\) It was in India's interest to resolve the issue at this point. The Indians wanted to push a solution through during the Indira-Mujib summit held in New Delhi in May 1974. As it turned out, many issues were settled during the summit but not the issue of the Farakka Barrage.\(^7\)

The lack of progress over the Farakka issue can be explained by the fact that during the first few years of Bangladesh's existence, Bangladesh's leaders felt very grateful to Mrs. Gandhi's government for lending active support during the civil war. Bangladesh leaders felt that it would be inappropriate to differ with India on most bilateral issues. There certainly were differences of opinion between the two countries, but Bangladesh's leaders thought it more prudent to emphasize good relations rather than focus on the differences they had with India. There were also reports that Sheikh Mujib was naive enough to accept India's views as to how much water Bangladesh actually needed during the dry season.\(^8\) However, since the joint statement issued after the Indira-Mujib summit of 1974 contained only a statement of principles rather than an actual agreement, Mujib obviously had his own doubts.\(^9\)
While Bangladesh was following a policy of cooperation with India, India reciprocated in a way which sometimes resembled paternalism. Indian leaders believed that they would have a much easier time dealing with Bangladesh negotiators than they had with delegations from Pakistan. This proved to be difficult because Bangladesh's chief negotiator, B.M. Abbas, had also been a key member of previous Pakistan delegations.²⁰

This stage of the dispute also saw an interim agreement signed between India and Bangladesh so that India could operate the now completed Farakka Barrage and the feeder canal on an experimental basis.²¹ It is clear that Bangladesh had certain misgivings about this agreement, but for reasons yet unclear chose not to make too much of it. On the augmentation issue, however, Bangladesh took a tougher stand. Because Bangladesh was totally opposed to the Indian proposal for augmentation, JRC deliberations came to a standstill by December 1974.

The assassination of Mujibur Rahman in August 1975 brought an end to this stage of the Farakka dispute. The Farakka Barrage was operating under an interim agreement. The focus of the discussions had now shifted from the question of sharing to the question of augmentation.

d. From Hostility to Compromise: Relations between India and Bangladesh deteriorated during this stage of the Farakka Barrage dispute. India's initiatives and Bangladesh's responses were in some ways reminiscent of the second stage of the dispute. The events of August 1975 (Mujib's assassination and
its aftermath) were interpreted by India as manifestations of anti-Indian sentiments, and attempts by Bangladesh to establish diplomatic relations with Pakistan, China, and Saudi Arabia as anti-Indian moves. There was an attempt in Dhaka to kidnap the Indian High Commissioner on November 26, 1975. These events brought the relationship between these two countries to an all-time low. Not willing to accept the situation in Bangladesh, India began to mount a massive propaganda campaign against the new rulers in Bangladesh and there were also reports of attacks on outposts along the Mymensingh-Meghalaya border from the Indian side.\(^2\)

During all this time, India continued its unilateral withdrawal of Ganges waters at Farakka. On January 15, 1976 a Bangladesh protest note started a year of public dispute. Bangladesh alleged that Indian withdrawals at Farakka at the end of the forty-day agreement constituted a breach of the existing understanding.\(^2\)

Meanwhile, within Bangladesh, public outcry against Indian attacks and unilateral withdrawal of Ganges waters reached a crescendo. Hundreds of thousands of Bangladeshis took part in a protest march organised by Maulana Bhasani, a famous nonagenarian nationalist leader.\(^2\) It is interesting to note that while Bangladesh authorities took no steps to stop the protest march, they assured India that Bangladesh border forces would not permit a confrontation.\(^2\) This was the Bangladesh government's way of demonstrating to India that the whole country was united against India in the fight for their water
rights. It is reported that the protest march kept Indian border security forces on the alert.\(^\text{26}\)

Meanwhile, the effects of Indian withdrawals could be felt for the first time. Bangladesh pressed for negotiations and, although they were resumed, India went back to its old bargaining strategy of requesting an exchange of data. India's delaying tactics on the Farakka issue and its general non-compromising attitude on other matters of bilateral concern prompted Bangladesh to take the matter to the United Nations. As discussed in Chapter III, however, the Bangladesh strategy of internationalization did not pay immediate dividends.

The impasse in talks was not broken until Morarji Desai was elected Prime Minister of India in March 1977. With the Janata government in power Indo-Bangladesh relations improved considerably. With a certain degree of harmony restored in relations, bilateral negotiations over the Farakka dispute made some progress in the ensuing months. Undeterred by the lukewarm reception it received in the General Assembly, Bangladesh still proceeded to approach international agencies for moral and political support.\(^\text{27}\)

During this stage of the dispute, Bangladesh tackled negotiations adroitly. Once the Bangladesh government sensed India's willingness to settle the dispute, it chose to include other issues in negotiations for maximum benefit. As it turned out, the November 1977 agreement between India and Bangladesh favoured Bangladesh at least with regard to dry season share of the Ganges' flow.\(^\text{28}\) In June 1977, Ziaur Rahman was able to get a
promise from Morarji Desai in London to the effect that the Indian government would not give shelter to guerrillas in Indian territory.\(^{29}\)

On the question of augmentation, both sides agreed to consider each other's proposals within the next three years and charged the JRC with the task. From 1977 to early 1980, the JRC deliberations proved futile because neither India nor Bangladesh would budge from their positions on the question of augmentation.

This stage of the dispute reveals an interesting aspect of upstream-downstream conflict between a superordinate/upstream country and a subordinate/downstream country. Sometimes domestic political changes within the upstream country can improve the chances of the downstream country to negotiate a settlement. However, too much should not be made of this because the upstream country is not likely to agree to anything that might be detrimental to its interests. All changes like these can do is create "windows of opportunity." If the downstream country is prudent, it can take advantage of the opportunities, just as Bangladesh did.

e. Stalemate or Indian Victory? The fifth and current stage of the dispute began in January 1980 with Mrs. Gandhi's re-election as Indian prime minister. Throughout this current stage of the dispute, the focus has primarily been on the augmentation of the dry season flow of the Ganges. Although the question of augmentation was repeatedly discussed by the JRC in its meetings during 1977, 1978, and 1979, there was no progress.
It was only after January 1980 that the Farakka dispute assumed a blatantly political colour. Throughout this thesis it has been argued that the non-solution of the dispute has been largely the result of the differing political objectives of India and Bangladesh. Both countries diligently tried to underplay the political nature of the dispute but were not always successful. In the current stage of the dispute, political objectives are more prominent than in the previous stages.

The fifth and current stage of the dispute is in many ways an important reminder to river dispute analysts and students of asymmetric dyads that the fates are in favour of the predominant country in the dyad. With Mrs. Gandhi's return to power, India's attitude became totally non-compromising. India not only expressed its regrets over the stalemate on the question of augmentation, it also raised the question of negotiating the sharing aspect which, according to India, have heavily favoured Bangladesh. India blames Bangladesh for the lack of progress over the augmentation question. To be fair, the winter of 1980 proved to be drier than usual. As a result, there was not enough water for Bangladesh and India. Because Bangladesh received its fair share of water under the eighty per cent clause, there was very little water left for use in West Bengal.

When the Memorandum of Understanding was signed by Mrs. Gandhi and Lt. General Ershad (Bangladesh's new military leader) in November 1982, India refused to allow the inclusion of the eighty per cent clause. Therefore, although the
Memorandum of Understanding has been hailed as an extension of the 1977 Agreement for another two years, it is actually a two-year formula for sharing the dry season Ganges' flow with no guarantees for Bangladesh. This means that as irrigation and other agricultural activities are extended in West Bengal, Bangladesh will be left with a dwindling share of Ganges waters. The Memorandum of Understanding also specifically leaves out Nepal from consultations. This means that Bangladesh's proposals for augmentation will be very hard to realize.

Bangladesh has not budged from its position over the augmentation question. The Memorandum of Understanding is due to expire in a few months. It is only a question of time before India can reassert its predominance in this regard.

B. THE FARAKKA BARRAGE: THE ARCHETYPE OF AN UPSTREAM-DOWNSTREAM CONFLICT

The Farakka barrage dispute is essentially a riparian dispute between two neighbours. The origins of the dispute can be traced as far back as 1951 when Pakistan, quoting Indian press reports, lodged a formal protest with the government of India regarding the latter's construction of a barrage across the Ganges River about 11 miles from the East Pakistan border. The protest note started a dispute between India and Pakistan and this continued until 1971 when East Pakistan seceded from Pakistan and became the independent state of Bangladesh. Since 1971, the Farakka Barrage dispute continued between India and Bangladesh, and although an interim agreement was signed in
November 1977, the dispute resurfaced again because this agreement had failed to resolve all the issues associated with the Farakka Barrage. To date, the agreement of 1977 between India and Bangladesh which embodies years of negotiations (starting from the Pakistan era) provides the only guiding formula for sharing of Ganges waters between these two countries. However, there is increasing dissatisfaction with the terms of this agreement on both sides and, unless a comprehensive settlement is reached soon, it is quite likely that Bangladesh as the subordinate/downstream country will be denied even the share of Ganges waters it received as of 1977.

The Farakka Barrage dispute involves two different issues which have to be satisfactorily resolved before a comprehensive settlement can be reached. The first issue involves the sharing of the Ganges' flow during the dry season when the flow is lowest and cannot meet the needs of both countries. The 1977 agreement resolved this issue but only for the duration of the treaty which ended on November 5, 1982. In the absence of any progress in discussions between representatives from both countries during the time the treaty was in force, a Memorandum of Understanding between the leaders of both countries was signed to extend the 1977 agreement for two more years. The second issue involves the question of augmentation of the dry season flow of the Ganges in order to meet the increasing needs of both Bangladesh and India. Both India and Bangladesh have proposed alternative schemes for augmentation but each is violently opposed to the other's scheme for political reasons.
Bangladesh proposed the construction of 81 reservoirs of which 23 would be in Nepal on the Ganges basin. These reservoirs would store water during the monsoons for release later during the dry season. Because some of these reservoirs would be in Nepal, that country, according to Bangladesh, should also be included in future discussions on augmentation. In fact, an attempt to include Nepal and other interested states constitutes an important strategy for Bangladesh to achieve an equitable or at least optimal solution to the Farakka Barrage dispute. India, meanwhile, has proposed construction of a barrage across the River Brahmaputra on its territory just outside the Bangladesh border. A canal would be constructed just upstream of this barrage to link the Brahmaputra River with the Ganges just upstream of the Farakka Barrage. Part of the link canal would have to pass through Bangladesh territory. The additional flow of the Brahmaputra would effectively augment the dry season flow of the Ganges for both countries.

Today, after the expiry of the 1977 agreement, the issues of sharing and augmentation are both being re-examined. It seems that India, being the upstream/superordinate country is winning the battle. But Bangladesh is not about to give up without a fight. The important question is how long can Bangladesh withstand India's pressure, keeping in mind the fact that the more time it takes to reach a comprehensive settlement, the more economic adversities Bangladesh has to suffer in its southwestern region.
C. STRATEGIES ADOPTED BY PAKISTAN/BANGLADESH

In an upstream-downstream conflict, the downstream country has very few options available with which to induce the upper riparian to cooperate. In Chapter II, I have shown that although a legalistic approach does not usually help in resolving a riparian dispute, citing international norms and precedents which support the lower riparian's stand in a particular dispute usually forms a basis for discussions with the upper riparian. Pakistan cited the Helsinki Rules' well publicized principle of "equitable and reasonable apportionment" to get India's attention. Once the upstream country agrees to negotiate, the downstream country can adopt a number of bargaining strategies in order to reach an equitable solution to the riparian dispute.

In the case of the Farakka Barrage dispute, Pakistan/Bangladesh adopted the following strategies in an effort to find a solution to the dispute:

1) Formal protest and exchange of diplomatic notes;
2) Talks between leaders;
3) Cooperation;
4) Technical exchange;
5) Pressure to upgrade talks;
6) Attempts to involve third parties;
7) The threat of retaliation.
8) Internationalization;
9) Issue-area linkage;
10) Mobilize domestic and international public opinion.

Although these strategies were not employed at one time nor necessarily in the order given above, they were clearly discernible in Pakistan/Bangladesh's actions once India had conceded to hold talks.

Formal protest and exchange of diplomatic notes

During the period preceding actual negotiation with India, Pakistan's objective was to make India acknowledge that a barrage at Farakka would be detrimental to the interests of East Pakistan. To this end, Pakistan lodged a formal protest with the Indian government expressing concern about India's proposed barrage at Farakka. Pakistan pointed out that it should be consulted before any project or scheme likely to prejudice its vital interests was put into operation. While India tried to reassure Pakistan saying that the project was only at a preliminary stage, the latter kept on sending notes requesting cooperation. To keep the matter moving, the Pakistan government followed up on its diplomatic notes with reminders every time India delayed sending its replies.

The strategy of lodging a formal protest and following it up with diplomatic notes was partly successful inasmuch as India was persuaded to maintain a steady correspondence with Pakistan. However, when it came to actual information of a technical nature pertaining to the Farakka Barrage project, the Indians were silent. Pakistan was also in a peculiar position. It could press the Indians only so much since construction work had
not started on the project site at that point. To move the matter forward, Pakistan suggested arbitration in 1957. This move by Pakistan prompted the Indian government to agree to direct negotiation. India agreed to exchange a limited amount of technical data with Pakistan. Pakistan's objective to enter into direct negotiation with India, therefore, was achieved by a combination of lodging a formal protest, exchanging diplomatic notes and suggesting arbitration.

There were certain reasons why these strategies succeeded in compelling India to agree to direct negotiation. First, at that point of the dispute, India was worried that third-party intervention might result in an injunction which could prevent construction work at the barrage site. Second, by agreeing to negotiate, India was actually conceding nothing to Pakistan. On the contrary, the exchange of technical data could work in India's favour since it could get information regarding certain projects in East Pakistan. Third, and most importantly, the exchange of technical data would give India the time to go ahead with the construction of the Farakka Barrage without any danger of the work being stopped.

In January 1976, the Bangladesh government also lodged a formal protest with India, alleging that Indian withdrawals at Farakka after the end of the "forty-day understanding" constituted a breach of the agreement. Unfortunately, however, although Bangladesh protested frequently in several fora and by a variety of media, Indian withdrawals at Farakka continued at or near the maximum mark allowed by the project. In this case,
the lodging of a formal protest was more an act of desperation on the part of Bangladesh rather than a well-planned strategy. It is not surprising that India did not respond favourably.

Relations between India and Bangladesh were at an all-time low. Both sides were complaining of shooting incidents across their common border. Second, negotiations could not resume because Bangladesh had set some preconditions which were unacceptable to India. Third, with the onset of the dry-season, the flow at Farakka would be considerably reduced and since India was already withdrawing water the status quo suited its interest. Fourth, the assassination of Sheikh in Bangladesh came as a shock to Mrs. Gandhi and she wanted to show her displeasure to the new regime in Bangladesh by taking a tough stand on the Farakka issue.

Talks between leaders

During various points in the Farakka Barrage dispute, Pakistan/Bangladesh arranged talks between leaders of the co-riparian states in an effort to either speed up negotiations or to clear up some contentious point. President Ayub and Prime Minister Nehru met in London in 1961 during the Commonwealth heads of state conference. These two leaders met informally to discuss a number of bilateral issues including the issue of the Farakka Barrage. It was agreed by the two leaders that Pakistan and India would cooperate on the Farakka Barrage project and the decision to allocate shares of the Ganges' flow would be taken at the ministerial level. Unfortunately, however, Nehru later clarified the Indian position by saying that ministers' level
meetings could take place only after the technical issues were sorted out. Although the Nehru-Ayub "understanding" of 1961 did not reap immediate benefits for Pakistan, it did set the formula for future negotiation between the co-riparians: political discussion would follow technical discussion by experts.

In discussions of augmentation of dry season flow of the Ganges, no progress could be made because Bangladesh and India did not see eye to eye. Bangladesh wanted Nepal to be included in these discussions but India disagreed. This impasse was broken by direct intervention from Prime Minister Desai who suggested that Nepal could be "approached." In this instance, direct intervention by a leader resolved a contentious point for the time being so that negotiations could proceed smoothly. President Zia was in New Delhi in February 1980 to address a U.N. conference. Since discussions of augmentation were making no progress, he met Mrs. Gandhi to discuss this problem with her. This time, however, the tete-a-tete between the two leaders did not clear anything up. The failure of direct personal contact between leaders of the co-riparian states in the last instance can be explained in the following way. Mrs. Gandhi had severely criticised the five-year Ganges Waters Treaty during her election campaign. It was well nigh impossible for her to change her tune just a few months after being elected to the office of Prime Minister. The other important reason for the failure of the Zia-Gandhi meeting was that Zia's suggestion to include Nepal in discussions was a direct attack on the Indian policy of bilateralism in dealing
with its neighbours. Therefore, meetings between leaders can only achieve partial success. On matters of national priority, direct personal contact between leaders of different states is not likely to resolve anything.

In late 1977, President Zia during a visit to India persuaded Morarji Desai to upgrade the Joint Rivers Commission (JRC) to include ministers from both governments. By virtue of this decision, the JRC was transformed from a purely technical body with only recommending powers to a political and technical body with "greater" powers. In this instance, an informal meeting between Zia and Desai changed the nature of the JRC. It was now represented by political decision-makers, something Bangladesh had wanted for many years. Meetings between leaders can always help clear up little problems. Where there is a strong commitment by the national leadership to cooperate, the negotiators will have the authority to make the compromises necessary to reach agreement, or at least develop a flexible bargaining strategy.

Cooperation

At various times during the Farakka Barrage dispute, both Pakistan and Bangladesh followed a strategy of cooperation with India with mixed results. A cooperative strategy was adopted because Pakistan/Bangladesh hoped that this would convince India of their sincerity. They proposed that the co-riparians work jointly to manage their common water resources efficiently.

Pakistan, for instance, suggested in 1961 that the two countries should consider constructing a joint barrage.
southwestern region of East Pakistan could be irrigated by gravity channels fed from a barrage across the Ganges. A potential site existed at Lalgola which would have put the barrage equally in India and East Pakistan. If the barrage were satisfactory from an engineering standpoint, the project would have substantial economic advantages for both East Pakistan and India. The expensive Bhagirathi-Hooghly feeder canal would have been unnecessary and Pakistan could have made a substantial contribution to the cost of the barrage itself. This strategy was totally unsuccessful because India had already begun construction on the Farakka site. Besides, Pakistan's offer was not taken seriously by the Indians who, perhaps rightly, considered this to be a ploy on Pakistan's part to delay the construction of the barrage at Farakka.

In early 1972, Bangladesh suggested the creation of a joint body which would act as a technical and advisory body to the two governments for developing the water resources of common rivers. India agreed at once to the suggestion and the Indo-Bangladesh Joint Rivers Commission (JRC) was formed in March 1972. India agreed with Bangladesh because it had no objections to creating a joint body which would have only recommendatory powers and would be manned primarily by technical experts from both countries. India also had another interest in the creation of such a body. In the Statute of the JRC, nowhere is there any mention of the Farakka Barrage. It was a body created to "carry out a comprehensive survey of the river system shared by the two countries." This meant that within the scope
of the JRC's activities would be included the Brahmaputra and Meghna basins, along with the Ganges, the Teesta, and other shared rivers. Judging from India's proposal for augmentation, which was first mentioned in 1974, (the Ganges-Brahmaputra link canal), Bangladesh's proposal to create a joint body was also in India's interest. Bangladesh, on the other hand, made the proposal in good faith in order to effect a prompt solution to the Farakka Barrage issue. Moreover, the suggestion was made at a time when Indo-Bangladesh relations were at their best and the Awami League government in Dhaka had not yet gotten over feeling grateful to New Delhi for the support it had given Bangladesh's liberation during the civil war less than a year previously.

Technical Exchange

Throughout the negotiations over the Farakka Barrage issue, there were times when talks were completely broken off between India and Pakistan/Bangladesh. When negotiations were resumed, the exchange of technical information about the barrage and other projects in both countries were always an important starting point for both sides.

Negotiations over the Farakka issue broke down completely just before the 1965 war between Pakistan and India and were not resumed until 1968. When the two sides met in New Delhi in 1968, they exchanged technical data. After Mujib's death in August 1975, negotiations broke down for almost a year. During this period, India unilaterally continued to withdraw large quantities of water from the Ganges. When negotiations resumed in early 1976, technical talks formed the basis of discussions
between the Indian and Bangladesh delegations. Thus technical exchange constituted an important strategy for the downstream country to restart negotiations after a period of stalemate.

Technical exchange also had its substantive aspects. In order to determine how much water would be required for Calcutta port and how much for projects in Bangladesh, two things had to be calculated first: 1) basic discharge measurements of the Ganges, and 2) project descriptions to assess water needs of projects downstream of Farakka. It is very interesting to note that although these discussions were "technical," each side's interpretation of technical data was influenced by political considerations. Thus technical exchange assumed an important role at the start or resumption of negotiations because of its alleged "objective" nature. Technical exchange, however, helped India to put off meaningful political negotiation as long as possible.

Pressure to Upgrade Talks

Throughout the negotiations over the Farakka dispute with India, Pakistan/Bangladesh put pressure on India to upgrade talks from the technical experts' level to the political decision-makers' level. The lower riparian's strategy of attempting to convince the upper riparian to upgrade talks to the political level was the direct result of two considerations. First, Pakistan/Bangladesh felt that India was using the excuse of technical exchange to put off serious negotiation. Second, even when the technical problems were sorted out, it was only the political decision-makers from both countries who were
capable of making the substantive decisions. By putting pressure on India to upgrade talks, Pakistan (and later, Bangladesh) wanted to bring about a quick solution to the Farakka dispute.

The Nehru-Ayub "agreement" of 1961 did lay down the foundations of ministerial level meetings between the two co-riparians. However, India later clarified its position, claiming that Nehru had agreed to ministerial level meetings only after all the technical aspects of the dispute were sorted out. For instance, Pakistan pressed for ministerial meetings in November 1962 and May 1963 to move the matter forward, but India refused to comply. It was only after September 1968 when Pakistan raised the issue in the United Nations General Assembly that India agreed to upgrade talks to the secretaries' (senior civil servants') level.

The strategy to upgrade talks was largely unsuccessful because India was not intimidated. India agreed to raise the level of talks only when it suited its interests. For instance, India raised the level of the talks to the ministerial level in 1972 without being requested to do so by Bangladesh. The reason was that the Farakka Barrage was nearing completion and it was in India's interests to reach a solution so that the barrage could go into operation as soon as construction was completed.

Attempts to Involve Third Parties

In an attempt to hasten a solution to the Farakka crisis, both Pakistan and Bangladesh attempted to involve third parties on several occasions. The rationale behind this policy was
simple: a non-partisan third party (be it a state or an international organisation) would presumably bring an objective approach to the Farakka dispute. A mediated settlement, therefore, would be infinitely more equitable than a bilaterally negotiated one. The only task that remained was to persuade India to agree to third party involvement. This proved to be easier said than done. India repeatedly insisted that the Farakka Barrage dispute was essentially a bilateral problem and, therefore, a solution could only be the result of bilateral, not multilateral, discussion.

As early as 1957, Pakistan suggested arbitration in the dispute. India categorically rejected Pakistan's specific proposals but agreed that the two countries could exchange technical information on common rivers. The lower riparian's strategy to involve third parties in the dispute also had a secondary motive. The suggestion to involve third parties sometimes resulted in progress being made in bilateral negotiations with India. Pakistan's suggestion of arbitration promoted bilateral consultation from an indirect exchange of diplomatic notes with India to a direct exchange of technical information with that country.

One of the cornerstones of Bangladesh's position on the question of augmentation has been to involve third parties in discussions. Bangladesh's proposal for augmentation includes storage reservoirs in India and Nepal which can, theoretically, store enough water to maintain the Ganges' flow during the dry season. By attempting to include Nepal in discussions,
Bangladesh wants to increase its bargaining power. Since India is the lower riparian vis-a-vis Nepal, it wants to deal with that country on a bilateral basis to extract maximum concessions. India knows that in a trilateral discussion, it will have to give Bangladesh the same advantage that it receives from Nepal as the lower riparian state.

India's refusal to include Nepal in discussions of augmentation also stems from broader and more basic political objectives. As the predominant power in South Asia, India believes that it can gain maximum benefit from the other states in the region in its dealings with them by adopting a policy of "divide and rule." If the smaller states in the region were allowed to act in concert, India might lose some of the advantage it now enjoys. Bangladesh's strategy to include Nepal in discussions has not succeeded so far and is likely to fail in the future because it goes against one of India's cardinal policies--that of dealing with neighbours on a bilateral basis.

Bangladesh has also tried to put pressure on India by approaching China. While Bangladesh was able to get Chinese declarations of support over its stand on the Farakka issue, this was not apparently enough to intimidate India. Considering the state of Sino-Indian relations over the past two decades, this is hardly surprising. Crow sums up the situation appropriately in the following words:

Bangladesh could muster the support of only a few friendly nations. Amongst the more powerful, only China was willing to make public declarations of support and, since China and India had not resolved the differences which had caused the 1962 war, that
support could not be readily converted into pressure on the Government of India.\textsuperscript{50}

Pakistan/Bangladesh also tried to put pressure on India through the superpowers. In 1968, the Pakistan government requested the Soviet Union to bring pressure to bear on India to settle the Farakka dispute equitably and quickly. Alexei Kosygin, the then Soviet premier, sent a letter to Indira Gandhi urging a solution on the lines of the Indus Waters Treaty.\textsuperscript{51} In 1978, President Carter, in a speech to the Indian parliament, offered assistance for the development of the region's rivers.\textsuperscript{52} A few days later, Prime Minister Callaghan of Britain made a similar offer in Bangladesh.\textsuperscript{53} New Delhi simply ignored these "requests." Bangladesh's strategy to involve third parties has so far produced no positive results. Clearly, India views its policy of bilateralism with its neighbours as based on an important principle. It is not surprising, therefore, that this country will not be intimidated by other major powers, be they regional or international.

Pakistan/Bangladesh's strategy to involve third parties in the dispute was at best a "calculated risk." It never produced the desired result of India agreeing to third party mediation. On occasion, it accelerated the bilateral negotiating process. On other occasions, this strategy triggered a hostile reaction from India to the extent that the Indian government almost cut off the bilateral negotiating process.\textsuperscript{54}
Threat of Retaliation

According to LeMarquand, in an upstream-downstream conflict the upstream country has no economic incentive to cooperate with the downstream country unless the latter has reciprocal power over the former. The concept of reciprocal power has been clarified in Chapter II. One way in which the downstream country can elicit cooperation from the upstream country is by signalling to the latter its intention of going ahead with a project of its own which could have adverse effects in the upstream country. The Pakistan government, having tried everything else, followed a retaliatory strategy for a while in an effort to make India cooperate on the Farakka Barrage issue.

The threat was issued in the form of passing on plans to India according to which Pakistan would construct a barrage on the Ganges in East Pakistan territory. This barrage was known simply as the "Ganges Barrage." This barrage, aside from irrigating huge areas in East Pakistan would also store water for dry season use. Because of the location of this reservoir, it would be possible to flood huge areas in West Bengal (India). The very mention of this project caused considerable alarm in New Delhi. K.L. Rao, the Indian minister of irrigation and power, expressed his apprehensions in the Lok Sabha (Indian parliament) about the project. He said that if the project were implemented, it would cause harm to large tracts of territory within India by submerging and eroding these areas.

There was a subtle irony embedded in Pakistan's scheme. The Ganges Barrage of East Pakistan could act as a lever on
India. If India were unwilling to release to East Pakistan a sufficient supply of Ganges waters, East Pakistan would have to opt for a higher barrage. The proposed barrage would have to be raised by 10 feet (from 45 to 55 feet above sea-level) and this would force India to put high marginal embankments along both banks of Indian parts of the Ganges. The threat implicit to India in East Pakistan's construction of the Ganges Barrage was clear. As it turned out, there was some progress in the negotiations after the presentation of East Pakistan's Ganges Barrage project to India.

Pakistan was extremely fortunate to be in a position to threaten India with a project of its own. If Pakistan had pursued this strategy with a little more determination, it is quite likely that India would have been forced to settle the Farakka dispute amicably. It is quite possible that the domestic turmoil Pakistan was going through at the time prevented that country from concentrating its undivided attention to the Farakka Barrage dispute. The situation presented to Pakistan in its proposed Ganges Barrage project is quite unique and this was perhaps the only time during the Farakka Barrage dispute that Pakistan had "reciprocal power" over India. It is unfortunate that owing to domestic political problems and financial constraints, Pakistan was not able to take full advantage of the opportunity.

Internationalization

Internationalization involves the taking of a disputed issue to a regional or an international organisation by one or
more of the disputants with an aim to reach a solution. In case of "mid-level" disputes, internationalization normally occurs when relations between the disputants have deteriorated considerably. In a superordinate-subordinate relationship, the subordinate state may internationalize an issue to create unfavourable international opinion against the superordinate country thereby putting indirect pressure on it to resolve the issue. With regard to international riparian disputes, however, the chances of resolution are not good. The reasons for this have been discussed in detail in Chapter II.

During the course of the Farakka Barrage dispute, the issue was taken to the United Nations General Assembly on two separate occasions. In September 1968, Pakistan first took the issue to the United Nations. It presented a strong case based on the Helsinki Rules' principle of "equitable and reasonable apportionment." Islamabad also emphasised the rights of lower riparian states and urged the international body to put pressure on India to cooperate in order that a fairly quick and equitable solution could be reached. The Indian government defended the charges levelled against it by claiming that Pakistan's accusations were not in the least justified. India also explained the importance of the Farakka Barrage project in the rejuvenation of the port of Calcutta.

Pakistan's strategy succeeded only insofar as subsequent bilateral negotiations were elevated from the level of technical experts to the level of senior civil servants. It must be remembered that in 1968 Indo-Pakistan rivalry was well known to
the rest of the world. Since India and Pakistan had taken opposite stands on almost all issues they voted on in the General Assembly, the international community mistook Farakka to be one of those "excuses" focussing on which these two states could hurl polemics at each other. Moreover, Pakistan's assessment of the damages that would be caused to East Pakistan were believed to have been exaggerated. In any case, at that point these damages were hypothetical since the Farakka Barrage was a long way from completion.

Bangladesh took the issue to the United Nations in 1976. This was a year after the death of Sheikh Mujibur Rahman. India continued to withdraw water unilaterally even after the expiry of the forty-day "agreement." In this instance, internationalization of the issue by Bangladesh represented a last ditch effort to stop India from withdrawing water unilaterally. India was suitably embarrassed and lobbied hard to prevent the issue from being raised in the General Assembly. India even invited Bangladesh to New Delhi on the eve of the General Assembly session to hold bilateral talks on Farakka. This was a tactical move by India to dissipate the force behind Bangladesh's request to the United Nations. Despite India's attempts to foil Bangladesh's move, the latter managed to include the item in the agenda of the General Assembly. The final wording of the resolution, however, was very mild and only requested both parties to hold bilateral negotiations at the ministerial level. (See Appendix D for text of the resolution).

There is no doubt that the Bangladesh move caused
considerable embarrassment to India. It is also very interesting to note that the interim Ganges Waters Treaty was signed only fourteen months after the Bangladesh move to internationalize the issue. As has been mentioned before, too much should not be made of the strategy. It is clear, however, that Bangladesh being a subordinate/downstream country could gain the sympathy of other states in similar situations. Although the overall support in terms votes favoured Bangladesh slightly, the resolution had only recommending powers.

**Issue-area Linkage**

It is important for Bangladesh policy makers to remember that Bangladesh can resort to issue-area linkage. This means that Bangladesh can offer concessions to India in other areas where India has shown interest. The success or failure of this strategy will depend on the kind of priority India places on the Brahmaputra link canal. There can be other issues which can be linked to a Farakka settlement. For example, India has offered to buy natural gas from Bangladesh on a number of occasions. At one time, Zia agreed to sell natural gas to India, but the Bangladesh government reversed its decision after India's forcible occupation of a disputed island on the Bay of Bengal.

India has also shown interest in developing railway communications with Bangladesh. India wants to construct a rail link from Agartala in the eastern extremity of India to Calcutta in West Bengal through Bangladesh. For fear of providing a military access into Bangladesh, the Bangladesh government has never agreed to the proposal.
These are two areas which could be reopened and a tradeoff might be made with India. Selling natural gas to India would in fact benefit Bangladesh as well because it has huge untapped resources of this commodity, mostly in Comilla and Sylhet districts in Bangladesh. The proposed railway link would cut the distance from Agartala to Calcutta by a thousand miles. Bangladesh would also gain an improved railway communication network. It is up to the policy-makers in Dhaka to reopen these negotiations and link it to the Farakka issue. India might be interested.

Since Farakka diversions are causing so much hardship to the people of southwestern Bangladesh, they have been forced to move elsewhere. Some of them have even crossed over to India in search of better economic opportunities. Whatever the reason for this migration, the fact that at least a million Bangladesh nationals have crossed over to India since 1971 is accurate.India is already attempting to prevent this influx by building a barbed-wire fence around the entire 1700 miles of the Indo-Bangladesh border. Dhaka could try to convince New Delhi that this is futile and that it is in the long-range interest of India not to impoverish Bangladesh.

In the final analysis, India's overall superiority with regard to military and economic capabilities gives it the edge in negotiations with Bangladesh. But if Bangladesh refuses to allow a link canal to be built through its territory, there is nothing India can do short of using military force. So far, it seems unlikely that India will do this. Meanwhile, the pressure
on the government of Bangladesh to augment the dry season flow of the Ganges is intensifying because as irrigation needs in India increase Bangladesh's share will decrease. With no agreed solution to this struggle for a scarce resource in sight, the desperation of millions in both countries may escalate the Farakka Barrage dispute into a conflict of major proportions.

Despite rigorous bargaining by both Pakistan and Bangladesh with India over the Farakka Barrage issue, an equitable solution has not been reached even today. There were times when negotiations between the two co-riparians showed some progress. This progress, however, was more the result of Indian unilateral concession than it was of any conscious bargaining strategy that Pakistan/Bangladesh followed at the time. In an asymmetric dyadic situation where the upstream country is also the superordinate power, it is quite unlikely that the downstream country can achieve much in the way of results it desires. The overall power relationship is tilted too heavily in favour of the upstream country for the downstream country to have much room to maneuver.
NOTES

1. David G. LeMarquand, *International Rivers: The Politics of Cooperation*, (Vancouver: Westwater Research Centre, 1977), p.8. LeMarquand identifies four following relationships between co-riparians: a) public goods; b) common pool resources; c) integrated development opportunities; and d) upstream-downstream conflict. For a detailed description of the four categories, see Chapter II.


5. The United States agreed to desalt part of the water it passes on to Mexico in the Colorado River despite having no economic incentive to cooperate as the superordinate/upstream country. See LeMarquand, *op. cit.*, p.10.


8. In May 1965, India and Pakistan fought a war over the disputed Rann of Kutch territory on the Indo-Pakistan border. This was followed by a bigger war over Kashmir in September 1965. The final war which decided India's predominance beyond question was fought in December 1971 over East Pakistan. Pakistan troops suffered a resounding defeat at the hands of the Indian armed forces on December 16, 1971. Bangladesh was created and a new balance of power established in the subcontinent. For a detailed analysis of the first two Indo-Pakistan wars, see Burke, *op. cit.*, pp.318-357.

9. The concept of non-alignment first gained currency in 1961 during the Belgrade conference as the middle-of-the-road policy in international politics. The foundations of the movement were laid six years earlier in the Bandung conference (Indonesia). The origins of the movement is credited to Jawaharlal Nehru of India, Gamal Abdel Nasser of Egypt, and Josef Broz Tito of Yugoslavia. Initially, however, non-alignment was viewed as a veiled form of pro-Sovietism.

10. Pakistan joined the Baghdad pact on September 23, 1955. In August 1959, the name of the organisation was changed to the
Central Treaty Organisation. Although the U.S. had cancassed for the Baghdad Pact and later fully participated in its work, it never officially signed the treaty. Pakistan ratified the Manila Pact on January 19, 1955. The Manila Pact later came to be known as the South East Asian Treaty Organisation.

11. The first publicized border incident took place at Longju in the North East Frontier Area (NEFA) on August 26, 1959. On this occasion the Chinese and Indian border forces exchanged fire. The second border incident, which was actually a brief war, started when the Chinese crossed Thagla Ridge, which India claimed as the boundary, and threatened the Indian post of Dhola. The Chinese actually did not attack en masse until October 20, on both the eastern and western fronts, putting the Indian army in ignominious flight everywhere. While the Chinese rounded some 4,000 Indians as prisoners of war, the Indians could not capture even one Chinese soldier.

12. By September 1965, United States economic aid to India exceeded $6 billion and military aid to the tune of $84.5 million. India continued to receive large quantities of military aid from the Soviet Union bafter its wars with China. See Burke, op. cit., pp.278, 301.


15. Ibid., p.32.

16. The construction of the barrage was completed in 1970 but the feeder canal was not ready until December, 1973.

17. The May 1974 meeting between Mrs. Gandhi and Mujibur Rahman is reported to have been very successful. A number of bilateral issues were settled and a number of new deals struck between India and Bangladesh. Although there was no definitive agreement on the Farakka issue, the following new deals were struck and issues resolved: 1) many small boundary disputes were settled; 2) closer cooperation on trade was agreed upon; 3) both countries pledged to increase their exports to meet balanced trade targets set during earlier talks; 4) establishment of four joint industries, taking raw material from one country to labour and machinery in the other; 5) it was agreed that a joint survey would be carried out for a rail link to connect Calcutta with Agartala; and f) protocols were signed making new credits available to Bangladesh.


19. According to B.M. Abbas when Mujib conferred with Abbas, he realised his error and decided to rely on Abbas's judgement.
20. B.M. Abbas was the alternate leader in the first five experts' meeting held between India and Pakistan. After the independence of Bangladesh Abbas became Advisor to the Prime Minister on flood control, irrigation, and power, and, in that capacity was Bangladesh's chief negotiator. He was also the first chairman of the Indo-Bangladesh Joint Rivers Commission.

21. India and Bangladesh agreed to run the Farakka Barrage on an experimental basis from April 21 to May 31, 1975. The accord was announced on April 18, 1975 in the form of a press release.

22. B.M. Abbas, op. cit., p.46.


24. The Vancouver Sun, May 17 1976, "Bangladesh anti-dam protesters end march close to Indian border."

25. Ibid.

26. Ibid.

27. Bangladesh sent a delegation under the leadership of B.M. Abbas to the United Nations Water Conference held in Mar Del Plata, Argentina from March 14 to 25, 1977. B.M. Abbas was elected chairman of one of the two committees. The major Bangladesh proposal with regard to international cooperation in the development of shared water resources was met with immediate response from most of the lower riparian states.

28. See Appendix C for provisions of the 1977 Ganges Waters Treaty. Article II (2) of the Agreement assures Bangladesh 80% of the agreed share.

29. The Janata Party Manifesto, Both Bread and Liberty, says: The Party will resolve such outstanding issues as remain with its neighbours and will consciously promote a good-neighbour policy. p.25.

30. See footnote #28.

31. The first letter of protest was written by the government of Pakistan on October 29, 1951. This is the date which marked the beginning of the dispute.

32. See Text of the 1977 Agreement between India and Bangladesh in Appendix C.

33. The Helsinki Rules authored by the International Law Association in 1966, provide the most important and widely accepted legal guidelines for use in settling international river disputes. See International Law Association, Helsinki Rules on the Uses of International Rivers, (London:

34. Ben Crow, *The Politics and Technology of Sharing the Ganges*, unpublished Ph.D. thesis, University of Edinburgh, 1980, p.114. Although Crow identifies Pakistan's strategy to be these five, he limits his discussion to the 1960-1970 period. I agree with him, but only partially. I argue that these five strategies were used throughout the dispute from 1951 up to now. I also seriously doubt Crow's contention that these strategies were used in the order given in an effort to increase the pressure on India to cooperate. As I argue throughout the thesis, a subordinate/downstream country has a limited number of options available. It uses whichever it thinks will give it maximum benefit at a particular time and according to the dynamics of the specific conflict.


38. Nehru and Ayub were in London in March 1961 to attend the Commonwealth heads of state conference. They met to discuss a number of issues and the question of the Farakka issue also came up. There was no formal understanding but they decided to cooperate on the Farakka project. Nehru had tentatively agreed that as soon as the technical aspects were sorted out, discussions among ministers from both countries could take place. This, they hoped would pave the way for a comprehensive settlement of the issue.

39. Bangladesh, however, did not accept this concession because Nepal's position in future discussions was not clearly defined.


41. *The Hindu*, December 20 1977, "Zia's fruitful talks with PM."

42. LeMarquand, *op. cit.* , p.17.

43. *Dawn* (Dhaka dateline), July 12 1961, "Pakistan's proposal cold shouldered."

44. B.M. Abbas who was alternate leader of the Pakistan delegation in negotiations with India over the Farakka Barrage issue stayed back in Bangladesh after the creation of that country. In Mujib's cabinet he was first advisor to the Prime
Minister on flood control, irrigation, and power. He has written an authoritative account of the negotiations from 1960 onward. In this book, *The Ganges Water Dispute*, he claims that during Mrs. Gandhi's visit to Bangladesh in March 1972, he proposed a joint rivers commission of the two countries. Apparently, Mrs. Gandhi readily endorsed the idea. The idea was also supported by Sheikh Mujib, Sardar Swaran Singh India's foreign minister, as well as Abdus Samad Azad, Bangladesh foreign minister. See B.M. Acbbas, *The Ganges Water Dispute*, (Dhaka: University Press Limited, 1982), pp.31-32.

45. The Joint Rivers Commission was first mentioned in the joint statement issued at the end of Indira Gandhi's visit to Dhaka in March 1972. However, the JRC first met in June 1972 with B.M. Abbas of Bangladesh as its chairman.


47. A good illustration of the political interpretation of technical data is to be found in the way each side used measurements of the Ganges' flow to support its own position. The Indians used measurements taken at Farakka and the Pakistanis used measurements taken farther downstream at Hardinge Bridge in East Pakistan. The two measurements did not tally because at Hardinge Bridge, the Ganges' flow is supplemented by groundwater seepage. Therefore, the measurements taken here are greater than those recorded at Farakka. The Indians used the flow measurements at Farakka to prove that since Pakistan received more water at Hardinge Bridge, the Indians should have to release less water to Pakistan. The Indians, of course, needed all the water they could get at Farakka for the rejuvenation of Calcutta port.


51. Dawn, July 16 1978, "India rejects Kosygin's suggestion on Farakka."

52. USIA, Delhi, *Towards our common goals: texts of remarks and speeches*, New Delhi, 1978.

53. The Hindu, January 7 1978, "Callaghan gets warm welcome."

54. After Bangladesh raised the issue in the United Nations in September 1976, India was obviously angered. Bilateral negotiations which followed were a mere formality. No progress
could be made because the Indian delegation demanded more data. This deadlock was not broken until Indira Gandhi lost the election to Morarji Desai.


58. In 1969, Ayub Khan's ten-year long "benevolent" dictatorship came to an end. Martial Law was declared throughout Pakistan because of the student unrest throughout the country but particularly in East Pakistan. In East Pakistan, the movement against military rule was actually spearheaded by the Awami League. Amidst all this chaos, the communication from Islamabad to its negotiators over the Farakka issue was unclear. Besides, the Ganges Barrage was such a mammoth project that the Pakistan government might have used it to put pressure on India.

59. See footnote #33.

60. Mrs. Gandhi had considered Mujibur Rahman to be her "friend" and protege. It is said that she had absolutely no inkling of his brutal assassination. After this incident, she summoned senior Raw officers (Research and Analysis Wing), the Indian version of a secret service and reprimanded them severely. The timing also corresponded with her assuming extraordinary powers under Emergency regulations. Withdrawing water unilaterally from Bangladesh at this point was, therefore, quite normal for India.


62. It is quite a common practice by states to link various issues in a bargaining situation. The subordinate state in a superordinate-subordinate relationship may sometimes offer the stronger power something that country may want in exchange for something it wants from the superordinate country. This issue-area linkage works only when what it wants from the superordinate power is not very important to that country. In that sense, the subordinate country is always at a disadvantage vis-a-vis its superordinate partner.

63. *Bangladesh Times*, May 9 1981, "India rejects joint survey proposal of South Talpatty."

64. Since the partition of India in 1947, Bengali-speaking people from both West Bengal and what is now Bangladesh started emigrating to Assam. Very soon, these Bengalees became the elite, educated class in Assam. The Assamese people have always resented this invasion of their homeland. Starting in 1980, there was an organised movement against Indira Gandhi's policy
of letting in Bengalees. The estimated number of Bengalees who went over to Assam in a period of thirty year must be close to one million.

65. Sometimes subordinate/downstream countries may try to convince the upstream countries that a long-range and equitable solution is in their interest. This strategy usually works when it is employed with some other positive sanction.
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APPENDIX A - STATUTE OF THE 1972 INDO-BANGLADESH JOINT RIVERS COMMISSION

Chapter I
The Contracting Parties
Pursuant to the relations of friendship and co-operation that exist between India and Bangladesh, Desirous of working together in harnessing the rivers common to both countries for the benefit of the peoples of the two countries, Desirous of specifying some questions relating to these matters,
WE HAVE AGREED AS FOLLOWS:

Chapter II
Article 1
There shall be established an Indo-Bangladesh Joint Rivers Commission, hereinafter referred to as the Commission.

Article 2
(i) The Commission shall be constituted by each participating government appointing a chairman and three members; of these two shall be engineers. The Chairman and three members shall ordinarily hold office for a period of three years.
(ii) Each participating government may also such experts and advisors as it desires.

Article 3
The Chairmanship of the Commission shall be held annually in turn by Bangladesh and India.

Article 4
(i) The Commission shall have the following functions in particular:
a) to maintain liaison between the participating countries in order to ensure the most effective joint efforts in maximising the benefits from common rivers to both countries.
b) to formulate flood control works and to recommend implementation of joint projects.
c) to formulate detailed proposals on advance floor warnings, flood forecasting and cyclone warnings,
d) to study flood control and irrigation projects so that the water resources of the region can be utilised on an equitable basis for the mutual benefit of the peoples of the two countries, and
e) to formulate proposals for carrying out co-ordinated research on problems of flood control affecting both the countries.

(ii) The Commission shall also perform such other functions as the two governments may, by mutual agreement, direct it to do.
Chapter III SUPPORTING STAFF AND SECRETARIAL ASSISTANCE

Article 5
Each government will provide appropriate supporting staff and secretarial assistance to its representative in the Commission to enable them to discharge their functions in an effective manner.

Chapter IV SESSIONS

Article 6
(i) Subject to the provisions of this statute, the Commission shall adopt its own rule of procedure.
(ii) Meetings may generally take place alternatively in the two countries, subject to the convenience of the two countries.
(iii) Special meetings of working groups or ad-hoc expert groups duly nominated by the respective governments may be arranged, as required, by mutual consultation of the Members.

Chapter V RULES OF PROCEDURE

(iv) The ordinary session of the Commission shall be held as often as necessary, generally four times a year. In addition special meetings may be convened any time at the request of either government.

Article 7
All meetings shall be closed meetings unless the Commission desires otherwise.

Chapter VI GENERAL PROVISIONS

Article 8
The Commission shall submit confirmed minutes of all meetings to the two governments. The Commission shall also submit its annual reports by the thirty first of January, next year.

Article 9
Decisions of the Commission shall be unanimous. If any differences arise in the interpretation of this Statute they shall be referred to the two governments to be dealt with on a bilateral basis in a spirit of mutual respect and understanding.

Done in Dhaka on the 24th day of November, Nineteen Hundred and Seventy Two.
APPENDIX B - 1975 FORTY-DAY UNDERSTANDING

JOINT INDO-BANGLADESH PRESS RELEASE

EMBARGO: Not to be published/broadcast/telecast before 1730 hours BST on 18th April, 1975.

Dacca/New Delhi, April 18:

The delegation from India led by His Excellency Shri Jagjivan Ram, Minister of Agriculture and Irrigation and the delegation from Bangladesh led by His Excellency Mr. Abdur Rab Serneabat, Minister for Flood Control, Water Resources, and Power met in Dhaka from the 16th to 18th April, 1975. The talks were held in a cordial atmosphere and were characterised by mutual understanding that exists between the two friendly countries.

The Indian side pointed out that while discussions regarding allocation of fair weather flows of the Ganga during lean months in terms of the Prime Ministers' declaration of May, 1974 are continuing, it is essential to run the feeder canal of the Farakka Barrage during the current lean period. It is agreed that this operation may be carried out with varying discharges in the ten-day periods during the months of April and May, 1975 as shown below ensuring the continuance of the remaining flow for Bangladesh.

<table>
<thead>
<tr>
<th>Month</th>
<th>Ten-day period</th>
<th>Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1975</td>
<td>21st to 30th</td>
<td>11,000 cusecs</td>
</tr>
<tr>
<td>May 1975</td>
<td>1st to 10th</td>
<td>12,000 cusecs</td>
</tr>
<tr>
<td></td>
<td>11th to 20th</td>
<td>15,000 cusecs</td>
</tr>
<tr>
<td></td>
<td>21st to 31st</td>
<td>16,000 cusecs</td>
</tr>
</tbody>
</table>

Joint teams consisting of experts of two governments shall observe at the appropriate places in both the countries the effects of the agreed withdrawals at Farakka, in Bangladesh and on the Hooghly River for the benefit of Calcutta Port. A Joint Team will also be stationed at Farakka to record the discharges into the feeder canal and the remaining flows for Bangladesh. The teams will submit their reports to both the governments for consideration.

April 18, 1975.
APPENDIX C - INDO-BANGLADESH AGREEMENT ON SHARING OF GANGA WATERS AT FARAKKA

The following is the text of the agreement between the Government of the Republic of India and the Government of the People's Republic of Bangladesh on sharing of the Ganga waters at Farakka and on augmenting its flows signed in Dhaka by Shri Surjit Singh Barnala, for the Government of the Republic of India and Rear Admiral Musharraf Hussain Khan, for the Government of the People's Republic of Bangladesh on November 5, 1977.

THE GOVERNMENT OF THE REPUBLIC OF INDIA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH,

DETERMINED to promote and strengthen their relations of friendship and good neighbourliness,

INSPIRED by the common desire of promoting the well being of their peoples,

BEING desirous of sharing by mutual agreement the waters of the international rivers flowjing through the territories of the two countries and of making the optimal utilisation of the water resources of their region by joint efforts,

RECOGNISING that the need of making an interim arrangement for sharing of the Ganga waters at Farakka in a spirit of mutual accommodation and the need for a solution of the long term problem of augmenting the flows of the Ganga are in the mutual interests of the peoples of the two countries,

BEING desirous of finding a fair solution of the question before them, without affecting the rights and entitlements of either country other than those covered by this Agreement, or establishing any general principles of law or precedent,

HAVE AGREED AS FOLLOWS:

A. Arrangements for sharing of the waters of the Ganga at Farakka

Article I
The quantum of waters agreed to be released by India to Bangladesh will be at Farakka

Article II
(i) The sharing between India and Bangladesh of the Ganga waters at Farakka from the 1st January to the 31st May every year will be with reference to the quantum shown in Column 2 of the Schedule annexed hereto which is based on 75 per cent availability calculated from the recorded flows of the Ganga at Farakka from 1948 to 1943.
(ii) India shall release to Bangladesh waters by 10-day periods in the quantum shown in Column 4 of the Schedule:

Provided that the actual availability at Farakka off the Ganga waters during a ten-day period is higher or lower than the quantum shown in Column 2 of the Schedule it shall be shared in the proportion applicable to that period;

Provided further that if during a particular ten-day period, the Ganga flows at Farakka come down to such a level that the share of Bangladesh is lower than 80 per cent of the value shown in Column 4, the release of waters to Bangladesh during that ten-day period shall not fall below 80 per cent of the value shown in Column 4.

Article III
The waters released to Bangladesh at Farakka under Article I shall not be reduced below Farakka except for reasonable uses of waters, not exceeding 200 cusecs, by India between Farakka and the point on the Ganga where both its banks are in Bangladesh.

Article IV
A committee of the representatives nominated by the two Governments (hereinafter called the Joint Committee) shall be constituted. The Joint Committee shall set up suitable teams at Farakka and Hardinge Bridge to observe and record at Farakka the daily flows below Farakka Barrage and in the Feeder Canal, as well as at Hardinge Bridge.

Article V
The Joint Committee shall decide its own procedure and method of functioning.

Article VI
The Joint Committee shall submit to the two Governments all data collected by it and shall also submit a yearly report to both the governments.

Article VII
The Joint Committee shall be responsible for implementing the arrangements contained in this part of the Agreement and examining any difficulty arising out of the implementation of the above arrangements and of the operation of the Farakka Barrage. Any difference or dispute arising in this regard, if not resolved by the Joint Committee, shall be referred to a panel of equal number of Indian and Bangladeshi experts nominated by the two Governments which shall meet urgently at the appropriate level to resolve it by mutual discussion and failing that by such other arrangements as they may mutually agree upon.
B. Long-Term Arrangements

Article VIII
The two governments recognise the need to cooperate with each other in finding a solution to the long-term problem of augmenting the flows of the Ganga during the dry season.

Article IX
The Indo-Bangladesh Joint Rivers Commission established by the two Governments in 1972 shall carry out investigation and study of schemes relating to the augmentation of the dry season flow of the Ganga proposed or to be proposed by either Government with a view to finding a solution which is economical and feasible. It shall submit its recommendations to the two governments with a period of three years.

Article X
The two Governments shall consider and agree upon a scheme or schemes, taking into account the recommendations of the Joint Rivers Commission and take necessary measures to implement it or them as speedily as possible.

Article XI
Any difficulty, difference or dispute arising from or with regard to this part of the Agreement, if not resolved by the Joint Rivers Commission, shall be referred to the two Governments which shall meet urgently at the appropriate level to resolve it by mutual discussion.

C. Review and Duration

Article XII
The provisions of this Agreement will be implemented by both parties in good faith. During the period for which the Agreement continues to be in force in accordance with Article 15 of the Agreement, the quantum of waters agreed to be released to Bangladesh at Farakka in accordance with this Agreement shall not be reduced.

Article XIII
The Agreement will be reviewed by the two Governments at the expiry of three years from the date of coming into force of this Agreement or as may be agreed upon between the two governments.

Article XIV
The review or reviews referred to in Article 13 shall entail consideration of the working, impact, implementation and progress of the arrangements contained in parts A and B of this Agreement.

Article XV
This Agreement shall enter into force upon signature and shall remain in force for a period of five years from the date of its coming into force. It may be extended further for a specified
period by mutual agreement in the light of the reviews referred to in Article 13.

IN WITNESS THEREOF the undersigned, being duly authorised thereto by the respective Governments, have signed this Agreement.

DONE in duplicate at Dhaka on November 5, 1977 in the Hindi, Bengali and English languages. In the event of any conflict between the texts, the English text shall prevail.
APPENDIX D - CONSENSUS STATEMENT AT THE UNITED NATIONS

1. The parties affirmed their adherence to the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations and stressed, in this regard, their unalterable commitment to strengthen their bilateral relations by applying these principles in the settlement of disputes.

2. The parties recognised the urgency of the situation, particularly with the onset of another dry season.

3. Both parties agreed that the situation called for an urgent solution and, to that end, have decided to meet urgently at Dacca (Dhaka) at the ministerial level for negotiations with a view to arriving at a fair and expeditious settlement.

4. The parties asserted that the prime objective of such intensified contact was to promote the well beings of their peoples and agreed to facilitate the establishment of an atmosphere conducive to the successful outcome of the negotiations.

5. The parties undertook to give due consideration to the most appropriate ways of utilizing the capacity of the United Nations system.

6. It is open to either party to report to the General Assembly at its thirty-second session on the progress achieved in the settlement of the problem.