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WATER RATIONALITY:
Mediating the Indus Waters Treaty

Undala Z. Alam

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Thesis submitted for the degree of
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Geography Department

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24 FEB 1999

For Ma and Abba, thank you....

When the snow comes to the high mountains,
When the nightingale is sad,
I can feel freedom and see freedom,
But cannot catch it - I can only drink the water
That comes from the mountains,
And then I think I touch freedom.

Kurdish Folk Song

ABSTRACT

Fresh water is vital to the economies and societies of countries, especially to those in the arid realm. The issue of scarcity in certain regions of the world, notably the Middle East, has led to an expectation of international conflict, even war, based upon increasing competition for shared water. However, what is emerging is the improbability of this expectation. In fact what is becoming ever more apparent is evidence to support international cooperation as the norm, even between hostile countries.

One example of such international cooperation over shared water is the Indus Waters Treaty, signed in 1960 by India and Pakistan. It is an international water treaty signed by two enemies, and that has lasted through two Indo-Pakistani wars to the nuclear era, in 1998, in the Indian Subcontinent. The intervention of the World Bank, as good officer, was critical to the process that finally led to the Treaty.

One explanation for such international cooperation is water rationality. This concept, coined in this thesis, expects cooperation because war does not lead to long term national water security. Such security is only possible through good water management at the national and international levels. And such is the need for fresh water, that countries will cooperate with their co-riparians whatever the public rhetoric used by the politicians.

The most important factors leading to the Treaty are the fact that the disputants had the space to explore cooperative measures safely, and the governments' political will to compromise and reach a settlement. Obviously, if the governments in question are willing to explore ways to cooperate, then cooperation will be more likely. Technical, legal and environmental factors are second to political will.

Furthermore, if direct bilateral negotiations are proving unsuccessful, the intervention of an impartial mediator can assist communication between the disputants. Lastly, even enemy countries are more likely to enact policies that are 'water rational' than go to war with their co-riparians in an effort to make their water dispute more manageable.

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Though in the final instance I did not visit the Indian Subcontinent I was nonetheless helped in preparing for a visit by people in the Subcontinent. The preparations included gaining access to archives in Pakistan, affiliating with universities in Islamabad and New Delhi and pursuing the appropriate visas. For the latter I would like especially to thank Dr Abdullah Hoodbhoy for all his effort, on my behalf, and advice.

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GLOSSARY AND UNITS

BATNA	Best alternative to a negotiated agreement
cca	Culturable commanded area
in escrow	To deposit an item in dispute with a third party
IBAB	Indus Basin Advisory Board
IBRD	International Bank for Reconstruction and Development also known as the World Bank
ICJ	International Court of Justice
ILA	International Law Association
ILC	International Law Council
PIC	Permanent Indus Commission
sailab irrigation	Crops planted in areas from which floods have receded
WAPDA	Water and Power Development Authority (West Pakistan)

Link Canals

BRBD	Bambanwala-Ravi-Bedian-Dipalpur Link
BS	Balloki-Suleimanke Link
MR	Marala-Ravi Link
RB	Ravi-Beas Link

Major Canals

BSD	Bahawalpur State Distributary
CBDC	Central Bari Doab Canals
SVC	Sutlej Valley Canals also known as Sutlej Valley Project (SVP)
UBDC	Upper Bari Doab Canal
UCC	Upper Chenab Canal
UJC	Upper Jhelum Canal

Runoff

cumecs	cubic metres per second
cusecs	cubic feet per second

1 cusec = 0.0283 cumecs

Storage

MAF	million acre feet
bcm	billion cubic metres
mcm	million cubic metres

1 AF = 1,234 m^3
1 MAF = 1,234 mcm
1 bcm = 1,000 mcm

PREFACE

Interest in hydropolitics was sparked by a number of talks on the importance of fresh water in the Middle East given at the EURAMES conference, in July 1993, at the University of Warwick. Intrigued that a resource of such little, apparent, value could prove so contentious led to the author making further inquiries into the topic. The result was a growing awareness of the importance of fresh water in every facet of human life, including economic development.

Initial focus lay with the international basins of the Middle East: the Jordan, Nile and Tigris and Euphrates. It soon became apparent that considerable work had already been done on these basins, but by comparison very little had been done on the Indus Basin and its historic treaty. Interest amongst researchers and practitioners in hydropolitics was growing in the Indus Waters Treaty as an example of cooperation that may be replicated in other international water disputes.

The Indus Waters Treaty's characteristics appeared to be rather unusual given the expectancy of war and international conflict between co-riparians. Not only had two co-riparians signed and implemented a treaty under the mediation of the World Bank, but these co-riparians were enemies. It would be fair to state that India and Pakistan each regarded the other as their principal enemy. If India and Pakistan could reach agreement over water allocations despite their mutual enmity could other co-riparians, with similar mutual hostility, also reach agreements over allocative arrangements?

The initial inquiry into the Indus Waters Treaty encompassed a broad look at the negotiation and implementation stages, with questions related to the present-day situation. However, the emphasis was narrowed considerably with the availability of material. Not only does the thesis focus upon the negotiation process, but it also views that process from the third party's perspective. The material gained from access, by this author, to the World Bank's archives shed light on the negotiations, and in particular the role of the Bank as a mediator.

Access was, finally, given to the World Bank's archives, and the Indus Basin Files held therein, after over a year of communications. The Assistant Archivist of the Bank

described this access as unprecedented since the archives are not open to the public. Naturally, gaining access also carried certain conditions. Though the material could be quoted in the text, it could not be shown *en masse* to other parties, and specific reference to individual members of the Bank's delegation could not be made.

The World Bank's Indus Basin Files contain all the papers the Bank had received, generated and used during the length of its involvement with the Indus Basin dispute. Thus these files contained correspondence from India and Pakistan to the Bank, and gave new insights into the Indus Waters Treaty. As the World Bank material was analysed it became apparent that visiting the Indian Subcontinent was superfluous to the needs of the thesis. This was mainly because the approach adopted in the thesis was from the perspective of the third party.

Simultaneous applications for access to all the archives, that were considered to be important, had been made early on in the research process. Thus, applications were also made for access to archives in India and Pakistan. India had given a blanket refusal citing water's status as a national security issue. Pakistan, however, was more accommodating and offered access to its archives. As the data analysis progressed and the wealth of information available became apparent, the need to visit India and Pakistan receded. When this was coupled with difficulties and delays in getting the appropriate visas, the intention to visit the countries and their archives was relegated further.

The principal questions that fuelled the research asked why and how international cooperation was possible in the Indus Basin. And what lessons, if any, could be learned from the Treaty for use in other international conflicts over fresh water. International relations theory was first searched for an explanation as to why India and Pakistan, despite being enemies, would choose to cooperate over this question of fresh water. Unfortunately, realism, neo-realism, game theory, geopolitics and international law all failed to give a satisfactory answer that took measure of all the specific characteristics of Indo-Pakistani cooperation. Using a concept coined in this thesis, "water rationality", an alternative explanation is given.

The manner by which cooperation was courted was simpler to pinpoint and describe. Mediation proved successful in settling the dispute after bilateral negotiations had reached an impasse. The literature on mediation, its theory and practice, is extensive.

Nonetheless, it was felt that further insights would be gained from training as mediator and, therefore, this was undertaken with UNITE, under the auspices of Sunderland Mediation.

Role playing the mediator and the disputants, during the training sessions, led to a better understanding of the inherent difficulties and emotions involved in a dispute and a mediated solution. The scale of focus in the training and the thesis were different. The former sought to mediate between neighbours on a housing estate, and the latter looks at international mediation. Nonetheless, the framework UNITE proposed - engaging, issues, options, agreement - appears to be universally applicable.

The perspective during the training was, naturally, that of the mediator rather than the disputants. Seen from the mediator's vantage, the mediated process follows a four-step cyclical pattern. Firstly, the third party engages in resolving the dispute if the disputants are willing to allow such intervention. Secondly, the issues in dispute are put on the table. Thirdly, all possible options are explored. And fourthly, agreement is reached wherever possible. This pattern is repeated at different times, and at different scales throughout the mediated process. The basic mediation framework was used to describe the cooperative process in the Indus Basin because it was regarded as following the same cyclic pattern of engagement, issues, options and agreement.

Interest in the results of this thesis has already been expressed amongst academics and practitioners. Over the duration of this study, the Indus Waters Treaty has gained considerable attention for its durability as an international water agreement and its potential lessons for other international basins. Applicability of the points will depend, obviously, upon the specific characteristics of the case to which it is being applied. The points that have been important in the mediation of the Indus Waters Treaty appear to fall into two groups: conceptual and procedural. This distinction, though, is not without overlap. The principal lesson that appears to be forthcoming is that cooperation over water appears to be the norm. War, though it may arise out of other political needs, is not the most likely outcome as it does not enhance a nation's water security.

Original Contributions

Literature on the Indus Waters Treaty is limited. Most of the material that does exist treats the Treaty superficially and relies heavily upon two detailed sources, namely: Gulhati [1973] and Michel [1967]. One of this thesis's contributions is the use of primary material from the World Bank's archives to detail the negotiation period.[1]

The World Bank is given considerable credit for achieving the Treaty in most of the literature. As an institution of technical expertise, and neutrality, the Bank is thought to have had some leverage. However, it is to the Bank's financial capability to raise funds that most credit is given [Ali, 1967; Bingham *et al*, 1994; Biswas, 1992; Garretson *et al*, 1967; Graves, 1963; Kally, 1993; Kirmani, 1990; Kirmani and Rangeley, 1994; Kliot *et al*, 1997; Lepawsky, 1963; Mehta, 1988; Morris, 1963; Nakayama, 1997; Nijim, 1969; Postel, 1992; and Rausching, 1983]. Afroz points out that the USA provided most of the funds to the IBDF, and therefore attributes the success of the Treaty to this American support [1983]. The literature appears to argue that the availability of finances is the primary 'lesson' to be learnt from the Indus Waters Treaty.

Though the financial argument is an important one, this thesis argues that there are other 'lessons' to also be learnt. The significance of financial availability was understood by the World Bank from the outset of the negotiations. The Bank had made it clear to India and Pakistan that it would be willing to consider financing any possible outcomes from the negotiations. In addition, Pakistan was to prove a reluctant negotiator principally because it was concerned about the loss of the eastern rivers to India without having the infrastructure to replace that water. To build this infrastructure Pakistan would need large sums of foreign aid. It is this latter point that the Indus Basin Development Fund was able to address. However, the need for finances to implement the Treaty could only be realised if there was a treaty to implement. Agreement to the Treaty was, this thesis contends, dependent upon the political will of the disputing Governments.

Rausching believes the Indus Waters Treaty contributed to the development of international law on watercourses by influencing the International Law Association's 1967 Helsinki Rules [1983]. The Treaty is regarded as encapsulating the principle of

[1] Gulhati, Head of the 1954 Indian delegation, did use some of the World Bank's Indus Basin Files in his book.

equitable allocation [*ibid*; Garretson *et al*, 1967] rather than the principle of appreciable harm. Shivananda [1961] and Alvi [1962] rightly argue that the strict confines of international water law cannot alone resolve an international water dispute, as economic and political issues often dominate the dispute.

Kirmani and Rangeley believe that the longer the negotiations dragged on the harder it was, politically, for either disputant to walk away [1994]. Lowi believes that the political structure of each country added to its strength at the negotiating table [1993]. In addition, by virtue of geography India could afford to take its time whereas Pakistan was under pressure to complete an agreement [*ibid*; Graves, 1973]. This thesis suggests that a combination of geography, financial concerns deriving from the potential loss of the eastern rivers, and political instability made Pakistan extremely cautious in its negotiations.

The primary criticism of the Indus Waters Treaty is that it is a sub-optimal agreement [Kliot *et al*, 1997; Lowi, 1993; Mehta, 1988; Postel, 1992]. The division of the Indus basin which is also credited with being one reason for its success [Lowi, 1993; Kirmani, 1990; Nakayama, 1997], contravenes the concept of developing the water as part of an integrated basin management approach. In addition, the duplication of irrigation works has focused the use of resources (hydrological and financial) away from the task of optimising the situation faced throughout the basin - delivery and application of water. Though the Treaty is recognised as sub-optimal it is also recognised that this particular treaty was the most feasible politically given Indo-Pakistani relations [Bingham, 1994; Mehta, 1988; Michel, 1967; Nakayama, 1997]. This thesis agrees that the Indus Waters Treaty is a political optimum though a hydrological sub-optimal solution to the Indus Basin dispute.

An additional criticism made mainly by Mehta [1988] and echoed by Kliot *et al* [1997] is that the Indian and Pakistani negotiators carried insufficient weight within their own political structures. The result was, Mehta claims, a less flexible negotiation process than would have occurred had politicians or more senior bureaucrats been involved. Yet, politicians from both sides were periodically involved in the talks, most notably the Indian Prime Minister, Nehru. As Gulhati also points out the involvement of politicians also entails a risk of the negotiations being rendered a footnote in a larger political tussle

[1973], as was demonstrated by weakness of Pakistan's Central Government prior to the 1958 *coup*.

The ***contribution*** of this thesis to the field of hydropolitics is in the main principle it is promoting - water rationality. This concept has been used to offer an explanation for water-related cooperation between countries, even those involved in hostilities over other issues. This type of cooperation, though prevalent, has been ignored by the sensational water war concept because it expects conflict over this precious resource.

Linked to water rationality are two other concepts that are also coined in this thesis - water irrationality, and the neo-security dilemma. These concepts offer an explanation for the short-sighted policies that so often characterise national water management. These three inter-linking concepts arise from studying an international water treaty between India and Pakistan.

The Indus Waters Treaty, as an example of a successful water treaty, is being examined by other researchers [e.g. Biswas, 1992; Kliot *et al*, 1997; Wolf, 1997b] to see what lessons it has for other international water disputes, either existing or expected. Thus, this thesis examines the negotiation period of the Indus Waters Treaty and draws together some 'lessons' that may have selective application in other water disputes. One of the main points that has emerged is the issue of a political optimum in resolving international water disputes, to which the 'optimal' plans of integrated basin management may have to defer.

In looking at the negotiation period, and the actions of the three participants, material from the World Bank's archives was used that had hitherto been unavailable. The Indus Basin Files contains material from the actual negotiations undertaken with the Bank's good offices. As such the Files contain correspondence between the disputants and the Bank, internal Bank memos and other material that was used by the institution to understand the Indus Basin situation better. Material from the Indus Basin Files was used to understand the procedures the third party undertook in pursuit of the Treaty.

To supplement the literature on mediation theory, it was decided to train to be a mediator under the auspices of Sunderland Mediation. This training provided a better understanding of the mediation process, and all the participants' perspectives, in

particular, the mediator's. The framework used by the trainers (UNITE) was used to describe the mediation process in the Indus Basin. The combination of unused archival material and this mediation framework has not, previously, been applied to the Indus Basin. This combination, therefore, is an unique contribution to the understanding of international water treaty negotiations.

Thesis Structure

The structure of the thesis does not reflect the exact evolutionary route taken during research. If that route was taken, it would entail a more complicated telling of the story and arguments developed. Therefore, for the sake of clarity and simplification the theoretical aspects have been dealt with first. This is followed by the case study, and then the points that have been drawn from this particular case study.

Therefore, chapter 1 introduces the general topic of hydropolitics. Fresh water and its management have become more politicised as awareness of the resource has increased. With this awareness has come the realisation that it can no longer be taken for granted, and inadequate supplies of fresh water can impede development. Another consequence of this growing awareness has been the linking together of war and fresh water. The Indus Waters Treaty is studied to see the process and techniques involved in stopping enemies from fighting over water, and getting them to settle their dispute peacefully.

The expectation of war and conflict is considered, as is the issue of international cooperation. In addressing the latter issue international relations theory, game theory, geopolitics and international water law were examined to explain cooperation in the international arena. The unsatisfactory explanations that emerge do not illuminate the distinct characteristics of cooperation in the Indus Basin. It is left to the concept of water rationality to suggest an alternative explanation. Mediation explains, in turn, the manner in which cooperation took place regarding the Indus Basin dispute. Finally, this chapter outlines the methodology used in conducting research for the thesis.

Chapter 2 describes the Indus Basin's physical and political environment as a background to understanding the conflict that arose between different users. An arid environment coupled with an uneven distribution of water has led to a reliance upon

irrigated agriculture for over 5,000 years. However, the extensive expansion and modernisation of the irrigation system in the Indus Basin that occurred under British rule, did not happen as part of an integrated scheme. Separate provinces developed their works unilaterally, and only came to notice each other's schemes when they began to compete for water.

Thus before partition, the British-ruled provinces of Punjab and Sind had a dispute regarding water allocations. After partition in 1947, the position of the international boundary led to further difficulties regarding water allocations. This time the dispute was internationalised and involved the sovereign countries of India and Pakistan. Bilateral attempts to resolve the dispute failed, leaving each side more entrenched in its adopted position. This set the scene for the World Bank to intervene and offer its good offices.

In preparation for the World Bank's intervention in the Indus Basin dispute, Chapter 3 addresses the general 'theory' of mediation. Mediation can be defined in many different ways, some of which are examined in this chapter. A working definition of mediation is then selected for the purposes of this thesis. Since the research has been conducted from the perspective of the mediator, the role of the mediator is also considered.

Then most importantly, the mediation process is examined. A particular framework is used to breakdown the process, as determined by the training programme that was undertaken to become a mediator. The mediator's activities and concerns are seen at the different stages of engaging in the resolution process, determining the issues involved, exploring the options available and finally reaching agreement - if it remains a possibility. The mediation process is not without its 'pitfalls', so these are also considered, most notably the difficulties of a power imbalance between the disputants.

Chapters 4 and 5 look, in detail, at the process by which the Indus Waters Treaty was negotiated under the auspices of the World Bank. Using the framework outlined in chapter 3, the process is segmented into four sections. In looking at the engagement stage, the actors are briefly introduced before going on to see in more detail the start of the World Bank's involvement. The issues involved in the dispute are examined before looking at the options that were explored by the parties.

Efforts by the World Bank to comply with its original intention and help India and Pakistan develop a comprehensive plan continued throughout the negotiations. Initially, it had left the matter entirely in the hands of the disputing parties. When it became apparent that such an approach would not work, the Bank started to make its own proposals. Nonetheless, the decision to accept or change these proposals remained with India and Pakistan. An alternative short term course of action that postponed the conflict was discovered with the use of ad hoc transitional agreements. But a long term solution was still needed.

Mediation is a cyclical process, with agreement required at different stages and on different levels. Therefore, though agreement is addressed last in this framework, it is in fact a thread running through the whole process. Nevertheless, agreement, especially in a resolution process lasting over twelve years in two phases, is fraught with difficulties. Most of the obstacles that arise are of a political nature, rather than resulting from more technical matters. This is apparent even as the final period is entered, and a permanent, binding agreement is within sight with the drafting of the Indus Waters Treaty.

Chapter 6 suggests an alternative explanation for the international cooperation between enemy states over shared water resources. Termed 'water rationality', this explanation draws on the idea of water security, and how states wish to achieve this safeguard. The opposite side of the coin is also explored in 'water irrationality'. Coupled to water irrationality is the idea of a 'neo-security dilemma' which is also coined in this thesis, and draws on the security dilemma associated most famously with the superpower arms race during the Cold War. Examples of water rationality and water irrationality are also provided.

Chapter 7 returns the focus to the particulars of the Indus Basin case. It starts with an examination of the events in the Indus Basin dispute with respect to the water rationality explanation. The chapter continues by looking at the lessons that can be drawn from the mediation process. These lessons, or points, are divided into two sections even though there is some overlap between them. The first section deals with points that are conceptual and can influence the approach of the parties before they sit at the negotiating table. The second section deals with the points that are more procedural in their nature, and can influence the parties during the mediation process.

Chapter 8 draws together the conclusions that are made in this thesis, and suggests further work.

1

INTRODUCTION

Sensational headlines are being written about the scarcity of fresh water in the Middle East, and how matters may result in war. Such dramatic news has attracted attention to the field of hydropolitics, and the means of alleviating competition for fresh water in that region. Fanciful dreams, doom-laden prophecies and practical water management suggestions all intermingle in the bazaar that is hydropolitics. Methods are also being sought that, if they do not prevent conflict, can help manage or resolve any forthcoming international water disputes. One method has been to study the successful resolution of past disputes.

Of the examples that exist of international agreements over shared water resources, the Indus Waters Treaty stands out as an interesting case. Negotiated by India and Pakistan during the 1950s with the good offices of the World Bank, the Indus Waters Treaty has been maintained by the signatories since 1960. Yet relations between India and Pakistan have see-sawed considerably in the time since the signing in 1960. Though relations have never been warm, on occasions they have thawed a little. But for the most part, there is considerable animosity with the conflict over Kashmir acting as a constant thorn. War was waged twice, in 1965 and 1971, and in 1998 the rivalry formally entered the nuclear era.

The tenacity of the Indus Waters Treaty is therefore intriguing in light of such hostile Indo-Pakistani relations. Adherence to the Treaty by its signatories has continued even as they have positioned their troops at their shared border, bombed each other's territory, and now meticulously striven, and succeeded, in developing and detonating a nuclear device for 'defence' against aggression by the other. It has been reasoned in this research, and by other interested scholars, that if enemies in South Asia could reach such an enduring international water agreement, perhaps lessons could be learnt from the negotiation process for application elsewhere, notably in the Middle East. Thus the means by which the Treaty was arrived at is examined in this thesis, and in particular the role of the third party, the World Bank, in assisting the disputants' search for a solution.

1.1 HYDROPOLITICS: THE POLITICS OF WATER

> 'Water is the true wealth in a dry land; without it, land is worthless or nearly so. And if you control water, you control the land that depends upon it' [Stegner in Gleick, 1993a: 9].

Hydropolitics as a field of research is relatively new, with interest in it mushrooming through the late eighties and continuing into the nineties. As such there is no exact definition that can be applied to the field, other than that it deals with the interaction of politics with the use and management of fresh water, at a national and international level throughout the world.[1] One geographic area, however, that has probably had most influence in shaping the field, as it presently stands, is the Middle East.

The aridity of the climate in the Middle East is matched by a finite supply of fresh water in the region, and increasing demand for the resource. Overlying the physical constraints imposed by the environment, are the political constraints imposed by long-standing hostility between the different countries and actors comprising the Middle East. Thus, with fresh water regarded as a scarce, and strategic, resource headlines have been predicting, since the mid-1980s, that the next war in the Middle East will be over water. This has led, unsurprisingly, to considerable interest and attention to the water problems faced by the region, and an expectation of conflict.

The water scarcity that is witnessed so dramatically in the Middle East, is only part of the problem users throughout the world face with their supply of fresh water. Another part is the quality of the water being supplied. Therefore, the water issue, or problem with fresh water can be stated as being the difficulty in getting, and sustaining, an adequate quantity of water of an adequate quality. An enduring solution to the water issue rests with the way in which water is managed nationally. This, in turn, can influence how riparian countries interact with one another.

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1 Hydropolitics is largely concerned with the availability of fresh water for human use and consumption, and is therefore limited generally to inland international watercourses. There is an abundance of saline water in the form of the oceans and seas that surround the continents, but it only features in hydropolitics in two broad cases. Firstly, regarding the production of fresh water from saline water via desalination, and secondly, regarding the pollution of fresh water coastal aquifers by saline water intrusion. Fresh water, here, does not refer to a particular quality of water, but merely to distinguish water available on land from that of the surrounding oceans.

1.1.1 Demand for Water

> "Although the Indus rivers support the world's largest irrigation system, the unused waters of the rivers, which now go to *waste* into the Arabian Sea, have an equally large useful potential. These could reclaim from the desert an area equal to that already developed. Another 26 million acres could be turned into smiling fields of wheat and rice and cotton - food for hungry and work for the unemployed" [Shivananda, 1961: 4-5, emphasis added].

As Gleick points out, "[f]resh water is a fundamental resource, integral to all environmental and societal processes" [1993a: 3]. Dinar and Wolf point out fresh water's importance to, also, the survival of an individual human being [1994c: 69]. Industry, agriculture and domestic uses all rely heavily upon the resource. This is a need that, as a principle, is uniform across the world. This reliance which had hitherto been ignored is now coming to the fore, especially in the arid regions of the world. As Caelleigh points out, for the Middle East "the industrial development and social modernization these societies seek, which in some cases is made possible only by oil exploitation, put the greatest strain on water supplies and pose the gravest threat to future water sufficiency" [1983: 122].

The demand for fresh water is driven by the consumptive needs of the populations of these regions. Demand in industry, agriculture and domestic uses is increasing due to urbanisation, industrialisation, increasing populations, consumerism and irrigated agriculture [Gleick, 1993a; Postel, 1992; Falkenmark and Lindh, 1993; Biswas, 1997; Richards and Waterbury, 1996] and in turn affecting water quality [Nash, 1993]. Morris points out, that though irrigation accounts for most water use, it is urban demand that is expanding most rapidly in the Middle East [1998: 4].

An increasing demand for fresh water is, in itself, not an issue if there is adequate supply to meet the requirements. But in the arid realm demand is reaching the limits of supply [Agnew and Anderson, 1992]. "Water is a scarce resource, primarily because it is usually in the wrong place or available at the wrong time relative to demand" [Easter *et al*, 1997: 579].

This development is due in part to the actual quantity of fresh water required, as well as the pollution of existing accessible fresh water sources. Fresh water is beginning to show itself as a significant constraint to further development. Furthermore, and as

Newson points out, most of the less developed countries of the world are situated in areas of arid or semi-arid climate [1992: 139].

In terms of quantity, agriculture in the Middle East is the largest consumer of fresh water. Estimates place consumption between 70% and 90% of available supplies [Allan, 1994; Wolf, 1995a; World Bank, 1994; Biswas, 1997; Serageldin, 1997]. Such high figures are due principally to the use of irrigation to grow crops in an environment of high temperatures and evaporation rates. The quantity is also determined by the techniques used to apply water to the land. Inefficient techniques, such as flood irrigation, require large amounts of water. In comparison more efficient techniques, such as micro-irrigation, consume less water per area of land irrigated.

Overlying the physical dimensions of problems with distribution and overall supply, is the attitude of the users. Surprisingly, even in areas of scarcity where war is being predicted, fresh water is still being squandered. This is due in part to the attitude of the political structure with regard to its water supply. In the push for economic development many techniques and strategies were adopted from more developed countries. But these policies were developed in temperate zones, and did not account for the different environmental constraints faced by arid or semi-arid countries [Falkenmark, 1989: 112]. This, in turn, has led to additional burdens being put upon existing fresh water supplies [Newson, 1992: 187].

The place of agriculture in the political framework has also led to the supply of fresh water to this sector at subsidised rates, if not free [Shapland, 1997]. Wolf places the role of agriculture in politics within a larger concept of water ethos, which determines "how a nation 'feels' about its water resources" [1997b: 353]. This has led to fresh water being treated as if it is an inexhaustible resource, and squandered through misuse. This attitude exists at different levels and is found at the individual farmer level, the provincial level and also the national-international level.

In Israel, agriculture's political significance comes from its close links to the Zionist movement and, subsequently, the Israeli identity. In Saudi Arabia, agriculture was expanded as part of a conscious effort to become self-sufficient in food. Similarly, in Egypt, irrigated agriculture has a firm historical basis as shown by evidence of irrigated agriculture being practised along the Nile in 3,400 BC [Gleick, 1993a: 6]. Yet as

Frederiksen *et al* generously point out, "[a]ll government sponsored water resource related developments have the intention of creating benefits for society" [1993: 109].

Shapland illustrates the allure of the agricultural sector in the Middle East with the example of Jordan:

> "Jordan has wished to expand its irrigated agriculture for a number of reasons. Obtaining foreign exchange by exporting agricultural produce, saving foreign exchange by growing food for domestic consumption, maintaining a degree of food security, avoiding dependence on aid from abroad, preventing rural depopulation and providing employment at lower capital cost than in industry" [1997: 53].

"Water projects, like all other large development projects, contribute both positive and negative benefits" [Biswas, 1986]. One of the more dramatic examples of large-scale irrigation's negative impact upon the environment is the Aral Sea [Kobori, 1997: 8; *The Economist*, 1994: 88-91]. During the communist era in the Soviet Union, almost the entire flow of two rivers, the Amu Dar'ya and the Syr Dar'ya, that fed the Aral Sea were diverted for irrigation.

The inflow into the Aral Sea has dropped dramatically from 55.5 bcm (45 MAF) in 1960 to just 5 bcm (4 MAF) in 1989 [Kirmani and Rangeley, 1994: 10]. Since 1926 the Aral Sea has shrunk by approximately 40% in surface area, and 65% in volume [Gleick, 1993a: 5]. This has led to the "desiccation of the Aral Sea, the destruction of the fisheries there, local health problems, and the economic collapse of the region"; the salinity of the water has tripled, and all 24 species of fish native to the Sea have died [*ibid*]. International efforts are being made to resuscitate the Aral Sea [Bedford, 1996; *The Economist*, 1994].

Hydropolitics tends to focus on the question of providing sufficient quantities of water, with scant regard paid to the water's quality. This Nash believes is misguided as the "crux of the problem lies with water quality rather than water quantity" for most countries, with the exception of a few highly arid regions such as the Sahel and the Arabian Peninsula [1993: 25].[2] Richards and Waterbury, also, believe that water quantity will be exacerbated by the issue of inadequate water quality [1996: 161].

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2 See Nash, 1993, for details of the different types of pollutants decreasing the quality of available water, and the consequences upon human health, and the environment; McDonald and Kay, 1988, for general aspects on water quality. Chapman, 1997, discusses the need and difficulty of water quality monitoring.

The 'quality' of water in itself is meaningless, but as with other aspects of water, it is the anthropogenic uses that define the characteristic. "The highest quality water is required for drinking" [Nash, 1993: 25]. Fresh water of 'good quality' is defined as having a low saline and pollutant content. Water with a high saline content is of limited, if any,utility for agriculture, industry and domestic uses. Thus, without desalination, the vast oceans and seas can do little to ease the difficulties of water supply.

Therefore, having large amounts of water of the 'wrong' quality for a particular use, does not ease the problem of supply. Tajikistan, for example, has sufficient water, but it "is filthy" [*The Economist*, 1998b: 77]. Furthermore, as a consequence of management decisions, fresh water bodies above and below the surface are also being polluted, thereby, reducing further the quantity of available sweet water [Biswas, 1997: 12-13]. Surface water is often used as a drain to remove effluents from industry, agriculture, and domestic uses [Gleick, 1993a: 5].

Najlis puts the figure as high as 90% of waste-water, in some developing countries, is discharged without treatment [1997: 18]. This is problematic because, as Chapman points out, in many regions "water resources serving as a waste-disposal facility for one activity are the source of water for another activity" and thus the need for effective monitoring of quality [1997: 209].

Aside from these forms of pollution, ground water aquifers are also subject to damage caused by overpumping i.e. extracting the water at a rate higher than that of recharge. Examples of overpumping can be found world-wide in China, India, Mexico, Thailand, the western USA, the Middle East and North Africa [Postel, 1992: 31]. Coastal aquifers in such situations are especially vulnerable as high extraction rates can lead to saline intrusion, and further deterioration of the water's quality.

The scarcity of fresh water is not contested in this thesis. It is suggested here, however, that it is rare to find absolute scarcity on a national and international level. What appears more usual is the perception of scarcity based upon a disparity between demand and supply. This perception can be alleviated through a number of practical water management measures that can augment existing supplies, such as recycling waste water.

Efforts to meet this demand by increasing the amount of water supplied are thwarted by the lack of new sources to tap. Falkenmark has coined the term 'water stress' to distinguish between those countries that have the capacity to meet the water requirements of its users, and those that cannot [1989].[3] Countries of high water stress are generally in the arid realm and already fully utilising their existing fresh water supplies to meet demand. In lieu of the demand for fresh water, what options exist to manage and maintain the supply? There appear to be two broad approaches to supply augmentation: war, and national management.

1.1.2 Options to Manage Supply and Demand

Water is in abundance on this planet as the blue of a satellite image of the world would testify. But most of this water is saline, with fresh water comprising just 2.5% of the total supply [Shiklomanov, 1993: 13]. But as Gleick points out, even if only the fresh water resources of the world were spread out evenly over the surface of the earth, they would still form "a layer 70 m thick" [1993a: 3]. Matters, however, are complicated by the difficulty in accessing fresh water since accessible supplies of the resource comprise an even smaller quantity.

Fresh water is mainly stored in the solid state, as ice. Fresh water in the liquid state is estimated to be less than a third of the world's fresh water and is stored mainly as ground water.[4] As is becoming apparent, the equation leaves very little liquid fresh water to flow as surface water. Therefore, the amount of fresh water that exists as surface water is estimated to be less than one percent of all liquid fresh water. In other words, of all the water on Earth, only 0.008% is estimated to be fresh surface water.[5]

Not only is the actual amount of fresh surface water small compared to the actual volume of global water, access to this water is not uniform, as the supply is distributed over hundreds of river basins, of which 268 are international basins [Hamner and Wolf, 1998]. And as Vlachos points out, approximately 40% of the global population depends

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3 Falkenmark estimated that a country was water stressed if it had less than 1,000 m^3 of available fresh water per capita per year [1989: 115].

4 See Das Gupta, 1997, for a discussion on ground water.

5 For figures estimating water quantities see, for example, Oudshoorn, 1997; McDonald and Kay, 1988; and Shiklomanov, 1993. Gleick, 1993b, gives a comprehensive list of data regarding the world's fresh water resources.

upon these international rivers [1990]. If competition for these waters was to increase it could, potentially, involve a large percentage of the total global population. Though the quantity of fresh surface water may appear infinitesimally small as a percentage of the total amount of water on Earth, it is enough for most human uses. However, difficulties do exist and are generally due to problematic distribution of fresh water. Falkenmark and Lindh have estimated that approximately 40% of the global population experience serious water shortages annually as a result [1993: 80].

Distribution can vary over space, leaving areas of the world without an infrastructure of surface flow. Even where rivers exist, the distribution of fresh water can change over time, either seasonally or yearly. One example of the temporal difficulties with distribution is the Indus Basin. Though the Indus system of rivers sends more water overall, each year, to the Arabian Sea than the Nile sends to the Mediterranean, water availability in the Basin is dependent upon the summer monsoons. Over 50% of rain falls in just two months during the summer. Coupled with snow melt from the Himalayas, the amount of water flowing through the Indus Basin during the summer is substantial. However, during winter, water availability falls off dramatically. Even the mighty River Indus shrinks from being a vast ocean-like river to a large and long series of interconnected puddles.

The focus of hydropolitics upon water scarcity reflects an attitude dominated historically by supply management, whereby the supply was increased to match demand. The water wars concept continues this approach, with the belief that supply can be increased by going to war with competitors. However, as Allan points out, the era of supply management is coming to an end [1994].

With accessible water supplies already allocated, if not to the point of exhaustion, increasing supplies in the traditional fashion of supply management is a limited option at best. Postel adds that global population increases have outstripped the increase in new irrigable land available, per capita, to grow agricultural products [1993: 57]. Unfortunately, this "trend of declining irrigated land per person is historically new, and political leaders and development specialists have not yet fully grasped its consequences" [Postel, 1992: 51].

This ushers in a new era, of demand management, whereby the demand for fresh water is reduced to meet the supply. One of the most effective tools available to water

managers, and users, is efficiency. The efficiency with which water is supplied, and used, can stretch existing supplies to meet new demands. Meeting the challenge of this new era will be a testimony to the inventiveness of human beings, and a reminder of the global nature of interdependence.

1.1.2.1 Water Wars

> "'Water Wars' are, unfortunately, likely to be of more and more common occurrence in the future." [Young *et al*, 1994: 20].

As the quote demonstrates, the water war concept expects conflict to occur over water, and appears to suggest that violence is a viable means of securing national water supplies. The concept is shaped by the location and subject in focus. A common perception of the Middle East is of a region that is fragile and temperamental, with little needed to trigger conflict. After all, conflicts have raged since the British and other European countries gave up the reins of control, abandoning the region to deal itself with the tangled affairs that remained.

Present day Middle Eastern politics still suffers the consequences of colonial action regarding land allocation, and the division of watersheds in the pursuit of imperial interests, for which little official apology has been forthcoming. Since decolonisation tensions, if not war, have surrounded resources that have been scarce both on a physical plane and a perceptual level. This includes the physical attributes of land and oil, but more importantly and most consistently, at the perceptual level a sense of security. As Caelleigh points out, the existing tensions, and countries, in the Middle East are also "under the scrutiny of Western nations anxious about oil supply and fearful of global confrontation spreading from local disputes" [1983: 121].

As focus has come to rest upon the region's fresh water supply, the issue of scarcity has appeared yet again. With it, the full extent of water's unique characteristics have hit observers as catastrophic [Haddad and Mizyed, 1996; Starr and Stoll, 1988; Bulloch and Darwish, 1993; Anderson, 1994; Gleick, 1993c; Naff, 1994]. Water is a primary resource, more important than food and certainly of greater importance than oil, in matters of basic survival. After all, "[w]ater, not oil, is the Middle East's most precious resource" [Caelleigh, 1983: 122].

Therefore, the water war concept reasons that if this resource is not only in short supply but used competitively by enemy countries, then each riparian will attempt to secure more water for itself. This increased competition, based upon increasing national water needs, will exacerbate the existing animosity and competition, and lead most likely to war [Gleick, 1993a: 9].

In other words, it is because water is scarce, vital, expensive, a security issue, and demand is outstripping supply that states are expected to go to war with their competitors to secure supplies. Or at least this is the train of logic inherent in the water war concept. (It is worth noting that the concept appears to focus upon the quantity not the quality of water involved.) Disputes over water use do exist at an international level but they are more common at the national or local level [Homer-Dixon, 1994: 20]. Therefore, within a country, one province may contest the allocation of water to another province; different sectors may compete for more water; and local farmers may challenge each other for fulfilment of their water rights.

The Six-Day War between Israel and its Arab neighbours in 1967, is often cited as an example of a modern day water war. [Gleick, 1993a: 9; Beaumont, 1994: 18; Naff, 1994]. Another example cited is the invasion by Israel of Lebanon in 1982, and the subsequent annexation of southern Lebanon [Beaumont, 1994: 17]. But opinion is divided on both cases as to the cause of hostilities, and whether water was a key imperative.

Wolf dismisses the hydrologic imperative behind both these cases. Regarding the 1967 war, he points out that there was a year-long gap between Israel bombing Syria's planned works and stopping any further construction, and the actual start of the war [1997a]. However plausible the geographic argument linking the proximity of the Litani River in Lebanon to the Israeli border, and the site of the occupation since 1982, Wolf contends that water was not a primary motive [1995a]. He argues that a number of desalination plants could have been built for the cost of the invasion and occupation.[6]

6 Wolf, in discussions with the author, based his argument on interviews with the Israeli generals involved in the invasion. The generals dismissed the water imperative argument stating that for the military cost involved, not only could desalination plants be built, they could be operated safely within Israeli territory.

If and when water does have a role in war, it is usually as a weapon [Anderson, 1994; Gleick, 1993c]. As Bar-Siman-Tov explains, "[c]onflict management in protracted conflicts is necessary to prevent undesired escalation, but it is not sufficient to prevent deliberate escalation" [1994: 76]. Thus, in 1993, during the war in the former-Yugoslavia, the Peruca Dam in Croatia was destroyed by retreating Serb Forces to prevent water reaching towns and cities downstream [Klemencic, 1995]. During the 1991 Gulf War the coalition led by the USA is thought to have approached Turkey to withhold water from Iraq. Turkey, as the upstream riparian on the Tigris and Euphrates, refused to do this.

Hydropolitics has come to be regarded, in the literature, as synonymous with the problem of water scarcity in the Middle East, and its interaction with international politics. This has to some extent cast a shadow over international watercourses in other regions, and their specific problems. In addition, the focus on water scarcity and its related concept of water wars, has ignored the more mundane issue of water management and potential international cooperation.

Prudent water management at the local and national level, can ensure sufficiency of supply and quality to the different users that make demands upon a watercourse. International cooperation can be regarded as a form of conflict management, which can be lost if "the common belief in a protracted conflict is that military means are the only means of resolving the conflict" [Bar-Siman-Tov, 1994: 76]. These alternative perspectives could, possibly, forestall armed conflict over water.

1.1.2.2 Water Management

> "Since the causes for these impending shortages are many and strategies for tackling them are difficult to conceive and implement, the next best thing (complementary to continuing efforts in that direction) is to devise strategies for the rational use of the available water resources of the planet. This task, unhappily, presents a host of difficult problems, of a technical, economic, social, physical and legal nature" [Caponera, 1981: 173].

Water management, in this thesis, is believed to be affected by four interlinking issues: the attitude of the users, the water quality, supply management, and demand management. Water management at its simplest is expected to ensure that sufficient

supplies of fresh water of a particular quality are available at the time and place needed by the different users. However, in providing such a service, water managers have to overcome a host of constraints of an economic, technical and political nature.

An additional problem is of an administrative nature, in that "no single international agency is responsible for water resources. Even at the national level, rarely is one agency or ministry responsible for water; rather water issues are often distributed widely among resource and mining agencies, agricultural agencies, or environmental protection ministries" [Gleick, 1993a: 11]. Linked to this profligacy of agencies is the short-sightedness of those government agencies in charge of irrigation. These agencies are usually "intent on maintaining their large budgets" and "consider their ultimate mission to be irrigation expansion, rather than to increase food output and raise rural incomes" [Postel, 1993: 57].

There are a range of options being touted to increase supply, generally involving extra-basin transfers [Shapland, 1997; World Bank, 1994; Wolf, 1992; Frederick, 1992]. For example, pipelines going from the Red Sea to the Dead Sea, the Mediterranean to the Dead Sea, or the Peace Pipeline taking water from Turkey to Israel and Jordan. Medusa bags are already being used to float freshwater from Turkey to northern Cyprus. But this latter approach appears to have more to do with politics than sound economics, or prudent water management, as Turkey is determined to protect its connection with Northern Cyprus. Amongst the more imaginative ideas is that of towing icebergs to supply water. Traditional water harvesting methods, used in the arid realm, are also being considered [Agnew and Anderson, 1992; Kobori, 1997].

The main method, so far, of augmenting supply has been to desalinate seawater, but the costs are prohibitively high for most countries.[7] The cost of production depends upon the specific technology used, but ranges from $1 to $8 per cubic metre [Gleick, 1993a: 8; World Bank, 1994: 29; Abdulrazzak, 1997].[8] The oil rich countries of the Arabian peninsula have been the exception and have been able to invest heavily in this technology. Over 60-65% of all desalinated water is produced in the oil-rich states of the

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7 See *The Economist*, for a small scale system that provides enough cheap, solar-powered desalinated water to supply a small village or farm [1995b: 138].

8 Beaumont gives an example of the amount of water needed to grow wheat in Egypt, an arid country [1994: 11]. Irrigated wheat, in Egypt, produces 4 tonnes of seed per hectare, using 12,000 m^3 of water per hectare. He estimates that the cost of water being applied would have to be less than $0.02 per m^3.

Middle East [Gleick, 1993a: 8; Anderson, 1988: 4].[9] Dabbagh *et al* argue that the true cost of alternatives to desalination, such as extra-basin transfers, have not been calculated. If an accurate calculation was made, then desalination would not appear to be such a comparatively expensive option [1994].

Szesztay accurately predicted the three stages water development would take [in McDonald and Kay, 1988: 103-104]. Stages I and II would entail increasing the supply to meet the demand, but in stage III the demand would bend to the supply. This stage would need integrated management of the water system because it would also affect the socio-economic development of a country. The means of curbing demand would include conservation techniques and pricing mechanisms, all of which harbour a political cost.

Allan points out that water management in the Middle East is now entering this stage of demand management, having passed through the era of supply management [1994]. "As the era of easy water development comes to an end, so do the rapid crop production gains from global irrigation expansion" [Postel, 1993: 58]. In this new era water managers will have to increase the efficiency with which they use existing water resources, by curbing the demand for supply. Such efficiency will in other words entail reducing losses incurred by transportation and use within the water infrastructure [Shapland, 1997: 167; World Bank, 1994: 32].

As David points out, "implementation of the wise management of water resources in a river basin is a long term activity" [1986: 310]. Therefore, national water management schemes will, if they are to sustainably develop their supply, have to focus on matters such as improving existing irrigation systems as well, rather than just expanding them to reach new land [*op cit*: 57]. However, as Waterbury warns, governments, irrigation agencies and donors prefer to start new projects rather than invest in the maintenance old ones [1979: 243]. Sewell and Biswas concur that too often, an "overemphasis on construction alternatives has deflected attention from such options as demand management" [1986: 296].

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9 The countries are: Saudi Arabia, Kuwait, the United Arab Emirates (UAE), Qatar, Bahrain, Oman, Libya and Iraq. The USA and Japan produce approximately 15% of the desalinated water [Gleick, 1993a: 8]. For a discussion of the different types of desalinating processes, and other related matters see Dabbagh *et al*, 1994.

Egypt is one example of such policies. Rather than modernising, and improving, the existing infrastructure the Government is investing in two multi-billion dollar schemes to increase land commanded by canals [*The Economist*, 1997a: 69]. The Al-Salaam canal will irrigate the Sinai peninsula with waste water, and is regarded as an extension of the existing infrastructure. The New Delta project in the south, however, will send water to the desert direct from Lake Nasser, via a 500 km canal. This policy is seen by critics to be especially questionable for two reasons. Firstly, it will be using 10% of Egypt's primary, if not only, replenishable water reservoir, and secondly, it will attempt to irrigate an area with very high temperatures and evaporation rates [*op cit*: 70].

Clearly, it will take time for water managers to realise that old supply management techniques are simply no longer viable. As Frederick points out "[w]hen a resource is scarce, the issue is not whether to engage in demand management, but how to do it most effectively" [1992: 33]. Demand management, therefore, raises the questions of how efficiently is water being used presently? And in what ways can it be improved?

After all, as Gleick points out, "[i]n many irrigation networks, less than half the water actually benefits crops, and the rest is lost through seepage from unlined canals, evaporation and runoff from poorly applied water, and poor management that fails to deliver water to crops at the right time and in suitable conditions" [1993a: 6]. Postel estimates the global efficiency of water used in irrigation to be less than 40% [1992: 100].

An additional factor is highlighted by Beaumont who argues that the quality of fresh water should match the use it is being put to [1994: 11]. Thus, high quality, potable water is only needed for drinking and domestic hygiene, for the remaining uses lower quality water can used. He cites the example of Kuwait which has a dual-quality water system. Potable water is reserved for drinking and hygiene, and lower quality water is used for toilet flushing [*ibid*]. Though the example of Kuwait is of domestic use, the principle of matching quality with use is clearly valuable.

There are four main ways to improve the efficiency with which fresh water supplies are used. First, water can be reallocated from the agricultural sector to industry. Second, better irrigation techniques can be used to apply the water to the land. Third, varying the quality of water used by different users, for example by using recycled water for

agriculture, and reserving potable fresh water for drinking.[10] And fourth, ensuring that the infrastructure by which fresh water is transferred from the source to the point of use is as close to being leak-free as possible.

The World Bank highlights other ways in which irrigated agriculture can improve its efficiency through conservation techniques which include "improved water scheduling and operations; modernization of irrigation networks and onfarm systems, modifications in cropping patterns (e.g., through the use of less water intensive or salt tolerant crops), and adoption of complementary agricultural practices" [1994: 56].

Another method being promoted to encourage, and quantify, efficiency is water pricing [World Bank, 1994; Easter *et al*, 1997; Allan, 1996b; Allan and Mallat, 1995; and Dinar and Loehman, 1995; Cummings and Nercissiantz, 1992]. Easter *et al*, believe "[w]ater prices, markets, and permits can all improve water allocation and give users a stronger incentive to conserve water" and deal with water quality problems [1997: 612]. By giving water an economic value it becomes a commodity and with that come certain advantages. However, Richards and Waterbury warn, that "[e]conomic reform without reform of the water system will exacerbate water shortages" [1996: 164].

Nonetheless, some of the advantages are that, first, water is no longer regarded as a free resource which users can afford to squander. Second, the cost of using water in the production of food or industrial goods can be measured in economic terms. Third, the cost of providing water to produce a given product can then be compared intra-sectorally and across sectors, usually agriculture and industry. This could encourage the reallocation of water away from low value-water thirsty products either by changing sectors or for example, within agriculture, by planting crops that demand a higher price on the market.

Fourth, commodification could also encourage investment in better irrigation technology such as micro-irrigation, by offsetting the initial high cost of such investments against the long-term benefit of lower water expenses. Fifth, the high cost of producing certain low value foods such as grains could encourage governments to buy the food on the international market rather than produce it locally. Such imports would be akin to

[10] See Asano, 1997, for an extensive discussion on waste-water reuse.

importing water, and are as Allan describes it, 'virtual water' [1994].[11] Sixth, and finally, water can then be traded between users on a national and international level.

As Dinar and Wolf recognise, "economics and politics play parallel roles, sometimes complementary, sometimes contradictory, in the long-term evaluation of water basin development; but neither paradigm is autonomous" [1994a: 350]. Thus, the issue of economic efficiency entails difficult questions and decisions which political bodies are often reluctant to face for fear of damaging their political power base [Postel, 1992: 168]. And this can be seen with the difficulties involved in attributing an economic value to water [World Bank, 1994: 23]. These difficulties are most notable at the implementation stage, as water cannot be separated from its socio-political status, and since most of the "sectors susceptible to efficient restructuring are also those most laden with emotion" [Wolf, 1992: 951].

For example, agricultural sector users would most probably need financial assistance to improve their irrigation technology. In addition, what would become of the people dependent upon agriculture to sustain their livelihoods, when water is taken from them for reallocation to industry? Moreover, how willing are governments to relinquish the notion of food security when political mileage can still be made from it? What restricts water pricing implementation the most, though, is a government's political will [Chalker, 1997: 47].

The financial implications and costs of implementing a water pricing strategy casts a shadow over the latent advantages [Dinar and Wolf, 1994b]. One advantage is suggested by Dinar and Wolf, who believe that while "water's relative scarcity may enhance the potential for conflicts. Markets for water, if appropriately established, may help resolve these conflicts" [1994a: 353; 1994b: 61]. Thus, if a government is willing to weather any resulting political storm, then water pricing and efficiency may occur - as happened, for example, in Israel.[12] However, if a government is unwilling, then water pricing will

[11] Egypt imports almost 50% of its total wheat supply from the USA. Of their total food supply, Israel imports 34%, Egypt 25%, and Morocco 20%, from the USA [Richards and Waterbury, 1996: 147]. Using FAO figures, Beaumont points out that Egypt, in fact, imported 6.6 million tonnes of wheat in 1990, but produced domestically only 4.3 million tonnes [1994: 20].

[12] Despite considerable opposition from the agricultural sector with its strong lobbying power, the Israeli government reallocated water away from agriculture in the early 1990s for use in other sectors. The government's hand was probably strengthened against the lobbyists because the region was suffering from a drought [Shapland,

join integrated basin development on the shelf of 'good ideas, problematic implementation'.

Though water management appears to be the rational means to tackle the issue of water availability, it houses many challenges for national governments. As Mehta points out, "the impending scarcity of fresh water and the unknown implication of groundwater pollution point to a recognition of joint interest in basin management and the need to overcome the myopic notions of national interest" [1988: 77].[13]

After all, "[s]ustainable development of our water resources will require careful management of the interactions among water, natural ecosystems, and society. The scale of the problems makes it impossible to rely solely on the top-down solutions" favoured by political and technical entities in the arid realm [Gleick, 1993a: 9]. The most difficult challenges arise out of the political factors that would affect a government's standing with its supporters. Therefore, though water management should be the principal concern of the ruling bodies, it appears to be politically easier for these bodies to allow matters to be subsumed by the concept of water wars and the expectation of conflict.[14]

1.2 EXPECTING CONFLICT

Armed with an assumption of conflict rather than cooperation over water, how can the Indus Waters Treaty be explained? In looking at the situation in the Indus Basin, there was an expectation of imminent war. Complete dependency upon a finite fresh water supply, and challenges to that supply were coupled with existing tensions between India and Pakistan. Yet the result, almost twelve years on, was an international water treaty.

1997: 51-52]. Dinar and Wolf estimate that the supply to agriculture was reduced by as much as 30% [1994c: 78].

13 Jagat Mehta was formerly a Foreign Secretary in the Government of India. In his discussion on the Indus Basin talks, he retains an interest in bilateral negotiations. This matches a foreign policy objective that India has maintained for most of its existence as an independent country, of holding only bilateral negotiations to resolve any international dispute with its neighbours.

14 In the summer of 1957, while the difficult negotiations for the Indus Waters Treaty were still underway, the then Prime Minister of Pakistan, H S Suhrawardy publicly stated that Pakistan would go to war with India, if it was to interfere with Pakistan's water supply [IBRD-14/7/57]. In an era of political instability, such hawkish behaviour was expected to gain favour with the Pakistani elite and public. It did little

Under the expectation of conflict, the reality of cooperation in the Basin appears even more unusual. What, therefore, is this expectation of conflict and war based on? Two approaches are considered, based upon power and rights.

1.2.1 Power-Based Approaches

The following frameworks share an assumption, however reluctantly, that might is right and that a powerful actor will be able to impose its will. How these frameworks differ is in their definition of power. Liberalism regards the international system as highly interdependent. Therefore, though an actor may not be individually powerful, by cooperating with other state actors it can become so. Game theory defines power as wit and time. So the actor that emerges stronger is the one which has been able not only to outwit its opponent, but to do so first.

Geopolitics bifurcates with its treatment of power. Traditional geopolitics is very much power politics as defined by realism, but with the focus upon the geographic composition of the state's territory. Critical geopolitics, by contrast, questions the whole make up of power. Rather than accepting the definitions paraded by other frameworks, it attempts to unmask the assumptions and interests inherent in these frameworks. The tool used by critical geopolitics is 'discourse'; whose discourse dominates and how politics, both international and domestic, can alter with a changing discourse.

1.2.1.1 Realism

At the first instance, it appears reasonable to surmise that two enemy states would not wish to cooperate with each other over shared water, each preferring to maintain full control over the resource. Behind this assumption lies the issue of autarky in an anarchic system, deriving from the realist analysis of the international system [Art and Jervis, 1985: 2; Waltz, 1985: 24]. Realism "explains the inevitability of competition and conflict between states by highlighting the insecure and anarchical nature of the international environment" [Burchill, 1996: 90].

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to secure Suhrawardy's position as Prime Minister, as he was replaced a few months

Yet, a clue is also given in the neo-realist perspective of international relations: states act to gain benefit. Neo-realists regard the international system as having a hierarchy [Waltz, 1985]. At the top are the most powerful states, and at the bottom are the weakest states. Power is defined, traditionally, by military might and will. In between lie most of the remaining states, which are all trying to improve their position *vis-à-vis* each other, and especially with respect to their enemies. Therefore, neo-realists contend that in deciding a path of action, a state weighs up the potential gains against incurred and potential costs. The state will then follow the path that would lead to greatest gain overall.

Another way of looking at this gain-loss balance, within neo-realism, is that states are wary of losing what they already possess. Therefore, decisions are influenced not just by what is potentially to be gained, but also by what is to be lost [Jervis, 1985: 86]. For example, if by cooperating, a state makes some gains, but insufficient to compensate for the loss of sovereignty over a resource, then cooperation will not occur. Therefore, the balance sheet has to be particularly attractive in deciding a particular action.

The realist perspective of international relations, regards the international system of nation-states with suspicion. The absence of a supra-national body with the capacity to enforce decisions upon recaltriant states is seen as defining the system as anarchic. Without the presence of such a governing body, any altruistic move by one state may be taken advantage of by another [Jervis, 1985: 86]. Moreover, in the event of an international agreement a 'rogue' state may renege upon its obligations after having extracted full benefit from the agreement. The absence of a governing body in the manner of a national government, may leave weaker states open to such unscrupulous activity, unless they are able to protect themselves.

As Evans and Newnham point out, realism regards international politics as essentially amoral [1990: 189]. It is only within the state that justice, equality and freedom are possible. Therefore, in the anarchic atmosphere of international politics, self-help and self-interest are the cornerstones of decision making and national security. More importantly, to not follow up on one's own self-interests, and to act altruistically, is to act irrationally - even foolishly. States thus create their own morality in the rarefied air of international politics. The highest morality is 'national interest', and the guardian is

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later in October 1957.

the principle of sovereignty. What states believe are their national security interests "is affected by their view of the world" [Halperin and Kanter, 1985: 440].

Realism views international politics as being about nation states and their struggle to survive in an arena of power politics [Dalby, 1990: 88]. Those nations that survive do so by imposing their will upon weaker states [Painter, 1995: 138]. A nation's strength comes from being able to control its territory and the resources therein [Murphy, 1991: 126]. Independence is another criteria of strength, whereas cooperation leads to a decrease in sovereignty and therefore in strength [Kliot, 1991: 4]. In other words, only the weak cooperate, because the strong do not need to as they have all the resources they need and are independent.

This issue of autarky (or self-sufficiency) and independence centred traditionally upon key resources that came to be defined as 'strategic', or of national interest such as oil and certain minerals. Strategic resources are those that are in demand but access to which is limited. In other words, they are scarce and considered vital to national security. The most important element is the perceived link between the resource and the principle of national security. Should access to these resources be denied or restricted, then the security of the nation and its interests would be put in jeopardy. Initially, security was defined in military terms, but later came to include economic considerations. Under the concept of water wars, security was extended to include water resources.

Violence is regarded as a legitimate means, if not the primary means, to safeguard national interests and sovereignty [Painter, 1995: 139]. As cooperation is regarded as a sign of weakness, it is also regarded as an anomaly in ensuring a state's security. Waltz makes a distinction between high and low politics. High politics is about international matters, and relates to the external security of the state. Low politics, by comparison, deals with the country's domestic political economy and social pressures [Barnett, 1992: 9]. Realism expects the greatest threat to a country to come from external forces, because it assumes the state is internally unified. This decreases the role of non-state actors and regards a government as objective and acting in the national interest [Painter, 1995: 138].

Barnett argues against the prioritising of a state's external security, suggesting state officials and bureaucrats are at greater risk from domestic than external sources. Unlike

Waltz, these officials do not distinguish between domestic and foreign policy which influence each other. Most notably, when faced with an external threat, state officials need to garner support for their policies and strategies to deal with the threat [1992: 7]. "Too often earlier studies have unnecessarily and inappropriately characterized state managers as responding to one logic, be it domestic or international, economic or political" [Barnett, 1992: 7].

1.2.1.2 Liberalism

The liberal perspective of international relations sees cooperation as the norm, even though it does decrease state sovereignty [Kliot, 1991: 4; Lowi, 1993: 4]. Several factors have contributed to the rise of one-worldism or interdependence, and an emasculated state: [i] an independent global political economy; [ii] an increase in international political cooperation; and [iii] the fragility of the global environment [Gilpin, 1985].

Prescriptive liberal analyses do not, however, explain the existence of disputes between states. Liberal institutionalism does, though, try to explain why cooperation does not occur. It suggests that asymmetrical information and uncertainty which often characterise a conflict, act to impede cooperation [Lowi, 1993: 5]. But this, in turn, is a repetition of the realist argument and does not explain why cooperation does happen specifically on water. So it appears, to this thesis, that just as realism assumes blanket conflict, liberalism expects blanket cooperation.

Drawing on the traditional theory of interdependence, institutionalists (also known as functionalists) expect integration to grow organically from one issue to another [Wolf, 1995b: 142]. This spillover happens, it is suggested, from technical issues that are non-political to matters that have a more political nature [Lowi, 1995: 123]. This 'spillover' can lead to more and more cooperation till it reaches its final conclusion - peace. Whereas, functionalism and neo-realism assume a division between 'high' and 'low' politics, neo-functionalists dismiss the possibility of separating welfare issues from national and international politics.

Lowi argues that cooperation is more possible if issues are 'de-linked' [1993]. The implication is that proposed options should be acceptable to the ruling regime. This acceptability is based upon the regime's perceptions of what is acceptable to its

domestic audience. Proposals it appears should, also, be issue specific so that cooperation, over water in this instance, does not bind the actors to cooperation over any other issue. Blanket cooperation, like blanket conflict, appears to be unacceptable to the disputants, and does not explain the specific instances of cooperation that occur amidst war.

1.2.1.3 Game Theory

In legitimising violence, realism looks to game theory to understand the choices, resources and decisions characterising international interaction [Painter, 1995: 139]. A number of assumptions are made in game theory: [i] that actors have preferences; [ii] that these actors will act rationally to satisfy these preferences; and [iii] that the actors will try to maximise their utilities. Therefore, by knowing the order in which the preferences fall, it is possible to determine which action will be chosen. The individual preferences are unimportant, as long as the actors are sufficiently motivated to consistently and rationally try to maximise their preferences [Hargreaves-Heap and Varoufakis, 1995: 5; Bogdanor, 1993: 248; Jervis, 1985].

Game theory uses a limited number of games to represent patterns of social interaction, and explore the possible scenarios that may arise out of any situation. To make such comparisons, game theory follows its own logic, which is highly reductionist. Hargreaves-Heap and Varoufakis suggest that game theory is rather like watching a card game. It has two main components. First, the rules and therefore actions that are allowed and second, how the players choose to act on the basis of the rules. The latter component has further divisions: [i] each actor's motivation, whether playing to win or more carelessly; and [ii] what each actor thinks the other will choose to do under certain circumstances [1995: 4].

Three possible categories of outcome are envisaged: [i] zero-sum (or constant-sum) games of pure conflict where one actor wins at the expense of another; [ii] games of pure cooperation occurring mainly due to communication failures, where all parties either win or lose simultaneously; and [iii] variable-sum games of mixed motive such as chicken or the prisoners' dilemma (PD), which combine conflict and co-operation. Chicken models instances of brinkmanship, especially confrontations involving nuclear weapons. Whereas, prisoners' dilemma models problems arising from the need for

collective action, for example with respect to pollution or resource depletion [Painter, 1995: 152; Hargreaves-Heap and Varoufakis, 1995: 35-37].

Game theory's reliance on its own logic allows it the facility systematically to manipulate and replace assumptions, which in turn gives game theory heuristic value. More complex and realistic analyses are possible in supergames where a set of players undergo a sequence of games, the moves and outcomes of which are determined by previous games. Nonetheless, though the outcome may be more realistic, it remains a contrived scenario and one that is constrained by the theory's assumptions of rationality and limited games [Bogdanor, 1993: 248-249].

As White and Neale point out, game theory predictions ignore the psychological factors that go into the decision-making process. The prescriptive nature of game theory models assume negotiators can set and implement reservation prices unhampered by the negotiations. It ignores the fact the negotiators are, in fact, influenced by their interaction during the negotiations [1991: 387]. Does game theory, therefore, explain cooperation over water by enemies? Though cooperation is regarded as the optimal outcome, it is not expected to occur. The theory also assumes that the outcomes are known, and it is a matter of each actor selecting their own preference, which often is not the case. It appears, furthermore, not to account for the intervention of a third party, such as a mediator.

1.2.1.4 Geopolitics

Traditional geopolitics lies close to the realist school of international relations. It regards states as spatial phenomena which derive their power from the geographic features making up the state's territory. It is the study of the physical world's influence upon the "conduct of foreign policy" [Agnew and O Tuathail, 1992: 191]. As with realism, the reductionist approach of traditional geopolitics suggests an unresponsive, stagnant foreign policy congruent with an "isotropic plain of strategic commitments" [O'Loughlin and Heske, 1991: 53].

Security is defined in narrow militaristic terms, ignoring the economic developments arising with the global international political economy and environmental factors that demand a more creative and integrated approach to security. The improbability of

international cooperation is implicit in traditional geopolitics. By contrast, critical geopolitics seems to suggest an avenue to cooperation. Cox makes a broad distinction between the approach of traditional geopolitics and its cohorts in international relations (IR), and critical theory [in Dalby, 1991]. The problem-solving approach of IR theories maintain the status-quo, whereas critical thinking opens the accepted paradigm to changes and structural links by siting it in a larger context [Painter, 1995: 144].

Critical geopolitics looks at how power and its congruent discourse are formed, and what assumptions are made in perpetuating a particular discourse [Dalby, 1990: 39]. Critical discourse theorists, from which critical geopolitics takes its lead, use discourse not to mean language or social interaction, but social knowledge. Therefore, a discourse is knowledge that both constrains but also enables communication and thought within specific historical limits with respect to particular social objects and practices [McHoul and Grace, 1993: 31-39].

If a prevailing discourse discourages cooperation, the subsequent occurrence of cooperation may be the result of a change in the discourse. This does not imply that the overall discourse has changed from conflict to cooperation, but that a means to cooperate may have been adopted in the discourse. To understand this further, it would be necessary to explore the internal politics of disputants and, in the event of mediation, of the mediator and how it views the disputants.

1.2.2 Rights-Based Approaches

The issue of sovereignty that power-based approaches defend so vigorously, is embodied more soberly in international law. The preserve of nations, international law is codified by two bodies: the United Nations' International Law Commission (ILC), and a professional body, the International Law Association (ILA). The International Court of Justice (ICJ) can be regarded as an executive body of sorts.

All three bodies assume a zero-sum situation regarding the legal standing of disputants within an international dispute. Meaning, in effect, that one party's position will be prioritised over the other's. Any ruling will determine this prioritisation by comparing each party's case against the law, and then deciding which is 'more' right compared to the other. There appears to be an assumption in international law that the legal process is

objective and fair. Therefore, irrespective of the power balance between disputants, if a matter has been put before the ICJ a decision will be made based only on the law.

Recourse to law has one advantage in particular: the dispute's simplification to a handful of legal criteria. Unfortunately, there appear to be many more difficulties arising from its use. If a dispute arises between two or more nations, to bring about resolution via the international legal forum, all disputants must agree to submit the issue to the ICJ. Moreover, they must agree to adhere to the final arbitrated judgement irrespective of whether it suits their interests or not. States, mindful of their precious sovereignty, are usually reluctant to agree to such definitive measures especially when there is little guarantee of getting a desirable outcome. Cases have, however, been put before the ICJ and the arbitrated result has been respected, most notably in international maritime boundary disputes.

Once a dispute has been submitted, the legal criteria against which it is tested are, generally, vague and ill defined. International law, and especially international water law, appears to encode general principles very well. But to transfer the principle from the abstract to the practical, is problematic. For example, what is an 'equitable' allocation of water? And how is 'appreciable' harm measured? Even if judgement is passed, the executive body has to rely upon the voluntary implementation and enforcement of the decision by the disputants. This, in itself, is a risky option as the disputants may still regard each other with hostility, especially if the ruling is undesirable.

This is not to say that international law, and in particular international water law, do not have a role to play. Though they may not illuminate the road to conflict resolution, they signal a trail through the jungle that is autarky and encode desirable state behaviour, rather like a book of state etiquette. It is of particular use when encoding what the disputants have already agreed is fair and equitable in a treaty. International water law plays a very specific role, but attempts to apply it generally to resolving conflict has, this thesis would suggest, damaged its reputation.

1.2.2.1 International Water Law

> "Co-operation, however, must be established on such principles as good faith, good neighbourliness, equality and reciprocity. All basin states should keep in mind not only their own national interests, but those of the basin community as a whole" [Caponera, 1981: 183].

There is an extensive literature on the history and principles of international water law.[15] Unfortunately, despite such extensive coverage the key difficulty with international water law remains intact - implementation. There are two areas that obstruct implementation, that of prioritising one principle over another, and the difficulty in assigning specific definitions to terms that are vague. The law governing international watercourses revolves at present around two principles, equitable utilisation (EU) and appreciable harm (AH). In defining a watercourse, the ILC have united surface and groundwater into "a system of surface and underground waters constituting by virtue of their physical relationship a unitary whole and flowing into a common terminus" [Biswas, 1994: 199].

Defining the two principles appears to have posed a larger problem; nonetheless, the ILA and ILC have established working definitions for these principles. Equitable utilisation attempts to establish an equitable supply of water proportional to all the riparians' needs.[16] Appreciable harm, by contrast, prioritises and therefore protects existing uses. States are obliged to ensure that new developments do not put at risk those uses that are already established. The international legal community has taken 'appreciable' to mean harm that is more than mere inconvenience, but less than substantial.

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15 For literature on international law see Naff and Matson, 1984; Caponera, 1981; Turner-Johnson in Miller, 1987; Evans and Newnham, 1990; Bernharot, 1995; Shaw, 1991. For international water law see McCaffrey, 1993; Naff, 1994; Hey, 1995; Kliot, 1994 and 1995; Wolf, 1995a; Biswas, 1994; Allan and Mallat, 1995; Shapland, 1997; Lonergran and Brooks, 1994; Hillel, 1994; Garretson *et al*, 1967. Originating in Islamic laws on water, *shari'a* now denotes laws attaining to all aspects of Islam. Though the western-based international water law has not taken regard of this ancient guideline, it remains a vital force in parts of Arab society; see Mallat, 1995; and Naff, 1994.

16 Equitable utilisation (EU) is also known as equitable allocation (EA). However, subtle differences appear to be implied which are perhaps unintended. Whereas equitable utilisation suggests supplying water proportional to the need, equitable allocation appears to imply dividing the available water equally according to the number of users rather than according to need.

The vagueness of the adjectives describing the terms for application, 'equitable', 'appreciable', 'substantial', are an additional problem when it comes to prioritising EU over AH. Though the Convention on the Non-Navigational Uses of International Watercourses Commission was finally signed in 1997, after discussions that lasted 27 years, it does not clarify which principle is to be prioritised [Wolf, 1997a]. Shivananda goes as far as to say that "[i]n view of this legal situation as well as of the complicated technical implications of each water dispute, these disputes cannot be substantially solved by resort to arbitration or adjudication." [1961: 72].

Matters are not helped by the internal struggle between the encoding bodies of international law, the ILA and ILC. The ILA favours the application of equitable utilisation; whereas the ILC prefers appreciable harm. In justifying their adherence to a particular principle, each body claims the other's favoured principle falls short of justice. Therefore, the ILC points out that "utilisation of an international watercourse is not equitable if it causes other watercourse states appreciable harm" [McCaffrey, 1993: 99].

The ILA, in turn, emphasise the appreciable harm principle's protection of states that were the first to develop their uses. These states are, generally, downstream and therefore the principle harms upstream states' right to develop their own uses. Shivananda believes, correctly, that "in international water disputes the application of the doctrine of strict legal rights upon whatever basis it may rest, is an obstacle to any policy of active development which involves the consent and cooperation of both parties." [1961: ii].

With matters between the encoding bodies in gentle disarray what can co-riparians, involved in an international water conflict, do regarding their rights? International water law appears to offer little in the way of resolving a conflict. In fact, it may even go some way to exacerbating the tensions. The co-riparians adopt the legal stand that is most relevant to them depending upon the level of development each has undergone.

Generally, the principle a riparian chooses also correlates with a geographic position *vis-à-vis* their co-riparian. Downstream states have usually developed the watercourse more than upstream states. Therefore, states that have yet to develop their uses from the shared watercourse will probably favour using equitable utilisation, so that they are not

limited in their development attempts. States with existing uses will prefer any resolution to stem from the appreciable harm principle.

Within the conflict, the difficulties of international water law can add to the issues that need to be resolved. Shapland believes that international water law is used by riparians, "less to resolve disputes than to dignify positions based on individual state interest" [1997: 167]. For example, even if the disputants agree to apply the principle of equitable utilisation, they still have to agree upon what constitutes an 'equitable' allocation [Beaumont, 1994: 19]. (Dinar and Wolf, 1994c, believe that defining and measuring equity is a problem with water cooperation and sharing as well). The intervention of a third party under these circumstances usually entails the ICJ and a costly legal battle to determine which principle, and therefore which riparian, is to be prioritised.[17] Does international water law, then, explain why cooperation happens between co-riparians? It would be suggested here that it does not.

The International Bank for Reconstruction and Development (IBRD) or World Bank appears to have met with more success in applying the principle of appreciable harm. It favours this principle because it is easier to define and measure compared to equitable utilisation [Goldberg, 1995: 156; Hillel, 1994: 274]. As a major financier of international water projects, the World Bank implements a strict procedure of notification, as outlined in its Operational Directive (OD) 7.50. When a riparian applies for a loan to finance its planned development of an international watercourse, that riparian must notify its co-riparians. This entails the sharing of any relevant data, and fore-knowledge of potential damage to existing uses or shared water. The riparian is exempt from doing this if the project is merely a feasibility study, or part of an ongoing project which in the Bank's opinion does not affect co-riparian utilisation. Should the riparian fail to or refuse to notify its co-riparians, the Bank would terminate the application immediately [Goldberg, 1995: 157].

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17 As Wolf points out the ICJ has only ruled on the Gabcikovo-Nagymaros dam dispute, between Hungary, Czech Republic, Slovakia and Austria, on the Danube River [1997a]. For background to the dispute, see Assetto, Valerie J. and Hans Bruyninckx, (1997), "Environment, Security and Social Conflicts: Implications of the Gabcikovo-Nagymaros Controversy" in Blake, G.H., L. Chia, C. Grundy-Warr, M.A. Pratt and C.H. Schofield, (eds) (1997), *International Boundaries and Environmental Security: Frameworks for Regional Cooperation.* Kluwer Law International.

Though the process may appear harsh, it carries weight in that it is enforced along strict guidelines. The Bank's policy tries to prevent investing in projects that involve a dispute over water, because this could be detrimental to the project in the long term. Moreover, the notification procedure allows all the affected riparians to respond to the proposed project, either giving their approval or disapproval [Goldberg, 1995: 157].

The ILC of the United Nations has, by comparison, a lame notification procedure. The riparian is asked to notify its co-riparians of its plans if, in its opinion, the project will cause them appreciable harm. This procedure is highly subjective, and the emphasis on self-regulation can open the door to future water disputes rather than close the door. Dinar and Wolf sum up the problems with international water law stating it is "ambiguous and often contradictory, and no mechanism exists to enforce principles which are agreed-upon" [1994c: 79].

Despite the difficulties in encoding and implementing international water law can it explain international cooperation over water, between enemies, as happened in the Indus Basin? It appears not. Nor in fact can the power-based approaches. What the rights-based approach of international water law shares with the power-based approaches of realism, liberalism, game theory and geopolitics, is that they all expect conflict between enemies.

None of these approaches can explain all the features of the Indus Waters Treaty.[18] Though liberalism expects cooperation between nation-states, it cannot explain hostile states cooperating specifically over water. Especially since this cooperation happened despite the existence of other Indo-Pakistani disputes, and was maintained through two wars. Realism and geopolitics expect conflict in an anarchic international system, but cannot explain why enemies would be willing to limit their sovereignty over a key resource such as fresh water.

Game theory makes provision for cooperation but predicts conflict on the basis of a number of pre-decided outcomes. Though the Indus Basin talks had been conducted

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18 When the author asked Ambassador John McDonald, Jr, whether international relations (IR) theories had any influence on the actions of participants in negotiations, he said no. What did matter, McDonald believed was the very thing that IR ignores, personality - of the individual negotiators and the governments involved. Furthermore, "practitioners never read, and academics never practice" [McDonald interview, 25/4/96].

under some principles, such as no-diminishing supply, there was not a set of pre-known outcomes from which the Treaty was chosen. And finally, the application of international water law pre-supposes a water dispute, unless a riparian is unilaterally policing its use. However, though it may not explain international cooperation over water, international water law does seek to protect cooperation once it has happened such as the Indus Waters Treaty.

1.3 INDUS WATERS TREATY'S SIGNIFICANCE

Having deliberated over approaches that would suggest conflict is to be expected over key resources, focus returns to an example of cooperation. The Indus Waters Treaty was signed amidst considerable speculation, and fact, of rising tensions and is considered to be a success [Nakayama, 1997: 368]. Thus, there are good reasons to look to the Indus Waters Treaty for help with present day international water disputes [Biswas, 1992: 201]. The Treaty's value was recognised early on. In 1966, the World Bank was considering the situation on the Ganges-Brahmaputra between East Pakistan and India, and saw parallels with the Indus Basin situation [Lilienthal, 1976: 236].

The Treaty was achieved with the help of a third party, not though the formal legal avenues open through the International Court of Justice (ICJ), but rather an institution interested in the matter, the World Bank. This reflects the present situation in hydropolitics with an array of organisations intervening in water disputes. For example, efforts by the United Nations' Food and Agriculture Organisation (FAO) in bringing together the riparians of the Nile Basin. In fact as Biswas points out, "the negotiating process of the Indus River Treaty clearly indicates the critical role of a third party in facilitating such an agreement, provided it can play an impartial but active and constructive role, and supplement it with potential significant financial aid on successful completion of the negotiation" [1992: 209].

As Mitchell and Banks point out, conflict analysis is the first step in the conflict resolution process [1996: viii]. And though scholars and other observers may illuminate the issues involved, it is the disputants themselves who actually resolve the dispute. Therein is the focus of the mediation process: the disputants decide the outcome, but the mediator controls the process. The World Bank was fully aware where the decision-making power should lie and made a concerted effort throughout the talks to maintain

this balance. The result was not only the signing of an international water treaty, but its implementation and endurance. This durability is one of the primary reasons for studying its negotiation process [Biswas, 1992].

The Indus Waters Treaty's achievements start with the enemies being willing to talk. Then, as differences mount and are faced, the talks break down. But the disputants come back and keep talking. Eventually an outcome is agreed upon and a treaty drafted. After its signing, and ratification, it is implemented. The implementation stage occurs within the duration allotted to it. And even with the advent of war between the signatories, not once but twice, India and Pakistan maintain their obligations to each other under the terms of the Treaty. This was pointed out by the World Bank, with particular reference to the 1965 Indo-Pakistani war: "[e]xcept for two or three days when shots were fired (and war appeared imminent), the agreement between India and Pakistan was carried out without any interruption during their recent war" [Lilienthal, 1976: 236]. Finally, the Indus Water Treaty has been maintained for almost forty years.

One of the reasons for the success of the Treaty, measured by its durability, is to be found in the detailed agreement that was signed. For example, the third party clearly recognised that the negotiations held on the Indus Basin dispute would not heal all the wounds in the Indo-Pakistani relationship. Therefore, a detailed route was established to deal with future disputes, so that they could be resolved without having to re-invent the wheel, nor leaving them to escalate into a larger conflict.

Rausching believes the Indus Waters Treaty is an example "for the application of the principle of equitable apportionment" [in Bernhardt, 1995: 964]. Though, India did receive access to the Basin's water and this would suggest an equitable apportionment, this was only possible after Pakistan had been assured that no appreciable harm would be done to its existing uses. This in turn suggests that these principles in international water law must be used together, and that it is not a matter of settling claims on the basis of either equitable utilisation or no-appreciable harm. Therefore, first, ensure supply is maintained at an acceptable level to existing uses and, then, apportion the water equitably. This, however, is not without its own difficulties.

Criticism of the Indus Water Treaty centres largely upon what is regarded as its sub-optimal outcome, and the large financial incentive needed to get this sub-optimal result. Sewell and Biswas explain that "[o]ptimal use of the stream can only be attained if all

the potential uses are considered simultaneously and a combination is chosen that conforms to a selected criterion, such as the maximum net economic return or the preservation of a particular ecological web" [1986: 297]. Therefore, Kliot argues, partitioning an international watercourse is not an optimal arrangement. It is usually inefficient, does not always increase the amount of water available and can, in fact, encourage waste [1995: 195].

Though such criticism is valid there is generally a socio-political context within which agreement is reached. For example, at present people in the West, and increasingly in other parts of the world, are more aware of the need to safeguard the environment. Kolars speaks of safeguarding the river itself, treating it as if it too has needs and a life [1997]. This is in stark contrast to attitudes in the 1950s, and beyond, when water flowing into the sea, unused, was regarded as 'wasted' [For example, Shivananda, 1961: 4-5 - quoted in Section 1.1.1, page 3].

In hydropolitics, the air is filled with the need to have integrated water management, and plans for water use that optimise the amounts that are available. Lowi explains the rationale behind integrated management: "Geography suggests that, by virtue of its physical unity, a river basin should be developed as a single, indivisible whole, irrespective of political divisions. This is because water binds land areas together as it flows toward an outlet, and interference with the water and its movement at any point has repercussions elsewhere in the basin" [1995: 125].

Interestingly, integrated management also implies participation by the end users - the public. However, as Frederiksen *et al* point out, "[p]olitical leaders may be wary of public participation and direct influence", this is abetted by the bureaucracies in South Asia, which "oppose sharing management decisions" or being accountable [1993: 111].

Forty years ago, however, international focus was on economic development, though the costs to carry through such policies were unknown then. Yet, using hindsight, which is cruel in its criticism, it has been suggested that the World Bank "gave up the optimal solution too readily" [Mehta, 1988: 74]. This appears incredulous in the face of the long and difficult negotiating role the Bank played with tremendous patience for approximately nine years. Especially as Lowi is correct in pointing out that "states are reluctant to relinquish control over land and other resources that lie, even partially, within their borders" [Lowi, 1995: 126]. Therefore, if the Bank had persisted, how much

more time would it have needed to spend to get an optimal plan? And would an optimal plan ever be possible given that Pakistan and India in 1998, after 50 years of existence, tested nuclear devices with each other in mind?

Yet Mehta admits that the Indus Waters Treaty gave India and Pakistan, "the freedom of independent development of the waters flowing through their lands. Had the treaty not been concluded, it would have remained another major contentious issue in the political relations of the two countries, and the massive economic aid for subsequent development might have been wholly or partially withheld" [1988: 69].

Moreover, talk of optimal outcomes is based upon an ideal. "It regards the river basin as a single hydrological unit irrespective of international boundaries" [Kirmani, 1990: 204]. And involves looking at the geographic and hydrologic makeup of a basin, superimposing the uses distributed across it, and letting a plan emerge that sanctifies a particular ideal. However, as already stated, agreements are reached in a particular context, usually defined by the political situation of the participants. Therefore, when agreement is reached, though it may not be a geographic or hydrologic optimum, it is a political optimum. It is, therefore, politics rather than technology that constraints the management of water resources. Thus, Kirmani believes the notion of integrated management to be "idealistic" [1990: 204].

Mehta appears to agree with this point:

> "The agreement was a triumph, but a triumph of the lesser evil. Judged from the point of view of optimum gains which could flow from the total waters of the Indus basin, by treating the basin as an ecological and economic unity, one must, at least hypothetically, recognize great opportunity costs in repudiating the investment in the existing network of irrigation canals. However, in the prevailing circumstances in the subcontinent, the agreement is considered as the most which was politically feasible" [1988: 69-70].

In other words, the Indus Waters Treaty, as it stands, is the most India and Pakistan could afford, politically, to agree to or be seen to agree to in 1960. Of course, in looking at other international water disputes if it is possible then plans to satisfy the geographic and hydrologic optimum should be pursued. But it is important to realise that such plans may have to bend and incorporate aspects that make agreement possible.

It is true that the World Bank was able to finalise agreement between India and Pakistan because of the financial incentive. Had the Bank not been able to raise the money from

'friendly Governments' then the Indus Waters Treaty as it stands today would probably not have been signed. However, this thesis believes that to emphasise the financial element as being solely responsible for reaching agreement is to overlook the circumstances of the Indus Basin dispute, and its resolution.

The World Bank, upon proposing to intervene in 1951, had made it clear from the outset that if agreement was reached, the institution would be prepared to assist the parties in raising the necessary finances [IBRD-8/11/51]. The Bank's philosophy is summarised by Black, who was President of the institution at the time: "Money doesn't do any good on earth, no matter how much it is, *unless that money is well spent*" [1961, emphasis in original]. Therefore, once the talks started in 1952, it was up to India and Pakistan to find an acceptable solution to their problem. This solution was to repeatedly elude the two disputants, and at times the search was almost abandoned.

Black recalls the World Bank's reaction to the differences between the 1953 Indian and Pakistani plans:

> "I said to them all one day, 'We can make money but we can't make water. There's just so much water, and both of your plans are unreasonable. The hell with both of you; we'll make a plan of our own.' So we worked out our own plan. Then we had to sell them on our plan and that was a terrible job. Then we had to go out and raise a billion dollars. That wasn't half as hard as getting them to agree, but we had to get a billion dollars" [1961].

Agreement, in principle, on an acceptable plan, when it finally came in 1958, was based upon political factors. Notably, the change in Pakistan's government with Ayub Khan's military *coup*. Once this agreement was in hand, the implementation of the agreement involved the financial element. Pakistan wanted to be assured of supply to its existing uses, and India did not want to undertake a large financial obligation to Pakistan.

Thus, once the political decision had been made to agree, the financial aspects sealed the agreement. As Black points out, "the question between India and Pakistan over water, which called for enormous expenditures for building irrigation systems and reservoirs, this was a financial question in that not only you've got to get agreement on an over-all plan that would be of benefit to both countries, but you've got to find out the way to raise the money to do this" [1961]. This thesis would surmise that, naturally, in making the political decision to agree Pakistan would have taken into account the availability of finances to construct the resulting works, but that alone would not have convinced it to agree.

1.3.1 Expecting Cooperation: Water Rationality

> "A leader's choice, contrary to the assumptions embedded in the foreign policies of states who rely primarily on unilateral, coercive means, is not obvious" [Princen, 1992b: 16].

If power-based approaches like realism cannot account for cooperation, though it can creep in with the neo-realist's gains-loss balance sheet, does liberalism offer a more satisfactory explanation for cooperation? This latter perspective on international relations, after all, regards cooperation as the norm. Game theory, with its notion of limited cooperation, is also looked to, as is geopolitics. A rights-based approach examines international water law for an explanation of cooperation. It emerges, however, that none of the existing frameworks satisfies all the different and specific elements of the Indus negotiations, namely: enemies cooperating, specific cooperation over water, involvement of an influential third party which regards cooperation as possible, and unknown outcomes.

The primary objective in the Indus Basin talks, for all participants, was to secure the long-term availability of a fresh water supply. It was for this reason that Pakistan and India, signed the Indus Waters Treaty; and also why negotiations dragged on for so long. Pakistan's concerns regarding its long-term supply had to be answered before it was willing to agree to any proposals that altered the existing supply network. This regard for secure long-term supplies appears to suggest that riparians will cooperate over their shared watercourses.

The idea of water rationality, proposed in this thesis, suggests that countries will at times act in ways to promote the long-term security of their fresh water supplies. This involves pursuing prudent management of existing national water resources, and maintaining, with specific reference to any shared water, good relations with co-riparians. Should an international water dispute arise, water rationality still expects cooperation to persist rather than war.

In the event that direct bilateral discussions fail to resolve an international water dispute, the intervention of a third party may assist resolution. The nature of third party intervention may vary, for example, from adjudication by the International Court of Justice to mediation by an international organisation. Irrespective of the type of intervention, the dispute process is influenced by the third party. Therefore, water

rationality believes that any intervenor should also expect cooperation as an outcome to the dispute.

The mode of intervention examined in this thesis is mediation, which is defined as 'assisted communications'. As a technique of resolving international water disputes, mediation sits within the water rational approach of securing long term fresh water supplies. The mediation framework does not attempt to predict events in a dispute, but merely to guide disputant behaviour, and consists of four stages: engaging, issues, options and agreement. A detailed discussion of the framework is outlined in Chapter Three.

Drawing strength from a number of examples of international cooperation, water rationality expects cooperation rather than conflict over water. This expectation of cooperation stands in contrast to the power- and rights-based approaches described earlier in this Chapter. The concept of water rationality is discussed in more detail in Chapter Six.

1.4 RESEARCH METHODOLOGY AND PRACTICALITIES

It was clear from the outset that the material that was to be gathered would be principally of a historical nature. The negotiations for the Indus Waters Treaty had taken place during the 1950s, and usually involved the more senior engineers and bureaucrats of all participants. Thus it was understood, that not only would material held in the archives of all the participants, India, Pakistan and the World Bank, be the primary focus of research, but that the number of interviews with actual representatives of these parties would be limited.

Thus a concerted effort was made to gain access to the relevant archives: the World Bank's archives in Washington, DC; the National Archives of India in New Delhi; and the National Documentation Centre and National Archives of Pakistan in Islamabad. Enquiries were also made as to the availability of people to interview. This included those either with direct experience of the negotiations, or relevant experience related to the interdisciplinary nature of this research were the primary focus.

The World Bank, finally, offered access to the material it held in its Indus Basin Files, under strict conditions. Access was limited to these files, and the material was only to be used in relation to this research. Access to the World Bank's archives was seen by the author, and the Assistant Archivist, as setting a precedent. On receipt of the list of documents contained in these archives, it became obvious that a wealth of information, relevant to the Indus Waters Treaty mediations, would be made available. Therefore, it was decided to prioritise this archive over those in the Indian Subcontinent.

The authorities in the Subcontinent dealing with each country's archives were to take different positions regarding access. Whereas Pakistan gave permission to use their National Archives and National Documentation Centre, India refused access to its National Archives. It is understood the Indian refusal was based upon water policy being regarded as a matter of national security. Nonetheless, it was felt that a visit to India would still be of some value in better understanding the Indian perspective. A trip to Pakistan was planned, and with it the trip to India. But as the World Bank archives had priority, the Indian Subcontinent trip would only take place after a visit to Washington, DC.

The World Bank archives were to offer up a wealth of information as expected, detailing the decisions and negotiations undertaken in finally reaching agreement and signing the Treaty. The principal focus, considering it was the Bank's archives, was that of the institution's role as the mediator. The material contained the correspondence between India and Pakistan, and the Bank, and reports of meetings between the participants. In addition, interviews were held with some people who had been directly involved in the negotiations, and others with relevant backgrounds in water, negotiations, and South Asia. Those with direct involvement were: Davidson Sommers, General Counsel of the World Bank during the negotiations; Harold Graves Jr, Director of Public Relations at the Bank; and Syed Kirmani, a member of the 1954 Pakistani delegation.

The success of the trip to the USA, based largely upon the material gathered from the World Bank, rendered a visit to the Indian Subcontinent a secondary matter. The material that had been collected would provide for an interesting insight into the third party role of the Bank. Since this perspective had not be presented hitherto, it was decided to focus further research upon this angle. Thus when delays and difficulties with attaining the appropriate research visas for Pakistan and India threatened to consume the better part of a year, it was decided to postpone that visit indefinitely.

In the interim, the decision to focus on the third party role of the mediator had raised interest in training as a mediator. It was felt this would provide additional insights into the process, and allow the author a chance to put into practice, in the form of role-playing, theory gleaned from the literature on conflict resolution. The opportunity to undergo this training arose with an initiative by Sunderland City Council to set up a scheme to provide neighbourhood mediators. The training was provided by the mediation facility, UNITE, based in Middlesborough.

As a result of the training, not only was the perspective and role of mediator clearer, but so was the position of the disputants. The depth of emotion and attachment to the position taken by a disputant *vis-à-vis* the dispute was experienced through role-play. Though the level of analysis was different since the focus was at a neighbourhood level rather than international intervention, there appeared to be sufficient themes in common to warrant the training, and its application to the Indus Basin mediations. The principal transfer from the training was the use of the mediation framework as described by UNITE and appearing to be common to all levels of mediation.

Secondary sources were also consulted throughout this research, using the considerable literature on hydropolitics and mediation theory in particular. However, though there is a wealth of information on the international basins of the Middle East, in particular the Nile, the Jordan and the Euphrates-Tigris, and to a lesser degree on the Ganges Basin in India, information on the Indus Basin is notable by its scarcity. Of the material that does bear the Indus Basin name, a fair amount addresses the ancient Indus Basin civilisation and not the modern-day Indus Basin dispute and Treaty. Therefore, it is with some reluctance and hesitancy that certain texts are relied upon, repeatedly, to narrate the Indus Basin dispute pre-1951.

SUMMARY

Hydropolitics is about the interaction of water management and politics. In areas of aridity the disparities between supply and demand of fresh water have led to heightened tensions between riparian countries. The water wars concept predicts these tensions, in such regions, will lead to war because of the importance of fresh water to national security and economies. This connection between control of important resources and

security holds explicitly the expectation of conflict. However, this expectation appears misplaced in the light of emerging evidence of cooperation over water.

Among the examples is the Indus Waters Treaty signed and ratified by India and Pakistan under the good offices of the World Bank. The significance of this Treaty stands in its durability since 1960, surviving for almost four decades and through two Indo-Pakistani wars. The nature of the negotiation process, it is suggested here, has contributed to its durability. This is because mediated talks emphasise the importance of the disputants determining the outcome; the mediator is there merely to assist communications between the parties.

The nature of the mediated talks regarding the waters of the Indus Basin highlighted a number of lessons, including the expectation of cooperation. This expectation was joined by the idea of securing fresh water supplies in the long-term. Together, the expectation of cooperation and the notion of water security comprise the concept of water rationality. This thesis suggests water rationality provides one explanation for the cooperation witnessed in the literature of hydropolitics.

Tensions will probably continue to rise in areas of the arid realm over competition for access to fresh water. But most of these disputes will be played out in the domestic arena of countries, and at the local levels. International disputes that lead to war, caused and sustained by fresh water, appear to be possible but not probable in light of cooperation's reality. This thesis does not suggest there will never be an international war between riparians over their shared fresh water supplies but that, surprisingly, it appears to be more realistic to expect cooperation than conflict over this precious resource.

2

THE GEOGRAPHY OF CONFLICT IN THE INDUS BASIN, PRE-1951

The rivers in the Indus Basin send to the Arabian Sea approximately 238,000 million cubic metres (mcm) of water each year, in comparison to the Nile's historic contribution to the Mediterranean Sea of 84,000 mcm.[19] The River Ravi, even during the dry winter months, has on average more water than the River Jordan; 1,500 mcm compared to 1,200 mcm respectively [Nijim, 1969: 38]. With such vast volumes of water passing through the Indus Basin, why was the allocation of water disputed by intra-basin users?

The above figures denote the average annual water supply, but hide a crucial factor - variability, both seasonal and between years. Despite all the water, the Indus Basin is largely an arid or semi-arid area because of an uneven distribution of water. Most of the basin's rain falls within two months during the summer, and is transported out of the basin to the Arabian Sea. For the remaining ten months, very little rain falls in the basin.

Since rainfed agriculture is limited to a very thin ribbon stretching across the foothills of the Himalayan range in the north, the principal mode of sustaining agriculture, and human life, throughout the remaining basin is irrigation. Under the colonising British the traditional irrigation system was expanded and modernised, covering areas in different provinces and administrative bodies. The revenue resulting from irrigated land and sale of produce was sufficiently attractive to provincial governments that they wished to continue the development of their own irrigable land. As work progressed, these provinces came to compete for the allocation of water.

After the partitioning of India, and its subsequent independence, the conflict for this finite resource continued with Pakistan. The expression of this conflict became more severe, with India stopping water flowing to canals from which Pakistani crops were watered. The dispute, centring on the waters of the River Sutlej, became a tussle

[19] With the advent of the Aswan High Dam, and increased withdrawals within Egypt for agriculture, the amount of fresh water flowing from the River Nile into the

between Pakistan, demanding an uninterrupted supply to its existing uses, and India, claiming the waters for its own development. Despite a series of talks and an agreement, a stalemate arose and persisted for a number of years, until it was broken by the intervention of a third party.

2.1 PHYSICAL GEOGRAPHY OF THE INDUS BASIN

Whilst flying over Pakistan, heading north from the Arabian Sea in the south, a vast arid plain can be seen to unfold below. Trapped by low mountains to the west, the plain tumbles unhindered to the east into the Rajasthan Desert of India. The plain abuts the Himalayas head-on in the north, stopping abruptly with the vertical ascent of the concertina folds of the Himalayas and Sub-Himalayas. Transforming the arid plain, for a short distance on either side, are the rivers of the Indus Basin. The green ribbons braid into one, gaining strength in their battle with the desert determined to reclaim its territory.

The Indus Basin drains the highlands of three countries, Afghanistan, India and Pakistan; and the Autonomous Region of Tibet in the People's Republic of China (PRC), covering almost 950,000 km^2. This is more than the total area of Pakistan which covers approximately 800,000 km^2 [Michel, 1967: 29; Nijim, 1969: 29]. The drainage area is divided between the highlands of the neighbouring countries and the Indus plain in Pakistan. Michel regards the Indus plain not only as "one of the most homogeneous physiographic regions on earth" but "as one vast and fairly homogeneous aquifer, a sort of vast sponge, capable of absorbing runoff from the foothills as well as rainfall and seepage from the rivers and canals that cross them, and of transmitting this subterranean flow downslope to the Arabian Sea" [1967: 30].

As the Indus plain comes out of the Himalayan range in the north, it is divided into two halves. The Upper Indus Plain lies between the northern mountains and Mithankot in Sind Province, and contains the Indus River's tributaries [Ahmad, 1964: 21]. The tributaries have all joined the Indus by the time it reaches Mithankot, and the Lower Indus Plain starts. The Lower Plain takes the baton at Mithankot and relays the Indus River exotically to the Arabian Sea [Ahmad, 1964: 24]. The Lower Plain lying in Sind

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Mediterranean Sea is now estimated to be approximately 30,000 mcm or 30 billion

Province has been formed by the changing course and recent deposits of a single river [Ahmad, 1964: 25]. By comparison the Upper Plain in the Province of Punjab in Pakistan, has been formed by the changing course of several rivers [Ahmad, 1964: 22]. The prominent features of the Upper Plain are the interfluves, or 'doabs', built up by deposits from the unstable rivers, often only 6-18 metres above the river course [Nijim, 1969: 32].

With the exception of the coastal and montane zones, the Indus plain is a single climatic unit that is semi-arid with low average rainfall [Michel, 1967: 37].[20] The seasons are divided between summer, or kharif, (April-September) and winter, or rabi, (October-March) [Ahmad, 1964: 30]. Derived from the Arabic word, 'mausim' meaning season, the summer monsoon provides 50-75% of the total annual rainfall over a short period of two months (July-August) [Ahmad, 1964: 33]. During the summer monsoons as much as 25 mm can fall in one hour [Johnson, 1979: 55]. Any rainfall unrelated to the summer monsoons is of little consequence in the face of high evaporation rates resulting from high summer temperatures (32-40 ^{o}C). Surface water in the Indus Basin comes either in the form of rainfall or from the snow which covers the higher peaks of the Himalayan Range and melts in spring [Ahmad, 1964: 15].

The overwhelming feature of water in the Indus Basin is one of variability. Though the actual supplies of water either as groundwater or surface flow are large, the availability varies greatly with the seasons, between years and between locations. It is estimated that groundwater reserves within the Indus basin are ten-fold the annual runoff of the Indus River. Though the advent of large scale irrigation is believed to have raised the water table overall, due to inadequate drainage, its proximity to the surface does vary with a number of factors: distance from the foothills, rivers and canals; different soil; seasonally; and year-to-year [Michel, 1967: 30]. Groundwater contributes to irrigated agriculture through the use of tubewells, though it remains a small proportion relative to that of surface flow irrigation.

The Indus basin rivers' seasonal discharge can vary dramatically. (See the hydrograph in Figure 1, taken from Gulhati, 1973, showing the distribution of water supply in the Indus Basin measured in cubic feet per second (cusecs) and starting in April, at the

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cubic metres (bcm) [Gleick, 1993b: 158].

20 For more information on the climate of the Indus Basin see Spate 1954, Stamp, 1960; Ahmad, 1964; Johnson, 1979 and Tayyeb, 1966.

beginning of the kharif or summer period). The Indus basin comprises the Indus River and its six tributaries, see Figure 2. These are the rivers Sutlej, Beas, Ravi, Chenab, Jhelum from the left, and the Kabul from the right. The Indus plain is formed by the action of the rivers from the left, and their contribution to the Indus River; see Table 2.1 for the discharge figures of the Punjab rivers.

Table 2.1 The Indus and the Punjab rivers.

River	Rim Station	Length / km	Ave Annual Runoff / bcm (MAF)	Catchment Area / km²	Discharge/ bcm Summer	Winter
Indus	Kalabagh	2,900	115 (93)	268,800	69.6	11.5
Sutlej	Rupar	885	17 (14)	48,000	14.3	2.5
Beas	Pong	400	16 (13)	16,800	12.8	3.0
Ravi	Madhopur	700	9 (7)	8,000	6.4	1.5
Chenab	Marala	970	32 (26)	29,500	24.4	4.6
Jhelum	Mangla	725	28 (23)	33,400	22.3	5.6
Total			*217 (176)*	*404,500*	*149.8*	*28.7*

[Source: After Johnson, 1979][21]

The average monthly and mean annual flow variations from year-to-year are also large. For example, the Indus river at Attock discharges on average 115,000 million cubic metres (mcm) per year, but can vary by 75-118% of the average. The Jhelum river's discharge averages 28,000 mcm but can vary by a larger range, 65-135% [Johnson, 1979: 64]. The rivers start rising in March with snow-melt, by late June the monsoons are augmenting the surface flow till peak flood levels are reached in July-August at the rim stations. It takes approximately one month for the flood wave to travel downstream to Sind Province and the Arabian Sea [Johnson, 1979: 65].

[21] Shiklomanov gives different estimates of the Indus River's data. The runoff, including the tributaries, is estimated to be 220,000 mcm, and the length of the Indus River alone is thought to be 3,180 km [1993: 16]. This discrepancy in the data is not uncommon.

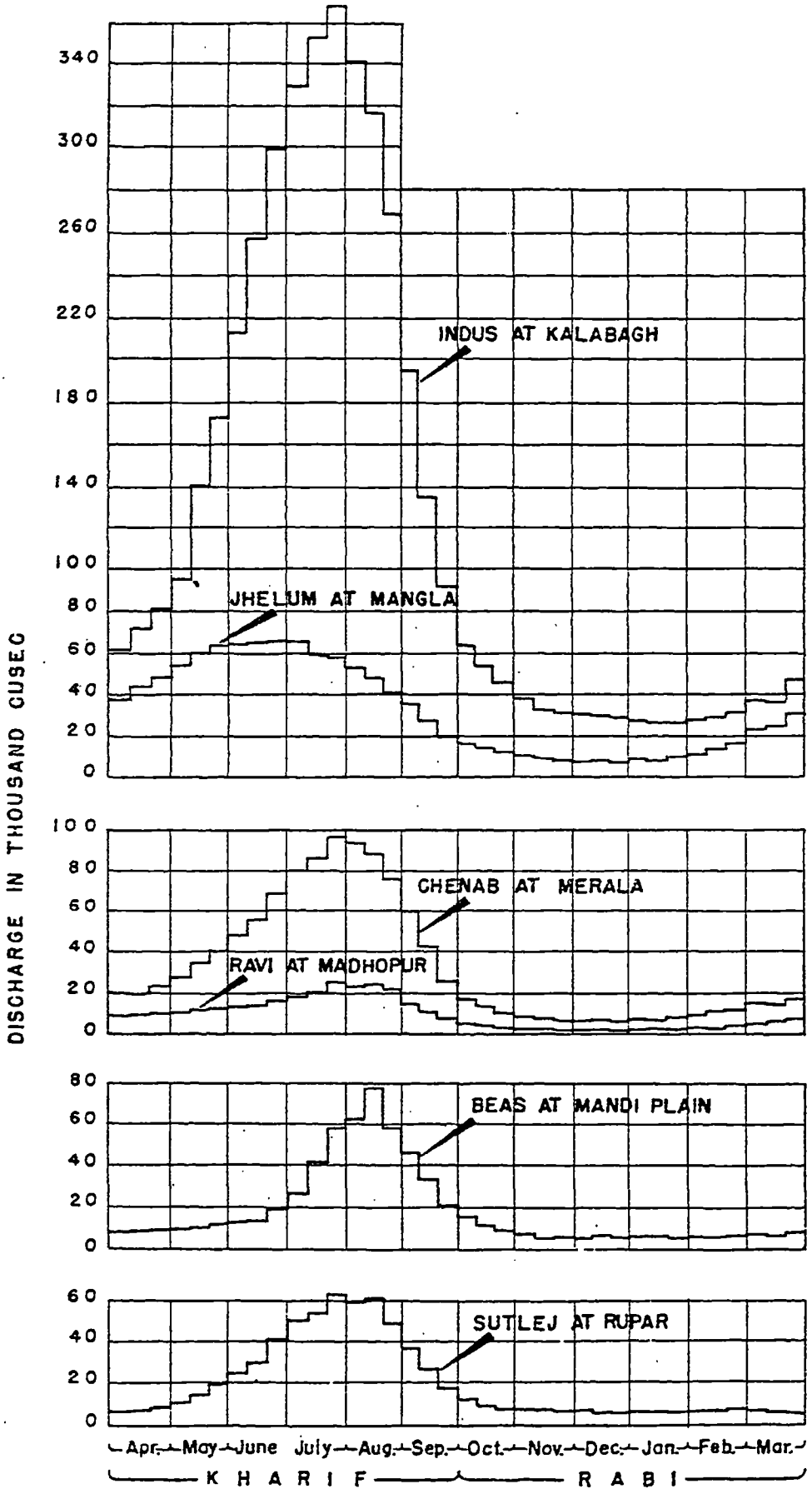

Fig. 1 A Hydrograph of the Punjab Rivers. [Source: After Gulhati, 1973]

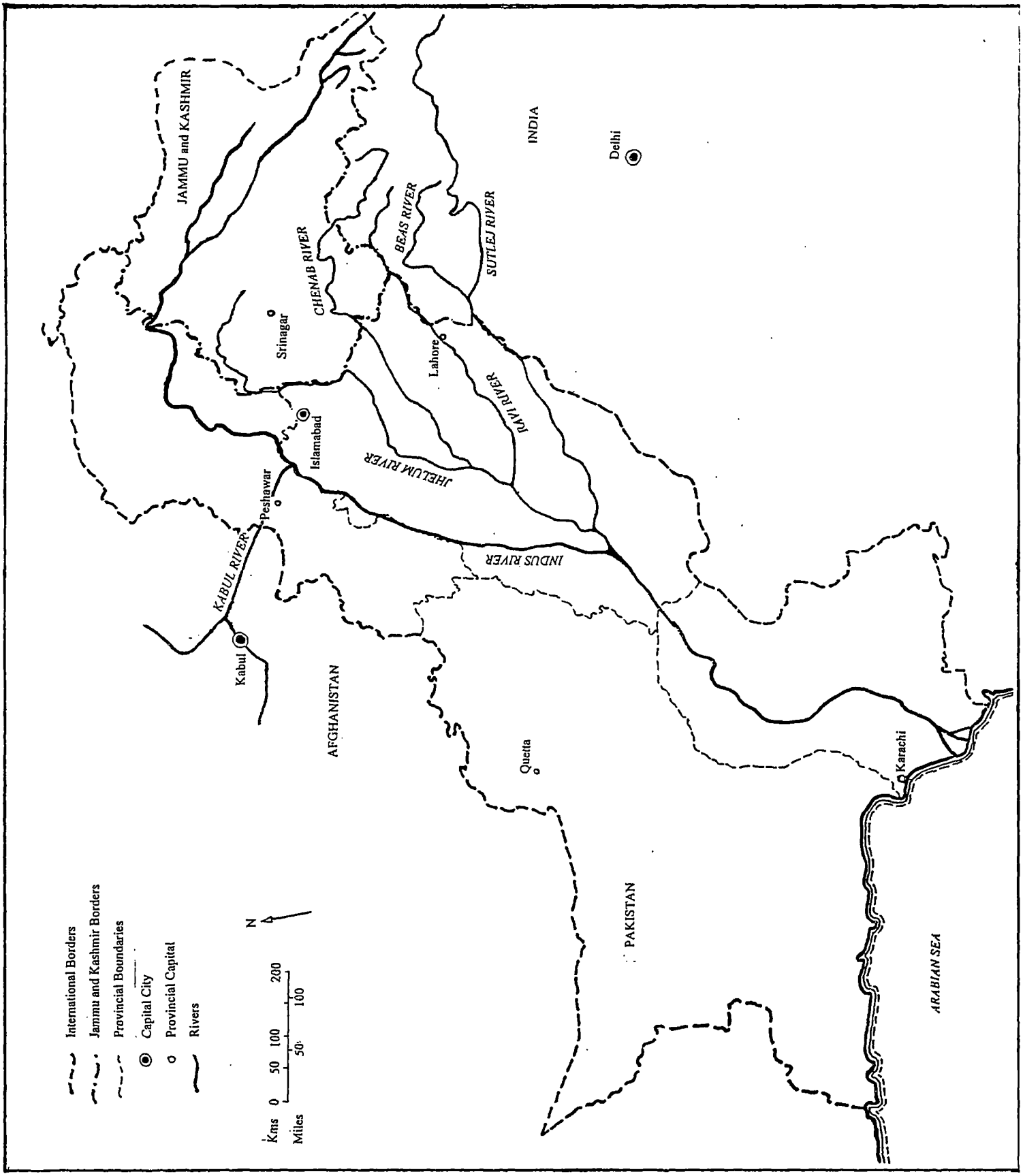

Fig. 2 The Riparian countries of the Indus River and its tributaries. [Source: After Michel, 1967]

The 'Punjab' is designated the land through which the five (panj) rivers (ab) flow. These rivers carry considerable amounts of eroded matter which leads to stream blockage, and shifting courses. As the course of the rivers' shift, it can lead to the 'capturing' of one river by one another. For example, the Beas used to flow into the Ravi, till it was captured by the Sutlej at the end of the eighteenth century. Unless otherwise hindered, the Indus basin rivers, following the pattern of other northern hemisphere rivers, shift eastwards or to the right [Michel, 1967: 27].

Aryan invaders thought the Indus river was as so vast they called it Sindhu, meaning ocean.[22] This later became 'Indus' [Michel, 1967: 42]. The characteristic of variability is best demonstrated by the Indus. During the summer the river is several kilometres wide, and when in flood can change course [Ahmad, 1964: 24]. But by winter, the Lower Indus has shrunk to a series of pools several kilometres long, 0.4-1.2 km wide and connected to one another by channels only 1-2 metres deep [Michel, 1967: 37]. At its source the Indus River stands approximately 4,600 m above sea-level and 2,900 km from the sea. On its descent to the sea, the river falls most dramatically within the Himalayan and Sub-Himalayan ranges. Once the Indus exits the mountains at Kalabagh, its rim station, the river's gradient across the plains to the sea is, on average, less than the gradient of its tributaries in the Punjab plain [Michel, 1967: 25].

As the Indus river winds its way down the Upper Indus Plain, it collects the Kabul from the right which contributes as much as the Jhelum and more than the remaining tributaries save the Chenab [Michel, 1967: 36]. The Kabul is the only major tributary to approach the Indus by itself. In comparison the Punjab rivers approach the Indus after they have marshalled their forces into a single branch known as the Panjnad. The Sutlej having collected the Beas, confluences with the Chenab which has already gathered the Ravi and Jhelum [Ahmad, 1964: 21].

So emboldened the five rivers join the Indus near Mithankot. From Mithankot onwards, the Indus is an exotic river and maintains no further perennial tributaries along the remaining 1,000 km to the Arabian Sea [Nijim, 1969: 34]. The five tributaries from the left share similar characteristics: they rise in the Himalayan or Sub-Himalayan ranges, and maintain a gradient of approximately 0.2m/km (1ft/mile) during their descent to the

22 Rao explains that the Aryan name Sindhu was corrupted to 'Hindu' by Persians, as they could not pronounce the syllable, 'si'. This was later further changed to Indus [1979: 19].

Indus at Mithankot. The Sutlej rises within 130 km of the Indus, in the Himalayas, but does not meet the Indus till they have both traversed the range close to 1,000 km to the west [Michel, 1967: 25].

The Indus basin contains a paradox of certainty-uncertainty. Certainty arises in knowing exactly when the seasons change, so that it is possible to refer to storage on the Indus being full by 31 August of a given year [IBRD-22/11/55]. Despite such certainty of timing, there is uncertainty regarding the quantity of water falling in the monsoons, and whether the water will be sufficient for the claims placed on it. Hence, the dependence of agriculture, and human life, on canals, dams and irrigation in the Indus basin.

2.2 IRRIGATION IN THE INDUS BASIN

Irrigation in the Indus basin goes back thousands of years to the early civilisations of Mohenjo Daro and Harappa. Using inundation irrigation, these civilisations were dependent upon the rise and fall of the Indus rivers. Though the civilisations died out with the shift eastwards of the Indus rivers, the technique of inundation canals persisted till the advent of the British in the Punjab, in the late nineteenth century. Thereupon, the British extended and modernised the inundation canals, giving the water users more control over their fate.[23]

The chronology of canal building and the successive politics in the Indus Basin, is described in some detail, to illustrate the level of dependency on irrigated agriculture in the Basin. (See Figure 3. for a map of the canals.) And therefore, to emphasise the political implications of this dependency when the water supplying the irrigation canals is threatened with competition, whether it is provincial or international competition.

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23 For a more detailed chronology of canal building in the Indus Basin see Gulhati, 1973; and Michel, 1967. For details of irrigation works built by the British in the Ganges Basin, see Stone, Ian, (1984), *Canal Irrigation in British India: Perspectives on Technological Change in a Peasant Economy.* Cambridge University Press: Cambridge. For an overall description of irrigation development in India, see Rao, 1979.

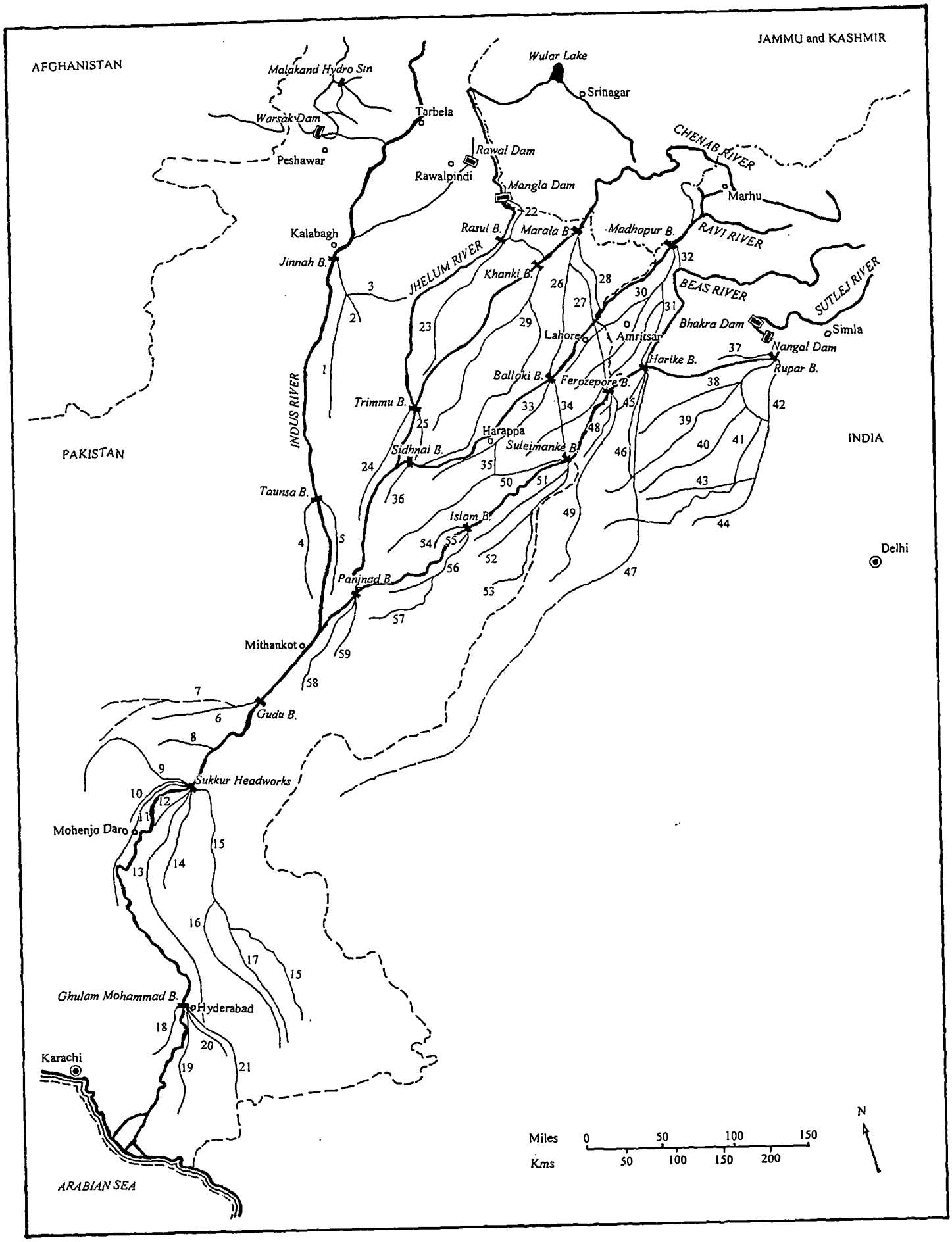

Fig. 3 The Canals of the Indus Basin up to 1960. [Source: After Michel, 1967; Ahmad, 1964 and Johnson, 1979]

Canals offtaking at barrages

Jinnah B.
1. Thal Mainline 1947
2. Dullewalla Branch
3. Muhajir Branch

Taunsa B.
4. Dera Ghazi Khan
5. Muzaffargarh

Gudu B.
6. Desert Canal
7. Proposed Pat Feeder

8. Begari Canal

Sukkur Hwk
9. North West Canal
10. Rice Canal
11. Dadu Canal
12. Khaipur Feeder West
13. Rohri Canal
14. Khaipur Feeder East
15. Ern Nara Canal 1932
16. Jamrao Canal
17. Mithrao Canal

Gh. Mohd B.
18. Baghar Feeder
19. Pinyari Canal
20. Fuleli Feeder
21. Lined Channel

Rasul B.
22. Upper Jhelum Canal
23. Lower Jhelum Canal

Trimmu B.
24. Rangpur
25. Haveli

Marala B.
26. Upper Chenab Canal
27. BRBD
28. Marala-Ravi Link

Khanki B.
29. Lower Chenab Canal

Madhopur B.
30. Upper Bari Doab
31. Dipalpur
32. Madhopur-Ravi-Beas

Balloki B.
33. Lower Bari Doab
34. Balloki-Suleimanke
35. Montgomery-Pakpattan

Sidhnai B.
36. Sidhnai

Rupar B.
37. Bist Doab Canal
38. Sirhind
39. Bhatinda Branch
40. Kotla Branch
41. Ghaggar Branch
42. Bhakra Mainline
43. Bhakra Main Branch
44. Fatehabad Branch

Harike B.
45. Ferozepore Feeder
46. Sirhind Feeder
47. Rajasthan Canal (with extension)

Ferozepore B.
48. Eastern Canal
49. Bikaner Canal

Suleimanke B.
50. Pakpattan Canal
51. Fordwah
52. Ern Sadiqia
53. Hakra Branch

Islam B.
54. Mailsi Canal
55. Qaimpur Canal
56. Bahawal Canal
57. Desert Branch

Panjnad B.
58. Panjnad Canal
59. Abbasia Canal

Fig. 3 cont. The Canals of the Indus Basin up to 1960. [Source: After Michel, 1967; Ahmad, 1964 and Johnson, 1979]

Canal irrigation is defined in the Indus basin as being either perennial, non-perennial or inundation. Perennial canals are able to utilise even the reduced winter flow of the Indus basin rivers. By contrast non-perennial canals are closed from October to mid-April. Non-perennial canals are only operational in the summer and use any surplus left by the perennial canals, whereas, inundation canals have no control at the off-take point and need the river to be in high flood. This limits the operating period, which begins between May and early July and goes on through to the end of September or early October.

The means of transporting water to the place of use is determined by the nature of the flood plain. For the most part irrigation in the Indus Basin depends upon canals, though wells are also used. In the Upper Indus Plain, inundation canals are not possible as the height of the river banks do not allow the floodplain to extend far from the river. However in the Lower Indus Plain, inundation canals are more common as the banks' height is lower and the floodplain can extend further. By contrast wells are less effective in the Lower Plain in Sind Province, compared to the Upper Plain in Punjab Province. This is largely because the clay soils of Sind act as a poor aquifer compared to the coarse silts and sands of the Punjab [Johnson, 1979: 52].

Well water is used to supplement irrigation on non-perennial and inundation canals during the winter (rabi) months. Gulhati claims that wells, in their own right, are also responsible for the irrigation of approximately 19,200 km^2 [1973: 43]. Sailab irrigation also makes use of the rivers' flooding and is possible after July-August when the rivers overflow, inundating low-lying areas along the river bank.[24] Cultivators plant crops in these areas during winter, unless the water has dried up. However, if the rivers rise again, the cultivator loses everything. Gulhati estimates the total area of sailab cultivation in the Indus basin to be approximately 8,800 km^2 with most of the area along the River Indus [1973: 43].

Many of the canals constructed in the Indus Basin take their names from the interfluves of the rivers, which were given originally by the Mughals who ruled India before the British. It was customary, then, to call the interfluves 'doab' meaning two rivers [Michel, 1967: 42]. The names of each of the doabs was taken from the rivers it lay between. Thus, the doab between the Jhelum and the Chenab used to be called 'Jech'

but now is known as 'Chaj'. Similarly, the Chenab-Ravi doab is called Rechna; the Ravi-Beas doab is called Bari; and the Beas-Sutlej doab is called 'Bist'. The Indus-Jhelum doab was called 'Sind Sagar', meaning Desert of the Indus, but now is called 'Thal'. The divide between the watersheds of the Indus and Ganges basin, lying between the River Sutlej and River Jumna, is called the Sirhind doab [Nijim, 1969: 33].

The principle mode of transporting water to the fields is by canal. The British in the late nineteenth century extended the canal network throughout the Indus plains, both in the Punjab and Sind Province. They established canal command areas or colonies which cultivated a variety of crops such as cotton, rice, wheat and sugarcane. The Indus basin is thought to contain the world's largest irrigated area [Ali, 1967: 317]. Under the British, a rotational system was established, whereby, when a canal was closed for inspection, repairs or as a result of short supply, any available water could be transferred to another canal.

Quite why the British chose to conduct this large scale engineering experiment in the Indus basin is open to debate. Whether altruism prompted by the onset of devastating famines in other parts of India played a key role, or commercial adventuring was the principle push [Michel, 1967: 65], is largely immaterial in the face of the benefits derived from the presence of water. What did happen was that as existing temperamental irrigation was made sound, and crown wastelands provided with water, the British were able to offer irrigable land to their allies, such as the Sikh community, thereby establishing new settlements [Gulhati, 1973: 34]. See Table 2.2 for a chronology of canal building in the Indus Basin up to 1960.

In 1859, the Upper Bari Doab canal (UBDC) was built supplying water from the River Ravi to approximately 4,000 km^2 between the Ravi and the Beas. In 1872, the Sirhind canal was built to protect existing canal command areas (cca) in the Punjab and neighbouring princely states, totalling 12,000 km^2. At the same time, inundation canals in the Punjab taking off the rivers Sutlej, Chenab and Indus were improved as was irrigation in Sind. By providing headworks and extending the canals, Sind's annual irrigable area increased from 6,000 km^2 in 1875 to 12,000 km^2 by 1900.

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24 Sailab means 'flood', therefore sailab irrigation is possible when rivers overflow

Table 2.2 Chronology of canal building in the Indus Basin until 1960.

Date	Canals Built
1859	Upper Bari Doab canal (UBDC) offtaking the River Ravi.
1872	Sirhind canal offtaking the River Sutlej.
1882	Para and Lower Sohag canals in Punjab.
1885	Lower Swat canal in North West Frontier Province.
1886	Sidhnai canal offtaking the River Ravi in Punjab.
1892	Kabul River canal in North West Frontier Province, and in the Punjab the Chenab canal which is now called the Lower Chenab canal (LCC).
Early 1900s	Ranbir, Pratap and Kashmir canals in Jammu and Kashmir offtaking the River Chenab at Akhnur.
1901	Jhelum canal later called the Lower Jhelum canal (LJC) in Punjab.
1907	Paharpur canal in North West Frontier Province.
1914	Upper Swat canal in North West Frontier Province.
1915	Triple Canals Project in Punjab: the Upper Jhelum (UJC), Upper Chenab (UCC) Lower Bari Doab (LBDC) canals.
1932	Sutlej Valley Project (SVP) in the Punjab, Sukkur barrage project in Sind and part of the Bhakra project.
1939	Haveli canal in the Montgomery-Pakpattan link was completed, offtaking the River Ravi.
1946	Nangal barrage and canal started on upper part of the Bhakra canal system. The Rasul hydroelectric scheme was also started.
1947	Thal canal opened by Punjab offtaking the River Indus before partition in August.
1949	Pakistan starts building a barrage project at Kotri to improve the inundation canals in lower Sind.
1951	India reviews the Bhakra project and decides to prioritise canal construction over the dam.
1952	India completes the Harike barrage upstream of the Ferozepur headworks.
1953	India opens a new distributary system near the towns of Mudki and Golewala, drawing water from the Sutlej river above Ferozepur.
1954	Pakistan opens the Balloki-Suleimanke (BS) Link.
1958	Pakistan opened the Dera Ghazi Khan and Muzaffargarh canals offtaking the River Indus.

[Source: After Michel, 1967]

The Punjab continued to be the main area of canal building and extension. In 1882, the Para and Lower Sohag canals were built, followed in 1886, by the Sidhnai offtaking from the River Ravi. These canals gave sufficient profit for the Crown Wastelands to not only encourage further investment in the Punjab, but to do so on a larger scale. Around 1890, two projects were sanctioned the Chenab and Jhelum canals. The Chenab

leaving behind flooded areas, in which crops are then planted.

canal, now called the Lower Chenab Canal (LCC), was built in 1892 and soon doubled the canal command area between the Chenab and Ravi rivers to nearly 10,000 km^2. In 1901, the Jhelum canal, now known as the Lower Jhelum canal (LJC) was completed and provided water to 2,500 km^2 of Crown Wasteland between the Jhelum and Chenab rivers. Both these canals later merged into the Dipalpur canal established as part of the Sutlej Valley Project (SVP) in the Punjab.[25]

After the commercial success of the LCC, attention focused upon the crown wastelands south of the Ravi. It had been intended that the Ravi would be used to supply water to the lower parts of the Bari doab. However, not only was the whole winter supply of water in the Ravi claimed by the UBDC, the alternative of using the Sutlej was ruled out as the Sirhind canal lay claim to most of its waters too during winter. Another option emerged with the plan to utilise the Beas by building a headwork and canal at Harike, just below the Beas-Sutlej confluence.

The Indian Irrigation Commission was established in 1901, to report on the development of irrigation. It was before this Commission that the Harike proposal was opposed. The reasons were: first, that the Jhelum had more water flowing through it than was used in the Jech doab; second, the LBDC was regarded as the last chance to use surplus water from the Jhelum; and finally, supplies in the River Sutlej were needed to extend and develop irrigation on both sides of the river. The Harike project was re-examined and replaced with the Triple Canals Project which would transfer surplus Jhelum river flow to the lower sections of the Bari doab, by a series of links. In 1915, the Triple Canals Project was completed. The Upper Jhelum canal (UJC) supplied the Jech doab; the Upper Chenab canal (UCC) watered the Rechna doab and the Lower Bari Doab canal (LBDC) transferred water to land between the Ravi and Beas rivers.

After the First World War, three major projects were proposed: the Sutlej Valley Project (SVP), the Sukkur Barrage and the Bhakra dam. The first two projects were completed in 1932, situated in the Punjab and Sind respectively. The SVP comprised of three headworks and nine canals taking off the River Sutlej proper, and one headwork with two canals at the Sutlej-Chenab confluence at Panjnad. The canals offtaking at the Ferozepur, Suleimanke and Islam headworks were principally non-perennial, unless otherwise stated.

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25 The Sutlej Valley Project (SVP) is also known as the Sutlej Valley Canals (SVC).

At Ferozepur the canals were the Dipalpur, Eastern, and Gang, a perennial canal. At Suleimanke the part perennial Pakpattan, the perennial Sadiqia, and Fordwah. At Islam the Mailsi, and perennial canals Bahawal, Qaimpur. The canals at Panjnad were the Panjnad and perennial Abbasia. Other than the tail end of the Eastern canal which irrigated parts of the Princely State of Bahawalpur through the Bahawalpur State Distributary, the Dipalpur, Eastern, Pakpattan, Mailsi canals irrigated mainly the Punjab. Though the Gang canal did irrigate the Princely State of Bikaner, it flowed through Punjab. The remaining canals could be considered to be Bahawalpur canals.

As the Punjab was building the SVP in 1932, Sind was simultaneously busy erecting a barrage across the River Indus at Sukkur. The project comprised of seven offtaking canals. On the left, the Eastern Nara, Rohri canal including Khairpur Feeders East and West. On the right, the Northwestern, Dadu, and Rice canals, the latter being the only non-perennial canal. The canal command area in Sind increased to more than 24,000 km^2.

The remaining project on the River Sutlej, the Bhakra dam project intended to irrigate southeasten Punjab and neighbouring Bikaner State from a storage of 3,406 mcm (2.76 MAF) proved more contentious and was shelved till the differentiating claims of the Punjab and Sind could be resolved. The dispute on the use of the River Sutlej, did not stop the Punjab from opening the Thal canal in January 1947, and Sind from preparing the Kotri barrage project on the River Indus to improve its inundation canals [Gulhati, 1973: 39].

Sind and Punjab were not the only provinces to benefit from irrigation, the North West Frontier Province (NWFP) and strips of Jammu and Kashmir were also included in the great leap forward in irrigated agriculture. In the NWFP, the Lower Swat canal was built in 1885, the Kabul River canal in 1892, the Paharpur canal in 1907 and in 1914, the Upper Swat canal. These four canals, by 1946, irrigated more than 2,000 km^2 to the west of the River Indus. In Jammu and Kashmir three canals were built in the early 1900s. The two taking off the Chenab at Akhnur are the Ranbir canal which also has a small hydro-electric power plant at Jammu, and the Pratap canal, which together supply water to 600 km^2. The Kashmir canal, taking off the River Ravi upstream of the Madhopur headworks, is a small non-perennial canal.

Gulhati attributes the success of irrigation in the Indus Basin to two factors [1973: 40]. Firstly, the use of link canals to transfer surplus river flow to areas of need; and secondly, augmenting the pattern of use established previously whereby the demand for supplies is low in winter, but rises in the spring to reach a peak during the summer. Considerable time and money was spent in extending irrigation through the use of surface flow. But any further expansion would require storage, and this would demand far greater expenditure than hitherto engaged in [Ali, 1967: 317].

Prior to the expansion of the irrigation works, by the British, the canals in the Indus Basin were mainly inundation canals. The British modernised the system by constructing headworks to control the flow of the rivers that, in turn, extended the period for which water was available. They also increased the area that was serviced by building new canals. The construction of irrigation works, separately, in the provinces of Sind and the Punjab created one of the largest irrigated areas in the world.[26]

Despite the fact that the provinces in which most development was occurring were controlled by the British, an integrated development policy was not followed. The resultant arbitrariness of construction led to increased rivalry between Sind and the Punjab for the water. Fuelled partly by the political needs of each province, and partly by the commercial revenue that was being generated, this competition led to a dispute over allocation of the water and the politicisation of water in the Indus Basin.

2.3 POLITICS IN THE INDUS BASIN: THE SUTLEJ RIVER DISPUTE

The international dispute involving all the rivers of the Indus Basin has its origins in the dispute that arose between two provinces within British India, the Punjab and Sind, on the River Sutlej. As irrigation expanded the areas that could be put to crop, so did the resulting revenue prove attractive to further development. In this upward spiral of development the different provinces, under separate governments, strove to use the

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[26] In 1989, Pakistan had 162,200 km^2 (16,220,000 hectares) of irrigated land. Only four countries around the world had more irrigated land: China 453,490 km^2 (45,349,000 hectares); India 430,390 km^2 (43,039,000 hectares); the USSR 210,640 km^2 (21,064,000 hectares) and the USA 181,020 km^2 (18,102 hectares) [Gleick, 1993b: 269]. What is even more remarkable, is that Pakistan's land is irrigated by the collective waters of just one basin.

available water to their own advantage and entered into competition with each other as a result.

2.3.1 Before Partition

The administrative makeup of the provinces in British-controlled India contributed to the dispute over the River Sutlej that was to emerge in the 1930s. After the formal acknowledgement, in 1857, of British interests and political control in India, direct control of certain provinces was concentrated in the coloniser's hands. The remaining states, ruled by numerous indigenous princes, were subject to British advisors representing the Government of India, and its master in Whitehall. By the beginning of the twentieth century, the move by Indians to determine their own fate and that of their country (however that was described) had begun in earnest, with the strengthening of the All-India Congress Party.

The British, in reply, followed a policy of simultaneously relaxing, and tightening, their hold on the reins of power. The exertion of tighter control was evident in numerous ways and at different times. Ranging from the 1919 Jallianbagh 'massacre' where a peaceful demonstration was cornered and fired upon, to the innumerable political prisoners held during the various civil disturbances engineered by political parties calling for Indian independence. Evidence of a 'relaxation' was witnessed at the governmental level. It was largely an effort to form a more inclusive government that incorporated the indigenous elite in governing the provinces of 'British' India.

The relaxation started with the 1909 Morley-Minto reforms. These reforms extended the principle of electing members to the state legislative councils and introduced the notion of communal electorates. As Thakur points out, the reforms also started the debate on three constitutional issues [1995: 42]. Firstly, whether to extend suffrage, and the means to do so. Secondly, the notion of having state legislative bodies composed entirely of elected members. And finally, to determine the appropriate power-sharing structure between the national and provincial governments.

In 1919, the British went further in their policy of including an indigenous elite in governing the provinces of British-controlled India, but not on key policy matters at the centre. Under the Montagu-Chelmsford reforms the principle of 'dyarchy' was

introduced. This devolved more responsibility to the provincial governments for infrastructural matters such as health, education, agriculture, irrigation and public works.

The central government through the Governor of each province, retained control on key reserved subjects which included law and order, and finance. In addition to increasing the number, and influence of Indians in the provincial governments, these reforms also increased the number of people considered eligible to vote. Not surprisingly, the British concentrated on the elite yet again. Suffrage was limited to property taxpayers, landholders and educated men, who comprised no more than 4% of the population in rural areas, and 14% in municipal areas [Thakur, 1995: 42].

The final act of relaxation that was to involve the legislative functioning of British-controlled India before independence was the Government of India Act of 1935. The Act set up an union with autonomous units joined into a federation [Thakur, 1995: 69]. These units had full responsibility for certain subjects, and derived their power directly from the Crown. The Act also increased suffrage, from the previous 6 million to 30 million [Thakur, 1995: 42], in other words from approximately 3% of the population to 16%. Thakur regards the 1935 Act to have left a practical legacy, whereby Indian politicians emerged at independence with the experience of governing, and a political base that derived from the provinces [1995: 69].

With the 1935 Act coming into force on 1 April 1937, the centre handed over to the provincial governments the responsibility for river development. Thus, the provinces had a free hand to utilise any rivers passing through their territory. In the event of a dispute between the provinces on the use of a river, only after a formal complaint had been lodged could the Governor-General intervene [Gulhati, 1973: 38]. The consequence of provincial responsibility for irrigation development was the absence of any basin wide development plan. Different provinces developed the rivers flowing through them at different times [Gulhati. 1973: 39]. "For a long time, too, irrigation works were not initiated unless they were expected to be commercially viable as judged by rather narrow criteria" [Farmer, 1983: 39].

Sind formed part of the Bombay Presidency until 1935, when it was granted separate status. Regarded as the 'step-child' to the Punjab's 'golden child' status in the British nursery, Sind was conscious of coming a poor second in the pursuit of development. Inter-state rivalries clashed on the issue of water use. Though some princely states

(Bikaner, Bilaspur, and Bahawalpur) were also involved, the principal dispute was between the Punjab and Sind [Gulhati, 1973: 36].

The Punjab, lying upstream of Sind in the Indus basin, with substantial areas already under canal command, had its sights set on expanding further its irrigated areas through the building of the SVP and Bhakra dam on the Sutlej River. In 1934 Sind, then under the Bombay Presidency, and the Punjab reached agreement on the size of the Bhakra dam. Work was blocked, however, by the refusal of Bilaspur, a princely state, to allow tracts of its territory to be submerged under the accompanying reservoir [Gulhati, 1973: 37].

By 1935, the number of interested parties in the development of the Indus basin's water resources had risen to six [Michel, 1967: 124]. To integrate all the various interests and proposals, the Government of India, in the same year, appointed the Anderson Commission to recommend allocation of the basin's water between the different factions. The Commission submitted its report in September 1935 [Michel, 1967: 124]. The findings were essentially a compromise, whereby losses made in one area were offset by gains made in another, though overall the Punjab was to benefit the most.

The gains were: Sind received more water at Sukkur; Bahawalpur received more water at Panjnad; Bikaner was to receive more at Ferozepur via either the Gang or Bikaner canals; while the Punjab received more water at Suleimanke, larger rabi allocation at Trimmu and the final authorisation for the Thal project. It appears that only Bahawalpur had to reduce its withdrawals at Suleimanke and Islam to permit greater withdrawal at Panjnad and Ferozepur [Michel, 1967: 124].

The Punjab was unable to make use of the additional water available for the Trimmu Scheme, and proposed building a link transferring the water to the Rechna doab, thereby freeing up more of the River Ravi to be used in the Lower Bari doab. With the Government of India Act of 1935 coming into force in April 1937, the Punjab government was able autonomously to sanction the Haveli project in July 1937 [Michel, 1967: 125].

Work on the Haveli project was completed in April 1939. A N Khosla was employed in designing parts of the link, and would later be the Indian Engineer Designee during negotiations leading to the Indus Water Treaty. Michel questions whether the Thal

project, which was sanctioned by the Punjab Government in 1937, would have been implemented if the 1935 Act had not devolved responsibility for irrigation to the provinces [1967: 126]. The project had on repeated scrutiny appeared unviable, either economically or to settle migrants, to the central government.

Sind and the Punjab arrived, in 1934, at an agreement regarding the size of the Bhakra project. Hindered by Bilaspur State's unwillingness to have its land submerged, the Punjab sought to redesign the project (Bilaspur was finally, in 1945, to agree to the project). The new design, proposed in 1939, required a smaller reservoir possibly in order to accommodate Bilaspur, but made greater demands upon the River Sutlej for use in the SVP. As Michel [1967: 126] points out, under international law a treaty is to be observed as long as the conditions remain the same (*rebus sic stantibus*). With the construction by the Punjab of the Haveli and Thal projects, Sind was well placed to argue that conditions had changed and the agreement reached in 1934 was now subject to renegotiation.

In October 1939, Sind formally complained to the Governor-General about the Bhakra Project. As the provinces were now separate, and irrigation a provincial matter, a special commission was convened with quasi-judicial powers. Appointed by the Government of India in September 1941, the Indus Commission comprised of two Chief Engineers, P F B Hickey and E H Chave, and was chaired by Justice B N Rau [Michel, 1967: 129; Gulhati, 1973: 38]. The Commission's report, presented in July 1942, was the outcome of an adversarial dispute resolution procedure.

The Central government having appointed the Commission, made no representations to it, leaving Sind and the Punjab to battle out their claims to the River Sutlej's water. Sind having learnt its lesson, tried to use the Commission as a forum in which to have the Punjab prevented from encroaching on what Sind regarded as its share of the river. Thus, Sind not only complained about projects that had already been built, or were presently being considered; but it also tried to guess which projects the Punjab might try to build in the future. The Punjab admitted to having further plans for using the Sutlej, but on a much smaller scale than Sind had suggested [Michel, 1967: 132].

The Indus Commission's findings, on the whole, acknowledged the damage that would occur to Sind's inundation canals should the Bhakra dam be constructed. To protect these canals, the Commission recommended constructing two barrages across the River

Indus flowing through Sind, the Gudu and Hajipur barrages (the latter was superseded by the Kotri-Hyderabad barrage). In addition, it was suggested that the Punjab contribute to the cost of these works. Neither the Punjab, nor Sind accepted the Indus Commission's findings, and both appealed to the central government. Informal meetings between the two Chief Engineers continued, leading to the draft of an agreement in September 1945. But as no final accord was reached the matter was referred, in early 1947, by the Government of India to the Secretary of State for India in Whitehall [Michel, 1967: 132; Gulhati, 1973: 39]. However, the events of partition were to overwhelm this dispute momentarily.

Devolution of political power by the British to the provinces and indigenous elite began in the early part of the twentieth century. The 1909 Morley-Minto Reforms cleared the way for an elected body of Indian elite to participate in the ruling of the provinces. This mandate to rule was extended further in 1919 with the Montagu-Chelmsford Reforms, which established a 'dyarchy' for the first time under British rule in India. The Government of India Act of 1935, which came into force in 1937, handed over responsibility for certain topics to the provinces including irrigation development.

Prior to the 1935 Government of India Act, irrigation in the Indus Basin had been extended to a considerable extent. However, devolution of responsibility for this development coincided with growing competition for the waters of the Basin. The provinces of Sind and the Punjab had begun to construct works that would utilise the River Sutlej, to the detriment of the other province. This competition led to a dispute that, for the main part, was between these two provinces.

In an effort to resolve this problem, the Central Government appointed the Anderson Commission in 1935 to decide upon the allocations each province was entitled to. The recommendations proved to be a temporary respite. In 1939, Sind complained once more to the Central Government about the works the Punjab was planning on the River Sutlej. This time, the Bhakra dam project was the subject of the Indus or Rau Commission that was charged with resolving the dispute. The recommendations were rejected and the advent of partition overwhelmed the dispute.

2.3.2 Partition and Beyond, 1947-51

"This stain-covered daybreak, this night-bitten dawn,
This is not that dawn of which there was expectation
This is not that dawn with longing for which
The friends set out, (convinced) that somewhere there would be met with,
In the desert of the sky, the final destination of the stars,
Somewhere there would be the shore of the sluggish wave of night,
Somewhere would go and halt the boat of the grief of pain."
[Faiz, translated by Kiernan, 1971: 122-127]

Matters of greater political consequences overtook what appeared to be a dispute between two provinces over the River Sutlej, of which both rivers and provinces there were many in British-controlled India. The Second World War was over, and the business of rebuilding Britain had begun with a Labour government in Whitehall. In addition, it was becoming apparent that the British could not maintain their presence in India for much longer. Independence was becoming regarded as inevitable by those sitting in Whitehall and the people they ruled, across the seas and continents, in India. As Michel states, "[d]ecisions on irrigation schemes and allocation of water within the Indus Basin were losing priority to decisions on constituent assemblies, interim governments, and boundaries" [1967: 132].

Continuing the trend of devolving power to an Indian elite, the British had, in 1946, inaugurated an interim government under the guise of the Viceroy's Executive Council. With the Muslim League boycotting the Council, the All-India Congress Party dominated the body. Communal tensions were rising, as different groups tried to claim, shape and retain power in the forthcoming new, independent India. This would lead to the division of India, under tragic circumstances, claiming lives estimated to range from 500,000 to 1,000,000 people. Most of the killings happened within the Indus Basin, between different halves of a partitioned Punjab.

Construction of irrigation works continued, unabated, in the provinces in the build up to independence and partition. In 1946, as part of the disputed Bhakra dam project, the Punjab started the Nangal barrage and canal, and the Rasul hydroelectric scheme. In January 1947, the Punjab opened the Thal canal, and Sind prepared its Kotri barrage project. The decision to create Pakistan was announced on 3 June 1947 [Gulhati, 1973: 48]. This was followed by the Indian Independence Act which was passed by the British parliament on 18 July 1947. The Act set up the principle of partitioning India into two

separate dominions of India and Pakistan, and nullified all previous agreements between the Indian government and the princely states [Gulhati, 1973: 50].

The Indian Independence Act merely addressed Britain's intention to rescind control of the colony, and not the borders and relations of the Act's offspring. Independence proved a mixed blessing for the people set to inherit the political mantle of Whitehall. Though the principle of independence was known, the shape of the countries the Indian and Pakistani politicians would rule was still being determined. Under these circumstances, the issue of water allocation was not dealt with. As Gulhati points out, even if the allocation of existing canals and water use was determined as part of the partition process, the question of access to surplus water for development would have remained unanswered [1973: 56].

The practicalities of partitioning India was left to the Radcliffe Commission.[27] The Commission was to decide simulataneously, in little over two months, the route of an international boundary in not one, but three provinces, the Punjab, Bengal, and Assam. Of these provinces the Punjab and Bengal were, furthermore, heavily populated by different communal groups and sustained an intricate infrastructure. To compound the difficulties of such momentous decisions, the task was left to all intent and purposes to one man, Cyril Radcliffe. Under such circumstances, of course, the decisions carry an air of 'the best that could be done'. Not until the Radcliffe Boundary Award was announced on 17 August 1947, did the governments of India and Pakistan know the extent of their jurisdiction [Ali, 1967: 319]. A curious situation considering Pakistan became independent on 14 August 1947, with India following suit a day later on 15 August 1947.

Difficulties in deciding where the international boundary between East and West Punjab would lie was exacerbated by the integrated nature of the canal system, and the high dependence of agriculture in undivided Punjab upon the canals' water [Gulhati, 1973: 57]. As demonstrated by the following quote, Radcliffe was well aware of the problems

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[27] American attitudes to partition is suggested in Afroz [1983: 57], who writes with reference to the Indus Basin dispute that: "According to American diplomatic correspondence from Pakistan, this grave situation was 'another consequence of the notorious Radcliffe Award where power of life and death over Pakistan was put into the hands of a lawyer, rather than those of a skilled topographer and economist.'" The correspondence was from American Consul General, Hooker A. Doolittle, to the Pakistani Secretary of State, January 1949.

but remained, curiously, optimistic. "The fixing of a boundary in this area was further complicated by the existence of canal systems, so vital to the life of the Punjab but developed only under the conception of a single administration...I think I am entitled to assume with confidence that any agreements...as to sharing of water from these canals or otherwise will be respected by whatever Government hereafter assumes jurisdiction over the headworks concerned." [in Ali, 1967: 319].

Though Radcliffe felt joint control of the canal intakes at Ferozepur should accompany the demarcation of the boundary he, nonetheless, decided to split the canal system, most notably awarding territory to India that contained the headworks to canals lying in Pakistan. The Madhopur headworks on the River Ravi controlled the Upper Bari Doab canal (UBDC), and the Ferozepur headworks on the River Sutlej controlled the Dipalpur and the Eastern Grey canals [Ali, 1967: 319].

Radcliffe's remit was restricted to the allocation of territory on the basis of communal distribution. Therefore, though recognising the need for joint control of the headworks, Radcliffe could do no more than hope for joint Indian-Pakistani control of the UBDC, having had to sacrifice its unity. Furthermore, when the princely states of Bahalwapur and Bikaner asked Radcliffe to take into account their interests in the canals with headworks in the Punjab, Radcliffe was to refuse. Radcliffe did point out that the division of the Punjab did not affect the rights of private property [Gulhati, 1973: 57].

The Punjab Partition Committee (PPC), chaired by the Governor of Punjab, and with equal ministerial representation between East and West Punjab had appointed a two member committee to determine the provision of water to each half of divided Punjab, and to each canal. The PPC was to agree with the findings of Committee B with respect to the canal waters. The Committee was able to report, on 28 July 1947, agreement on the allocation of water, prescribing to maintain pre-partition water supplies. Disagreement arose, however, over the value of the canal system and crown waste lands, lying in the separate parts of Punjab. It was agreed, therefore, to submit the disputed issue of financial value to the Arbitral Tribunal [Ali, 1967: 318].

Under section nine of the Indian Independence Act difficulties arising from the practicalities of partition were to be referred to the Arbitral Tribunal set up by the Governor-General on 12 August 1947, coming into to effect from 14 August 1947. Disputes could be presented before the Arbitral Tribunal until 1 December 1947, or at

the chairman's discretion until 1 January 1948. The Tribunal would hear any matter arising directly out of partition, or disputes over the division of assets or liabilities between India and Pakistan [Gulhati, 1973: 48].

By 30 November 1947, five matters had been referred to the Arbitral Tribunal regarding the partitioning of the Punjab. All five referred to the financial adjustments needed for: [i] the irrigation system; [ii] the crown waste lands; [iii] irrigated forest plantations; [iv] seigniorage charges for canal use in transporting water around the Indus Basin; and [v] the general ratio for calculating the financial adjustment needed. With the Chairman's permission, West Punjab submitted its claim to the Mandi hydro-electric plant, on 22 December 1947 [Gulhati, 1973: 48]. Ali points out that the apportionment of water between India and Pakistan was not submitted to the Tribunal, because there had been no disagreement over this issue when it was considered by Committee B of the Punjab Partition Committee [Ali, 1967: 318].

Once the British had decided to leave India, the process by which the country would be partitioned and then given its independence was undertaken with questionable haste. Territory was allocated to the dominions of India and Pakistan, on the basis of the area's communal make-up. In the Indus Basin, the province that underwent the worst excesses of partition was the Punjab. It was torn into two pieces: West Punjab formed part of West Pakistan, and East Punjab formed part of independent India.

Having allocated land on the basis of religion, partition was to share the assets of British-controlled India between the two dominions. A committee was established to deal with the partition of the Punjab - the Punjab Partition Committee (PPC). Any disputes that the PPC could not resolve were passed on to the Arbitral Tribunal set up specifically for the purpose of resolving such disputes. The primary disputes that were put before the Arbitral Tribunal were, in the end, of a financial nature rather than related to the use and allocation of water within the Indus Basin.

2.3.2.1. Punjab vs Punjab

Amidst the upheaval of partition, the issue of water and allocation was a low priority. Communal violence was growing, feeding off itself; people appeared to be trying to out do each other in the horror they could inflict upon each other. Nascent governing bodies

in India and Pakistan struggled to maintain order, while giving food and sanctuary to fleeing refugees.

At the last minute the British were unequal to the double demand of giving up power and protecting those who had been subject to that power. Neither the Muslim League, Congress or the British could control the violence which, with suspicions running high, it was rumoured was orchestrated [Gulhati, 1973: 53]. The killings, deaths, and mass migrations left a deep memory of bitterness and misery that clouded the relationship between the two dominions. This relationship was replicated in microcosm by West Punjab, now lying in Pakistan, and East Punjab, left in India.

Relations between the two halves of the Punjab appeared, initially, to be promising. On 20 December 1947, Chief Engineers from East and West Punjab signed a Standstill Agreement. The status quo was to continue on the UDBC and the Dipalpur canals. The Punjab Partition Committee signalled its approval the same day. Further agreement was to be negotiated before the Standstill Agreement expired on 31 March 1948, coincidentally the same day that the Arbitral Tribunal would cease to exist [Gulhati, 1973: 58].

On 17 March 1948, the Arbitral Tribunal made its awards on all six matters before it [Gulhati, 1973: 48]. The financial liability each dominion had to the other, was determined by the assets that were being divided. Therefore, by accepting the Indian premise that the canal system situated now in Pakistan was worth more than Pakistan was claiming, the Tribunal assumed the existing water supply would be maintained. Without water, the canals, rather than being assets, would merely be dry ditches. In addition, the Tribunal regarded the existence and practice of irrigation as giving the crown wastelands in Pakistan a higher value [Ali, 1967: 320].

It is believed that the East Punjab government formally informed the West Punjab government, on 29 March 1948, that the Standstill Agreement was to expire at the end of the month, subject to further negotiations [Gulhati, 1973: 64]. But as Ali points out, there was an element of complacency in the West Punjabi attitude [1967: 319]. Thus far, East Punjabi assurances, the agreements of the Committee B and the Punjab Partition Committee, and the Standstill Agreement had satisfied West Punjab that its counterpart would not take advantage of its hold on the headworks to Pakistan's canal network. But the tide was to change.

The West Punjab government had, on being informed of the coming expiry date, requested an extension of the Standstill Agreement and further discussions between the Chief Engineers of both Punjabs. East Punjab replied in two ways. On 1 April 1948, East Punjab stopped the flow of water passing through its territory to canals in Pakistan. Acting without formal Federal government approval [Mehta, 1988: 72], the East Punjab government had closed the Ferozepur headworks on the River Sutlej affecting the UBDC and the Dipalpur canals. The other reply was to invite the Chief Engineers of West Punjab to meet with their East Punjab counterparts at the province's new headquarters in Simla, on 15 April 1948, to renegotiate resumption of the water supply [Gulhati, 1973: 65].

Though East Punjab, in the absence of a formal agreement, was justified legally to suspend supply, its action proved to have far reaching consequences. The actual amount of water involved was insignificant in the face of the vast quantities that flow annually through the Indus Basin. Gulhati, who was later to be the Indian Designee Engineer to the Indus Water mediations, in describing the effect of stoppage dismissed it as "some irrigation channels near Lahore became dry" [1973: 60].

What was of prime importance was that this water flowed through canals to the most fertile parts of West Punjab. The return in crops per unit of water was amongst the highest in the Indus Basin. Moreover, the crops from the Punjab fed Pakistan. In addition, the timing in terms of the agricultural clock in West Punjab, could not have been worse. The winter crop needed water to be ready for harvesting, and the summer crops needed water to be ready for sowing. The repercussions were felt in the wider political scene, as the government of Pakistan sensed the extent of its vulnerability. "The headwaters of all these rivers were in India, or in territory not subject to Pakistan, and the consequences of possible aggressive intentions on India's part soon loomed large before Pakistan" [Gulhati, 1973: 60].

The stoppage brought to the fore the urgent and competing needs East and West Punjab had for water. West Punjab need to be assured of its existing uses, and access to surplus water for further development of its irrigated agriculture. East Punjab, occupying territory that had not been developed under the British, claimed water to develop the irrigable land at its disposal [Mehta, 1988: 72; Shivananda, 1961: 7-8]. Attitudes,

hardened by partition, appeared to regard the situation as a zero-sum affair such that both parties could not get what they wanted, or needed.[28]

The Indian perspective is recounted by Gulhati, who explains that under the British most of the expansion and modernisation that occurred of the irrigation system happened in the territory that later formed West Punjab. East Punjab, formed after partition, regarded this as unjust especially as any further development would now need expensive storage facilities. Using the 1941 census it claimed there were 21 million people in Indian Punjab and 25 million in Pakistani Punjab, yet out of 105,000 km^2 irrigated annually in the Indus Basin less than 20%, or 21,000 km^2, was in East Punjab territory [1973: 59].

Furthermore, the international boundary had a disrupting effect on: [i] the food supply to the 21 million people in East Punjab; [ii] the hydrological unity of the basin; [iii] the development of several million acres of highly arid, but otherwise fertile land, which were wholly dependent upon the Indus rivers; and [iv] settling the large number of refugees from West Punjab and Bahawalpur, who worked the land [Gulhati, 1973: 59]. East Punjab sought to rectify the situation by establishing its own claim to the water.

While India regarded the uneven development as unjust, Pakistan viewed the water stoppage as catastrophic. To paraphrase Chaudhuri Mohammad Ali, Prime Minister of Pakistan (1955-56): With scant rainfall falling outside of the summer monsoons, and the arid climate of most of West Pakistan, the rivers flowing through West Punjab provide the mainstay for supporting agriculture. Upon the success of the West Punjabi crop production, rested the livelihood of the 43 million people populating West Pakistan as a whole, including the refugees from India.

Ali continued by drawing a comparison between India and Pakistan's national water availability. He pointed out, that India has many rivers flowing to the seas untapped, and large areas of rainfed agriculture in addition [1967: 316]. With the stoppage, the distress and acute suffering increased daily as crops and herds faced ruin, and large areas did not have any drinking water [Ali, 1967: 320]. Summing up the situation, Ali said that "[o]n

[28] Afroz points out that, "American diplomats stationed in Pakistan and India stressed the importance of a final and binding settlement of water rights. In their view the control of Indus waters by India threatened to return the entire Punjab to a desert" [1983: 57]. In India, the American diplomat, H Donovan, wrote to the Government; as did his colleague in Pakistan, Hooker A. Doolittle to the Pakistani Government in January 1949.

the side of East Punjab there was Machiavellian duplicity. On the part of West Punjab there was neglect of duty, complacency, and lack of common prudence - which had disastrous consequences on Pakistan" [1967: 319].

The violence that was unleashed with partition marred the relationship between the dominions of India and Pakistan, as well as the two halves of separated Punjab. Yet, the signing of a standstill agreement in December 1947 appeared to suggest that, at least with regard to the international waters of the Indus Basin, East and West Punjab may come to some arrangement. Unfortunately, the shared waters of the Indus system were shortly set to replicate the larger hostility of the political environment. The Agreement regarding the UBDC and the Dipalpur canal was temporary and due to expire on 31 March 1948.

Shortly before the Agreement did expire the East Punjab Government informed its West Punjab counterpart of the imminent date. The Government of West Punjab asked East Punjab for an extension of the Standstill Agreement, but was met with a blunt rejection. On 1 April 1948 the East Punjab Government closed off the supply of water from the Sutlej River to the UBDC and Dipalpur canals. Only then did East Punjab invite West Punjab to talks regarding this water.

2.3.2.2. The Delhi Agreement, 1948

Gulhati doubts whether the East Punjab government had studied, dispassionately, the logic of its actions and the consequences devolving from it [1973: 64]. The atmosphere at that time was heavily charged, the memory and fact of blood hung in the air, distorting the standards by which to measure rational action. Officially, the provincial government had acted without the federal government's prior approval, and were to elicit little sympathy from some sections of the Indian central government. In fact, the Prime Minister, Jawaharlal Nehru, is thought to have castigated the East Punjab government and their engineers, in September 1949, for having taken matters into their own hands [Gulhati, 1973: 64].

Water had been stopped, East Punjab was later to explain, so as to establish exclusive ownership of the Upper Bari Doab canal (UBDC). It was felt that, in the absence of any formal agreement, if East Punjab had not closed the water temporarily this might have

led to West Punjab acquiring legal rights on the UBDC for the benefit of the lower section of the canal, now called the Central Bari Doab canal (CBDC) [Gulhati, 1973: 63]. In effect, East Punjab was concerned about allowing a precedent to arise that would prove detrimental to it at a later stage. But, as Gulhati points out, whatever the reasons for the stoppage, West Punjab and Pakistan could only regard it as provocative [1973: 63].

At the invitation of the East Punjab government, engineers from West Punjab met their counterparts at Simla on 15 April 1948. As a result of the Chief Engineers' meeting, two standstill agreements were signed on 18 April 1948, regarding the Dipalpur canal and CBDC, to take effect upon ratification by India and Pakistan [Gulhati, 1973: 65]. But the West Punjab Government refused to ratify the Agreements. Shivananda claims that in the absence of ratification, "the supply of water to the Central Bari Doab Canal and the Dipalpur Canal was not restored" [1961: 14].

If the Agreements had been ratified, they would have provided an immediate, but temporary, supply of water. The first Standstill Agreement, dealing with supplies to the CBDC, restored the status quo until 30 September 1948. For practical and administrative reasons, small channels, crossing the international boundary from east to west, were ignored by the Chief Engineers. The second Standstill Agreement, attended to the non-perennial Dipalpur canal's supplies from the Ferozepur headworks, and other canals in West Punjab and Bahawalpur offtaking from the Sutlej at the Suleimanke headworks. This Agreement was due to expire on 15 October 1948 [Gulhati, 1973: 67].

Under the British, Bikaner state had had to pay seigniorage charges to the Punjab for supplying water, and proportionate maintenance costs for the Ferozepur headwork and the feeder canal sited in Punjabi territory. East Punjab, citing this precedent, stipulated that West Punjab must pay similar costs. Whether reluctant or not, West Punjab agreed to pay: [i] seigniorage charges; [ii] proportionate maintenance costs; and [iii] interest on a proportionate amount of capital [Gulhati, 1973: 67].

Curiously, as Gulhati notes, the Standstill Agreements did not mention the Bahawalpur State Distributary (BSD) [1973: 67]. Supplying a canal command area (cca) of 270 km^2, the BSD took off water, in particular, from the Eastern canal's end situated in East Punjab. Though water for this system was included in the agreed supplies from the

Ferozepur headworks, provision had not been made to convey it through the Eastern canal [1973: 67].

The Prime Minister of Pakistan, Liaquat Ali Khan, proposed on 24 April 1948 an Inter-Dominion conference to settle the dispute, and asked for the "immediate restoration of the water supply" [Shivananda, 1961: 14]. The Indian Prime Minister replied, on 30 April 1948, that he had instructed East Punjab to restore supplies to the CBDC and Dipalpur canals. It appears that in the Indian administration, it was understood that this was on the basis of the Standstill Agreements subject to any changes arising in the Inter-Dominion conference to be held in New Delhi on 3 May 1948 [Gulhati, 1973: 65].

Pakistan and India arrived at the conference with conflicting aims, which they were keen to achieve or at the very least reluctant to relinquish. West Punjab wanted to protect its existing uses. The most obvious mode to do this was, in the absence of storage facilities, to restrict East Punjabi developments which would divert water from the River Sutlej. East Punjab, of course, wanted to irrigate as much land as was possible, as quickly as possible, for the lowest cost possible.

At the Inter-Dominion conference, Pakistan challenged the calculation by which the seigniorage charges and capital cost of the UBDC for interest charges, was made. Gulhati states Pakistan did not raise any objections to the exclusion from any agreement of the upper Sutlej waters and the BSD [1973: 68]. Yet it was only on the second, and last day, that any progress was made and agreement reached. In essence, India and Pakistan agreed to disagree by postponing a decision on the points upon which they differed. Ali suggests that apart from the legal status, the parties wanted to retain a practical spirit in finding an accord [1967: 321].

The Inter-Dominion Agreement, also known as the Delhi Agreement, was signed on 4 May 1948. Signatories on behalf of India were the Prime Minister, Jawaharlal Nehru, the Minister for Works, Mines and Power, N V Gadgil and representing the East Punjab government, its Minister for Irrigation, Swaran Singh. The Pakistani signatories were the Finance Minister, Ghulam Muhammad, and representing the West Punjabi government, its ministers, Shaukat Hyat Khan and Mumtaz Daultana [Gulhati, 1973: 68].

The Inter-Dominion conference in Delhi agreed to restore water to the CDBC and the Dipalpur canals. However, the East Punjab government would gradually diminish supply to these canals for its own use, thereby giving the West Punjab government time to find alternative sources. The West Punjab government agreed, in turn, to pay seigniorage charges for the cost of transporting water through canals in East Punjab, and give its share of any maintenance costs. As the dispute over the calculation of seigniorage charges remained unresolved, the portion that was held in dispute would, it was agreed, be held in escrow. This amount would be decided by the Indian Prime Minister. It was, also, agreed that further talks should be held to achieve the friendly solution both sides wanted [Ali, 1967: 321].

As Gulhati points out, the Delhi Agreement stipulated certain conditions under which the East Punjab government would restore water to West Punjab, specifically the Standstill Agreements signed at Simla though it does not mention them explicitly [1973: 70]. The agreement, thus, acknowledged the Simla agreements; noted Pakistani objections to two terms within the Delhi Agreement; postponed the decision on disputed matters; and gave practical shape to water replacement for the first time. In other words, Pakistan had a specific amount of time, though undefined, to find alternative sources in general and specifically for the CBDC and Dipalpur canals [Gulhati, 1973: 70].

The Punjab Partition Committee (PPC) was still residing when the Delhi Agreement was signed. At West Punjab's insistence, the Committee took note of the agreement at its meeting on 26-27 May 1948, and the West Punjab statement that further negotiations would take place between representatives of India and Pakistan. The Committee, herewith, relinquished all responsibility for the Sutlej River dispute [Gulhati, 1973: 71; Shivananda, 1961: 17].

Though the Delhi Agreement was signed the manner of its signing, later, became a contentious issue. Pakistan claimed that with India's refusal to submit the disagreement to the International Court of Justice (ICJ), an impasse had arisen. Ghulam Mohammad, the then Finance Minister of Pakistan, had appealed to Lord Mountbatten, India's Governor-General, who consulted with Prime Minister Nehru [Ali, 1967: 321]. The result was the Delhi Agreement, constituting a statement that was "placed before Ghulam Muhammad, and he was asked to sign it without changing a word or a comma - a condition for restoring the flow water" [Ali, 1967: 321]. A Government of Pakistan document, *"Pakistan: The Struggle for Irrigation Water - and Existence"*, even

challenges the notion that an international agreement had been signed: "Unable to come to any final agreement, a *Joint Statement* was issued after the meeting" [1953b: 10, emphasis added].

In addition, there is some confusion over the status of the Bahawalpur State Distributary (BSD) in the Standstill Agreements signed at Simla in April 1948. Ali, representing the Pakistani position, claims that the Indians failed to honour agreements and restore water to the BSD, resulting in considerable tracts of the State of Bahawalpur returning to desert. Yet, "[n]otwithstanding the compulsion under which the arrangement was signed, Pakistan performed its part and deposited in escrow the sums specified by the Prime Minister of India. Later, Nehru, in an apparent fit of amnesia, denied that there had been any compulsion" [Ali, 1967: 321].

But Nehru writing in September 1950 to Liaquat Ali Khan, the Prime Minister of Pakistan, expressed his surprise at Pakistan's position that India had forced it to sign the Delhi Agreement: 'I cannot imagine how any question of compulsion could possibly have arisen in these circumstances. There was then no kind of threat or even suggestion about stopping the flow of water' [Ali, 1967: 321]. Nehru recalled, in November 1960, how agreement was reached in Delhi. Nehru had entered the discussions when they were on the verge of breaking down, and took a broad approach asking neither India nor Pakistan to give up any rights, deferring that decision to the future [Gulhati, 1973: 71].

In addition, Gulhati, in representing the Indian position, claims the Standstill Agreements signed at Simla in April 1948 made no allowance for the BSD and nine other smaller canals offtaking from the CBDC. This was, Gulhati suggested, due for both Punjabs' administrative convenience [1973: 67]. Since an agreement covering these canals had not been signed, India was not under any obligation to supply water to them. Therefore, Pakistan could not accuse India of reneging upon a promise it had not made.

The politicians in charge of the nascent countries had a larger capacity to push through policies that, later, less established politicians may have shied away from because of the unpopularity of the issues involved. Stephens suggests that Jinnah could have pushed through any form of constitutional, political and social innovation, since he "wielded authority of an unquestioned, overriding, personal sort" [1963: 229]. Though, Stephens

suggests, Nehru neither had, nor wanted such power, it is probable that Nehru did wield similar powers whatever their source.

Unfortunately for Pakistan, in light of the shambles the political system would become Jinnah, the country's founder, Governor-General and President of the fledgling Constituent Assembly, died in September 1948. Jinnah had, reluctantly at first, demanded this child of British India, and then witnessed the trauma of its birth. With promises still fresh on the winds of Karachi Jinnah, father of the nation, died. Pakistan was left to age in years without ever shedding its inherited feudal political system, and attaining the mature political system dreamed of at partition.

The actions of upstream East Punjab, taken without the knowledge of the central Government of India, took downstream West Punjab by surprise. East Punjab tried to rationalise its actions by explaining that it was trying to establish a claim upon the River Sutlej's waters, as it did not want Pakistan to assume it would have access on the same basis as before partition. This explanation did little to calm the West Punjab Government which was shaken by the realisation that not only were its existing uses vulnerable to upstream withdrawals and control, but that the upstream riparian contained elements that were hostile to Pakistan.

Pakistan was keen to resume the water supply, and negotiated a hasty agreement with India at an Inter-Dominion Conference in May 1948. The resultant Inter-Dominion (Delhi) Agreement of May 1948 acknowledged that there was a dispute between the two halves of the Punjab, and though a final solution was not available at these talks, further talks were to be held by the disputants to find such a solution.

The Delhi Agreement would, however, restore water to Pakistan but at a cost. Firstly, Pakistan was to pay for the transport of water through India, and secondly, India was to be allowed gradually to diminish this supply to Pakistan. Though the Agreement did not contain a date beyond which it would be defunct, it did call for further discussion of the problem between the two countries. Though Pakistan had signed the Agreement, it was to become dissatisfied with the provisions therein, and challenge not only the Agreement but also the manner of signing. India, however, was satisfied with what it regarded as an international water agreement, and refuted Pakistan's claim that it was invalid and signed under duress.

2.3.2.3 Communicating Hopes and Suspicions

Difficulties with the Delhi Agreement began almost immediately. West Punjab had begun to dig a channel from the River Sutlej's right bank. The plan was to link the Sutlej to the Dipalpur canal by circumventing the Ferozepur headworks altogether. Of course, India was not pleased with this development. West Punjab's reply on 16 May 1948, to East Punjab's protests, was to take the matter up at the Inter-Dominion level [Gulhati, 1973: 71]. This led to a series of telegrams being exchanged between the Foreign Ministers of Pakistan and India, who were respectively Zafrulla Khan and Jawaharlal Nehru. The latter was, of course, also India's Prime Minister.

Pakistan justified its decision to dig as a precautionary measure against India closing down the water supply in the future. India's reply did not address this fear, but rather focused upon its own interests in the matter. Namely, that the channel would divert water from the Sutlej upstream of the Ferozepur headworks, which could be damaged as a result. This would endanger Indian planned uses offtaking from the Sutlej. Furthermore, India warned that it would take retaliatory action, and dig a channel further upstream of Pakistan's channel [Gulhati, 1973: 71].

A few weeks later, an opportunity arose by which India could put added pressure on Pakistan to stop the digging. On 4 June 1948, Pakistan made its first formal complaint about water not being supplied to the BSD from India's Eastern canal. India replied that provision had not been made for it under any of the post-partition agreements between the two dominions. On 15 June 1948, India offered to ask the East Punjab government to start supplying the BSD, subject of course to seigniorage charges under the Delhi Agreement, if Pakistan stopped digging the channel. Pakistan informed India, on 6 July 1948, that it had stopped work on the channel. It was agreed that all outstanding Indo-Pakistani matters would be discussed in another meeting [Gulhati, 1973: 72].

The Delhi Agreement had envisaged a succession of Inter-Dominion meetings to discuss the outstanding disputes. Unfortunately, the situation at the time of the Agreement quickly disintegrated and, following their own dynamic, events disrupted the meetings. On 21 July 1948, India and Pakistan met in Lahore, led by N Gopalaswami Ayyangur and Zafrulla Khan respectively. The meeting ended without agreement, and only an exchange of statements. Ali puts this down to India reverting back to the position initially taken by East Punjab: that the state government held all proprietary rights to the

water in its territory, and that this should be formally recognised in an agreement. Pakistan, of course, was unwilling to abandon its legal position on the Sutlej River [1967: 321-322].

Meetings were being held also by the Chief Engineers of the two Punjabs. After one such meeting, Pakistan sent India a telegram, on 15 September 1948, giving its own interpretation of the Delhi Agreement: [i] India was to supply West Punjab with water until a final agreement was reached by the two sides; and [ii] excepting the two disputed points, the Standstill Agreements signed at Simla were to be recognised. Since Pakistan wanted the water supply to continue for rabi 1948-49, it requested India to give it immediate confirmation of the interpretation drawn, and for the Indian Prime Minister to fix the seigniorage charges West Punjab was to pay for three to six months starting from the following October [Gulhati, 1973: 72].

In this interpretation of the Delhi Agreement, Pakistan did not put an expiry date on the agreement. Its reference to reaching a final agreement implied that Pakistan regarded the Delhi Agreement as temporary. As Shivananda points out Pakistan's Foreign Ministry wrote to its Indian counterpart, on 15 September 1948: 'The Delhi Agreement clearly provides for continual supplies to West Punjab until the final agreement is arrived at between the two Dominions and at the same time accepts Simla Agreements excepting two disputed points' [1961: 17].[29]

India assured Pakistan, on 26 September 1948, that it would supply the water requested but did not comment upon the interpretation Pakistan was giving to the Delhi Agreement [Gulhati, 1973: 73]. Meanwhile, the Standstill Agreements signed at Simla were due to expire. These Agreements only assured water to the CBDC until 30 September 1948, and the Dipalpur canal until 15 October 1948, after which supplies would have to be re-negotiated.

The Prime Ministers of India and Pakistan corresponded with each other to no avail. Pakistan refused to accept India's interpretation of the Delhi Agreement, as outlined by Nehru in 18 October 1948: [i] East Punjab had the right to diminish the supply to West Punjab; [ii] further meetings were to be held on this matter; and [iii] if either side was to

29 The disputed points refers to the disagreement between India and Pakistan over the value of the UBDC, and seigniorage charges Pakistan was expected to pay India for the supply of water.

incur unrealistic delay because of the other, then the injured party could terminate the Agreement after giving reasonable notice. Ali suggests Pakistan understood the interpretation to imply that if it did not accept India's conditions quickly, India would be justified in ending the Agreement and stopping the water once more. "For Pakistan to accept the Indian interpretation would have been a permanent renunciation of Pakistan's legal rights" [1967: 322].

In April 1949, the Government of India agreed to continue supplying water under the Delhi Agreement's terms. But in June 1949, Pakistan widened the dispute to include all common rivers, and requested another meeting, in August, to allocate the water equitably. If agreement was not forthcoming then, Pakistan suggested, the matter should be referred to the ICJ [Gulhati, 1973: 73]. India in turn refused, once more, the option of going to the ICJ [Ali, 1967: 322].

Pakistan's decision to include all common waters with India probably referred only to all the waters in the Indus Basin. The two countries had in common the waters of two river basins, the Indus in the West, and the Ganges-Brahmaputra in East. However, the Government of Pakistan was, soon after independence, dominated by politicians from the western wing. Therefore, though Indian plans to build a barrage at Farakka were soon to become concrete, it is doubtful whether the national government residing in West Pakistan was overly concerned in light of what was going on within the Indus Basin.

The Sind Observer, 18 January 1949, reported the establishment by the Pakistani government of an organisation to deal with the Indus basin problem. This organisation was being advised by an American law firm. Not to be outdone, the Indian government set up its own organisation looking at the Indus basin problem, as well, and also collecting data on Indian needs for the future planning purposes.

To head this organisation, the Indians created the post of Deputy Secretary (Special) in the Ministry of Works, Mines and Power, to which Gulhati was duly appointed at the end of June 1949 [Gulhati, 1973: 74]. The organisation was peopled by personnel from the East Punjab government: Vidya Ratna, an ex-engineer; Dr J K Malhotra, Statistical Officer; and S M Sikri, Assistant Advocate-General. Its first task was to prepare for the forthcoming Inter-Dominion meeting being held in New Delhi during August 1949 [Gulhati, 1973: 74].

The Inter-Dominion meeting, held on 4-6 August 1949, brought together the same representatives as before to discuss the problems arising out of shared use and needs of the River Sutlej. Though, the atmosphere remained cordial, discussions were limited to an exchange of cautious, terse comments and the only agreement reached was to meet again [Ali, 1967: 322]. At this meeting, India suggested setting up a joint technical committee, but the idea was met with caution by Pakistan. India suggested this committee would comprise of two engineers, one each from Pakistan and India.

The joint committee's functions would be to: [i] investigate and report on the availability of water in the Indus Basin; [ii] to assess the overall irrigation needs of areas that had already been developed and those areas for which development was planned; and [iii] the works that would be needed to supply all requirements in an equitable fashion, for the maximum benefit of both countries [Gulhati, 1973: 75].

After a string of *communiqués*, with India trying to convince Pakistan of the joint technical committee's desirability and Pakistan requesting further clarification each time, it was agreed to meet in Karachi on 27-29 March 1950 [Gulhati, 1973: 76]. India had in a previous communication, on 5 October 1949, suggested establishing a preliminary negotiating committee comprising of three people each from India and Pakistan. This committee would settle the terms of reference for the joint technical committee, and explore any possibilities for settling the dispute [Gulhati, 1973: 75]. In effect, this committee was to be the pre-negotiating committee for the proposed joint technical committee.

Pakistan's Foreign Minister wrote to his Indian counterpart on 1 November 1949, offering not to press for prior recognition if it was agreed that the interim period under the Delhi Agreement had expired [Gulhati, 1973: 76]. Pakistan also proposed alternative arrangements to a joint technical committee: First, to negotiate new interim arrangements pending a final settlement; second, to appoint a commission comprising non-engineers and headed by a neutral chairman. This commission would, however, retain the authority to employ technical advisers if necessary, from India, Pakistan and a neutral source. The commission's remit would be limited to making recommendations not arbitrating between the two countries; and finally, if agreement was not reached then India would be obliged to allow the dispute to be out before the ICJ [Gulhati, 1973: 76-77].

Pakistan's offer to rescind its demand for prior recognition was a contradiction, Gulhati claims, of the stance it had taken over a year before in the telegram of September 1948 [1973: 76]. The remainder of the proposal followed the same line taken before. In other words, the involvement of a neutral commission or tribunal in the dispute. India refused to countenance any change to the terms of the Delhi Agreement, and insisted that a bilateral fact-finding commission without the involvement of a neutral body was the first step to resolution [Gulhati, 1973: 77].

The March 1950 meeting in Karachi was to explore the idea of joint development and management of the Indus basin, with the whole basin's water resources to play with. The six people jointly representing the Dominions could, possibly, have made up the preliminary negotiating committee that India suggested in October 1949. Being represented were not just the provinces as in previous meetings, but the central governments too.

India was represented by: B K Gokhale, Secretary in the Ministry of Works, Mines and Power; A N Khosla, Consulting Engineer to the Indian government and Chairman of the Central Power, Irrigation and Navigation Commission; M R Sachdev, Chief Secretary of East Punjab, who was assisted by Gulhati and Dr J K Malhotra. Pakistan was represented by: Chaudhuri Mohammad Ali, Secretary-General to the Pakistani government who headed the delegation; H A Majid, Chief Secretary of West Punjab; Pir Muhammad Ibrahim, Chief Engineer in West Punjab's Irrigation department [Gulhati, 1973: 76; Ali, 1967: 322].

At the meeting, it appeared that both sides were making an effort to put aside politics, and explore options on a practical level. Pakistan proposed: [i] existing uses be met by existing sources; [ii] new supplies be met by building storage facilities on the Sutlej, Ravi, Beas and Chenab rivers; and [iii] the cost of construction be shared proportionally to the benefit derived and the waters be allocated equitably.

India proposed: [i] that the Sutlej River, upon which India was building the Bhakra Dam, be appropriated by India; [ii] the Beas, Ravi and Chenab be made available for Pakistan to maintain existing uses, subject to certain adjustments favouring India; and [iii] a link from the Chenab be built to meet any shortfall in Pakistan's supply. They further proposed that [iv] if there was still a deficit, then a dam be built on the Chenab to

meet this deficit, and to supply new developments. It was agreed that the Indian and Pakistani engineers would study the proposals and present the relevant engineering data before the next meeting in May 1950 [Ali, 1967: 322].

Ali's hopes for an agreement were dashed by the next meeting in Delhi during May 1950. The atmosphere had changed completely. India was not willing to pursue the line suggested in Karachi. Instead, it intended to take all of the Sutlej, Beas and Ravi rivers and 283 cumecs (10,000 cusecs) from the Chenab via a tunnel at Marhu [1967: 322-323]. Ali spoke to Nehru about the consequences of India's proposed actions upon Pakistan's uses and people: "He [Nehru] was very effusive in expressing those soulful sentiments that have appealed so much to foreigners and professed anxiety for a humane solution; but I could not change his mind on the point in question" [1967: 323].

Pakistan began to say that the Delhi Agreement had been signed under duress, and gave notice of its expiry, in a note to the Indian government on 23 August 1950 [Gulhati, 1973: 79]. India's Prime Minister Nehru replied to his counterpart, Liaquat Ali Khan, on 12 September 1950, that India had not pressured Pakistan to sign, and there was no question of duress. India sent another note to Pakistan a few days later, on 15 September 1950, saying that Pakistan had previously not mentioned this issue of duress in: [i] a joint *communiqué* issued on 7 May 1948; [ii] a note sent to the Punjab Partition Committee by the West Punjab government three weeks later; and [iii] nor was it mentioned at the Inter-Dominion Conference held in Lahore three months later [Gulhati, 1973: 79-80].

As late as September 1954, the Pakistani Prime Minister, Mohammad Ali Bogra was still claiming that Pakistan had been forced to sign the Delhi Agreement [Gulhati, 1973: 79]. This was after the talks sponsored by the IBRD had broken down, and negotiations were ongoing to restart them. The initial issue of duress may have appeared at a time when Pakistan was unhappy with India's proposals to appropriate the waters of three rivers, and tap into a fourth river.

In addition, the Delhi Agreement gave India the supposed right to diminish water to Pakistan, but without stipulating a concrete timetable. Pakistan probably feared India would, simultaneously, use the agreement to full measure and diminish water, as well as develop its control of the three Eastern rivers as it proposed to do. Therefore, by saying

the Delhi Agreement was invalid, Pakistan could hope to get India to return to the negotiating table - or possibly be free to invoke international law.

The disagreement that arose between India and Pakistan surrounding the Delhi Agreement was repeatedly addressed at Inter-Dominion meetings held throughout the period of 1948-50. The proposals that emerged from these meetings at times appeared to offer a solution to the problem, only to be lost in the follow-up period due to changing events in the domestic politics of both countries. The dispute over the water of the Sutlej was accumulating other disputes as the dispute remained unresolved. Notably the issue of charges Pakistan was to pay India for the transportation of the water through to West Punjab, i.e. disputed seigniorage charges.

2.3.2.4 Disputed Seigniorage Charges

As part of the Delhi Agreement, Pakistan agreed to pay India seigniorage charges which India claimed for transporting water through canals on its territory. However, the calculation of these charges was disputed by Pakistan. Therefore, it was decided that West Punjab would pay in full the charges, including the contested amount, as specified by the Indian Prime Minister. The money would be deposited in the Reserve Bank of India by the West Punjab government, from which the undisputed amount would be transferred to East Punjab. The remaining money would be held in escrow until agreement was reached on this matter [Gulhati, 1973: 82]. By acquiescing to this procedure, both India and Pakistan had, in effect, agreed to put the dispute on hold but without recognising or abandoning either country's position as right or wrong.

At Pakistan's request the arrangement of water transfer for kharif (summer) 1948 was extended to rabi (winter) 1948-49 and then kharif 1949 too. Thereafter, India unilaterally arranged to transfer water for each crop and charge Pakistan seigniorage as agreed. Gulhati claims that India did not want to repeat the situation that arose in April 1948, neither did it want to let Pakistan have the water for free [1973: 82]. Therefore, East Punjab was instructed to supply water under the strictures of the Delhi Agreement, on receipt of the indents from West Punjab's engineers. These routine matters generated a large amount of correspondence [Gulhati, 1973: 82].

When Pakistan first made a deposit in the Reserve Bank of India, it informed the Bank that the drawing authority would be the Secretary for Finance in the West Punjab government. The Indian government, on hearing this, asked Pakistan to put the deposit in the Indian Prime Minister's name, because there would be little sense in depositing the money if Pakistan could withdraw it unilaterally [Gulhati, 1973: 82]. Though Pakistan did not object to this alteration, it took several months to revise its instructions to the Reserve Bank. In June 1949, Pakistan announced it as irrelevant as to whose name the money was being held, as it was in fact in escrow. However, the Reserve Bank was not aware of this. The matter was cleared up when on 17 November 1949, Pakistan instructed the Bank to put the money in escrow [Gulhati, 1973: 83].

In September 1949, the Sterling Bloc countries followed the United Kingdom's lead and devalued their currencies. However, Pakistan's refusal to toe the line was interpreted by India as a hostile act, and it imposed an economic blockade forthwith. It is possible that this was fresh in the Pakistani government's mind when it decided to unilaterally declare the Delhi Agreement void. On 1 November 1949, Pakistan informed India that though it regarded the Agreement as having expired, it would continue its deposits in the Reserve Bank as a goodwill gesture. However, Pakistan also requested to be able to stop these deposits [Gulhati, 1973: 83].

India's emphatic response was that, not only was the Delhi Agreement still binding upon all its signatories, but the deposits were an integral part of the agreement. Moreover, the Indian government expressed its surprise at Pakistan's unilateral invalidation of the agreement [Gulhati, 1973: 83]. Pakistan continued depositing the seigniorage charges till July 1950, when it stopped paying the portion of the charges that were in dispute. In November 1950, Pakistan informed India that it had established credit with an American trust company. This company was instructed to pay India the outstanding money in the event that: [i] India agreed to refer the matter to the ICJ or another international tribunal agreed to by the two governments before 30 June 1951; and [ii] after referring the matter to the ICJ, the Court decided the amount that was due to India [Gulhati, 1973: 83-84].

India regarded Pakistan's unilateral changing of the escrow arrangements as contravening the Delhi Agreement, and refused to associate itself with the changes. The ensuing correspondence failed to resolve the impasse. At the beginning of each crop, India demanded payment in full for the water it was letting pass through its territory. Pakistan paid the amount that was undisputed, but either ignored the remainder, or

retaliated by repeating its request for the matter to be arbitrated. During this period, India continued its obligations and supplied water to Pakistan [Gulhati, 1973: 84]. The impasse continued as India continued to demand full payment, and Pakistan reiterated it would pay only if India agreed to put the whole Sutlej dispute before an international tribunal [Gulhati, 1973: 87].

The issue of disputed seigniorage charges dogged bilateral discussions between India and Pakistan and had reached an impasse by the time the World Bank came to intervene. In the meantime, both countries continued to construct works that would safeguard their water supply, either existing or planned. The matter of the seigniorage charges was only resolved in 1960, in the final stages of the Indus Waters Treaty's drafting under the auspices of the World Bank.

The Bank representative informed the Governor of the Reserve Bank in Bombay, of India and Pakistan's agreement on this matter:

> "There is an amount now held in escrow (believed to be Rupees 2,936,485) in canal dispute account with Reserve Bank Calcutta. As part of Indus Waters settlement India and Pakistan have agreed that amount in this account should be transferred to new account with the Reserve Bank to be opened in name of IBRD and denominated IBRD - canal dispute account. India and Pakistan would also instruct IBRD to hold amount transferred to new account until Indus Waters Treaty enters into force and thereupon to pay amount to payee to be designated by Government of India" [IBRD-26/8/60].

2.3.2.5 Constructing Alternative Irrigation Works to Safeguard Supply

It became clear almost immediately, that the Delhi Agreement of May 1948 had been unsuccessful in allaying Pakistani fears about its upstream neighbour, nor had it determined an avenue that could resolve the dispute on the River Sutlej. Radcliffe, in dividing the Punjab, had awarded to Pakistan a small enclave just above the Ferozepur headworks. The River Sutlej flowed through India, then through a small pocket of Pakistan before re-entering India and encountering the headworks at Ferozepur. Spurred on by its impression of the Delhi Agreement's fragility, Pakistan sought to protect its uses on the Sutlej. This Pakistan began to do by building a channel from the section of the river where it was upstream of India, to the canals offtaking the Sutlej downstream of India. (See Figure 3 for the canals and places mentioned below.)

What followed was a development programme that had been interrupted, and then distorted by partition. Loyalties that had pitted province against province, now first pitted state against state, and then involved the provinces within each country. Therefore, West Punjab competed internationally with East Punjab for the use of Sutlej water, and then nationally against downstream Sind for the remaining water.

In May 1948, Pakistan was making progress with its plan to divert water from the Sutlej, upstream of the Ferozepur headworks. India regarded this as hostile behaviour, and demanded Pakistan that it stop the project, because the by-passing of the headworks would be detrimental to Indian canals offtaking from it. East Punjab prepared a contingency plan to safeguard its supply from the Ferozepur headworks to the Eastern and Bikaner canals. Firstly, to confine the Sutlej River's flow to Indian territory; and secondly, to build a link canal between the Eastern and Bikaner canals from a barrage that had already been proposed at Harike, situated just below the Sutlej-Beas confluence [Gulhati, 1973: 84].

In April 1949, the East Punjab Government was asked to submit a proposal for the construction of the Harike barrage. By December 1949, despite Pakistani protests, the Indians decided to build the barrage for two reasons. Firstly, to safeguard against upstream diversions by the Pakistani project; and secondly, to utilise water that would be "set free by progressive diminution" to Pakistan's supplies [Gulhati, 1973: 85]. The latter arrangement was, India claimed, written into the Delhi Agreement. India planned to build a tunnel at Marhu on the Chenab River to divert water, and in due course to take the entire flow of the Beas River too.

The Harike Project envisaged head regulators for the Ferozepur and Sirhind feeders of 311 cubic metres per second (cumecs or m^3/sec) (11,000 cubic feet per second or cusecs) capacity, and for the proposed Rajasthan canal of 425 cumecs (15,000 cusecs). Included in the project were plans to replace an old inundation canal, offtaking from the Sutlej, with the Makhu canal. East Punjab was also asked to prepare details for a proposed link between Madhopur on the Ravi to the Beas River, with an initial capacity of 170 cumecs (6,000 cusecs) later to be increased to 368 cumecs (13,000 cusecs) after the Marhu Tunnel had been constructed on the Chenab [Gulhati, 1973: 85].

The proposed Rajasthan canal highlights a couple of points. Firstly, the inter-state rivalry within India that existed for the water of the River Sutlej. The East Punjab

Government was reluctant to share the Sutlej with Rajasthan [Gulhati, 1973: 86]. Rajasthan's position on the edge of the Indus Basin does raise questions about transferring water out of the basin before prioritising intra-basin uses. (This was, also, raised by Israel's supply to the Negev desert from the Jordan River basin.) But East Punjab's hesitance probably had more to do with the desire to retain as much as water for their own uses and to not have to curb their own irrigation development.

Secondly, the financial matters pertaining to the Rajasthan canal's construction. In April 1950, the Government of India asked the provincial government of Rajasthan to survey areas in the state that would be served by the proposed canal. The Rajasthan Government, however, proved reluctant to undertake this investigation. It was feared that if, after investigation, the canal was not built Rajasthan would have incurred the costs unnecessarily. The matter was settled after the central Government agreed to carry out the investigations and cover the costs of the study [Gulhati, 1973: 86].

Construction continued in East Punjab as new distributaries from the UBDC were being built to settle refugees from West Punjab. The first of these channels was opened for the kharif (summer) crop of 1950. But since these canals only received water after meeting the full indent of the CBDC, that is Pakistan's needs, there was only enough water for them for part of the kharif season [Gulhati, 1973: 85]. Under these circumstances, the state Government wanted to concentrate its efforts on building the Bhakra dam, which would store excess water during kharif (summer) and be able to supply these channels that were at the mercy of the weather and Pakistan's indent [Gulhati, 1973: 86].

However, when the Bhakra project came before the Planning Commission for review, it was concluded that if the Bhakra canal could be completed at the same time as the Nangal project, it would be possible to operate it on a non-perennial basis without encroaching upon existing supplies offtaking from the Sutlej and Beas. The Nangal barrage and canal project had been started in 1946, and was expected to be completed by 1952. Therefore, the Bhakra-Nangal project was re-oriented to prioritise the Bhakra canal, with the hope of starting operation in kharif 1954. But as Gulhati states, the East Punjab Government "had almost to be forced by the Planning Commission, in which I was the Chief of the Natural Resources Division" [1973: 86].

To Pakistan it was clear that India wanted to prolong negotiations to build the Bhakra dam and the Rajasthan canal amongst other engineering works. "[T]he effect of which

would be to deprive Pakistan of vital water supplies" [Ali, 1967: 324]. Furthermore, Pakistan regarded India as forcibly appropriating water from Pakistani supplies at critical times of sowing and maturing. The construction schedule was seen as detrimental to Pakistan, especially the building of the Bhakra dam. At 2,428 metres, the Bhakra dam was going to be 46 metres higher than the Hoover Dam in the USA, which was the highest dam in the world. The Bhakra dam's storage capability had also been increased with its height from 4,936 mcm (4 MAF) to 9,872 mcm (8 MAF). This change would allow the entire Sutlej flow to be stored in the Bhakra's reservoir [Ali, 1967: 324].

Pakistan and India were proceeding with their own constructions, independently of each other. India was preparing its irrigation system in East Punjab and Rajasthan to use all surplus water from the three eastern rivers, the Sutlej, Beas and Ravi. It was also expecting more water to be made available to it as supplies to Pakistan were diminished under the Delhi Agreement [Gulhati, 1973: 86]. Pakistan was busy trying to secure supplies to the CBDC and Dipalpur canal from the River Chenab, and to insure itself against any further threats to its water supply from India [Gulhati, 1967: 87].

India was receiving reports that Pakistan was building, or proposing to build a number of works to safeguard its supply from the Eastern rivers. Pakistan was planning: [i] to build the Bambanwala-Ravi-Bedian link (BRB) to supply the CBDC from the Chenab, and in fact had been looking at this link canal since June 1948; [ii] to investigate a link between Balloki, on the River Ravi, and Suleimanke on the River Sutlej. The aim was to transport water from the River Chenab to the Dipalpur canal's lower section and the Sutlej Valley canals (SVC) which off-took at Suleimanke; [iii] to build the Kotri barrage (renamed the Ghulam Mohammad barrage), which was started in 1949, to upgrade inundation canals to non-perennial canals in Lower Sind, and to supply a new perennial canal; [iv] to investigate the construction of two barrages, at Taunsa and Gudu, on the River Indus to improve supplies to inundation canals offtaking from the Indus in West Punjab and Upper Sind respectively; and [v] to continue West Punjab's tubewell scheme based upon the Rasul hydroelectric project, which had been started in 1946 [Gulhati, 1973: 86-87].

But these additional works did not resolve the whole problem in Pakistan, and highlighted the need for storage facilities in the basin. Soon after East Punjab stopped water in April 1948, Ali had asked Pakistani engineers to explore sites on the rivers

Jhelum and Indus suitable for dams. A site was found at Mangla on the River Jhelum, which the Pakistani Government sanctioned and started work on without foreign aid which was withheld due to the dispute with India. On the River Indus a site was initially found at Darband, which was later bypassed by the site at Tarbela [Ali, 1967: 325].

Pakistan was building, at its own expense, link canals as insurance against India and to provide a more uniform irrigation across the various colonies. India was also busy constructing works to extend its irrigation demands in the Indus Basin. Rivalry for the water was not only international between India and Pakistan, but also provincial. East Punjab in India was reluctant to share the water of the Sutlej with Rajasthan, as was West Punjab in Pakistan to share it with Sind. In addition, Pakistan continued to press India to allow the involvement of a third party, specifically the International Court of Justice.

2.3.2.6 Involving the ICJ and Other International Tribunals

In January 1950, Prime Minister Nehru of India wrote to his counterpart in Pakistan, Liaquat Ali Khan, proposing a joint declaration that their countries would not go to war over any dispute between them. Moreover, India and Pakistan would seek peaceful means to resolve their differences, including third party intervention in the form of mediation, agencies especially set up to resolve the matter, or an international body recognised by both countries. Liaquat Ali Khan agreed in February 1950, but added that there should be a clear timetable that would bind the governments to the process and a peaceful solution [Gulhati, 1973: 77].

A list of Indo-Pakistani disputes, as Pakistan saw them, accompanied Liaquat Ali Khan's letter: [i] Jammu and Kashmir; [ii] Junagadh and neighbouring states which wanted to accede to Pakistan; [iii] the River Sutlej dispute, also known as the canal waters dispute; [iv] property left behind in India by refugees now living in Pakistan; and [v] assets still being held by India to which Pakistan laid claim. India on receiving this list, stated that it regarded Junagadh as a dead issue, and India had its own financial claims to assets Pakistan held [Gulhati, 1973: 77].

In the meantime, Inter-Dominion conferences continued to be held under the auspices of the Delhi Agreement. In March 1950, a meeting was held in Karachi to discuss the canal

waters dispute. Gulhati claims that the negotiators were willing to partition the rivers. Pakistan was willing to let India use all of the Ravi, and Beas waters that was being used in Pakistani canals since before partition. India was amenable to this proposal, but wanted the right to tap the Chenab as it passed Marhu in India. And to stave off any shortage to Pakistan, India suggested building a dam on the Chenab at Dhiangarh in India. But Pakistan was unwilling to let India have the right to build on the Chenab, and the proposal was abandoned. No mention, however, had been made by Pakistan of limiting Indian activity on the upper reaches of the Jhelum and the Indus [Gulhati, 1973: 81-82].

"The interim arrangement of May 4, 1948, instead of paving the way toward an agreement had become an obstacle" [Ali, 1967: 323]. With bilateral talks failing to reach agreement, India filed the Delhi Agreement with the United Nations (UN) as treaty number 794, in May 1950.[30] Pakistan regarded the agreement as temporary, and acted to nullify the effect of permanency by registering a disclaimer with the UN in December 1950 [Shivananda, 1961: 18-19; Government of Pakistan, 1953b: 12]. As Ali states, Pakistan "explained the true nature of the statement to the UN and certified that it had been terminated" [Ali, 1967: 323]. India in turn challenged this termination, and registered another disclaimer with the UN Secretariat to that effect in November 1951 [Shivananda, 1961: 20].

Efforts were made to find an acceptable solution to the dispute. India proposed setting up jointly a technical committee that would look into the Sutlej dispute and make recommendations for resolution. If this committee failed to reach agreement, then the Indian government would be willing to consider submitting the matter for arbitration, or to another tribunal approved by both governments. Pakistan, though admitting it had practically agreed to a joint technical committee, urged India once more to submit the matter to the International Court of Justice (ICJ). India refused, preferring to appoint a technical committee and await the results of its study before deciding upon the procedure and forum in which to continue discussions [Gulhati, 1973: 78].

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[30] The UN expects all international treaties to be registered with the Secretariat, two years after its signing and ratification [Shivananda, 1961: 19]. Indian compliance to this stipulation was seen by Pakistan, however, as being "obviously a *maneuver* to get indirectly what India could not get by agreement" [Government of Pakistan, 1953b: 12].

Under the United Nations Charter, any international legal disputes amongst members should be put before the ICJ. However, members of the British Commonwealth were exempt from this stipulation as it was assumed that matters would be resolved within the forum of the Commonwealth. Yet, solution for the Sutlej dispute had eluded the Commonwealth, and India continued to refuse to submit the matter to the ICJ [Ali, 1967: 324]. Since India had been willing to accept arbitration if the technical committee failed, Pakistan expected it to accept the referral to the ICJ. India's refusal to do so was seen by Pakistan as evidence that India's position in international law was untenable and that it did not want this shown before the ICJ [Ali, 1967: 324].

In September 1950, India proposed putting the matter before a tribunal comprising four judges, two from each country. Pakistan refused the offer on the basis that the tribunal did not have an impartial chairman which meant the forum could be used by India to delay resolution of the dispute [Ali, 1967: 324; Gulhati, 1973: 80]. Nehru replied that is was undignified for two independent countries to submit their differences to another body, as if they were incapable of resolving the matter themselves. The Indian Prime Minister also refused the idea of setting up another tribunal with an impartial chairman to resolve the issues the first tribunal failed to resolve. This would, in his view, relegate the significance and weight of the first tribunal to that of a preliminary round [Ali, 1967: 324; Gulhati, 1973: 81].

The following year, a week before the Pakistani and Indian Prime Ministers were to separately and formally accept the International Bank for Reconstruction and Development's offer of good offices, the Indian Ministry of External Affairs wrote to the Pakistani High Commission in Delhi [IBRD-18/9/51]. Following the favoured style of bureaucracy in the Indian Subcontinent, the letter repeated its claims and refutations again and again. If Pakistan questioned the Delhi Agreement's validity, then India would be willing to submit this question to an impartial international tribunal. However, India neither considered the agreement invalid, nor had it reneged on any obligations therein. In fact, India claimed, the reverse was true and Pakistan had reneged upon obligations incumbent upon it [IBRD-18/9/51].

Pakistan had, India continued, failed to: [i] inform India of changes in West Punjab's capacity to draw water from alternative sources, which would allow East Punjab to start diminishing the amount passed onto Pakistan; [ii] continue depositing the disputed seigniorage charges, in escrow, agreed to under the Delhi Agreement; and [iii] negotiate

changes with India before declaring, unilaterally, the termination of the agreement. "Such changes can only be regarded as a violation of international obligations undertaken by Pakistan and a continuation of such violation would expose Pakistan to all the legal consequences of this violation including the discharge of India from their obligations under the Agreement" [IBRD-18/9/51].

Gulhati believes Pakistan was determined to get some form of arbitration on the matter, even presenting the dispute before the UN Security Council. "Whatever the outcome, Pakistan would not be satisfied unless a third party could somehow be brought into the picture" [1973: 89]. Wriggins suggests a reason for such behaviour. Not only was India upstream on the Indus basin, but it was also the stronger of the two countries. Pakistan's foreign policy was a continuous process of balancing its own power against India's. But the relationship had not settled into a static equilibrium; rather the process remained one in which continual innovation and manoeuvring was needed. If, into this situation, a third party, especially one sympathetic to Pakistan, could be incorporated so much the better for Pakistan *vis-à-vis* India [Wriggins, 1977: 302].

Pakistan was probably convinced of its rights and position in international law and therefore, in the absence of any other weapon, was to press for the inclusion of the ICJ in the dispute resolution process. India, by contrast, was reluctant to allow the ICJ to decide the outcome of the dispute. Instead, the Indian Government was to propose a succession of tribunals made up of an equal number of Indian and Pakistani judges. This, however, Pakistan dismissed as a delaying tactic and matters reached an *impasse* resulting in an entrenchment of the dispute.

2.3.2.7 The Dispute Entrenched

Four years of independence had hardened Indo-Pakistani relations. Like Siamese twins torn apart, the blood of the operation remained in the senses of those that had survived. Betrayed by history and their own desires for safety, communities across the Indian subcontinent remained embittered and sought revenge in a myriad of ways. In the face of unquenchable anger, promises made to cooperate lacked the force to survive the scrutiny and demands made upon them by the political bodies of both countries. Suspicions ran high, and the 'naming-blaming-claiming' sequence was being danced out

in a number of issues, not least the River Sutlej dispute. As Gulhati points out, these issues were paraded in public by both sides [1973: 87].

Fearful for its existing uses feeding off the River Sutlej, Pakistan began not only to accuse India of withholding water from it, but also to question the legality of the Delhi Agreement. Pakistan accused India of abusing its upstream position and attempting to sabotage Pakistan's economy by withholding water. Supplies to pre-partition and partition agreed uses had been curtailed, and Indian construction on the Sutlej was to Pakistan's continued detriment. Pakistan, therefore, demanded that India cease construction, and continue supplies. Pakistan, also, began to question the standing of the Delhi Agreement. In the summer of 1950, Pakistan had stopped depositing, in escrow, disputed seigniorage charges, and had informed India of the agreement's termination. The issue of Pakistan having been forced to sign the agreement continued, along with the actual legality of the agreement being questioned [Gulhati, 1973: 87-88].

India was concerned about its plans to develop land surrounding the Sutlej, and regarded the Delhi Agreement as a legal instrument delimiting use of the river. Therefore, India rejected what it regarded as Pakistan's unilateral termination of an international agreement. It was, after all, continuing to supply water as agreed, and India viewed the agreement as a venue towards a final solution of the problem [Gulhati, 1973: 88]. Despite Nehru's attempt to reassure Pakistan that India would not build its prosperity on the misery of Pakistani farmers, Pakistan remained, unsurprisingly, suspicious.

Like a Punch and Judy puppet show, the River Sutlej dispute entailed a conversation whereby each side appeared merely to contradict the other. Yet running through the whole dialogue was fear. The Pakistanis feared losing water to their existing uses. The Indians feared having to limit the development of new uses. Each side feared having insufficient water to feed its population. The political representatives of each country possibly, also, feared losing their power base. The scene appeared to be haunted by what would be lost by each side, and not what stood to be gained by mutual cooperation. It was into this arena that the World Bank would step to offer its good offices. It was hoped that the stalemate would be broken by this intervention and the new approach of mediation.

SUMMARY

The physical wealth of the Indus Basin's water supply belies a significant problem that hampers use of the waters. The distribution and timing of water availability results in a situation of feast-or-famine. For two months during the summer, the monsoons pour down water from the sky, swelling further the rising rivers. For example, the River Indus during the summer, several miles wide in flood, is a stark contrast to its shrunken winter state of large puddles. Irrigation is needed, therefore, to enable utilisation of the waters to grow produce, and sustain livelihoods, in the arid reaches of the Indus Basin.

Large scale irrigation was developed thousands of years ago to capture the waters of the basin. Under the British these works were modernised and extended into an immense network of canals. The principal motivation for the large scale development of the irrigation works is thought to have been commercial and political. The resulting revenue from agricultural produce proved sufficient incentive to overcome the high costs of construction. Politically, the opening up of new canal irrigated land was useful in maintaining commitments to, and rewarding, allies in previous wars.

Canals were principally constructed in the British provinces of Punjab and Sind, though not under an integrated plan of basin management. Each province built its own works independently of the other, despite their reliance upon the same sources of water, principally the River Sutlej. Without storage facilities, and with continued construction, competition for the run-of-river flow increased and led to a dispute between Sind and Punjab. Partition obstructed any final judgement to settle the dispute. Though India and Pakistan had no international water dispute at the time of partition in August 1947, matters were to change in April 1948.

The international boundary between India and Pakistan separated canals from their headworks, and left India as the upstream riparian on the five rivers of the Punjab. A Standstill Agreement had been signed by representatives of divided Punjab, but this Agreement expired on 31 March 1948. East Punjab (India) stopped the water supply to Pakistani canals on 1 April 1948. Whatever legal justifications were given by the Government of East Punjab for its decision, the overriding effect was to instil considerable fear in Pakistan. Partition had created two countries with disharmonious relations, and the suspicions that existed on both sides were exacerbated by the start of the international Canal Waters dispute.

Bilateral efforts to settle the dispute did more damage to Indo-Pakistani relations than good. The Inter-Dominion Agreement, or Delhi Agreement, signed in May 1948 was to prove an obstacle to settling the dispute. It did no more than acknowledge there was a dispute in which both sides had legitimate claims. Successive meetings between India and Pakistan failed to find acceptable avenues by which the River Sutlej could satisfy both claimants, and each side fortified its position *vis-à-vis* the other in the dispute. Both countries, also, claimed they were legally correct in their demands and rights.

Under the ensuing deadlock, and with tensions mounting between the two parties, the need for impartial third party intervention was clear. Pakistan repeatedly proposed inviting the International Court of Justice to intervene and India, with equal frequency, would refuse. Though a legal third party was rejected by India, an alternative intervenor was becoming apparent. India and Pakistan had both applied to the World Bank for loans to construct their irrigation works. The Bank, unable to fund projects on the disputed Sutlej River, was willing to assist the countries in resolving their dispute. Thus, after an initial prompting, the World Bank offered its good offices. India and Pakistan accepted its intervention, and this marked the start of the Indus Basin mediation process.

3

THE MEDIATION FRAMEWORK

The intervention of the World Bank in the Canal Waters dispute between India and Pakistan began the long walk to a mediated settlement. Matters between the disputants had reached breaking point as bilateral talks on a number of outstanding issues had failed to reach an acceptable conclusion. India had been, and remains, adamant that no third party should intervene in its dispute with Pakistan over the state of Jammu and Kashmir. However, over the specific issue of water in the Canal Waters dispute India was, ultimately, willing to allow a mediator to assist the resolution process. This the Bank did by offering its good offices.

Before the particular details of the mediation process in the Indus Basin are told, general aspects of the mediation process are reviewed. As will be shown in the succeeding chapters, effective intervention by a third party can change the nature of a bilateral dispute if the conflicting parties are unable to resolve the dispute through direct bilateral negotiations. Parties are encouraged to move away from conflict and stalemate, as their principal means of interaction, towards a more constructive process. The change from the 'naming-blaming-claiming' routine that characterises so many conflicts, is facilitated by the voluntary nature of mediation [UNITE].[31] The disputants and the mediator all have to volunteer to join this process. By this means, the mediator retains control of the process, but more importantly, the disputants retain control of the outcome [Bercovitch, 1992: 5].

The mediation process can be characterised within a framework comprising of four sections: engaging, issues, options and agreement [UNITE].[32] The framework appears, to this thesis, to describe not only the process of mediation but also other conflict resolution processes, whether bilateral or multilateral. In addition, this framework

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31 Refers to the mediation training undertaken by the author, given by UNITE, Southlands Centre, Ormesby Road, Middlesborough TS3 0HG.

32 The framework described by UNITE has a fifth section - feedback to the mediators. Though this feedback can be given by one mediator to the other the disputants are, in fact, asked to give their opinion on the mediation process, and the mediators.

appears to have validity at different scales of conflict. Therefore, it can be used to describe disputes between both neighbours on a housing estate, and international disputes between sovereign nations.

Successful mediation can lead to the resolution of a conflict however entrenched it may appear. Bar-Siman-Tov describes successful conflict resolution as distinct to conflict management and involving "the reconciliation or elimination of fundamental differences and grievances underlying a conflict. Conflict resolution occurs when the incompatibility between the preferences of the various parties to a conflict disappears or when the sources of a conflict situation are removed" [1994: 75].

Even if the conflict is not resolved through mutually acceptable outcomes, the process of mediation is beneficial to the disputants as it allows them to interact with each other away from the necessary violence of the battlefield. This, too, can change attitudes that may serve to make later agreement more likely. All the participants in a mediation have their own perspective on the process. This thesis will focus upon the mediator and the means by which the mediator can intervene, and assist the disputants.

3.1 DISCUSSION OF THE FRAMEWORK

"Communication"
[McDonald interview, 25/4/96].

Disputes are a hostile form of communication, thus the aim of a dispute resolution process is to continue the communication between the parties, but with less hostility. The most important actors in any dispute are, obviously, the disputants. The decision to resolve, or perpetuate, their conflict rests with these actors, and is ideally determined through direct bilateral talks. This is because "contacts across political barriers, in the right circumstances, lead to greater human understanding, and that understanding of those on the other side should facilitate the resolution of the dispute or conflict" [Bailey, 1985: 212].

If bilateral talks fail to resolve the dispute, then intervention by a third party can help the disputants find a suitable settlement. Alternative Dispute Resolution (ADR) techniques describe the different guises third party intervention can take once bilateral negotiations

have proven unsatisfactory.[33] These different approaches are arbitration, adjudication, advocacy, counselling, good offices, conciliation and mediation.[34]

This thesis suggests that all these different techniques of intervention have in common a skeletal framework of engaging, issues, options and agreement. All the actors must engage in the dispute resolution process. In arbitration and adjudication, for example, it is the legal teams and the judge that must engage in the process. In conciliation it is an independent intervenor and the disputants. Likewise, during the process the issues in dispute must be discussed to understand the positions and interests of each party. Options that address these interests are explored to a different extent depending upon the technique, and wherever possible agreement is reached. The process remains cyclical, with agreement needed on many points throughout the intervention, before a final settlement is agreed upon.

Similarly, this thesis proposes that this skeleton is applicable at different scales of intervention, from local neighbourhood disputes to international disputes. As Bercovitch points out, mediation is used "in virtually every area of human interaction" and is becoming of "increasing importance in international relations" [1992: 1]. The process of intervention is the same. Whether the dispute is between neighbours on a housing estate over a fence, or between countries over an international boundary, the third party still engages in the resolution process. The issues are still discussed, possible options are still explored, and wherever possible agreements are still reached. And the process still repeats itself in a cyclical fashion.

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33 Alternative Dispute Resolution (ADR) techniques arose out of frustrations with the litigation process in the USA. See Scimecca, 1991, for details of its emergence there. The focus has been to avoid costly procedures that still leave the disputants dissatisfied with the outcome. ADR encompasses a range of techniques of which some are closer to the litigation process than others. See Bevan, 1992 for a more detailed description of the different approaches; and Merrills, 1993 and Umbricht, 1989 for dispute settlement on an international scale. Moore and Delli Priscoli, 1989 give an excellent illustration of the complexities arising from different audiences in Chapter Seven, "Negotiation".

34 Bindschedler regards conciliation and mediation as being the same process enacted by different types of third parties. Conciliation is the intervention by a private individuals and mediation is intervention by states [1981a]. Wood distinguishes between conciliation and mediation in terms of the intervenor's role. In conciliation the third party does not, formally, make any suggestions. By contrast, in mediation the third party has additional power and can make "formal recommendations" [1992: 247].

Obviously, within this general framework the individual events that constitute particular disputes, and their resolution process, are different. Therefore, the type of third party that intervenes in arbitration is different to conciliation. Likewise, the influences and events of a dispute will differ from the local scale to that of the international scale.

UNITE divide the different types of intervention possible according to which actor holds the decision-making power. In other words, who makes the decisions regarding the final outcome in the resolution process? In mediation, and its sister techniques of counselling and conciliation, the decision-making power remains with the disputants. In the remaining techniques, the decision-making power is assumed by the intervening third party. This is especially apparent in legal techniques, such as arbitration and adjudication, whereby the incumbent judge decides which outcome is most 'suitable'.

At the different levels of intervention it is the scale that is, obviously, most striking. The differences attributable to the different scale can be seen in that the decision-makers' internal dynamics, audiences and other contributing influences. Differences due to scale can be summarised as, simply, affecting different numbers of people.

Generally, in an international dispute a number of people are involved in the resolution process to varying depths. At the interface with the other disputant and the third party, is the delegation. The delegates report back to people in the appropriate ministries who, in turn, report to more senior figures and politicians, including the head of the government. And the government may well have to answer to a parliament. Thus, the scope for internal disagreement, by the people involved, is considerable in international disputes. By contrast, in neighbourhood disputes the representatives are, often, the people who are solely responsible for decision-making. Though internal disagreements may exist, the scope for dissension is severely reduced simply because there are less people involved in the process.

Decision-makers also have audiences for their actions, and other factors that influence the decisions. At the international level, the governments have their constituencies to consider. This may include the opposition parties, the domestic public, the international community and, perhaps, the armed forces. In addition, the decision-makers may be concerned about the effect of their decisions upon the economy and security of the country. In local disputes, the disputants may be concerned about the opinions of their audience - other neighbours and the local community. Local disputants would, also, be

concerned about the financial and social costs of agreement. All these concerns effect the individual events that occur in the dispute and the resolution process at the international and local levels.

The primary focus of most dispute resolution processes, such as arbitration, appears to be to reach agreement. But as Moore and Delli Priscoli point out:

> "Dispute management is not simply a contest or a game in which substantive gains are either won or lost. It is a relationship-building process. It involves process, content, and emotions. Frequently, parties must live in the future with those with whom they are disputing. The way that a dispute is resolved may often be as important as the specific settlement" [1989: 18].

Agreement is, therefore, only part of the walk towards a truly peaceful settlement of a dispute. Any agreement signed still needs to be implemented and maintained before the dispute can begin to be regarded as finally over. This implies that the disputants will, by necessity, have some form of continued interaction after the agreement is signed. If the resolution process is particularly adversarial, then the post-agreement relationship may have been damaged to the point of obstructing implementation. This can lead to further deterioration of the disputants' relationship which, in turn, wastes all the goodwill generated in proposing, signing, and ratifying the agreement.

With this thesis focusing upon international water disputes, it is suggested that mediation is probably the optimum route to resolving these disputes primarily because the disputants determine the shape and nature of outcome of the process. This is useful not only because it increases the chances of reaching an agreement that satisfies the disputing parties' interests (and therefore one that will be implemented) but it can equally lead to an improved post-mediation relationship between the disputants. Or at the very least, it will not exacerbate existing tensions to the extent that the more adversarial techniques of intervention can. Thus the assumption of greater control of substantive decisions by the disputants is assumed to favour mediation in the international setting which, in the case of the Indus Basin, proved successful.

3.2 DEFINITION OF MEDIATION

The term 'mediation' is used to cover a range of activities which appear to be substantially different and is reflected in the lack of consensus, on an exact definition, in

the literature [Bercovitch, 1992: 2]. The primary difference in these activities, all termed mediation, is the extent to which the mediator intervenes in the actual discussions and output of the resolution process. Intervention can range from providing a safe location for meeting opponents, to a third party setting the agenda for the process and heavily influencing the final outcome. Therefore, it is important to define the term as it is intended to be used in this thesis. And since the perspective of this thesis is that of the intervening body, the role of the mediator is given principal focus in this chapter.

3.2.1 What is Mediation?

> "The reality of mediation is that of a complex, changing and dynamic interaction between a mediator who does have some resources and an interest in the dispute or its outcome, and the disputing parties or their representatives" [Bercovitch, 1992: 7].

At its simplest level, mediation is the intervention, preferably short-term, by a third party to aid communication between two or more disputing parties. (See Bercovitch, 1992, for a discussion of the different definitions given to mediation). The objective is to alter the situation so that it changes from being a two-way fight to a three-way search for a solution [UNITE]. In other words, "[m]ediation is negotiation assisted by a third party" [Ury et al, 1988: 420].

Mitchell and Banks believe there is an implicit assumption in mediation, that if the disputing parties have made the problem, they can then 'unmake' it [1996: 3]. Lamb and Taylor warn that once a powerful third party, such as a judge, intervenes then the outcome "may not reflect local needs" [1990: 974]. "Legal mechanisms in particular are sensitive to the consistency of outcomes with formal rules, rather than with actors' interests" [Dryzek and Hunter, 1987: 94]. Therefore, the mediation process seeks to ensure that the disputants retain control of decision-making leading, it is hoped, to resolution of the dispute [Burton, 1986: 240].

Mediation, by giving the disputants the space and opportunity to interact with each other peacefully, is giving the disputants the chance to manage their conflict, and if possible resolve it. Bar-Siman-Tov defines conflict management as "controlling, limiting, and containing conflict behaviour in such a way as to make it less destructive or violent" and

points out that it "does not necessarily eliminate the causes of conflict; however, its success may help toward resolving it" [1994: 75].

Dryzek and Hunter commend mediation aswell:

> "Mediation scores over more legalistic adversarial proceedings here because it can address the quality of the content of decisions, collective choices, and policies. Legalistic methods address only the process through which outcomes are reached, or the consistency of decisions with a set of rules" [1997: 92].

At one end of the scale of mediation is 'good offices' and at the other end is a more interventionist approach which it can be argued is akin to arbitration or adjudication [Bercovitch, 1992: 15]. Bindschedler provides a definition for good offices, which was the pretext under which the World Bank became involved in the Indus Basin dispute:

> "in its wider sense, 'good offices' means the involvement of one or more States or an international organization in a dispute between other States with the aim of settling it or contributing to its settlement. A further aim of such involvement is the solution of specific problems which the States in question are unable or unwilling to solve themselves" [1981b].

Where good offices seeks to provide silent support for the disputants while they are talking, a more interventionist approach seeks to decide for the disputants how the dispute should be settled. This latter approach is the process that Mitchell and Bank seek to avoid when promoting their 'problem solving workshop' which in essence is another form of mediation, i.e. assisting communication. During the whole process, the nature of mediation may change if the need arises. If resolution is faltering because the disputants cannot agree on an outcome acceptable to both, then the mediator may temporarily adopt a more interventionist approach and suggest another outcome.

Though obvious, it is as well to state that the whole process of mediation is voluntary. The disputants, voluntarily allow the intervention of a third party; and the third party volunteers to intervene [Ozawa and Susskind, 1985: 32; Bercovitch, 1992: 5; Susskind and Babbitt, 1992: 35]. Should any party not wish to condone the intervention, the process disintegrates. As pointed out, intervention changes the nature of the dispute, stopping the 'naming-blaming-claiming' routine that characterises most conflicts [UNITE]. The focus now lies on the interests behind the positions each of the disputants has taken. This opportunity affords the disputants the chance to "communicate accurately", and to explore options that previously were untenable [Ury, 1987: 225].

Ozawa and Susskind describe mediation as an opportunity to separate the facts from the values attached to them, by simply getting the disputants to interact. This, in turn, allows the differing needs of the disputants to be accommodated. Ozawa and Susskind, correctly, regard this process as more desirable for two reasons. Firstly, because the cost-benefit analysis that accompanies any action can be incorporated into the way the data is handled. And secondly, because the credibility of the process lies with its individual success and not the pre-established reputations of the people involved, as may be the case with a more adversarial procedure [1985: 32]. Effective mediation arises when the disputants have, through facilitated communication, been dissuaded from using force to settle their dispute [Stein, 1985: 345].

The value of mediation is best exemplified by the well-known case of the orange [Bevan, 1992: 2]. There is one orange available, and two people want it, one wants the peel, the other wants the flesh. The different conflict resolution techniques would be expected to allocate the orange in the following ways. The legal avenue ending in a courtroom, would see the judge decide between the two parties and assign it to one of them. Arbitration would, simply, cut the orange in half and share it between the two parties. Mediation, by contrast, would ask why each party wanted the orange, and then allocate it accordingly, thereby arriving at an optimal win-win solution. This has been possible because the mediator has focused upon interests, and not rights or positions.

Bercovitch stresses the need to remember that there are four elements to a mediation: the disputants, the mediator, the mediation process, and the context within which mediation is taking place. And therefore, he believes to focus exclusively upon the techniques used by a mediator is reductionist, and unrepresentative of the whole mediation 'experience' [1992: 7]. Princen adds that "intervention is...neither a technical fix for overcoming the difficulties of negotiations nor a short-cut to a solution" but merely a means of influencing the disputants' interaction with each other [1992b: 66].

Therefore, in a dispute, the parties have four choices available to them: One, to maintain the dispute at its present level of violence. Two, to resolve the dispute completely, either through bilateral negotiations, or third party intervention. Three, to escalate the dispute. And four, to manage the dispute so that the costs are reduced, even if formal agreement is not reached and the dispute fully resolved. The choice a disputant will make depends upon its domestic politics, and its perception of the costs and benefits incurred from a particular procedure [Bar-Simon-Tov, 1994].

If the disputants want to manage their conflict, or even resolve it, then mediation can aid their communication process. This is because mediation allows the parties to interact with each other away from the battlefield, and redefine the problem and the objectives in a more realistic manner. This as Bar-Siman-Tov points out is the outcome of successful conflict management. He describes it as "a learning process in which the sides to a conflict not only redefine means and goals in more realistic ways, but also change their mode of thinking about the conflict itself, such that they come to prefer conflict resolution as the best strategy to accomplish some of their basic objectives" [1994: 75]. "Thus mediation can cope with situations where participants bring different concerns, values, and interpretations to a problem" [Dryzek and Hunter, 1987: 92]. Therefore, if the disputants want to redefine their conflict what then is the role of the mediator in this process, and how can it assist the disputants' to communicate more effectively?

3.2.2 The Role of the Mediator

> "If mediation is successful, the parties take the credit: if it fails, the mediator gets the blame" [Bailey, 1985: 222].

"Intermediary intervention...is a method of conflict management distinguished by the intermediary's peculiar role of being neither party to nor completely removed from the dispute" [Princen, 1992b: 214]. The mediator's primary responsibility is to build trust, which is "a very precious, unique commodity for any breakthrough" [Jonah, 1992: 199]. As a secondary function, the mediator can provide 'resources' ranging from an actual meeting place to motivation.

The disputants must trust the mediator, the process of mediation and, ultimately, each other if the dispute is to be resolved. If the disputants had been able to generate trust in each other by themselves, there would have been no need for a mediator. Naturally, at the start of the mediation process, the disputants are wary of each other, and are hesitant to do more than trust the intervenor superficially. With the intervention of the third party, it falls to that party to, initially, generate that trust.

With the mediator playing such an important function in the process, two factors determine whether trust can be generated. Firstly, the qualities of the mediator, and

secondly, how the mediator behaves. The mediator, whether an individual or an institution, needs to be neutral, committed to the process, open, flexible and non-judgmental - in other words, impartial [Ozawa and Susskind, 1985: 34; UNITE; Mitchell and Banks, 1996: 5].

The professionalism of the mediator's behaviour will allow it to maintain control of the process, and leave the disputants in control of the content [UNITE]. Therefore, the mediator should ensure that disputants are kept equally informed during the process, establish ground rules such as confidentiality, focus on the disputants' interests, and also focus on any positive elements such as the progress made or existing common ground, and guarantee execution of the agreement [Bindschedler, 1981a: 722; UNITE].

This element, of trust, is critical to keeping the talks going, as Princen points out:

> "But when strategic behaviour prevails in a bargain, when all interaction is manipulative, when trust is rare and escalation constantly a risk, just a bit of nonstrategic behavior in the way of neutral proposals or mere third-party presence may be enough to keep negotiations going. Other factors - shifts in the balance of power or changes in the domestic politics - may ultimately determine whether and how settlement is reached" [1992b: 45].

The mediator's secondary role is to provide resources to assist communication between the disputants, and thereby assist the gradual transition from conflict to cooperation and resolution. This is because "[a]lmost all international disputes, but especially those of long standing, combine genuine and objective conflicts of interest with misperception and misunderstandings of the aims and intentions of the other side" [Bailey, 1985: 218].

Rather than replicate resources the disputants are already able to provide, the mediator seeks to fill the remaining gaps. These include practical aspects such as a place to meet; administrative staff needed to compile documents; specialised skills whether specific to the conflict or general listening skills; motivation to keep trying to find a mutually acceptable outcome; financial support either during the process or as part of reaching agreement; ensuring everyone party to the conflict voice their concerns; and exploring all the options [Ury, 1987:228; UNITE; Mitchell and Banks, 1996: 5; Ozawa and Susskind, 1985: 32; Bindschedler, 1981a: 722].

The mediator is well placed to handle two critical aspects of a conflict resolution process, namely information and power distribution. The process of gathering, analysing and interpreting data considered relevant to the dispute is laced with disputes and

politics. The mediator can assist both parties by either requesting or presenting, on their behalf, certain information. If a disputant has been withholding information from the other party, the mediator's request obliges that disputant to make this information available or otherwise risk jeopardising its relationship with the mediator [Stein, 1985: 345]. The mediator can also call in experts, or conduct an inquiry to clarify, impartially, disputed data [Bindschedler, 1981a: 721].

Alternatively, if by unilaterally presenting information or making a proposal a disputant feels its position will be weakened, the mediator can present this information as its own [Bailey, 1985: 212]. Bailey also points out, that the "mediator need not, of course, agree with a proposal submitted to the parties in dispute, for a mediator's role is not to advance personal opinions but to help the parties find common ground" since the objective is to facilitate communications rather than "wanting to sell a set of preconceived answers" [1985: 218].

As Mitchell and Banks point out, the mediator can also help the parties prepare and present a credible offer to each other [1996: 69]. "In short, as a guardian of the process, a mediator can intervene to correct miscommunications, to clarify ambiguous messages, and to challenge deceptive communications. Also, a mediator can point out when differences in interpretations have arisen and when participants are making prescriptive rather than descriptive statements" [Ozawa and Susskind, 1985: 35].

The mediator facilitates the generation of trust, and transfer of information, by wearing a variety of hats. Stulberg's classification lists a number of roles the mediator plays [in Bercovitch, 1992: 15]. Bercovitch believes, correctly, the third party does not follow a pre-ordained sequence but utilises any number of roles at a given time, determined by the specific need of the process at that moment [*ibid*].

With the intervention of the mediator, a dispute is 'frozen' at a particular point. This status quo, Mitchell and Banks argue, favours the more powerful disputant putting the weaker party at a disadvantage that is then sustained throughout the mediation process [1996: x]. In any conflict, there is an uneven distribution of power which, however, does fluctuate with time and specific issues. And as Mitchell and Banks recognise if it has been a long conflict the 'weaker' party must also have some leverage over the 'stronger' party, otherwise it would have succumbed earlier and there would not be a conflict to resolve [1996: 54].

"For international mediation to be effective, it must *reflect* as well as *affect* the wider conflict system" [Bercovitch, 1992: 18, emphasis in original]. Mediation does not hope to alter the power balance within a dispute, as it would be outside the mediator's remit of assisting communication. What mediation does hope to do is convince the parties to focus on the interests each disputant has, rather than rely upon force and power to gain their objectives. As the process is voluntary, the mediator's power comes from the disputants' accepting its legitimacy. In turn, this legitimacy is conferred because of the mediator's impartiality, and insistence on each disputant having an equal right to voice its grievances and interests.

It may be possible to suggest, however cautiously, that mediation circumvents the power-imbalance issue by changing the focus from the conflict, and its history, to the underlying interests. The mediator pays "attention to keeping the negotiations on track. They are the thread that ties the negotiation process together" [Susskind and Babbitt, 1992: 37]. The means available to the mediator to change the focus is highlighted by the following framework - engaging, issues, options and agreement - which is seen from the mediator's perspective.

3.3 THE MEDIATION FRAMEWORK

For disputants to allow a third party to mediate, entails consideration of a number of political factors. Most importantly, these are: face-saving; good public relations; satisfying a domestic audience; and accepting and working through the stages involved in going from conflict to cooperation. The stages themselves describe a process that will engender many more political considerations.

The stages are broadly divided into three categories - pre-negotiation, negotiation and implementation [Susskind and Babbitt, 1992: 36]. Pre-negotiation is the engaging stage when the parties agree to get involved in the mediation process. The negotiation stage involves the actual negotiating during which the disputes' issues are discussed, options explored, and agreement is reached on a proposal. The implementation stage involves presenting the proposed agreement to the domestic audience; accepting agreement; signing; ratifying; implementing and maintaining the agreement.

Once involved, the mediator's remit is restricted to assisting communications between the representatives present at the mediating table. Of course, the mediator can assist the participants thereafter to get approval from the domestic audience, however it is comprised, and to implement the agreement. But this is dependent, once again, upon the disputants, and upon them reaching an agreement, and their willingness to allow such intervention.

The process is described, in this thesis, from the mediator's perspective. The mediator engages or intervenes in an ongoing dispute, subject to acceptance by the disputants. If accepted, the next stage is to bring out the issues that are in dispute. Only once the mediator is satisfied that all the issues have been discussed, and all parties to the dispute have had their say, are possible options explored. The final stage in the mediation process is for the disputants to agree on an outcome that is mutually acceptable. As new issues come up, or agreement is sought on specific parts of each stage, the cycle (issues, options, agreement) is replicated in microcosm [UNITE].

Mediation is a contradiction of planning and spontaneity. Planning because the mediator consciously aims to go through the different steps bringing out the issues, exploring the options, keeping the focus on the disputants' interests and steering away from the use of force as an alternative to negotiating [Ury et al, 1988: 415]. Spontaneity enters because the situation being faced changes as issues are discussed, and the mediator needs to retain sufficient flexibility to accommodate new and, sometimes, unexpected changes which can prove vital to moving towards resolution [McDonald interview, 25/4/96].

Ideally, at the end of a successful mediation, the disputants have agreed upon a peaceful arrangement that satisfies their interests, and that they can implement [Mitchell and Banks, 1996: 6]. The process itself can be considered successful when the disputants have shown themselves willing to try the mediation process, and not exploit the trust upon which it is based [Bevan, 1992: 2]. Yet, even if a satisfactory outcome has not been reached, the disputants still gain from having been part of the process. Each now has a better understanding of their opponent, alternative options and the cost of returning to coercive action [Mitchell and Banks, 1996: 6].

3.3.1 Engaging

Mitchell and Banks believe participants in a violent conflict will not seek resolution techniques such as mediation, because of the conflict's dynamics. Polarisation, misperceptions, entrapment and escalation all dissuade disputants from seeking alternative, peaceful means of resolving their differences. Or at least from being seen to seek alternative measures, as this may be interpreted by opponents as a mark of weakness and, therefore, encourage them to attack. Instead the parties, generally, continue the conflict till either they are victorious, so that they can recover the costs that they have already incurred; or their adversary has had to 'pay' [1996: 10].

Yet "even if the parties' goals are wholly incompatible, they may cooperate tacitly or explicitly in keeping a conflict manageable, or be forced to do so. Parties that are unwilling or unable to resolve their conflict may still be interested in preventing war or limiting it, because of their mutual, though not necessarily symmetrical, fear of its outcomes" [Bar-Siman-Tov, 1994: 76]. However, though the disputants may be willing to negotiate an end to the conflict, they may feel they cannot afford to initiate such events [Princen, 1992b: 225]. This is where an intermediary may intervene. Rubin points out though, that "[n]o matter how complex, powerful, or formal the organization responsible for intervention in international conflict, the work of mediation is eventually carried out by *individuals*" [1992: 249-250, emphasis in original].

The timing of intervention by a third party is considered to be very important, and can influence the mediation's outcome [Princen, 1992b; Susskind and Babbitt, 1992; Rubin, 1992; Wall and Lynn, 1993; Zartman, 1986]. From the mediator's perspective, the timing of entry can determine the amount of leverage it has available to it during the mediation process. This, as Princen observes, is because with relations deteriorating between the disputants, they are more willing to allow intervention, and look to the intermediary for assistance [1992b: 217].

Princen continues to explain the considerations a third party may take into account:

> "The intermediary's trade-off in the entry-timing question is between assuring involvement and assuring control once involved. If the intermediary enters early, it forestalls an out-of-control escalation but has little procedural control once it sets up a dispute resolution process. If the intermediary enters late, it has greater procedural control owing to the disputants' worse alternative, but it risks foregoing any involvement owing to an out-of-control escalation" [1992b: 59].

Zartman believes that a conflict, and its negotiations, form part of an evolutionary process [1986]. Thus, a conflict is considered to have a ripening process into which third party intervention can occur with greater success, if timed appropriately. The resounding feature is usually, with hindsight, as the dispute reaches a stalemate and the cost of escalation is beyond that which the disputants are willing to consider. It is at this critical point that the disputants, however, are unable to see an alternative to conflict, and a mediator can intervene to suggest such an approach.

All parties in mediated talks have their own interests and agendas for participating [Princen, 1992b; Bercovitch, 1992]. Bercovitch believes the assumption that the third party is intervening due to altruism is misguided because "[m]ediators are often important actors with their own assumptions and agendas about the dispute in question. International mediators are both interested and concerned parties" [1992: 5]. The disputants' incentives in allowing third party intervention can vary to include, for example, gaining an ally, a delaying tactic, and courting international goodwill [Princen, 1992b: 66]. But "[w]hat they expect and what they get may be entirely different" [*ibid*].

The intervention of a third party is not like that of a director shooting a battle scene. When the director says "cut", the actors stop pretending to hate and kill each other contenting themselves, instead, with chit-chat and tea. In a protracted conflict the tensions, hate, and mistrust are real [Wall and Lynn, 1993: 177]. Each side's populace may have been actively involved in the conflict, and at the very least the body politic of each side is bruised and wary.

Therefore, third party intervention needs to lead to a sufficient lessening in the disputants' mutual mistrust. Otherwise the disputants may be unwilling to consider a cessation of violence, even temporarily. Clearly, time remains a factor in convincing the parties to be willing to see an alternative to violent conflict. A tacit or formal agreement by each disputant to allow intervention, is only the start of further negotiations to establish the rules for formal discussion of the dispute. This process can take some time, as each disputant needs to weigh the political implications of being seen to talk to its opponent, and the effect the mediator will have upon the preferred outcome of a disputant.

Within the conflict the disputants have already experienced high levels of uncertainty. Therefore, it is important to keep them as fully informed during the mediation process as is tenable. The intervenor should let the participating governments know what they can expect from the proposed forum. Furthermore, invitations to start the mediation process should focus on the positive outcome, without diminishing the scale of the difficulties ahead [Mitchell and Banks, 1996: 89].

Naturally, with the disputants walking off the battlefield, there will be considerable distrust between the parties which will lead to them trying to establish certain conditions before they are willing to talk to one another. Bailey believes that the mediator should not allow either party to demand any preconditions. This means no more, he argues, than "that they will not argue about the agenda until negotiations begin" [1985: 209]. The mediator's role at this stage can tip the balance towards getting the parties to engage in talks. As Princen observes, by the mediator deciding "the question of venue - along with the multitude of other questions that must be jointly decided - can be critical enough to make or break a fragile set of negotiations" [1992b: 44].

As Bindschedler points out, if the proceedings are voluntary the disputants' acceptance is vital [1981a: 722]. What then makes a particular intervenor acceptable to the disputants? The bottom line is whether the third party is regarded as fair and impartial, and whether they will then ensure the mediation process is also fair. The criteria by which disputants assess an intervenor are: the institution or organisation itself and its reputation, the talks' location, and financing of the talks and potential agreements [Mitchell and Banks, 1996: 83-87].

"Ideally, the administrative structure would be efficient, smoothrunning, adequately funded and expertly managed - in a word, professional" [Mitchell and Banks, 1996: 8]. Part of the disputants' impression of institutional impartiality comes from the forum's financial independence. Therefore, suspicions concerning financial support should be cleared up in advance [Mitchell and Banks, 1996: 82]. In assembling the third party's representatives, expertise should be gathered, obviously, to fit the appropriate issues and technical matters involved. These people will determine the forum's atmosphere, which should be one designed to encourage exploration of issues and options with honesty.

To maintain credibility in the third party and the process, promises made during the engagement period should be fulfilled. Therefore, the third party needs to balance the

promises it makes against those promises that can actually be fulfilled. In addition, the professionalism of the third party needs to be established from the outset. Therefore, efficient communication is essential between the mediator and the disputants, and within the mediating body. This implies that letters need to be answered promptly, and field trips made to encourage participation. Getting permission to intervene in a dispute and then persuading the disputants to join negotiations, entails considerable work and dedication from the third party [Mitchell and Banks, 1996: 82]. Therefore, the institution that is mediating needs to be committed to the talks, and finding ways to assist the disputants' communications with each other.

Any third party interested in intervening in a dispute needs to consider three issues: Firstly, should it wait for an invitation to participate, or volunteer its services unilaterally? Secondly, should it approach the disputants simultaneously, or consecutively? If the third party opts to initiate the process with one disputant, which one should it be? And finally, what is the optimum means of getting access to the key decision-makers, so that they would be willing to join the talks? Another question that overshadows the three above is how to weigh up the benefits and costs of the different approaches, and their affect upon the mediation's future credibility [Mitchell and Banks, 1996: 60].

In getting disputants to participate, Mitchell and Banks urge the third party to talk directly to the political leaders. Leaders who are secure, politically, will be able to consider channels of interaction that bureaucrats may not be able to. This is especially true should the decision to talk with an opponent entail a dramatic departure from the established line a government has been taking. Under those circumstances, even if subordinates are empowered with decision-making authority, they would probably decline the invitation. Once having said "No", the bureaucrats may have vested interests in ensuring the decision is not later changed [1996: 57].

In describing what the mediation process is about - communicating with opponents without making any commitment - it is equally important to stress what the process is not about: [i] it is not open to public; [ii] it does not follow the previous adversarial format; [iii] it is not another manoeuvre in the disputants' point scoring; [iv] there is no pre-established commitment to agreement; and [v] the process does not confer legitimacy, or recognition of an opponent's standpoint [Mitchell and Banks, 1996: 65]. Therefore, the process of engagement is one of reassuring disputants that sitting at the

negotiating table will not be to their detriment. Political leaders need to be assured that talking with their opponents will not entail having to make any concessions; nor will it affect strategic manoeuvres planned *vis-à-vis* the enemy, or their own audiences [Mitchell and Banks, 1996: 68].

Finally, the locational arrangements the third party makes should convey the symbolic and practical intent the intervenor has. Clearly, the site must be neutral, safe and equally accessible by the disputants. The overall message is one of distancing from the old conflict, to seek new, innovative ways to resolution [Mitchell and Banks, 1996: 87-88]. Having engaged in the mediation process, the participants begin discussion of the issues comprising the dispute.

3.3.2 Issues

> "The very manner in which we apprehend the reality of our world can determine the reality. For a true understanding of environmental conflict there must be a true understanding of the environment, both how it functions and how we perceive its functioning. All environmental disputes at some level hinge on the interpretation of data" [Painter, 1988: 150].

"Problem solving seeks to analyse and resolve a conflict, *not* to extend its scope" [Mitchell and Banks, 1996: 98, emphasis in original]. Disputants adopt positions early on in conflicts which are then often used to rally public support. Since these positions can hinder the resolution process the third party needs to encourage the disputants to decommit themselves from the positions they have taken. The adversarial nature of position-taking often leads to inflexibility. Thus, the disputants eitherrefuse to negotiate with each other and fight on to the bitter end, or only consider something if the conditions they have set have been recognised [Mitchell and Banks, 1996: 69].

The mediator's task is to draw out the disputants' interests, separating them from the positions that have formed the conflict and dogged any previous resolution attempts [Fisher and Ury, 1981].[35] As Mitchell and Banks point out, the mediator can be informed of the issues prior to the start of the mediation process, but it is essential to hear the issues from the disputants for two reasons. Firstly, to see how the disputants see

the conflict, and secondly, to keep abreast of information as it changes during the mediation process [1996: 98]. But also, McDonald points out, to define what is going to be negotiated (but policy, it must be remembered, is made by the governments involved and not the negotiators) [McDonald interview, 25/4/96].

In focusing on the issues in dispute two factors are involved. Firstly, what information each participant regards as relevant. Since "[a]nalysis requires data and *the data consist mainly and most importantly of the perceptions and experiences of the parties 'represented' by the participants present at the workshop.* By definition, the perceptions of the two sides will differ in any conflict" [Mitchell and Banks, 1996: 97, emphasis in original]. Secondly, the process must overcome the reluctance of the participants to share 'their' information. "While disputants in adjudicating proceedings see every non-supportive piece of information as a threat to their claims, participants in a mediation process are encouraged to see information as a means of opening up new possibilities for dealing with differences" [Ozawa and Susskind, 1985: 32].

When the conflict involves specialised information, it is imperative for all the participants to be familiar with the technical aspects of it [Painter, 1988: 146]. Though this appears obvious, its value and importance bear repetition. As Winham explains, not only do the representatives familiarise themselves with the issues involved, but they are also creating the topic that is to be negotiated [1986: 85]. For example, at the Tokyo Round (1973-79) of the General Agreement on Tariff and Trade (GATT), the subject was so complex that the negotiators had to have an intellectual understanding of the principles involved before they could start to negotiate. So the pre-negotiation process, of the Tokyo Round, involved gathering data, organising the material, relating it to existing data, and creating a negotiating structure that resembled the data's structure [Winham, 1986: 88].

In general, the participants' commitment to the mediation process can be measured by their commitment to collect data that has been requested or agreed to be relevant. This is especially true if data collection has political implications. Unsurprisingly, political connotations often do arise during the resolution process, and hamper progress. The political difficulties that the decision-makers are wary of probably devolve from contested methods of data collection, or imagined consequences that will damage their

35 See Fisher and Ury (1981) for an interesting discussion on the importance and

national interests [Winham, 1986: 87]. However, "when the greatest impediments to political action are ignorance, uncertainty, and complexity, the establishment of a bureaucratic process to generate and structure information may be the most creative step that can be taken to address the problem" [Winham, 1986: 89].

Ozawa and Susskind, in turn, describe three approaches that are available to the mediator: information sharing, joint fact-finding and joint model building [1985: 32]. Firstly, information sharing. Generally the adversarial nature of a dispute tends to make the disputants reluctant to share information. Mediation, by contrast, seeks to encourage information sharing and to include those actors who are party to the decision-making process. Within the mediation process, the cost of suppressing information is high, and the loss of credibility upon discovery acts as another incentive to the disputants to share relevant information. Secondly, joint fact-finding. The disputants jointly set the question, and choose the methodology, assumptions, and simplifications. The disputants choose who will conduct the research, and monitor the outcomes. Thirdly, joint model building. Since the model is meant to be neutral, the disputants can make concessions without losing face, leading potentially to a balance or compromise between each disputant's favoured model [Ozawa and Susskind, 1985: 32].

Clearly all four sections of the mediation framework (engaging, issues, options and agreement) are important, and failure at any stage can scupper the whole resolution effort. Nonetheless, of particular significance is the opportunity to discuss the issues involved. The dispute exists in the first place because two or more parties disagree upon a particular point. As the conflict continues the disputants entrench themselves in their positions. These positions determine how each party perceives any further information about the conflict which, in turn, further shapes the dispute.

But until the disputants and the mediator discuss these issues, neither party will have a clear idea as to how the others perceive the issues involved. An added benefit of this stage is that both disputants are 'actively-listened' to. This may, in fact, be the first opportunity each party has had to not only speak, but to feel that the message is being heard. It is a simple process, but as happens so often in conflicts, communication between the different parties breaks down adding to existing uncertainties and fears.

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method of separating the disputants' interests from their positions.

Once the issues have been discussed, and narrowed down, the participants can begin to explore options that may prove to be viable solutions to the problem.

3.3.3 Options

> "Parties to a dispute are seeking to 'win' - that is, to achieve a result that accomplishes their most important purposes. Very often when a dispute arises it is centred on things the disputants do not like. In such situations a dispute is effectively just opposition to something. There is likely to be little attention given to alternatives" [MacDonnell, 1988: 15].

Mediation aims to explore all the options available, and disengage from the restricted bargaining that is characteristic of a conflict [Mitchell and Banks, 1996: 74]. As Fisher and Ury point out, disputants often assume that resolution of the dispute lies with a single option, usually the one they are suggesting. In addition, the disputants also assume that settlement is a zero-sum situation, and that finding a solution is only their opponent's responsibility and not something that is in their collective interest [1981: 61]. Therefore, the role of a mediator is to address these assumptions, and broaden the search for solutions that are not zero-sum and engage the interests of both parties. Susskind and Babbitt add that the options should be ones "with which all the disputing parties can live" [1992: 36].

In deciding to negotiate the disputants must, Fisher and Ury suggest, first determine their best alternative to a negotiated agreement (BATNA) as it is the "standard against which any proposed agreement should be measured" [1981: 104]. That is to say, the disputants must know the cost and value of both agreeing to a proposal and, leaving the negotiating table and resorting to any unilateral action. As the costs change with the talks' progress, so does the BATNA. In other words, the best alternative to a negotiated agreement is not a static, fixed quantity, but a factor that changes according to the negotiated situation [Fisher and Ury, 1981: 108].

All the participants need to know each other's BATNA, since it is the "only standard" that can protect the disputants from "accepting terms that are too unfavorable and from rejecting terms it would be in..[its]..interest to accept" [Fisher and Ury, 1981: 104]. The BATNA, therefore, influences the options that will prove acceptable to all the disputants.

White and Neale believe that the BATNA of each disputant is merely the starting point to understanding the options that will be acceptable, and therefore, two other factors have to also be accounted for [1991: 387]. Firstly, the reservation point which, like the BATNA, is determined by the parties before they enter the negotiating room. The reservation point is based upon the transaction costs involved, for each party, of engaging in dialogue with a hostile actor. Raiffa describes the transaction costs in economic terms, but does not mention the political costs that this thesis believes are the defining influence on the negotiation process [in White and Neale, 1991].

The second factor that influences the options, and the outcome of the talks, is the resistance point. Walton and McKersie describe the resistance point as being determined by the interaction of the disputants during the negotiations [in White and Neale, 1991]. In other words, the extent to which the disputants are willing to compromise and use their reservation points is based upon the relationship between these actors, which is influenced by subjective matters such as personality. The decision to settle or not, also influences the resistance points as do the level of uncertainty each disputant can tolerate, and their perceptions of the negotiation's progress and equity [White and Neale, 1991: 386]. Once the options have been explored the participants can begin to assess the extent and topic upon which agreement is possible.

3.3.4 Agreement

Any relationship entails a trade of gains [Susskind and Babbitt, 1992: 36]. If this relationship has led to conflict, resolution will depend upon each party gaining an outcome that is equitable by their own standards. That is to say, if by agreeing the parties feel they benefit sufficiently to balance the costs of agreement, then resolution is viable. Therefore, a conflict that may appear resolvable to observers, may in fact be intractable because of the views each disputant has of the other, and of the conflict [Ross and Stillinger, 1991: 393].

A conflict, especially a long held one, can prove difficult to resolve because it takes on a dynamic of its own, with matters becoming so complicated that the disputants are unsure of what is happening [Mitchell and Banks, 1996: 3]. The dispute is also simplified with time, losing the initial nuances to solidify around certain issues for which the stakes are

then raised by the disputing countries' decision-makers. In addition, "[m]embers of 'diasporas', distant from the actual arena in which the conflict is being pursued, often tend to possess more extreme views and positions than those directly involved in, and knowledgeable about, the conflict, and bearing its costs directly" [*op cit*: 100].

Before agreement can be reached the disputants have to be reassured that the cost of a negotiated settlement will be outweighed by the benefits that they will accrue from it. The process by which this decision is made, is complicated. Firstly, as Ross and Stillinger point out, the judgement and perceptions of the parties is crucial and form the psychological barriers to resolution. Thus, any potential agreement will be interpreted according to the disputants' needs, and if it is regarded as inequitable, or incurring a disproportionate amount of loss compared to the proposed gain, then agreement will not be reached. Disputants are, by nature of their interaction with each other, suspicious of one another's actions. Therefore, proposals made by one party may be obstructed either by an intransigent opponent, or an opponent who automatically dismisses the proposal as inadequate [1991: 392-395].

An additional complication in a disputant deciding whether to accept a proposed agreement arises from the number of people involved in the decision. Not only do increased numbers of people bring with them a larger number of political audiences to contend with, but also different expectations from the outcome of the dispute. Thus, some members of a disputing party may wish to agree to the proposed option, whereas others may wish to have some form of revenge based upon their continuing enmity. Under such circumstances it may be necessary to de-link all the issues in conflict, to allow resolution on one issue [Ross and Stillinger, 1991: 396-397].

The mediator can assist the disputants by giving them the opportunity to explain any decision to cooperate. Stein believes a successful mediator builds a relationship with the disputants whereby they feel obliged to accommodate the third party, and each other [1985: 346]. This works because the "relationship between a mediator and the disputing parties is reciprocal" [Bercovitch, 1992: 18]. Another aspect of successful mediation is seen as simplifying the complex conflict situation [Stein, 1985: 346]. In many ways, the disputants have already done this, but the simplification is obstructive. This is because the process has resulted in a black-white, us-them, our-their outcome division. Stein refers instead to a different simplification process, turning away from the us-them type

divisions to an exploration of options based upon interests and what is possible rather than rights and moral high ground [1985: 346].

The mediator recognises, however, that the process will not turn hardened enemies into loving friends. Despite efforts to build trust amongst all participants, suspicions will undoubtedly remain. Mediation, in itself, will not heal and reconcile deep wounds. Mediation does, however, initiate the process of stopping the wound deepening and starting the slow walk to healing and reconciliation. As such the mediator recognises that the disputants may be hesitant to propose solutions or make offers that could lead to an agreement, because of concerns regarding effectiveness and attribution [Ross and Stillinger, 1991: 398].

Concerns about effectiveness and attribution arise because neither disputant wants to be seen to be making compromises, in case it is interpreted as weakness [Ross and Stillinger, 1991: 398]. Hence, a disputant may withdraw from making an unilateral offer, because it believes its opponent may regard the proposal as ineffective, token and therefore worthless. The result is that the disputants may either wait for a bilateral offer, and then emphasise that they are agreeing as a gesture of good will; or offer a 'menu' of options having made it clear that a reciprocal offer is expected. The mediator can circumvent this routine, which can take considerable time, by making proposals on behalf of the disputants.

Disputant concerns about attribution are, in effect, about justification. The disputants feel that unless they can justify the timing and reasons for making an offer, the value their opponents attached to the offer will diminish, and potentially may damage the relationship [Ross and Stillinger, 1991: 398]. Moreover, opponents especially in long-standing disputes, come to expect certain behaviour from each other - usually intransigence. Therefore, if an opponent is to change this behaviour to one of greater cooperation, the other disputant's suspicions would be aroused. In this situation the mediator can, once again, provide an alternative route. By setting a deadline, the mediator frees the disputants to not only be flexible but to explain their own flexibility, and that of their opponent's, to the necessary audiences [Ross and Stillinger, 1991: 399].

This, in turn, has the effect of increasing or at least sustaining the offer's value, as the recipient does not have to search for a hidden motive. The establishment of a deadline, it is clear, has forced each disputant into a position whereby they have to make an offer to

keep the talks going. However, as Ross and Stillinger also point out, a deadline can lead to suggestions that the offer was forced, and therefore is sub-optimal. Nonetheless, in the face of a genuine desire to reach an agreement, preserving the status quo and prolonging negotiations may appear less desirable than reaching even a 'sub-optimal' agreement. An important element remains, though, that any offer must be regarded as equitable rather than having it imposed by one disputant [1991: 399]. And the agreement must be made formal with a written document, whenever possible [Susskind and Babbitt, 1992: 37] and cover all the details of implementation [UNITE].

3.4 'PITFALLS' OF MEDIATION

Mitchell and Banks believe traditional mediation is flawed because it truncates discussion both of the issues and options in dispute [1996]. This truncation is a natural extension of the power imbalance that exists in a conflict and the mediator has been unable to banish from the table. This, despite the fact that the mediator usually has leverage, because it is a powerful political figure; who if effective is likely to be partisan, and the process cannot be kept secret. Furthermore, the mediator carries into the room its own political baggage, which acts to discourage discussion as well. Instead, Mitchell and Banks recommend using track two mechanisms, especially their own problem-solving workshops. The principle advantage being, it is claimed, the separation of politics from the representatives.

It is questionable whether politics can be removed, entirely, from any conflict resolution process. Certainly, it may retire to the back of the room in some processes but, generally, the body politic hovers over the representatives at a negotiating table. If this aspect is put aside, the problem-solving workshop proposed by Mitchell and Banks appears to closely resemble the mediation process. The intervenor seeks permission to participate, and invites the disputants to join it at the table. The participants discuss the issues involved, explore options and, if fortunate, agree on particular options. One further difference, though, is the degree to which the representatives may be authorised to decide upon the offers being given and received, as problem-solving workshops suggest using non-political actors such as academics.

Mitchell and Banks have compiled a list of six 'problems' with traditional third party intervention which includes mediation [1996: 3-4]. First, the disputants only stop the

violence if they are tired, or looking for a temporary respite. Second, the third party's method of intervention can be unsustainable if coercive techniques or rewards are offered for stopping the violence. Third, if the third party's individual goals clash with the disputants', the third party may be drawn into the conflict.

The list continues with the fourth problem: the third party also has its own agenda, and is usually biased towards one disputant. Therefore, when the violence does cease, it is a disguised victory for the favoured party. This can lead to a broadening of the conflict if other actors then intervene to aid the disadvantaged party. This, in turn, replicates the previous power balance but with more actors involved. The result is that violence is being remade, not unmade. Fifth, if the third party forces a settlement upon the disputants, though it may satisfy the third party's goals, if the disputants are unhappy the agreement will fail. This is because when the third party's restraining hand is removed, the disputants' interests and goals reassert themselves and may end in violence. And last, mediators at the start can frequently compound the dispute they set out to help resolve.

These points are valid, but also avoidable. The nature of mediation, as described here, is not to impose the will of the intervenor upon the disputants but to offer them a venue to communicate more clearly. Therefore, it is maintained that mediation and problem-solving workshops have the same aim, that is to help the disputants come to an agreement they want, and will implement. As Bercovitch points out, "mediation rarely does more harm than good, and more often than not it helps the cause of constructive conflict management" [1992: 10]. However, as Bar-Siman-Tov observes, there is a danger that mediation can, by helping the disputants to manage their conflict, in fact perpetuate the conflict because the costs are more tolerable [1994]. But this in the face of undesired escalation, may be a trade-off that the disputants are willing to accept.

3.4.1 Asymmetric Power Balance

Parties to a dispute, often, have asymmetric power, however it is defined. Therefore an intervening third party does not facilitate between equals [Mitchell and Banks, 1996: 37]. Nonetheless, in a protracted conflict, the 'weaker' party must have some strengths otherwise the conflict would have been over earlier [Mitchell and Banks, 1996: 54]. Linked to the perceived power imbalance in a dispute, is the idea that intervention by

another agency can be detrimental. Intervention occurring before the conflict has run its course ends up favouring the stronger party, because it in effect freezes the conflict. The subordinate party can be further discriminated against if the problem-solving process deteriorates into appeasement [Mitchell and Banks, 1996: x].

The above criticisms of third party intervention are reminders that an equitable outcome is essential for long term resolution of a conflict. Asymmetric power, though a potential obstacle, can be circumvented in the mediation process and, as Mitchell and Banks argue, in the problem-solving workshop because the focus changes from bargaining power to finding the optimal option using creativity and inventiveness [1996: 54].

Nonetheless, Mitchell and Banks [1996: 55] suggest three issues the intervenor should consider: [i] If the disputants' representatives are unequal in the key areas, it is better not to hold a joint meeting. [ii] The disputants' representatives should have similar skills and experience. [iii] Ideally, the representatives of both sides should have similar access to their domestic decision-making structure. (But this latter point is beyond the control of the intervenor.) This is the fundamental truth of a mediation process: the mediator can, ultimately, only work within the framework the disputants establish. To reiterate, "[i]n principle, if the parties make the problem, then they can unmake it" [Mitchell and Banks, 1996: 3].

SUMMARY

There are two aspects of mediation that are by far the most important to the long term success of the process. Firstly, that the participants have all joined the process voluntarily. The mediator has volunteered, for whatever reasons particular to that body, to assist the disputants explore ways of resolving their differences. The disputants, in turn, have agreed to allow an intervening body to assist them in their search for a solution. Secondly, the function of the mediation process is quite simply to assist the communication process between the disputants. It is not for a mediator to impose a given solution upon the conflict by use of political influence or military might.

Not only does the second factor determine the success of the process, but it is also the principal reason to recommend mediation over other forms of third party intervention in an international water dispute. Though the mediator may control the procedural matters

that set the physical and psychological environment within the mediating room, the disputants control the outcome that will arise from the talks and upon which agreement may rest. The decision-making power is left with the disputants. They will decide, through discussion and compromise, what is tenable and untenable in an acceptable outcome.

This latter aspect is of supreme value in a dispute over a shared international watercourse for two main reasons. Firstly, any agreement that is signed will need to be viable, not only technically and financially, but more importantly politically. Disputes, and agreements, take place within a political context and are influenced by factors that happen away from the battlefield and negotiating table. Therefore, the disputing parties need to be able to accommodate not only each other, but also their own internal factions and interests. Thus, by leaving the decision-making power with the disputants, they can adjust the outcome to make any agreement politically viable.

The second reason for leaving the decision-making power with the disputants is that after any agreement is signed and the mediation is over, the agreement needs to be implemented, and maintained. This implies that the disputants will have some form of post-agreement relationship. If the dispute settlement process was particularly adversarial, then agreement may have been reached at the expense of this relationship which is as important, if not more. This is not to suggest that mediation leaves the disputing countries as each other's closest ally, but it does at the very least not exacerbate the pre-mediation tensions. This would imply that the post-agreement relationship has a better chance of facilitating the implementation and maintenance of the agreement.

The mediator's role, therefore, is to assist communications between the disputants. Assistance can take place in a number of ways. For example: [i] The mediator may act to clarify issues between the disputants that have become confused during the dispute. [ii] The mediator may present ideas or proposals on behalf of one disputant, to the other disputant(s). This situation may arise if the disputant feels that its position would weaken if it was seen to be offering alternatives to conflict. [iii] The mediator can also be used by the disputants to explain to a domestic audience the reasons for complying with a particular outcome. This is especially useful if such compliance contradicts the previous positions taken publicly. The disputants can simply blame the mediator, suggesting that they had demanded such compliance.

This underlines the fact that the responsibility for a successful outcome rests, not with the mediator, but with the disputants. Should the disputants refuse to relinquish cherished and established positions *vis-à-vis* the other in the dispute, then the mediation is unlikely to result in a settlement. To reiterate, how can a mediator assist communications when the disputants are not communicating? The attitude of India and Pakistan in the Indus Basin discussions highlights this point. The World Bank was not there to drag an agreement out of the two countries, but to help them reach an acceptable agreement. The narrative of the mediation process in the Indus Basin is told in detail in Chapters Four and Five.

4

THE PROCESS OF COOPERATION IN THE INDUS BASIN, 1951-53

The preceding chapter focused upon the theory and practice of mediation in general, and established a framework with which to address the details of dispute and cooperation in the Indus Basin. The framework used, as already stated, fits the generic mediation pattern of engaging, issues, options and agreement. The four segments comprising the framework occur in a cyclical, rather than a linear, pattern that repeat themselves over different scales and durations. For example, once the third party has engaged in the search for a solution, agreement has to be reached over the procedure to follow. This requires the discussion of issues and options related to procedural matters, with agreement being pieced together wherever it can be found.

The Indus Basin dispute is described over two chapters, from the third party's perspective.[36] In this chapter, the first two segments of the framework, engaging and issues, are considered. The process by which the World Bank was able to engage in the talks, and why India and Pakistan accepted this intervention. The engaging stage is essentially the laying down of ground rules. The mediator explains the rules by which the mediation process will be conducted, and the disputants set out their own stipulations. For example, the World Bank requested a policy of no-publicity for the duration of the talks, and the Indians limited the talks to the water dispute with no reference allowed to the Kashmir dispute. The process also encouraged discussion of the issues in dispute. Clearly, without agreement on what is actually in dispute, little can be done to resolve these matters.

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36 See Richmond, Oliver, (1997), *Being Mediated Upon: The Cypriot Communities and the United Nations 1964-1994*. Unpublished Ph.D thesis, International Relations

4.1 ENGAGING

Though the World Bank entered into the Indo-Pakistani fray as a good officer, its role changed as the challenges to cooperation arose. By the time the Treaty was signed, the Bank's stamp was on every facet of the signed document. The intended role of interested-but-uninvolved had been relinquished for one more actively involved whereby the Bank suggested ideas, but still left the decisions to the two disputing parties.

Fearful of losing their painfully gathered hoard of sovereignty, India and Pakistan had through their obstinacy and intransigence blocked each manoeuvre the other made towards settlement. These countries regarded each twist and turn as the actions of a hangman preparing the rope for the other. Coming from an independent body, with little to profit from the Indo-Pakistani interchange, the Bank's offer of good offices carried with it credibility. Nonetheless, Indian and Pakistani suspicions and experience with each other turned the walk to the negotiating table into an obstacle course the World Bank had to navigate. Rather like a computer game, reaching the first level only meant preparation for the next level with no guarantee of surviving until the final stage.

4.1.1 The Actors

Two words can describe the contrast in Indian and Pakistani political leadership from independence to the signing of the Indus Water Treaty in 1960: consistency and instability. India, under the watchful eye of Prime Minister Nehru, was able to retain a consistent approach to its interests. Pakistan, under the strain of political infighting, struggled to maintain a stable approach to its jostling interests. Only in its rigid rivalry with its large neighbour, was Pakistan consistent. "Sibling rivalry - bitter since birth - has long dictated that Pakistan must strain every military sinew to match technologically whatever India can do" [*The Economist*, 1998: 19]. It was into this boxing ring that the World Bank chose to step to referee an agreement between the punch-drunk opponents, over the Indus Basin waters.

Department, University of Kent; for a rare example of a mediation being examined

4.1.1.1 India

In the official events of two days in August 1947 stand possible symbols that represent the relationship India had after independence with the British and its neighbour to the east and west, Pakistan. India shook off the mantle of British rule on 15 August as power transferred peacefully from the coloniser to the colonised. India was ready, as Prime Minister Nehru famously greeted independence, for its "tryst with destiny" [in Wolpert, 1996: 3]. The day before, on 14 August, events that had started years ago but recently accelerated with vicious results culminated in partition. The separation of nations into the India that would be granted independence, and Pakistan that would be granted life, was a bloodied affair. Subsequently, the Anglo-Indian relationship has, for the most part, been peaceful and cooperative since 1947. By contrast, the Indo-Pakistani relationship has been one of intense rivalry and, at times, war.

As the official successor to pre-1947 India, independent India inherited automatic membership to a number of international organisations, such as the United Nations and the World Bank.[37] Embassies that had been established to represent India before independence, were handed over to the new government. Symbolically exemplifying the continuity that India experienced in its governmental functioning, was the role of the Foreign Minister [Brown, 1994]. Prime Minister Jawaharlal Nehru had held the foreign affairs portfolio in the Viceroy's Executive Council and continued as Foreign Minister of independent India. At the moment of independence, Nehru would be able to remain seated at the same desk, in the same office, in the same building and assume the independent office.

Such continuity could also be measured in the domestic governing of the country. Leaders of the independence movement now stepped forward for their reward, to hold political office. Under the aegis of the Congress Party, the Cabinet that was formed contained many familiar faces who had an already established power base within the country. A prominent exception was Gandhi who, because of partition, refused to hold political office and six months after independence, in January 1948, was assassinated by Hindu extremists [Wolpert, 1996: 429]. Though there was continuity in government personnel, this is not to suggest there was complete unity in government policy. Central

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from the disputants' perspective.

37 Pakistan had to make a formal application to join the World Bank, which it did on 11 July 1950 [Mason and Asher, 1973: 815].

government embodied many Congress politicians. But as a long established organisation tiny fracture lines had entered into the party, as differences of ideology and action emerged. But it was not until the formation of Congress (I) in 1978 at the behest of Indira Gandhi, that a split was recognised formally.

But within the era in focus the dominant split was between Jawaharlal Nehru and Sardar Vallabhai Patel, Prime Minister and Home Minister respectively. Nehru held socialist ideals and was thought to let family attachments to Kashmir obstruct the political settlement of that issue. Whereas Patel, coming from the Gujarati business community, was considered to favour a more capitalist line, and a more 'pragmatic' approach to foreign policy. Matters were decided by Patel's death in December 1950. Three months earlier, in September, Patel had succeeded in getting Tandon, a *protégé*, elected as president of the Congress Party. After Patel's death Tandon was deposed, in favour of Nehru, in the 1951 elections for the Congress presidency. Having captured the remaining pillar of power in Indian politics, Nehru's position was to be unassailable for the remainder of his time in office.

The Indian Union (Bharat) declared itself a republic on 26 January 1950, and a member of the British Commonwealth [Stamp, 1960: 192]. The Republic of India has a constitution that embodies a secular democracy, and a president as the head of state. The first election with full suffrage took place in January 1952, and since then India has been ruled by an elected government. An exception was the 1975-77 Emergency under Indira Gandhi [Thakur, 1995: 337]. Within the first few years of independence, disparate voices clamoured to be heard, amongst them were the demands for linguistic unity. In November 1956, the States Reorganisation Commission submitted its report and led to the political map of India being redrawn into fourteen major linguistic regions. The map was later altered again.

India's relations beyond its borders were played out with regard to two aspects: its territorial interests and its international reputation. The resonating influence that a country experienced in its dealings with India depended upon its proximity to the sovereign territory of India. Regionally, Indian friendship with the People's Republic of China (PRC), proclaimed under the banner *"Hindi Chini Bhai Bhai"*,[38] was short-lived

38 *"Hindi Chini Bhai Bhai"* translates from Hindi as "the Indian and Chinese people are brothers". This slogan was popularly used to typify an era of friendly relations between the PRC and India.

as territorial disputes in the Himalayan range led to tensions and a Chinese offensive in 1962. Relations with Pakistan were fraught from inception with myriad disputes: economic blockade, military might, political matters such as Kashmir and the fate of other states, governmental and refugee property, and the canal waters dispute.

In the Commonwealth and international community, India's reputation had a better standing than in its relations with Pakistan. The non-aligned movement Nehru had initiated was aimed at side-stepping the Cold War raging between the USA and the Soviet Union. Toeing a neutral line, India, nonetheless, flirted with both superpowers, much to American frustration. Each superpower tried to tempt India with items such as military aid, food, and technology. Though India took what it needed from both countries, for example food aid in the midst of famine, and development aid [Michel interview, 16/5/96] it was determined to walk its own ideological path.[39]

India, though it had suffered the ravages of partition, emerged from the process strong and confident. Under the leadership of Jawaharlal Nehru, the country was to experience a continuity in central government. This, in turn, allowed the country to focus its efforts on utilising its considerable resources for economic development. Continuity resided not only at the national level, but also at the international level. Independent India inherited, from British-controlled India, membership of the international organisations that had emerged in the 1940s, and embassies in the major countries of the post-war era.

Regionally, with the exception of China, India was fast emerging as the main power. Its position *vis-à-vis* Pakistan, is described in microcosm by its position on the two major international river basins the countries shared. In the west, India was the upstream riparian in the Indus Basin, which it shared with West Pakistan. In the east, India was the upstream riparian in the Ganges-Brahmaputra Basin, which it shared with East Pakistan (later to become Bangladesh).

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39 US President Ike Eisenhower offered military aid to Prime Minister Nehru, in May 1954, but was refused due to the non-alignment policy of India [Sober interview, 16/4/96].

4.1.1.2 Pakistan

In pre-1947 India, the Muslims formed the largest religious minority in the country. A third of the population was Muslim, spread over the vast subcontinent that was India. Different cultures, different physiques, and different interpretations of Islam were only united in that they all stood facing Mecca at prayer. Nonetheless, under the British this slender thread was used to tie these disparate groups together. During the independence movement these groups merged and separated as their interests changed, but by the 1940s fear had united a significant proportion of the population behind the Muslim League and its leader Mohammad Ali Jinnah.[40]

The argument for the creation of a Muslim homeland, that was promoted belatedly by the Muslim League, profited from two assumptions, but was based upon fear. The British assumption of a united Muslim population was used, as well as the second assumption that after independence the Hindu majority would oppress this minority as part of the age-old battle between the religious communities. The latter assumption also doubled as the fear powering the movement for Pakistan.

Three main areas of pre-1947 India had large Muslim populations. In the east, the State of Bengal; in the west, the states of Punjab, Sind, Baluchistan, and North West Frontier Province (NWFP); and in the north, there was the State of Kashmir and the United Provinces. Support for the Muslim homeland was not unanimous even at the moment of creation amidst Muslim majority provinces. For example, NWFP resisted joining the homeland preferring secular India instead, but geographical constraints resulted in union with Pakistan. The demand for a homeland was strongest and longest from the Muslims of the United Provinces (UP), who supported the Muslim League.

Impatient to leave India after less than a century of direct rule, the British accepted the two nations theory. After the detailed and difficult task of deciding whether different segments of a state comprised a Muslim or Hindu majority, and therefore allotting it to India or Pakistan, came partition. Millions crossed the new borders to what they hoped would be a haven from persecution, real or feared. Amidst the migrants were the people who had clamoured loudest for Pakistan, the Muslims from UP.

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40 Jinnah, like Gandhi and Sardar Patel, was from Gujarat.

Whereas at independence India had experienced continuity in its political framework, Pakistan was to struggle to breathe. "Few countries have celebrated their independence under the conditions as inauspicious as did Pakistan" [Mason and Asher, 1973: 667]. Not even its territory formed a continuous mass. Pakistan was created in two halves, rather like a do-it-yourself country kit. Separated by the enemy it most feared, the East and West wings struggled to establish a nation where there had previously been none. (For the course of this thesis the use of 'Pakistan' refers, in fact, to West Pakistan.) With hindsight it is unsurprising that the divisions at the provincial level and between the two units came to the fore with the speed they did. In addition to the internal difficulties, Pakistan also felt vulnerable to what it regarded as external aggression.

The political leadership that had got Pakistan for the Muslims, formed the government of the fledgling country. Within five years the structure of the regime had altered drastically as the local elite vied for power with the Muslim League and its reliance on an elite now displaced and less powerful.[41] Deprived of its long-standing power base in UP, and facing challenges to its leadership, the Muslim League was unable to retain control of the political framework.

Within four years of partition, the League had lost two key members of the Cabinet, and Government was becoming a free-for-all. In September 1948, Pakistan's founding father and Governor-General, Mohammad Ali Jinnah, died. Three years later, in October 1951, the remaining politician of nation-wide stature, Prime Minister Liaquat Ali Khan, was assassinated. After Liaquat Ali Khan's assassination, considerable political shuffling took place, and did not end for a period until the 1958 military *coup*.

Khwaja Nazimuddin who had been made Governor-General after Jinnah's death in 1948 took over the office of Prime Minister after Liaquat Ali Khan's death in October 1951. The office of Governor-General fell to Ghulam Mohammad, who had held the finance portfolio. Under Governor-General Mohammad, Pakistan's political administration began to disintegrate. Fatefully, in January 1951, General Ayub Khan was made Chief of Staff of the Pakistani Army.[42] By the time of the 1958 *coup d'etat*, Pakistan had had

41 Political control of Pakistan transferred from the elite of the Muslim League, who had for the most part drawn their power from owning land in the north of India, to the local elite: landowners from Sind, Punjab, NWFP and Baluchistan.

42 In 1955, Ayub Khan was invited to take over the defence portfolio, which he did before relinquishing it the following year.

seven Prime Ministers, and one Chief of Staff.[43] (By contrast India had one Prime Minister and seven Chiefs of Staff.)

> "Pakistan's economic performance during the 1950s ranked somewhere between poor and miserable...A major reason for Pakistan's poor economic performance was that it lacked a government able and willing to get on with the task of development. Between 1953, when the Planning Commission was established, and 1958, when General Ayub Khan came to power in a bloodless revolution, there were five governments, each headed by a different prime minister. None gave high priority to development" [Mason and Asher, 1973: 667].

The population of Pakistan was distributed almost equally between the two wings. West Pakistan with its larger territorial unit contained just under 50% of the whole population, and was comprised of five different linguistic groups: Punjabi, Baluchi, Sindhi, Pushtu and Urdu speakers. There were, however, only four provinces and their constituent governments: Punjab, Sind, Baluchistan and NWFP. East Pakistan contained in its much smaller territory just over 50% of the whole population, who were for the most part of one linguistic group: Bengali speakers in one province.

Provincial rivalries within West Pakistan put "conflicting demands and pressures on the central government" all of which produced "a political climate of confusion and conflict" [Tayyeb, 1966: 179]. As Tayyeb points out, between 1947 and 1955, three of the four provinces in West Pakistan had a number of governments. Sind had fifteen different administrations, Punjab eleven governments and the NWFP had seven different governments in those eight years [1966: 179].[44] Matters had deteriorated sufficiently, towards the end of 1954 for the Governor-General to, first, dismiss the provincial governments in Punjab and Sind and, then, to dismiss the central Government.

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43 Prime Ministers of Pakistan, 1947-58: Liaquat Ali Khan (August 1947-October 1951), Khwaja Nazimuddin (October 1951-April 1953), Mohammad Ali Bogra (April 1953-October 1955), Chaudhuri Mohammad Ali (October 1955-October 1956), Hussain Shaheed Suhrawardy (October 1956-October 1957), I I Chandrigar (October 1957-December 1957), and Malik Feroz Khan Noon (December 1957-October 1958).

44 It remains, unfortunately, true that "[p]olitical upsets, changes, dismissals and reinstatement of governments have been a common feature of politics in West Pakistan", with the pattern being repeated in the 1990s and probably set to continue into the next millennium [Tayyeb, 1996: 179].

Integration of the four provinces into a single unit in 1955 finally put the East and West wings on an administrative par.[45]

Rivalry between the East and West wings also existed and deepened as those people in the East felt the government based in, and dominated by, the western wing did not represent them. As in India the issue of language was to be an important political factor. At independence, Urdu was designated to be the sole national language of Pakistan. Naturally, East Pakistan with its marginally larger population objected to the absence of Bengali, and the concept of having two national languages. The issue of language came to symbolise and crystallise other grievances East Pakistan had against the West wing.

The differences between the units can be shown in their problems with agriculture, which in "West Pakistan is scarcity of water and the need for irrigation, whereas in East Pakistan it is an excess of water and the need to control the flow during the monsoon period" [Mason and Asher, 1973: 668]. The differences and the difficulties between the units were complicated by financial grievances East Pakistan held against West Pakistan. The East wing felt the Government sitting in West Pakistan allocated to itself an uneven proportion of foreign exchange earned by East Pakistan.

However, East Pakistan's grievances were masked by the inflated value of the Pakistani rupee since, "Pakistan's overvalued currency distorted the terms of trade between the two wings, to the disadvantage of the east". This was not the only effect of the exchange rate. An inflated rupee also "exaggerated the investment contribution that Pakistan was making to its own development in relation to the foreign contribution" [Mason and Asher, 1973: 671].

The myth of a united Pakistan finally broke down after the Army, installed in West Pakistan, overturned the results of the 1970 election.[46] The marginal majority enjoyed by the East Pakistani population appeared to tip the political balance back towards the

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45 The Government of Pakistan had hoped that integration into a single unit would reduce the political instability the provinces, and the country, were experiencing. But unfortunately, political instability continued to cast a long shadow over the nation's development.

46 "Pakistan's defense potential was concentrated mainly in the west" as was the elite which ruled the country, whether civilian or military, for the most part [Mason and Asher, 1973: 671; Tayyeb, 1966; 181]. Notable exceptions, coming from East Pakistan, were Mohammad Ali Bogra and Hussain Suhrawardy who both held the office of Prime Minister during the 1950s.

East, when the Awami Party carried a landslide victory and legitimately claimed its right to form the national Government of Pakistan. The suspension of civilian government resulted in a civil war, from which Pakistan emerged trimmed into two separate nations: Pakistan - no longer East and West - and Bangladesh.

Internationally Pakistan had only one focus and foe - India. Pakistan still arms itself as protection against the threat it feels emanates from India. Time and again, Pakistani and American interests have coincided and resulted in considerable military aid, first in 1954, and again in the 1980s. The USA believed it was arming Pakistan against the Soviet Union during the Cold War. But Pakistan's aim remained India. Pakistani-Chinese friendship and collaboration is fuelled in part by the hostility between India and China. Fixated with the idea of military parity, Pakistan has engaged in an arms race that led, in 1998, to the nuclear option [*The Economist*, 1998].

The fear that drove the idea of a Muslim homeland, did not fade away with the creation of Pakistan. Some Muslims in British-controlled India had feared domination by the Hindu majority, and disastrous consequences, when independence would come. This fear, even once the homeland was created, remained to dog the policies of the new country. Pakistan, conceptualised, created and governed by this fear, remains a state that struggles internally to survive.

Discontinuity is everywhere in Pakistan. At creation, the geographical territory comprising the country was discontinuous, split in half and separated by approximately 1,500 km of Indian territory. Internally, the political leaders of partition were unable to manage the transition to government. The discontinuity in government continued as political rivals vied for power. With the focus of most politicians on their own political survival, little attention could be given to the development and needs of the country.

Unlike India which inherited a number of benefits from its predecessor, Pakistan had to carve its own way in the international community. It had to apply for membership to international organisations such as the UN and the World Bank. It had to find and buy or rent buildings to house its embassies abroad, and was only able to afford to staff overseas commissions in the most 'important' countries.

Pakistan felt vulnerable to attack from India, and feared endlessly for its own survival. As explained above, the fact that it was downstream to India on its two most important

river basins, served as a constant reminder of the potential threat that India played to Pakistan's existence. Whatever fear the Government of Pakistan felt from outside its borders, was coupled with fear for its political survival from inside its borders.

4.1.1.3 The World Bank

The International Bank for Reconstruction and Development (IBRD) was conceived at Bretton Woods in 1944, along with its twin institution the International Monetary Fund (IMF). Their function was to rehabilitate the international financial system after the trauma of the Second World War, by helping war-torn countries reconstruct their infrastructure, and less developed countries develop their infrastructure. The IBRD, also known as the World Bank, first opened its doors in 1946. Most of the literature on the World Bank deals with the effect of the policies that have been implemented, rather than the history and structure of the institution itself.[47]

The World Bank had been established with the idea of first providing soft loans to European countries for projects that would repair and rebuild their damaged infrastructure. But the US Government's Marshall Plan removed that task from the Bank's list. Instead the institution turned to the development aspect in its name. This, Lord Keynes had foreseen. 'It is likely, in my judgement, that the field of reconstruction from the consequences of war will mainly occupy the proposed Bank in its early days. But as soon as possible, and with increasing emphasis as time goes on, there is a second primary duty laid upon it, namely to develop the resources and productive capacity of the world, with special reference to the less developed countries' [in Mason and Asher, 1973: 2].

Though the Bank had been established with credit of $10 billion, only a fraction of that amount had been paid in. The remainder was to act as guarantees from the member countries for any loans that the Bank was to take out. It was intended that the World Bank would make loans for specific projects either directly to the national governments involved, or to agents who were backed by governmental guarantees. But the Bank

47 See Mason and Asher [1973] for a detailed story of the institution up to and under the McNamara presidency; and Morris [1963] for an idea of the atmosphere pervading through the Bank during the early days. For an up to date account of the World Bank Group see van Meerhaeghe [1998].

would only consider the application if the project had failed to find private capital, and then only after it was satisfied that the project was viable.

In order to be able to make loans, the Bank had to borrow from the financial markets. If it failed to convince the markets to buy its bonds, the institution would fold. After the Second World War, the only financial market that remained intact was the US market. Furthermore, the only convertible currency was the US dollar. The American financial market was, however, "openly distrustful of foreign governments; and the guarantee of a foreign government issue by the Bank - an institution whose own credit was not yet established - could not be expected to enhance greatly their eagerness to lend money abroad" [Mason and Asher, 1973: 44].

Therefore, there was some urgency in acquiring a credible reputation on New York's Wall Street. Under Black's presidency this reputation was actively sought, and achieved.[48] In stark contrast to the present-day institution which stands mature, and it can be argued arrogant, the fledgling World Bank took faltering steps as it learnt to walk and find its place in the international community.

Writing in 1981, MacBean and Snowdon point out that the Bank Group[49] "have an overriding interest in the ability of a potential recipient of loans to be able to repay"[50] and therefore, "the Bank invariably attaches conditions to its project loans" [1981: 228]. Though these conditions can be seen as infringing the national sovereignty of the recipient country, the choice remains with the applicant to refuse the terms and conditions of the proposed loan. The conditions the Bank outlines are generally to do "with issues directly affecting the projects; for example, methods of putting out contracts to ensure competitive bidding, control over use of funds to avoid corruption,

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48 Iliff describes Black's style of managing the World Bank: "Black preferred to run the IBRD with more delegation, he trusted his staff to know and do their job. He kept an eye on events but only became more involved in really important IBRD policy" [1961].

49 The World Bank Group comprises the International Bank for Reconstruction and Development (IBRD) and three additional units, the International Finance Corporation (IFC) opened in 1956 the International Development Association (IDA) opened in 1960, and the Multilateral Investment Guarantee Agency (MIGA) opened in 1985. It also has an autonomous member, the International Centre for Settlement of Investment Disputes (ICSID) which became operational in 1966.

50 The Indian Executive Director of the World Bank, B K Nehru, speaking to the President of India, Rajendra Prasad, in early 1952, remarked that "international

concern with pricing policies and management methods" [MacBean and Snowdon, 1981: 228].

The Bank's structure has changed over the five decades it has been operational.[51] But the basic structure remains, dividing the 'Management' from the member governments. Countries can only join the World Bank organisation if they are members of the International Monetary Fund (IMF), and are therefore subject to the terms and conditions of such the IMF membership. Each year a meeting of the Board of Governors is held, represented by the member governments' Ministers of Finance.

The member countries are represented on a daily basis by an Executive Director, who answers to the Finance Ministry of each country.[52] The number of Executive Directors has increased over the years from 13, in 1946, to 24 in 1998 [van Meerhaeghe, 1998: 69; Mason and Asher, 1973]. The five largest shareholders in the Bank - the USA, Japan, Germany, the UK and France - have the privilege of appointing their Executive Directors.[53] The remaining members are represented by a handful of Directors who are elected, and each Director will represent a clutch of member countries.

The Executive Directors interact with the Management in decisions governing the daily functioning of the Bank. The Management comprise mainly the President, Vice Presidents and, since the mid-1960s, other senior members of staff [Mason and Asher, 1973: 69]. The hiring, or firing, of staff is a decision taken by the Management, irrespective of pressure from the member countries [Garner, 1961]. Loyalty of the

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debts were never meant to be repaid" [Nehru, 1997: 252]. Clearly the Bank could not afford such an attitude.

51 The number of Vice Presidents in the World Bank increased for the first time in July 1956 with the appointment of Iliff, Burke Knapp and Sommers. Garner who had previously been Vice President moved across to head the newly formed IFC.

52 At Bretton Woods, the USA had wanted Executive Directors to be more involved in the managing of the Bank, but most of the other countries disagreed [Garner, 1961]. The fight for control of the World Bank between the President and the US Executive Director, between 1946-49, was probably due to the USA still trying to gain more influence in the daily management of the Bank [Sommers, 1961]. As Black points out, "the American Director has a large share of the votes, it would be an impossible situation if he and the President of the Bank didn't get along. One of them would have to quit" [Black, 1961].

53 The largest shareholders in 1996 were: the USA 17.7%, Japan 6.26%, Germany 4.84%, the UK 4.63%, France 4.63%. The following countries held 2.99%: China, India, Canada, Italy, Saudi Arabia and Russia [van Meerhaeghe, 1998: 69]. The remaining countries each hold less than 2.99% of the shares in the World Bank.

international staff is expected to be with the institution rather than with their originating country [Mason and Asher, 1973: 69].

As Garner, who was Vice President of the World Bank from 1947-56, points out:

> "we broke down the feeling of nationality within the work of the Bank. In fact that gave a basis for emphasizing that the Bank was not political, that the Bank would not - that members of the staff of the Bank should not, allow their personal or national interests to intrude. I believe the fact that this principle has actually been developed as a tradition is one of the most important factors in the Bank's reputation and competence" [1961].

Directly linked to the shareholding capacity of a member is its voting power. Obviously, the largest shareholder has the largest voting leverage. But as Black points out, "[t]he power of the governments is not in getting the Bank to make loans, the power of the governments is to prevent the Bank from making loans. *It's a veto power*" [1961]. This veto power, however, does not imply that the Bank is crippled from the outset.

The Bank, in fact, retains considerable leverage in the international community, as Black points out:

> "The strength of the World Bank is our ability to speak frankly to these countries and to insist upon them carrying out their proper policies. That's very difficult for the US government to do, or for any large government to do, because then they are under suspicion of a big country trying to interfere in the affairs of the small country, trying to dictate to them what they should do. Now, we can do that, because we say to a country, "Well, you're a member of the Bank, you're a stockholder in the Bank, and all we're asking you to do is what you'd want us to make some other country do to protect your interest in the Bank" [1961].

The World Bank, as it is known today, is a far cry from the institution as it was in the late 1940s and early 1950s. The Bank, then, was trying to establish a reputation for itself that would ensure it could raise capital on the international financial markets. This, in fact, meant gaining credibility in the American financial markets, which was the only one to survive the trauma of the Second World War. Armed with this objective, the Bank made loans according to stringent rules that governed which applications would be successful. This professionalism was coupled with a flexibility in procedural matters that has long since disappeared as the institution has aged. The World Bank's interest in the Indus Basin dispute arose partly because of its objective of establishing a credible reputation. It believed that if it could aid a successful resolution of the dispute, then this would enhance its international reputation.

4.1.2 World Bank Involvement

The World Bank, initially, became involved in the dispute between India and Pakistan over the River Sutlej, in 1949.[54] The nature of its involvement changed after the Bank adopted the Lilienthal principles in 1951, and offered its good offices to assist India and Pakistan in their search for a peaceful solution to the Sutlej dispute. Indian and Pakistani acceptance of the offer marked the start of a long and tortuous journey that finally ended with the 1960 Indus Waters Treaty.

4.1.2.1 Pre-Good Offices

With matters undecided in the Indus Basin over the Sutlej River, India and Pakistan continued separately in their efforts to make secure their water supply. Less than a year after the stoppage of water to canals in West Punjab, India approached the Bank for loans to fund large water projects using the waters of the Indus and Ganges Basins. Namely: the construction of the Bhakra-Nangal multipurpose project on the River Sutlej [IBRD-13/4/49] and the Damodar Valley Project in the state of Bihar [IBRD-2/6/49]. In the meantime, the Bank also became aware of the dispute over the Sutlej that was adding to the already strained relations between India and Pakistan [IBRD-3/6/49]. This was confirmed in a letter that India sent to the Bank, informing it officially of the dispute [IBRD-28/9/49].

As an international lending agency, the World Bank was reluctant to make loans for projects that involved any unresolved disputes for two main reasons. First, such loans would make for bad investments. And this would potentially damage the trust the member countries and their representatives on the Board had in the Management's judgement. And second, once built these projects could exacerbate the existing dispute. An additional consequence would be the apparent sanctioning of one side over the other

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54 Some of the World Bank people involved in the Indus Basin talks were: Robert L Garner, appointed Vice President, March 1947-July 1956; Harold N Graves Jr, appointed Director of Public Relations Dept of Bank, November 1950; William A B Iliff, appointed Loan Director, February 1948, and later made Assistant to the President in April 1951, before being made Vice President in July 1956 till October 1962; Davidson Sommers, appointed General Counsel, August 1949 and Vice President July 1956-December 1959; General Raymond A Wheeler, appointed Engineering Adviser, January 1949; and Lars H. Bengston, a .lawyer. See Garner, 1972, for more about their personalities

in dispute, by the Bank. Any such interpretation, however unintended, could damage relations between the institution and the particular members.

The President of the World Bank advised the Secretary of the Reserve Bank of India, Sir Chintaman Deshmukh, and the Indian Executive Director, B K Nehru, of the Bank's attitude to the Bhakra-Nangal project. In the Bank's opinion the Nangal dam's economic viability depended upon the presence of the Bhakra dam. Without the Bhakra reservoir storing water and smoothing seasonal variations the Nangal project's ability to produce power would be precarious. Unfortunately, as the Bhakra dam involved using water already in dispute with Pakistan, the Bank was unwilling to invest in the project. Therefore, the Bank urged the Indians to resolve the dispute quickly, so that it could then consider the Bhakra and Nangal projects together [IBRD-9/1/50].

India was, naturally, unhappy about this stipulation and the World Bank's determination to abide by it. Representing Indian interests, B K Nehru searched for ways to get funding without involving Pakistan. In a meeting with a World Bank Loan Officer, B K Nehru initially asked whether the World Bank would fund the Nangal Dam if India built the Bhakra Dam unilaterally. The Loan Officer reiterated the Bank line [IBRD-2/3/50], that the decision would rest not only upon Indian creditworthiness, but resolution of the dispute. The Bank was not, however, passing judgement upon the position of each country. As the Bank's representative pointed out, a country on the brink of war would hardly be regarded by the World Bank's bond investors to be a good investment opportunity [IBRD-11/1/50].

B K Nehru's reaction made use of the principle of national sovereignty, and the advantage of being the upstream riparian *vis-à-vis* Pakistan. Since Bhakra and Nangal were sited within Indian territory, the Government was free to develop those sites as it saw fit. The Federal Government was not bound by Pakistani opinions and reactions and, B K Nehru contended, nor should the Bank be in its consideration of the Nangal project [IBRD-11/1/50]. Nonetheless, it was clear that the point had been understood by the Indians. In March 1950, the World Bank Loan Director noted that B K Nehru had since "taken some pains" to show pacific statements made by India regarding matters in dispute with Pakistan [IBRD-2/3/50]. The Bank was equally anxious to be scrupulously discrete about the link between Bank investment in India and the state of Indo-Pakistani relations [*ibid*].

In an interesting contrast to the World Bank's present-day standing, the Canadian Minister for External Affairs advised the President to tread carefully with India. While the Bank today is more used to outlining what is, and is not, acceptable in order to get loans, in 1950 the institution had only begun to carve a niche for itself. The Minister suggested to the President, that by refusing to make further investments in India until it had resolved its disputes with Pakistan, it was running the risk of damaging its relations with India. In fact, if the Bank wanted to maintain good relations, it "should avoid taking any position in relation to this very controversial issue" [IBRD-2/3/50].

Pakistan had been unable to apply for a loan from the World Bank, because it was not a member country. Whereas independent India had inherited its membership from British-controlled India in 1947, Pakistan had to apply for this status. Pending membership, talks were to be held between the Pakistani Finance Minister, Ghulam Mohammad, and the Bank regarding loans for various projects. As the projects in question included a proposed barrage at Kotri on the River Indus, India was quick to point out that any investments in Pakistan were subject to the same criteria as those for India *vis-à-vis* disputed water rights [IBRD-22/6/50].

The World Bank did apply the same principle, of only funding water projects if there was no outstanding dispute, to Pakistan. For example, in assessing the Warsak hydro-electric project's feasibility [IBRD-31/1/51], the Bank determined that the project was not only technically sound, but that by raising the dam's height the results would be further improved. The dam was to be sited on the Kabul River in the North West Frontier Province (NWFP) of Pakistan near to its border with upstream Afghanistan. Since the new height would cause water from the river to go back into its co-riparian, Pakistan needed to reach agreement with Afghanistan on the expected consequences. The World Bank suggested an approach that would benefit both countries, whereby the Afghans would, perhaps, be willing to buy hydro-electric power produced by the Warsak project [IBRD-15/8/52].

The Bank explained its thinking further. As it had not studied the question of agreement between Pakistan and Afghanistan in detail, it did not have an opinion *vis-à-vis* Pakistan's position (that it had the right to any water entering its borders). But aside from any legal questions, the World Bank was concerned that in the absence of an agreement with Pakistan, the Afghans might be tempted to divert water from the River Kabul to the detriment of the project [IBRD-15/8/52]. It is interesting to note that

Pakistan and India had similar attitudes to water flowing through, or into, their territory. Both felt that their sovereignty was not to be challenged, and that they were free to develop the resource as they pleased. The effect on other riparians was not their concern, and nor should it influence the Bank's decision to make a loan or not.

Pakistan approached the World Bank not only for a loan to construct works in the Indus Basin, but also to involve it directly in its Sutlej River dispute with India. By July 1950, as Inter-Dominion tensions worsened Pakistan had stopped depositing, in escrow, disputed seigniorage charges with the Reserve Bank of India. But to reassure India of its good intentions, Pakistan established credit with the State Bank of Pakistan, and approached the World Bank to act as escrow agent. However, India's access to these deposits was dependent upon the search for an adjudicated solution to the Sutlej dispute [IBRD-24/10/50]. As the Dominions parried with each other, incompatible descriptions of international tribunals heightened each country's sense of injustice and delayed resolution of the conflict.

Pakistan outlined the terms under which its escrow agent, the World Bank, was to award India the money. Firstly, if proceedings before an international tribunal started before 30 June 1951; and secondly, if the resulting judgement, regarding water received by Pakistan since 1 July 1950, favoured India. In event of the judgement going against it, Pakistan would receive any money surplus to the disputed charges. However, if the tribunal upheld Pakistan's defence that India was presently receiving all the seigniorage charges it was entitled to, the Bank would return to Pakistan the deposited money in full. Failing the appointment of an international tribunal altogether before the 1951 deadline, the money would return automatically to Pakistan [IBRD-24/10/50].

It appears that the World Bank was unwilling to become embroiled in the Indo-Pakistani dispute over the River Sutlej. Pakistan's attempt to reassure the Bank that its responsibility lay only in issuing the money under the circumstances described above, and that it would act promptly upon the instructions of the Bank's General Counsel failed to dispel the Bank's reluctance. It was becoming apparent to the Bank that the dispute over the Sutlej was spawning many more little disputes that threatened to destabilise Indo-Pakistani relations further. In addition, this dispute was obstructing the institution's ability to fund much needed development projects in the Indian Subcontinent. Therefore, the Management of the World Bank was probably willing to

listen to alternative proposals that would ease tensions in the region, and possibly solve the problem of this dispute [Iliff, 1961].

4.1.2.2 Lilienthal's Principles

Independently of the World Bank, the United States of America (USA) was exploring, informally, ways to cooperate with India. Its intermediary in this particular enterprise was David Lilienthal, who had formerly been Chairman of the Tennessee Valley Authority. Propelled partly by an idealistic zeal that sought to challenge the 'red peril' of communism, and partly by self interest, Lilienthal regarded India as representing for "the United States and democracy an opportunity" [Lilienthal, 1966: 51].

In October 1949, the Indian Prime Minister, Jawaharlal Nehru, had invited Lilienthal to visit India. Convinced that India was not yet lost to communism, and despite its neutral stance could still be recruited into the American camp, Lilienthal began preparing for a trip to the Indian Subcontinent in January 1951. Armed with the blessing of the US Secretary of State, Dean Acheson, and information gathered from the World Bank regarding the situation in the Indian Subcontinent [IBRD-31/1/51],[55] Lilienthal visited the two dominions in February 1951 [Lilienthal, 1966: 54 and 58].

In January 1951, the US Government was already aware that the Sutlej River dispute constituted a major obstacle in Indo-Pakistani relations [Lilienthal, 1966: 70]. This was further confirmed, a month later, in discussions with the Government of Pakistan. The Foreign Minister, Zafrulla Khan, and the Secretary-General of the Pakistani delegation to the United Nations (UN), Chaudhuri Mohammad Ali,[56] discussed the situation as it stood with India regarding the rivers flowing through West Punjab [Lilienthal, 1966: 75].

Though the River Sutlej dispute was of importance, it remained sub-ordinate to the dispute over Kashmir for both countries. This subordination continued into the domestic and international realm of Indo-Pakistani relations. As the Prime Minister of Pakistan,

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55 In January 1951, the World Bank's Chief of the Asia and Middle East Division, Joseph Rucinski provided Lilienthal with information regarding the dispute on the River Sutlej.

Liaquat Ali Khan, was to state: "Unless the Kashmir issue is settled it is unreal to try to settle the issues about water or about evacuees" [Lilienthal, 1966: 83].[57] The river dispute was also hostage to the suspicions that permeated Indo-Pakistani relations. The Foreign Secretary, Ikramullah, asked Lilienthal to "bear in mind there is a large element in India that does not accept the partition of India, that is still talking and planning to undo what they insist was a mistake" [*ibid*].

Lilienthal returned from the Indian Subcontinent, and talks with the Governments of both India and Pakistan, convinced that the water dispute had to be tackled first. Only then, Lilienthal argued, would relations between the two Dominions be calm enough for discussions on Kashmir. Because, Lilienthal warned, as the situation stood presently India and Pakistan were close to war Lilienthal warned [Lilienthal, 1966: 160].[58] Lilienthal "urged that the tortured question of water rights be removed from the politicians' negotiating table and handed to the engineers of the two countries to work over, with the technical and presumably financial help of the World Bank" [Perham, 1952].

Lilienthal saw three principles as essential to the dispute's resolution. Firstly, recognition by the disputants that there was enough water in the Indus Basin for both India and Pakistan's existing and future uses. Secondly, the water in the River Sutlej, alone, would be inadequate for resolution, therefore, the water in all six rivers of the Basin should be considered. And thirdly, to avoid past claims and disputes from obstructing the resolution process any further, the matter should only be approached from a functional perspective.[59] Lilienthal also envisaged the involvement of a third party in bringing the disputants to the negotiating table such as an institution in the manner of the World Bank [Lilienthal, 1966: 160 and 200].[60]

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56 Chaudhuri Mohammad Ali later become, first, Minister of Finance and, then, Prime Minister of Pakistan for a year (October 1955 - October 1956).

57 Lilienthal wondered whether Prime Minister Khan's terse statement was for the Pakistani domestic audience, as it contrasted to the correspondence Lilienthal had seen between the Prime Ministers of Pakistan and India [1966: 83].

58 Lilienthal reported to the US Assistant Secretary of State for Near Eastern, South Asia and Africa, George McGhee.

59 Lilienthal, David E., "*Another Korea in the Making?*" Colliers, 4 August 1951.

60 Lilienthal was to refuse personally to intervene when asked informally by representatives of the US and Pakistani Governments.

4.1.2.3 Negotiating Participation as a Good Officer

The Lilienthal Proposal, as it came to be known, was well received by both the disputants, India and Pakistan, and the proposed intervening body, the World Bank [IBRD-2/8/51]. Lilienthal had expected Pakistan to regard the proposal with suspicion and disagree with its findings. Though there remained an element of suspicion the Pakistani Government, speaking through Laylin,[61] was quick to accept the proposal in principle [Lilienthal, 1966: 199 and 205]. The World Bank was equally interested in the proposal, and through a series of meetings with Lilienthal, determined how it would approach the parties [Lilienthal, 1966: 205, 210, 230 and 233; IBRD-13/8/51].[62] In the process of deciding how to intervene the Bank also met with representatives of India and Pakistan [IBRD-2/8/51].

Nonetheless, there was general agreement amongst interested observers, such as the USA, the World Bank, Pakistani representatives and even the Indian representatives, that the Indian Prime Minister, Jawaharlal Nehru, would refuse the Lilienthal proposal [Lilienthal, 1966: 199 and 223; IBRD-7/8/51]. The reasons envisaged differed a little. Laylin, representing Pakistani interests, was concerned that Nehru would reject the proposal if it was seen as a Pakistani initiative. Nehru's reaction would, Laylin believed, be based upon the principle that anything that Pakistan wanted could not benefit India, and therefore needed to be rejected [Lilienthal, 1966: 199].

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61 The Government of Pakistan had retained an American law firm to advise it on the River Sutlej dispute with India. The firm known, initially, as Covington, Burling, Rublee, O'Brian and Shorb became Covington and Burling by August 1951. Lawyers representing Pakistan included John Laylin, John Lord O'Brian and Roger Fisher. Laylin was to continue representing Pakistan for the duration of the Indus Waters Treaty talks.

62 Sommers suggests that Black liked Lilienthal's proposal because he felt that "engineers speak a sort of international language and communicate across political difficulties that stop the politicians" [1961]. Black agrees: "I was naive about this because I thought maybe we'd get all these engineers together and sit around a table. You could work out a big master plan, because I felt that engineers were different from other people, that they were interested in combating nature, that they were above politics, they didn't care much about politics. I thought if he'd get all of them together, we could dot it. But I was naive in that because I didn't realize the feeling between the two countries and the historical difficulties involved. It took us seven years to do it. That was the beginning of it. It was very discouraging. It cost us a lot of money, a lot of time, but the good thing about it was that all during this period, we worked out *ad hoc* arrangements about the supply of water and got agreement that nothing would be done to disturb that supply of water until we had finished or the whole thing had blown up. In that way over that period of years we prevented any bad situation from developing" [1961].

Lilienthal was proposing to resolve the water dispute by restricting discussions to functional matters such as engineering principles and facts. Yet despite this recommendation, Lilienthal recognised and advised the World Bank that pursuing a functional approach would be futile unless there was clear political agreement on the principles embodied in the proposal. This belief mirrored the USA's view that the water dispute was not occurring in a political vacuum. As McGhee, US Assistant Secretary of State, pointed out: "a settlement of the canal waters question would signify those basic reversals of policy by the Governments of both India and Pakistan without which there can be no political *rapprochement.* Thus, the canal waters question is not only a functional problem, but also a political one linked to the Kashmir dispute" [IBRD-7/8/51].

McGhee believed that this problem, therefore, needed more than the goodwill of engineers who had worked together before partition. "To achieve success an India-Pakistan canal waters authority would have to work in a somewhat changed political atmosphere with lessened fear and tension pervading the subcontinent" [IBRD-7/8/51]. The World Bank regarded this view as an important point, and one that would put in doubt Indian acceptance of the Lilienthal proposal. The Bank's representative stated: "I think this is a shrewd appreciation; and that's why I have doubts about the likelihood of Nehru's being receptive of a proposal offering the Bank's good offices" [IBRD-7/8/51]. Even the Indian Executive Director, B K Nehru who happened to be Jawaharlal Nehru's nephew, believed the Prime Minister would reject the proposal [Sommers, 1961; Sommers interview, 30/4/96].[63]

63 Sommers showed B K Nehru, in advance, a draft of the 6 September 1951 letter that the Bank was proposing to send to the Indian and Pakistani Governments offering its good offices. Nehru is quoted as saying, "Well, it's a nice letter, the Prime Minister is expert at answering such letters and you'll get a very polite answer which won't say no but will mean no" [Sommers, 1961]. B K Nehru, in his memoirs, contradicts this account and claims the Bank bypassed him altogether, and had approached the Prime Minister without his knowledge. B K Nehru states he learned of the Bank's offer of its good offices from a newspaper [Nehru, 1997: 253]. The Bank is credited with bypassing him for the following reason: "they thought that, vigorous as I was in repelling any assault on our sovereignty or interference in our internal affairs, I might oppose the proposal" [*ibid*: 254].

The World Bank, after discussions with Lilienthal, opted to approach the disputants by letter.[64] Lilienthal had impressed upon the Bank the importance of acting as soon as possible, if not immediately [IBRD-13/8/51]. The Bank's Management, without the knowledge of the Board of Directors, drafted a letter offering its good offices in resolving the canal waters dispute.[65] Before sending the letter through the official channels to the Governments of India and Pakistan for formal consideration, the Bank showed the drafts to representatives of the two countries in Washington, DC [IBRD-2/8/51; Sommers, 1961]. The Bank was to repeat this strategy, of informal previews, throughout the subsequent negotiations.

On 6 September 1951 the World Bank President wrote, formally, to the Prime Ministers of India and Pakistan offering to make available its good offices if they "would be inclined to look with favor upon Mr. Lilienthal's proposal" [IBRD-6/9/51]. The Pakistani Prime Minister, Liaquat Ali Khan, having already praised the Lilienthal Proposal in public, signalled Pakistan's acceptance of the World Bank's intervention on the basis of this proposal on 25 September 1951 [Lilienthal, 1966: 210; IBRD-25/9/51a]. India too, unexpectedly,[66] gave its consent to the involvement of the Bank [IBRD-25/9/51b].[67]

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64 Sommers points out that in "the Indus, what seemed to give us an interest in it was that we had been asked by both sides to finance projects on the Indus system, and had refused because of the unresolved question of the water. We've done that in various parts of the world. And so you're right, that there is a relation to lending. If you write a letter asking to be invited in as mediator, to put it crudely, you generally find the letter winds up with some such phrase as appeared in our letter to Nehru and - I don't remember who the Pakistani Prime Minister was, Mohammed Ali Khan, I think - saying, 'If you would like to proceed, the Bank will assign people and will be prepared to consider sympathetically any financing proposals that result from the agreement.' There's always an overtone of financial help in the background. Otherwise it doesn't have the necessary sex appeal" [1961].

65 Under Black's presidency the Bank's Management, which oversaw the daily running of the institution, gained considerable influence and would only approach or inform the Board of Directors once matters had been arranged satisfactorily. Thus as a matter of routine, the Board was informed of loan applications only after the details had been investigated, and the decision taken to make available the requested funds.

66 As late as 9 September 1951, on hearing of Pakistan's acceptance, Lilienthal still believed Indian acceptance to be remote [Lilienthal, 1966: 223].

67 B K Nehru "asked the Prime Minister how it was that he had so readily agreed to outside interference in this dispute when he was so adamant about similar interference in Kashmir, his answer was that this was not a political question. He did not want any unnecessary tension with Pakistan and he had faith in the impartiality of the World Bank" [Nehru, 1997: 254].

In a detailed letter to the Bank's President, dated coincidentally 25 September 1951, Prime Minister Nehru reminded the Bank, though, of the specific nature of this intervention: "I might make one point clear. The Canal Waters dispute between India and Pakistan has nothing to do with the Kashmir issue; it started with and has been confined to the irrigation systems of East and West Punjab" [IBRD-25/9/51b]. The Pakistani Prime Minister concurred with this opinion, stating that the parties should "refrain from using the negotiations in one dispute to delay progress in solving any other" [IBRD-25/9/51a].

With acceptance from the Governments in hand the Bank consulted Lilienthal as regarding the next step to be taken [IBRD-3/10/51; 16/10/51a]. (For a discussion as to why India and Pakistan may have agreed to the World Bank's intervention see Chapter Five.) Meeting in early October, Lilienthal warned the Bank from pursuing a functional approach to the dispute without clear political agreement upon the principles of engagement [Lilienthal, 1966: 233].[68] Since the Bank had already agreed in writing to his principles, Lilienthal suggested using them as the basis of discussion for the mediated talks. Lilienthal was, also, anxious to ensure two features were maintained during the Bank's good offices.

Firstly, the policy of integrated water and basin management since "this will solve many of the particularly thorny issues that will arise and that have already arisen" [Lilienthal, 1966: 233]. This meant that the whole Indus Basin was under consideration and water was to be allocated throughout the region. Secondly, and in direct disagreement with the World Bank's engineer, General Wheeler, Lilienthal believed that the Bank representative should only assist the participants in their discussions, rather than arbitrate any disagreements. This Lilienthal believed would be more effective once it was clear that the Bank was "*not* there to *decide*" [*ibid*, emphasis in original; IBRD-9/10/51].

The World Bank began drafting its next letter to the disputants shortly after its meeting with Lilienthal [IBRD-12/10/51]. "It was generally realised that it is of great importance that the Bank should write the terms of reference as far as general principles are

68 This would appear to contradict Lilienthal's own recommendation of avoiding politics, but it was, nevertheless, a realistic appraisal of the situation in the Indus Basin. Without the political will of the Governments, the mediation process would

concerned" [IBRD-16/10/51b]. Towards the end of October the Bank had prepared the letter outlining its ground rules for engagement [IBRD-22/10/51]. However, the Government of Pakistan strongly urged the Bank to postpone replying to the Pakistani letter dated 25 September 1951, for approximately two weeks [IBRD-24/10/51].[69] The World Bank wrote to the Governments of India and Pakistan in early November, outlining its proposed mode of conducting the discussions [IBRD-8/11/51].[70] Both Governments were asked to refrain from any further publicity on this issue, and to keep discussions secret.[71] (For the text of the complete letter see Appendix Two.)

The World Bank proposed setting up a working party of engineers to deal with the Canal Waters problem. Pakistan and India would each send qualified engineers to meet with the Bank's own engineers. These Designee Engineers would be accompanied by their technical staff they thought necessary. The World Bank would ensure that any shortfall in technical expertise would be covered either by in house specialists or by hiring consultants. The Bank made it clear that their engineer would have a very specific role; in which he would "assist in solving problems without being in the position of an arbitrator" and would ensure plans were financially viable given "the Bank's previously expressed readiness to consider financing proposals" [IBRD-8/11/51]. They also sought

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be impeded by domestic politics. As it was to happen, despite the assenting political will, domestic politics repeatedly encroached upon the 'functional' approach.

69 The circumstances of this request were tragic not only for the individuals involved, but for the country as it ushered in an era of political instability. On 16 October 1951, the Prime Minister of Pakistan, Liaquat Ali Khan was assassinated. With Jinnah's death in September 1948, the two most prominent members of the ruling Muslim League had now passed away leaving the party in disarray and vulnerable to challenges from more local interests.

70 The World Bank copied its letter, dated 8 November 1951, to the USA (Donald D. Kennedy who was the Acting Director in the Office of South Asian Affairs of the US State Department), and the Executive Directors of the Bank for Pakistan (Yaqub Shah), India (W R Natu), and the UK. In the initial stages, the Bank was to hold discussions with the USA [IBRD-16/11/51] and the UK regarding its approach. Though this was to become less frequent, but more specific, in the latter stages of the negotiations confidential consultation with interested governments would remain a constant theme throughout the talks.

71 The policy of no publicity was important throughout the talks, but one that both India and Pakistan would flout. Statements were made by both Governments in parliament, and in interviews. Publications were also produced for the international community. Rao, a legal adviser to the Indian Foreign Office, [1958] presented the Indian perspective; but Pakistan's publications were considerably more numerous: the Government of Pakistan reports [1953a-b; 1958a-c]. Pakistan also claimed that Honig, an international lawyer, [1957] supported their argument.

to reassure the Governments that "[b]efore selecting its representative, the Bank would ascertain that he would be acceptable to the two Governments" [IBRD-8/11/51].[72]

In his letter, dated 8 November 1951, the Bank's President explained the function and method of the Working Party:

> "The working party would hold an initial meeting for the purpose of determining the procedure to be followed in working out the plan, the steps needed to be taken, the order and manner in which those steps would be undertaken and the persons by whom they would be undertaken, and would set target dates for completion of the various steps. On reaching agreement on these matters, the working party would promptly, without the need of any further authorization, put the agreed procedure into effect and begin work on the plan" [IBRD-8/11/51].

India and Pakistan's response was more guarded this time. The letter was seen by them, and Lilienthal, as raising more questions than it proposed to answer. The most controversial section was the Bank's interpretation of Lilienthal's principles:

> "I shall base my suggestions on the essential principles of Mr. Lilienthal's proposal which are, as I understand them, the following: (a) The Indus basin water resources are sufficient to continue all existing uses and to meet the further needs of both countries for water from that source. (b) The water resources of the Indus basin should be cooperatively developed and used in such manner as most effectively to promote the economic development of the Indus basin viewed as a unit. (c) The problem of development and use of the Indus basin water resources should be solved on a functional and not a political plane, without relation to past negotiations and past claims and independently of political issues" [IBRD-8/11/51].

As Lilienthal was to observe, by not including the stipulation that Pakistan must continue to receive the same levels of water as it did at partition, the Bank was introducing uncertainties which had already been dealt with. In the lead up to the Bank's intervention, India and Pakistan held separate talks with Lilienthal, asking his advice, and discussing matters in general. Pakistan had readily accepted Lilienthal's ideas, because of the assurance of continued supply. And India had made it clear that it did not intend to harm Pakistan's existing needs [Lilienthal, 1966: 234].

In private conversations with A N Khosla, who would later become the Indian Designee Engineer, Lilienthal was told that Prime Minister Nehru did not intend to harm

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72 Indian, Pakistani and World Bank representation at the Indus Basin talks appeared almost exclusively to be male, both in the negotiating room and the governmental decision-making process. Women only appear to contribute to the talks in a secretarial capacity.

cultivators in Pakistan in order to benefit Indian farmers [IBRD-13/12/51; Lilienthal, 1966: 234]. Yet the letter that the World Bank had sent was sufficiently vague in its definitions to not only allow further interpretation, but also to increase Pakistan's fears for its existing uses should it participate in the proposed working party [Lilenthal, 1966: 269]. The subsequent clarifications initiated by the Bank that resulted in the status quo failed, however, to dispel Pakistan's disquiet for the duration of the mediated talks.

Initially it had been hoped that a working party would be able to convene in Washington, DC at the beginning of January 1952 to discuss the procedures by which the negotiations for a comprehensive plan could take place. But with matters unclear regarding the water supply to Pakistan's uses for the duration of any talks, the working party's convening depended upon reaching agreement on this matter. Whereas Pakistan's fears focused sharply upon the supply to its existing uses, Indian concerns centred more on th uses it hoped to develop from the Sutlej River. Indian reliance on the Sutlej River was not so much a matter of how much water was being used at that time, but how much it hoped to use in the future.

Prior to the sending of the November 1951 letter the Bank's President had anticipated visiting the Indian Subcontinent, as part of a larger tour. It was planned as an exercise in reinforcing the disputants' commitment to the new approach the Bank was promoting. The Bank hoped the President would thus smooth any remaining issues obstructing the start of the negotiations. However, as a result of the Bank's interpretation of Lilienthal's principles, communicated in November 1951, considerably more had to be smoothed over than the Bank had been previously anticipated [IBRD-18/1/52; 23/1/52].

The Bank's Management first sent out the Assistant to the President in December 1951 for a short visit [IBRD-19/12/51; 21/12/51; 24/1/52]. The President followed in February 1952 with visits to India and Pakistan accompanied by, amongst others, the Chief of the Asia and Middle East Division [IBRD-14/1/52]. For this duration and to hold 'daily' talks with the Indian and Pakistani authorities, while the President continued with his scheduled tour, a Bank lawyer was also sent out [IBRD-25/1/52; 29/1/52; 10/2/52; 20/2/52; 4/3/52; 8/3/52a-e; 9/3/52; 10/3/52ab; 12/3/52ab; 13/3/52a-c; 14/3/52ab; 15/3/52ab; 16/3/52a-c; 20/3/52]. The World Bank also continued to hold discussions with Indian and Pakistani representatives in Washington, DC. The result of

this shuttle diplomacy, was a tripartite understanding on supplies to existing uses.[73] The working party held its first meeting in May 1952.[74]

The World Bank's success, however unexpected, in engaging itself in the Indo-Pakistani water dispute was due in part to the timing of its intervention. India and Pakistan had reached a stalemate after successive Inter-Dominion meetings had failed to find a mutually acceptable solution. India had rejected Pakistan's proposal of inviting the ICJ to adjudicate, and Pakistan had refused India's suggestion of an alternative arbitrating tribunal. And in order to safeguard their water supply, both parties were unilaterally constructing works which, in turn, acted only to exacerbate existing Indo-Pakistani tensions.

In addition, the World Bank had refused loans to both countries to fund projects utilising the disputed water of the River Sutlej. The Bank was explicit in explaining the terms under which the loan applications had been refused, and pressing India and Pakistan to resolve the dispute so funds could be made available. Thus, when a proposal was made to break the deadlock the two disputants were willing, it appears, to consider it for two main reasons.

Firstly, the proposal had been made by an impartial observer. This circumvented the pressure for such an initiative to have come from either disputant. The proposal involved intervention by the World Bank with which both countries already had a working relationship and which was a potential source of finance. Secondly, the proposal aimed to satisfy the interests India and Pakistan both had in the dispute's outcome. Thus, not only was the timing of intervention appropriate, but the proposal that was being put forward was appropriate to the stage of the dispute's evolution.

The process of engaging in the dispute had itself been an arduous task for the World Bank. It illustrated the nature of the engagement, and promised to be a time-consuming procedure with India and Pakistan wary and determined to safeguard their own interests at every step. Relations between these two countries was fraught with difficulties that impinged upon the mediation. The voluntary nature of mediation is highlighted in the

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73 India and Pakistan had agreed to not diminish supply to any existing uses for the duration of the World Bank's good offices [IBRD-13/3/52]. This was different, though, to Pakistan getting a clear guarantee that its existing uses would be maintained throughout the talks, which is what Lilienthal had proposed.

engagement stage. All three participants had to voluntarily agree to this new approach, if it was to have any hope of success.

The role of the third party is critical, and it evolves with the mediation process. Though, the World Bank was there to only assist the disputants to communicate with each other, it could facilitate the mediation process at every step. Moreover, as Baxter observes, the nature of the Bank's role evolved as the gap between the Indian and Pakistani positions became clear, and "the Bank was forced to play a more active part in working out a solution" [1967: 477].

To get the parties to engage in the mediation process the World Bank had to reassure both parties that participation was without prejudice to their legal rights and positions. Nor would either party be committed to anything discussed during the talks, if an agreement was not reached. In other words, neither party would be forced to abandon their agendas before or during the talks, unless they were willing to change their positions and demands. Once India and Pakistan had agreed to join the talks and to the World Bank's involvement, the way was open for all parties to discuss the issues involved in the River Sutlej dispute.

4.2 ISSUES

The principal issues at stake in the Indus Basin dispute were not particularly complex or mysterious. Simply put, the dispute was about the use of water. India wanted to use water flowing through its territory to develop new areas for irrigation. Pakistan wanted to maintain supplies to existing uses within its own territory. Since the amount of water appeared to be finite to the disputants, unless expensive works were constructed, each side emphasised its right to the water. In the bilateral negotiations that had taken place since 1948 India and Pakistan had both relied upon their interpretation of international law, and especially international water law, to justify their demands and actions.

Other than complicating and frustrating Indo-Pakistani matters, however, the legal avenue failed to lead the parties to agreement. Entry of the World Bank into the dispute altered the mode of functioning momentarily. Rather than repeating each party's legal

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74 See Gulhati [1973: 103-104] for details of the Working Party members.

position, the Bank encouraged India and Pakistan to address the underlying need for water. To allow the disputants the space to explore the issues and options involved, the conflict had to be put on hold. This the Bank attempted to do by establishing a status quo. However, this, was to prove to be equally contentious and become another point in dispute over which India and Pakistan took positions.

4.2.1 Positions Taken and Underlying Interests

As Fisher and Ury point out, disputants often take positions in a conflict that can obscure their actual interests and aims. Therefore, they recommend separating the issues from the positions adopted by the disputants [1981: 11]. Otherwise, these positions can deflect any ongoing discussions away from the actual issues that could potentially lead to some form of acceptable agreement. Generally, a dispute arises and is perpetuated by the conflicting positions the disputants take. Therefore, if the focus of the talks is, then, upon the positions each party is taking, a stalemate is not an uncommon product. Refocusing the talks upon the issues behind the positions can encourage the disputants to find ways to settle their differences rather than only see the chasm between them.

By the time the World Bank came to intervene in the Indus Basin dispute, India and Pakistan had already established their positions, and guarded them against attack from the other. Clothed in a range of terms (legal, technical, uses) each country laid claim to the waters from the eastern rivers, in particular the River Sutlej. India, adamant that it was justified in developing its own irrigation needs, refused to subjugate its needs to Pakistan's prior, and absolute claim, to these waters. Pakistan, fearful of any further action by India to unilaterally alter its water supply, in turn, refused to recognise that India too had a legitimate claim to use some of the water.

What is striking in the Indo-Pakistani relationship *vis-à-vis* the Indus Basin are the similarities in the goals of each party. Both India and Pakistan were interested in safeguarding their national security, promoting economic development, and being independent and self-sufficient in their production of food. Both parties, also, wanted to have an assured and untampered supply of water, independent of an upstream riparian. Both countries were prepared to use international law to legitimise their position, and both wanted to minimise the financial costs that might be incurred from alternative approaches to resolving the problem. With so much in common, it is a testimony to

Indo-Pakistani suspicions and wariness that the dispute, and subsequent negotiations involving the World Bank, dragged on for over twelve years.

Indian and Pakistani reluctance to relinquish their positions arose from the fear that this would be used by the other party to its own advantage. Despite considerable effort by the Bank to build trust, in the parties and the process, this fear remained till the end of the negotiations. In fact, it is even encoded in the Indus Waters Treaty in Article XI: "Nothing in this Treaty shall be construed by the Parties as in any way establishing any general principle of law or any precedent" [Appendix 7].

The manner in which India and Pakistan saw their positions did change during the negotiations. At the start of the talks under the Bank's good offices, both countries highlighted their respective standing and rights in international law, and international water law. The legal argument was used less frequently by the disputants as discussions incorporated Indian and Pakistani concerns, respectively, financial liability to Pakistan and assured supply to historic uses. At the start of its involvement in the Indus Basin negotiations, the World Bank attempted to limit the dispute by suggesting the establishment of a status quo. This strategy would, unfortunately, serve only to complicate matters.

In referring to the interests and positions adopted by India and Pakistan, these political entities are being considered as monoliths. India and Pakistan are, for the most part, taken in this thesis to be single, unitary actors engaging in mediated talks with the World Bank, which is also treated as a monolith. It is appreciated that this is an over simplification of the diverse and often conflicting interests that govern the separate constituents comprising these countries. It is also appreciated that the events and decisions of the mediating room were influenced by the events and context of these diverse interests.

Nonetheless, all three parties are still treated as monoliths, and the focus of this thesis remains within the mediating room, as it is beyond the scope of this work to enter into a discussion of these other interests. On occasion, though, reference is made to the conflicting interests of the Pakistani provinces of Sind and West Punjab as these had a direct, and at times visible, influence upon the negotiations.

4.2.1.1 India

After independence, India was keen to begin its long road to economic development. The centralised economy and the five year plans that emerged to clear the path to development, relied upon utilising all of the resources India had at hand. As a result of partition, sections of the Indus rivers lay within the sovereign territory of independent India. India laid claim to these water to expand its existing irrigation framework with the hope that it would, eventually, become self-sufficient in food production and stave off famine. India's interest in developing its irrigable lands, in the west, also included hopes of rehabilitating refugees who had fled Pakistan during the bloodied partition of the Punjab.[75] India wanted the additional water, but it did not want to wait indefinitely for a decision nor pay Pakistan handsomely for the allocation of this water.

Indian interests evolved further, after the intervention of the World Bank and resultant discussion of proposals for a comprehensive plan, to include time and financial liability. In the meantime, India unilaterally began constructing irrigation works on the River Sutlej and was keen to start using these works as they became available. However, India was restrained from diverting water to these works by a commitment to maintain the status quo and not diminish water to Pakistan for the duration of the Bank's good offices (this will be discussed in more detail later). With Pakistan refusing to give clear agreement to key issues such as the basin's division, the cooperative work dragged on with the attendant stipulation not to diminish supplies. With newly constructed irrigation works standing idle, and public pressure growing to utilise them, the Government of India was eager to bring the talks to a conclusive end, whether by agreement or by the talks breaking down.

The other key interest that determined Indian action during the negotiations, was the financial liability that each plan potentially incurred for India. In its 1954 Proposal the Bank decided that financial liability was to be determined by the extent to which each country benefited. All three participants accepted the principle that any link canals built to replace water from the Eastern rivers, would benefit India. This was because India would then be allowed to withdraw water from those rivers for its own use. Thus, it was

75 This land was not just in East Punjab, but also Rajasthan. Rao points out that the Bhakra system provides Rajasthan with water for 231,000 hectares, and adds that "the total irrigation potential in Rajasthan amounts to about 1.8 million hectares (ha) due to Indus waters" [1979: 64].

agreed that India would be liable for the cost of constructing replacement works in Pakistan.

Thereafter, the cost of proposed replacement works became of prime interest to the Indian delegation, as efforts were made to limit the cost by proposing and opting for the more economical plans available. Berber, an international law specialist who had been hired by the Indian Government, even tried to demonstrate that India, in fact, would not benefit from the replacement works [IBRD-2/10/56]. Using the "Principle of Benefits", Berber strove to demonstrate to the World Bank that India would not benefit, and in turn Pakistan would not receive any money from India for the replacement works. However, if the "Principle of Equity" was used, then clearly both countries would benefit. And since the Bank had, of course, intended for India to pay to the replacement costs to a 'certain extent', "the cost of replacement works should be shared by the two countries" [IBRD-2/10/56; 4/10/56].

Over the duration of the mediated negotiations, India did not relinquish long held positions as it took up new ones, it merely added them to its growing stable of policies and posturing. This was illustrated in 1957 during talks between the World Bank and India, in which India stated it would resort to the 1948 Agreement if an acceptable outcome was not forthcoming. The Bank representative "replied that even this 'agreement' is in dispute" [IBRD-10/6/57]. In fact, the legality of this Agreement had been disputed within months of its signing, in 1948, by Pakistan, and had exacerbated tensions over the River Sutlej.

Indian posturing began, in 1948, by seeking to justify its claim to the Sutlej. The British colonisers were blamed for being unfair in their uneven development of the Indus Basin. It was explained that because certain areas that, after partition fell into India, had not been considered as viable for development as those areas that now comprise West Punjab in Pakistan. Independent India claimed that this under-development in East Punjab needed to be reversed even though the works, now required, would be more expensive to construct than those built under the British.[76]

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76 India is subject to the same problems with irrigated agriculture as Pakistan, namely waterlogging and soil salinity. As far back as 1958, while the Indus Basin mediations were ongoing, the Indian Prime Minister, Jawaharlal Nehru, said regarding these problems: "On the one side, we carry out irrigation works and put more and more water for fresh areas, while on the other side, land goes out of cultivation due to waterlogging. This is a curious state of affairs and it is far better

Shivananda describes the Indian perspective:

> "Thus the developments of the past were due to political and financial policies pursued in those days and not because this part of the Basin had less need of water or could not have brought to it. Obviously, people in the Indian part of the region would not now accept the proposition that the mistakes of the past be perpetuated indefinitely" [1961: 7-8].

India also drew upon international law to shore up its claims. In a curious interpretation of international law India, soon after independence and partition, stated that it was under no legal obligation to Pakistan since the country did not exist prior to 1947. Therefore though India was willing to inherit the mantle of British India and the benefits of automatic membership to international organisations such as the World Bank and the United Nations, it was unwilling to continue the previous entity's legal obligations to areas that comprised Pakistan after partition.

After the signing of the 1948 Inter-Dominion Agreement (Delhi Agreement), India used this document to argue that by diverting water away from Pakistan it was within the remit of the agreement. Though this would appear to be true, Pakistan challenged the legality of this agreement. And though India side-stepped Pakistan's request to submit the Sutlej dispute to the International Court of Justice (ICJ) for settlement, it was willing to answer Pakistan's questioning of the 1948 Agreement's legality.

In a telegram from the Prime Minister of India to the Prime Minister of Pakistan on 18 October 1948:

> "We deny that the Delhi Agreement provides for continuance of supplies to West Punjab until a final agreement is arrived at between the two dominions. We consider that if a party refuses to come to a final settlement of the dispute without any reservation or if there is unreasonable delay in the part of a party in concluding such final settlement it is open to other party to put an end to the agreement by giving reasonable notice. Further, the Delhi Agreement is based on recognition by West Punjab Government of the right of the East Punjab Government to progressively diminish supply of water to West Punjab in order to give reasonable time to enable West Punjab Government to tap alternative sources. Further meetings between representatives of the two governments should be on the basis of this recognition by West Punjab Government of above-mentioned rights of East Punjab Government" [IBRD-23/3/51].

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to stop every irrigation work than allow waterlogging. It seems to me the height of folly that while we advance on one side we retreat from another side" [in McCully, 1996: 168].

India selectively agreed to aspects of international law that appealed to its course of action. In a letter to the Pakistani Prime Minister on 8 October 1950, the Indian Prime Minister refused to consider the involvement of the ICJ or any other impartial, third party: "To think, ab initio of a third party will...be a confession of our continued dependence upon others. That would hardly be becoming for proud and self-respecting independent nations" [IBRD-23/3/51, emphasis in original].

Prime Minister Nehru went on to reiterate the point: "You seem to think that...only outsiders can decide for us. I confess that I am unable to appreciate the force of this argument, which, as I have indicated above, reduces us to a dependent status relying upon the pleasure of others; this is something wholly repugnant to me and, in my view, incompatible with the dignity of both India and Pakistan" [IBRD-23/3/51]. Nonetheless, India was to offer some form of international tribunal as a means of resolving the dispute. But these tribunals would be composed of an equal number of members representing India and Pakistan, without the involvement of another impartial member to decide matters in the event of a deadlock.

India also portrayed itself as the aggrieved 'victim' in the Indus Basin dispute. It pointed out that though East Punjab in India had approximately the same population and territory as West Punjab in Pakistan, it had only a fraction of the irrigated works that watered crops in West Punjab. Additional burdens were, also, being placed upon East Punjab and its under-developed lands by the need to rehabilitate refugees fleeing from West Punjab and other parts of Pakistan. All East Punjab was asking for was water it was due under international law, and which amounted to no more than 20% of the water flowing through the Indus Basin. India did not mention that it had, as a country, numerous basins supplying numerous canals.[77] If the population of East Punjab did not receive water to canals that had not existed a few years ago, it would not mean the whole of India could face food shortages, unlike Pakistan.

In 1957, the Indian Minister of Irrigation and Power was justified in claiming that "[d]uring recent months, there has been a good deal of propaganda by and on behalf of Pakistan, aimed at misleading world opinion by suppression and distortion of facts" [IBRD-25/7/57]. However, the moral highground appears to have been lost when in the same session the Minister was equally responsible of misleading Indian opinion when

77 See Rao, 1979, for more details of India's water wealth.

replying to a question in the Lok Sabha: "At present, only about 10 per cent of the irrigation in West Pakistan depended on the waters from the eastern rivers" [IBRD-25/7/57].[78]

Less than a month later this figure was to halve: "At present Pakistan depends upon the eastern rivers only for about 5 per cent of the total supplies used by her for irrigation in the Indus basin in Pakistan, *if she makes full use of the link canals already constructed by her*" [IBRD-21/8/57b, emphasis added]. There was, however, no mention of Pakistan's ability at that time to utilise the link canals under construction. Under the good offices of the Bank, and as construction of the Bhakra Dam on the River Sutlej neared completion, the Indian representatives reminded observers that India had shown great patience in not withdrawing water for its projects, and was making tremendous sacrifices as a result.

The Indian Minister of Irrigation and Power pointed out his Government's benevolence:

> "It was in a spirit of good neighbourliness that we accepted the Bank Proposal, although it meant giving up our rights on certain vital supplies flowing through our territory. In the same spirit we voluntarily imposed on ourselves restrictions on the utilisation of the waters flowing through our rivers, although in the context of the tremendous problems of rehabilitation following partition, we would have been fully justified in rapidly extending irrigation to areas which depend for their development on the waters of the eastern rivers. And, in our anxiety to see that the Pakistan cultivators were not penalised for the faults of their Government, we have continued to supply water from the three eastern rivers, although the Government of Pakistan, contrary to the agreement of May, 1948, have defaulted in the payment of canal water charges, the arrears of which have steadily mounted up to over a crore rupees. There is, however, a limit to our patience. India will not wait indefinitely for a settlement, ignoring the needs of her own people" [IBRD-25/7/57].

4.2.1.2 Pakistan

It is said that if the British had not extended the irrigation system in the Punjab to the extent that they did then Pakistan, as an independent nation, would not have been able to support itself. The country's complete dependence upon the Indus Basin's rivers and the

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78 Though the Eastern rivers contribute approximately 20% of the total available surface fresh water in the Indus Basin, West Punjab was heavily dependent upon these rivers. Most of the irrigation infrastructure was in areas serviced by these

irrigation canals that used the water therein, was clearly demonstrated in April 1948. Any complacency the Government of Pakistan may have had regarding its water supply was sharply challenged. Fear was to colour the negotiations, both bilateral and multilateral, thereon. The Government of Pakistan feared for the fragile existence of its country in the presence of a more powerful, and possibly hostile, neighbour.

Successive governments were later, also, to prioritise their fear for their own existence over difficult decisions regarding the Indus Basin talks. The fight among different political parties for control created an unstable situation in the political arena. Ministers would be endowed with power, only to have them revoked months later in favour of another candidate. In this unstable atmosphere, making difficult political decisions to 'sign away' the three eastern rivers was regarded as being tantamount to political suicide. Yet the political death that politicians including several Prime Ministers were desperate to stave off, proved unavoidable. Political will to agree to the division of the Indus Basin only came with the military *coup d'etat* in late 1958.

Pakistan's interests *vis-à-vis* the Indus Basin negotiations are multi-layered. At the base, most important and pervading all foreign policies, was the first layer which dealt with simple survival as a country. Pakistan did not want to be re-absorbed into India. The second layer dealt with maintaining a supply of water, from existing sources, to its existing uses. The third layer dealt with Pakistan's unwillingness to consider alternative sources. This is linked to the fear that India would be free to utilise water which Pakistan needed for further development in the Punjab. This, in turn, would mean Pakistan would not have the water it needed. And to replace that water from alternative sources would be expensive and Pakistan would be expected, though it could ill-afford it, to bear the costs.

The fourth layer dealt with Pakistan's reluctance to undertake any action that India could claim set a precedent, and could use later to its own advantage. Therefore, Pakistan was to resist the division of the Indus Basin in the absence of any guarantee as to how the water was to be supplied and used. Pakistan feared that if it agreed to the division, and subsequent talks failed to find agreement India would unilaterally divide the waters claiming Pakistan had agreed to the division. Pakistan would then be left without the waters it depended upon, and without the infrastructure it needed to supply its historic

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rivers, and which also happened to be the most productive areas in Pakistan, and

uses from alternative sources. The fifth layer dealt with the internal rivalry for water between West Punjab and Sind. Neither wanted to subjugate its irrigation plans and projects to the other's. This rivalry was to, later, create obstacles during the mediated talks with the World Bank.

Pakistani posturing *vis-à-vis* the Indus Basin also began in 1948. Just as India was to play to an international audience, so did Pakistan. The result was a propaganda war of sorts, conducted in the tit-for-tat manner favoured by politicians in the Indian Subcontinent. Pakistan described the closing of the Dipalpur canal and the UBDC with a dramatic interpretation of the facts. India, it claimed, had cut off "every canal that crossed the boundary" [IBRD-23/3/51].

It was Pakistan's turn to pose as the aggrieved victim: Pakistan claimed that even though India knew that its actions would lead to a "national calamity" it rejected "Pakistan's plea" to respect the authorised allocations pending a decision by the ICJ. Whereas Pakistan was using the UN Charter to promote the legality of its position and the illegality of the Indian action, India was using force. India, instead, using its upstream status tried to get Pakistan to agree to one condition before it would restore water. Namely, that Pakistan recognised it had no claim to the water and India could in future appropriate Pakistan's share [IBRD-23/3/51].

Pakistan maintained that the water that was in the Eastern rivers was its only supply, whereas India had other sources to draw upon.[79] Without this water the country would starve and the economy fail. Thus to Pakistan the Indus system was its bloodline.[80] Iliff agrees that "[i]f Pakistan was deprived of her canal water from the Indus system, the whole of west Pakistan would really become a desert" [1961]. Under the World Bank's

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upon which it depended heavily for food.

79 Pakistan was correct in pointing out that India had available to it other sources of fresh water upon which it could draw, whereas Pakistan was restricted to the Indus Basin. This is illustrated by the other great Himalayan river, the Ganges, which flows through India. Its basin covers 900,000 km^2 or 26% of Indian territory. The Ganges' water contribute approximately 25% of all the water available to India, and is used to water 43% of the land irrigated in India [Newson, 1992: 167]. For a fuller description of the fresh water resources India has, see Rao [1979].

80 A river of comparative but more symbolic importance in Indian eyes is the Ganges. Rao describes the river as "the most important and sacred river in India and reflects the culture of India from ancient times", and recalls Prime Minister Nehru acknowledgement of the river's importance as: 'The Ganga is above all the 'River of India'' [1979: 64].

proposal to divide the Indus Basin, made in 1954, Pakistan was asked to agree to changing the source of its water supply. It was not asked to reduce its needs. As already pointed out, Pakistan was reluctant to comply. Throughout the negotiations, both bilateral and multilateral, Pakistan kept alive the international law aspect of the dispute.

At the start of the dispute, in 1948, India (or at the very least the East Punjab Government) was to justify its actions by questioning why Pakistan had not referred the dispute to the Arbitral Tribunal set up under the instruments dealing with Partition. Pakistan, rightly, replied because no dispute existed on the waters of the Indus Basin for the duration of the Tribunal's existence. International law was to be used more vigorously later, after the 1948 Inter-Dominion Agreement had been signed, and was being challenged by Pakistan. Two claims were made to nullify the legality of the Agreement. Firstly, the Government of Pakistan was to claim that it had been coerced into signing the agreement, against its will. Secondly, that the agreement was temporary, and had long expired, though the Government did not specify the date of expiry.

The moral highground that Pakistan was eager to gain, was questioned not only by the Indian Prime Minister with regard to the issue of coercion, but also by the 1948 Agreement (see Appendix Four). In the text of the Agreement, no mention is made of an expiry date. Other than expounding to explore options for a settlement with further meetings, research and a spirit of goodwill, the Agreement does not propose a deadline. Nonetheless, Pakistan continued to maintain that under international law, India was obliged not to cause appreciable harm to existing uses.

Convinced its position in international law was secure, Pakistan time and again proposed settling the dispute through the International Court of Justice (ICJ).[81] On each occasion, India refused Pakistan's proposal, thereby nullifying that particular option. Hirsch suggests that India refused this option, "feeling that a purely legal evaluation of the situation would favor Pakistan" [1956: 221]. Pakistan concurs, alleging India was not willing to "test its unilateral interpretation" of the 1948 Inter-Dominion Agreement in front of the ICJ [IBRD-23/3/51].

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81 There are two important criteria that must be agreed to before submitting a dispute to the ICJ for adjudication. Firstly, all parties to the dispute must be willing to put the case before the Court. Secondly, these parties must give a commitment to

And yet, curiously, Pakistan would continue to regard the ICJ as a possible avenue to settlement of the Indus Basin dispute despite clear evidence that India would refuse to allow the dispute to go the Court. As late as 1957, after six years of World Bank involvement, the Prime Minister of Pakistan was to state "that in his view the proper course of action was to have this question referred 'adjudicating body initio' to the International Court of Justice" [IBRD-11/6/57].

India did offer to set up joint international tribunals with Pakistan to try the dispute. But Pakistan was to, rightly, point out that without an impartial member in the tribunal it would only lead to stalemate. Pakistan interpreted this as confirming "that India has no real interest in a Commission of engineers except as a means of promoting delay" [IBRD-23/3/51]. Pakistan reiterated that rather than using the UN's court established for such disputes, India was proposing tribunals that were constituted to "invite deadlock and interminable delay". Whereas Pakistan by comparison was attempting 'meaningfully' to resolve the dispute. And therefore, "Pakistan will accept, however, any tribunal for settling the dispute that has a chance of being impartial and effective. India has Pakistan's standing offer to do this" [IBRD-23/3/51].

The issue of maintaining the status quo that was mentioned above, came to represent the Indus Basin dispute in microcosm. The World Bank had made its stipulation clear that "while the cooperative work continues with the participation of the Bank neither side will take any action to diminish the supplies available to the other side for existing uses" [IBRD-13/3/52d]. The Bank's intention was to reassure Pakistan that participating in these talks would not prejudice its position or damage supply to its existing uses. Nonetheless, the simplicity of the concept belied the difficulties that would arise from its implementation and practice.

Almost every aspect of this stipulation came to be contested: the starting date, the amount of water to be delivered from India to Pakistan and the collection of data to verify the correct supply. Even the introduction of special commissioners, on both sides, acted to complicate matters rather than simplify the issue of not diminishing supply. Some of Pakistan's representatives also raised the understanding within President Black's letter to the level of an agreement. Thus, Laylin in writing to the World Bank referred to "the March 13th Agreement" [IBRD-16/6/52].

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implement the Court's ruling irrespective of whether the decision favours them or

On 6 April 1953, the Prime Minister of India informed his Pakistani counterpart that India was appointing a special commissioner to ensure "that full effect is given to our assurance" to not diminish supply to existing uses in Pakistan and to see that the data on river and canal discharges were verified [IBRD-6/4/53; 17/4/53].[82] However, the special commissioner's title and duty were to include "the implementation of the water treaty of May 4, 1948" [IBRD-9/4/53]. Pakistan found reference to the disputed 1948 Inter-Dominion Agreement unacceptable and informed the World Bank of its displeasure [IBRD-7/4/53].

As was to happen throughout the mediations, efforts by the World Bank to resolve differences in one area and move the negotiation along would in effect be negated by the arrival of another problem. The Bank was trying in Spring 1953 to get "agreement on the procedure for verification and collection of current flow data" between India and Pakistan in order to remove Pakistan's "fear of reduction of supplies" [IBRD-28/3/53a-b; 31/3/53; 7/4/53; 8/4/53; 29/4/53a-b; 1/5/53; 4/5/53; 8/5/53]. Amidst those efforts the World Bank was also asked, by Pakistan, to resolve the issue of the commissioner's appointment and title. India was duly informed that unless the title was changed, the Bank would be unable to endorse the appointment of the special commissioner.

The Bank said the benefits of this appointment, indicating the Indian government's intention to assure full compliance with the stipulation of not diminishing supplies, would be lost on Pakistan by referring to the 1948 Inter-Dominion Agreement. India changed the title of the commissioner to "Special Commissioner for Canal Waters" [IBRD-13/4/53]. However, the Indian Government stressed to the World Bank, through its Executive Director, that the "water being given to Pakistan under the assurance given to the Bank on March 13, 1952 is being given under the Treaty of 1948 and is based on the position as it then stood under that Treaty" [IBRD-13/4/53]. Nonetheless, the Bank welcomed the appointment of the Indian Special Commissioner [IBRD-15/4/53; 21/4/53]. In May 1953, Pakistan appointed an Irrigation Commissioner to "cooperate

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not.

82 Prime Minister Nehru in his letter of 6 April 1953 was also to make clear that though he welcomed the involvement of the World Bank in the Indus Basin dispute, he would have preferred direct bilateral negotiations on this matter as on other Indo-Pakistani matters in dispute [IBRD-6/4/53].

with...the Indian Special Commissioner", and ensure full compliance with the no-diminishing stipulation [IBRD-13/5/53].[83]

The newly appointed commissioners explained to each other their duties. The Pakistani Irrigation Commissioner explained his principal function was to cooperate with the Indian Special Commissioner, in implementing water supply arrangements as outlined in Black's March 1952 letter. The Government of Pakistan was anxious for the implementation to progress smoothly and successfully, and the Irrigation Commissioner was confident this would be possible. As a first step in the process, the Pakistani commissioner suggested to his Indian counterpart that "we meet to discuss procedures for simple and direct exchange of information and views, and also a suitable programme for the distribution of supplies" [IBRD-25/5/53].

The Irrigation Commissioner, appointed by the Government of Pakistan, continued:

> "I am most anxious that you and I should establish a basis for working co-operatively. In order that there may not be the slightest embarrassment in our meetings or communications I shall assume that our discussions and communications will not commit our respective Governments to anything beyond what they have already undertaken. With this understanding between us, we should be able to meet and communicate freely without fear of becoming involved in matters beyond our jurisdiction" [IBRD-25/5/53].

The Indian Special Commissioner retained a more formal approach, and replied that he was responsible for "assuring the Government of India that the local authorities are fulfilling the understanding given by the Government of India to Mr. Black as per letter of the 13th March, 1952; and further to make immediate enquiries into any complaint which may be made regarding this to the Government of India or directly to me" [IBRD-6/6/53]. The Indian Special Commissioner did not see the need to meet as had been proposed, because he was "satisfied" and had "assured the Government of India that the

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83 Colleagues in pre-partition India were appointed as the commissioners. Pakistan's Irrigation Commissioner was K A Ghafoor, and India's Special Commissioner was G R Garg. "The newly appointed Pakistani Water Dispute Commissioner reports that he is a close friend of Mr. Garg's, having worked side by side with him for many years when they were junior engineers, and expects to get along well with him" [IBRD-22/5/53]. Indeed Ghafoor stated clearly his delight in working again together: "I look forward to our work together with real personal pleasure and send you my warm regards" [IBRD-25/5/53]. The promise of friendly and efficacious relations proved futile as India appeared to repeatedly put obstacles in the path. Real cooperation on data collection and verification was lacking even though it was essential for determining the level of water supplies to Pakistan, and therefore compliance with the no-diminishing supplies stipulation.

undertaking given to Mr. Black is being implemented in full"; moreover he had not received any complaint regarding supplies "from any source". And in addition since "the information regarding river supplies and canal withdrawals etc. which was being supplied to the local canal officers in Pakistan prior to the 13th March, 1952, is also, I am informed, being regularly furnished", there really was no need to meet [IBRD-6/6/53].

The Pakistani Irrigation Commissioner replied in July 1953, that he was surprised that the Indian Special Commissioner was not aware of the complaints regarding shortages that had been telegrammed, on a regular basis, by the Pakistani canal officers to their opposite numbers in India. The Irrigation Commissioner enclosed the list of telegrams, thirty-three in total, all had gone unacknowledged. Therefore, the "need to evolve procedures for simple and direct exchange of information and views is obvious enough, as this data is required to check the implementation of the 13th March 1952 Agreement" [IBRD-28/7/53].

Since this information was required often and quickly, the Pakistani Commissioner proposed to "thrash out procedures for this exchange of information at a meeting rather than through formal correspondence which takes time" [IBRD-28/7/53]. Despite the willingness of the Pakistani Commissioner to put aside formal procedures in favour of more informal and efficient action, the initiative was lost due to the Indian Commissioner's insistence upon formality.

There was also some misunderstanding regarding the meaning of status quo. The World Bank and India appeared to regard the status quo as coming into effect from the date of the President's letter, 13 March 1952 [IBRD-5/1/53; 24/3/53; 8/4/53]. This would imply that the 1948 Inter-Dominion Agreement that Pakistan was contesting, would still remain in the picture. Pakistan would still need to resolve its dispute with India on that issue. So though this Agreement conferred upon India the right gradually to diminish water to Pakistan's existing uses, by agreeing to comply with the status quo it would appear that India had put that right on hold for the duration of the World Bank's good offices. India was simultaneously continuing with its unilateral construction of its planned irrigation works.[84]

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84 Bound by the no-diminishing stipulation, India was still keen to make these works operational as soon as it was possible [IBRD-10/4/53]. Therefore, it urged upon the Bank the necessity for some transitional arrangements that would allow it to make

Pakistan, however, insisted that the status quo should mean the situation as it was at partition in August 1947 [IBRD-26/3/53]. This would remove the 1948 Agreement from consideration, and assure Pakistan continued supplies to its existing uses, an issue that was one of Pakistan's key interests. It was an issue that India was aware of, as the World Bank Executive Director for India pointed out, Pakistan was trying to "establish a right to distribution of water on the basis of status quo at the time of the 1948 agreement" [IBRD-8/4/53].

The date of the status quo therefore, was of some significance, and hotly debated. Throughout the negotiations the different definitions of the status quo were to interfere with the talks' progress. Pakistan was to complain that supplies coming from across the border were being reduced in contravention of the no-diminishing stipulation. India, however, would maintain that it was adhering to the stipulation. Though the commissioners had been appointed to deal specifically with this matter, the issue was often taken to the highest ministerial level with the involvement of the Prime Ministers of India and Pakistan, and the World Bank President.

4.2.1.3 The World Bank

The assumption of an impartial, objective mediator is misleading because they "are best seen as self-interested actors" [Princen, 1992b: 215]. It is, therefore, necessary to look at the mediator's own position-taking, and underlying interests [Wall and Lynn, 1993; Bercovitch, 1992; Princen, 1992b; Zartman, 1986]. It is as well to remember two points regarding the mediating body. Firstly, though the mediator may under ideal conditions be completely impartial and objective, under more usual conditions, the third party has entered into the mediation process with an agenda of its own. Secondly, this agenda will influence not only the manner of the third party's involvement, but also the mediation process. Therefore, it is important to consider the positions and interests of the third party as well.

The interests of the World Bank shall be considered first, because the position taking is more complex. The Bank's interests can be sub-divided into reasons why it entered into

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some withdrawals from the Eastern rivers. These agreements were negotiated for set

the Indus Basin dispute, and how its interests affected the mediation process. From the Bank's perspective, intervention in the Indus Basin dispute appeared to benefit all the parties. If the dispute over the Sutlej River could be resolved, then the Bank could seriously consider loan applications from these two member Governments for projects utilising these waters thereby, making available international finance for the economic development of these countries. Furthermore, successful intervention would enhance the reputation of the World Bank considerably. This would, it was hoped, make it easier to raise capital in the sceptical American finance markets, which also happened to be the Bank's principal source of finance.

Once the Bank had determined to intervene in the dispute, its interests lay in getting the disputants to talk to each other, in a 'meaningful' manner i.e. without threats, or other inflammatory talk that would escalate the dispute. It is in pursuit of this interest that the Bank took its position comprised of three parts. Firstly, that the talks would approach the dispute only from an engineering perspective, with little reference to any accompanying political matters, thereby avoiding the political obstacles that had ended all attempts thus far in stalemate. Secondly, the Bank would only facilitate the process; it was not on hand for India and Pakistan to use it to support their particular positions *vis-à-vis* the other. Thirdly, since the Bank expected the talks to reach a successful conclusion quickly, and envisaged being involved for only a matter of months, for the duration of the Bank's involvement neither disputant would act to deteriorate the other's water supply. The no-diminishing-supply criteria also established a status quo, which sought to prevent any escalation of the dispute. However the status quo and the no-diminishing-supplies criteria served only to enlarge the topics over which the Indian and Pakistani delegations were able to create obstacles and bicker.

The discussion of the issues involved in the dispute in the Indus Basin allowed all parties to understand and assess the nature of the task confronting them if they wanted to resolve the dispute peacefully. All three participants had certain issues or agendas that had brought them to the mediation table. The World Bank had volunteered its good offices in order to not only benefit its member countries, India and Pakistan, but also to secure for itself a credible reputation in the international financial markets. Pakistan's interest in joining the talks was to secure a water supply to its existing uses, and India's reasons were to ensure an equitable apportionment of water for the development of new

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periods throughout the remaining negotiations.

irrigation works. Once the issues were apparent, attention could turn to the options that could both resolve the dispute and meet the agendas of the disputants.

SUMMARY

World Bank involvement in the Indus Basin dispute predates the offer of good offices in 1951. India and Pakistan had both, separately, approached the Bank for loans to construct works utilising the River Sutlej's water. But the Bank had had to refuse these loan applications, irrespective of their economic viability and merit, because at stake was the use of disputed water. The subsequent formal involvement in the dispute of the Bank was the result of frustrated loan applications and a number of other factors that suited the institution's agenda at the time.

It took months to move from the initial acceptance by India and Pakistan of the Bank's good offices to the actual start of the mediation. The reason for this delay was the need to sort out the procedures of the negotiating process. In other words, each party's agenda had to be met to a satisfactory degree. India and Pakistan wanted to ensure that participation in the multilateral talks would neither set a precedent nor commit them to any undertakings that might detrimentally affect their bargaining positions. The World Bank made repeated efforts to reassure both disputants that participation in these discussions would not set any precedent nor commit them to any unacceptable outcomes.

The issues around which the dispute centred came to the simple competition for what appeared to be a fixed amount of water. India wanted to use the water flowing through its territory to develop its own irrigation uses. However India, lying upstream of Pakistan, would in the process appropriate water that supplied existing uses in Pakistan. The downstream riparian was therefore concerned about the ensuing damage to its uses and resulting effect upon its agricultural output. As the discussions progressed another issue came to the fore regarding the financial liability of each disputant.

The reluctance of India and Pakistan to move from their positions stemmed partly from anxieties regarding accepting any large financial liability, and from internal political difficulties. Nonetheless, through dogged persistence and exploration of different options, the World Bank was able to squirrel away little agreements as they came.

However, as shall be seen in Chapter Five, the final agreement that led to the Indus Waters Treaty was only possible after a quantum leap in Pakistani attitude *vis-à-vis* the existing proposals.

5

THE PROCESS OF COOPERATION IN THE INDUS BASIN, 1953-60

The preceding chapter focused upon the means by which the mediator engaged in the Indus Basin dispute and encouraged the disputants to address the issues involved. Examination of the Indus Basin dispute continues in this chapter by looking at the second two segments of the framework: exploring options and reaching agreement. Having understood the issues at stake, the World Bank was able to encourage India and Pakistan to explore alternatives to continuing the dispute.

The process of exploring options, however, had a dynamic and evolutionary effect upon the mediation process as it added new issues to the existing stable of complaints and grievances. This latter aspect, in turn, obstructed the already difficult task of reaching agreement. The final proposals that were agreed to in 1958, and led to the signing of the Indus Waters Treaty in 1960, had been available since 1954 and 1956. The political cost of agreeing to these proposals though appears to have forestalled such a step for a number of years.

5.1 OPTIONS

The World Bank had succeeded in engaging itself in the dispute resolution process India and Pakistan had started, half-heartedly, a few years before. The promise had been to help the disputants find an alternative to the stalemate that had characterised their previous encounters. Based, initially, upon the Lilienthal principles the Bank encouraged the disputants to find a solution that would satisfy both India and Pakistan's separate agendas. This exploration of possible acceptable options was also meant to 'expand-the-pie' and demonstrate to the countries that there was enough water in the Indus Basin for all their needs. Therefore, neither party had to continue to insist upon meeting their particular demands before reaching agreement.

Nonetheless, demonstrating that alternative options exist is not the only consideration needed in resolving a dispute. The issues that characterise the dispute filter out options that may appear optimal to an observer, but are regarded as detrimental to either disputant. Therefore, India refused to give up its claim to the Eastern rivers, and Pakistan refused to relinquish these rivers. The World Bank had initially attempted to get the disputants to draw up a joint plan for the development of the Basin's waters for the benefit of both countries. However, the differences between the disputants remained sufficient for the Bank to ask the Indian and Pakistani delegations to draw up separate plans. When these separate plans failed to bridge the differences, the World Bank presented its own plan in 1954.

The mixed response to the Bank's original plan threaten to torpedo the mediated talks. However, a compromise was reached by suggesting another option. The 1954 Plan and the talks preceding it, had focused upon the development of a comprehensive plan that would utilise all the waters of the Basin. This would, in effect, be a permanent plan. With difficulties plaguing the discussions for this plan, the Bank suggested reaching temporary agreements that would meet the immediate water needs of the countries. These *ad hoc* agreements would be negotiated in parallel with the comprehensive plans. The search for acceptable options appears to have been an evolutionary process, with the issues in dispute naturally influencing the nature of the options.

5.1.1 A Comprehensive Plan

Lilienthal's assessment of the Indus Basin dispute had generated the principles that were adopted by the World Bank for the Working Party. The key element of the dispute was the simple competition for the waters of the River Sutlej. India wanted to develop its new uses and Pakistan, though it too would want to develop new uses, wanted to safeguard its existing uses. Though neither disputant was denying the right of the other to make use of the water, India and Pakistan prioritised their own uses over each other's.

Lilienthal's principles stipulating the treatment of the Basin as a single unit and the sufficiency of water within the Basin allowed all three participants to interpret the principles in their own way. The World Bank regarded the principles, and the disputants acceptance of the principles, as signalling the search for the optimal development plan available. Optimal development would mean using all the waters of the Indus Basin, for

the joint benefit of the riparians, in the most economic and efficient manner. This the Bank believed would remove the reasons for the dispute over the River Sutlej since all the waters were now open for consideration.

India welcomed the principles because it interpreted them as recognising its need for the Sutlej waters. Since independence India had been unilaterally constructing works to utilise these waters. Though it would take time for the works to be completed in totality, different phases were gradually being finished and India, naturally, was keen to make them operational. India believed there was enough water within the whole Basin to meet all demands for water, especially since most of the water was "at present unused and running waste" to the Arabian Sea [IBRD-18/9/51]. The Indian Prime Minister, Jawaharlal Nehru stated: "We are convinced that there is more than enough water in the Indus Basin to satisfy the needs of both India and Pakistan, provided it is properly exploited" [IBRD-25/9/51b]. Therefore, by looking at all the waters of the Basin, India believed, Pakistan would realise there was enough water, and India would get access to the River Sutlej.

Pakistan also welcomed the intervention of an international agency in its long-standing dispute with India. But the most important factor that it wanted was the absolute security of its existing uses. This Lilienthal had recommended in his article, and the World Bank tried to secure through the obligation for neither party to diminish supply to each other for the duration of the Bank's intervention. With this assurance in hand, the consideration of all the rivers in the Indus system, appeared to be to Pakistan's advantage too. The different provinces in the country had different irrigation schemes at work, or planned, which under these principles would also be taken into regard, and safeguarded, in any final settlement.

However, though India and Pakistan agreed to enter into discussions based upon Lilienthal's principles, their priorities had not changed. Though obliged to respect each other's need for water, India and Pakistan were unable to reach agreement upon a common approach to developing the Basin jointly. Frustrated by the differences, the World Bank asked the parties to submit separate plans outlining their concept of development. The resultant plans highlighted the differences more acutely, and the World Bank was forced to propose its own plan to keep the talks going.

5.1.1.1 The 1953 Indian and Pakistani Plans

On 6 October 1953, the Indian and Pakistani delegations presented their respective proposals for the comprehensive development of the Indus Basin [Michel, 1967: 230]. The plans had a number of aspects in common: [i] each Dominion had favoured its own uses above the other's; [ii] both had estimated similar amounts of water available within the basin; [iii] both plans, in effect, jettisoned an integrated approach and divided the waters between them; [iv] both India and Pakistan appeared to recognise India's use of the Indus basin could really only come from the eastern rivers;[85] and [v] neither side allowed each other allocations for planned uses and future development.

The Indian proposal was optimistically called the "*Comprehensive Long-Range Plan for the Most Effective Utilization of the Water Resources of the Indus Basin*" and dealt with the whole Indus Basin. In terms of the percentage of water allocated to Pakistan, it appeared to be more generous than Pakistan was being towards India. India was giving Pakistan 76% of all the water, whereas Pakistan was allocating a meagre 13% to India [Michel, 1967: 230].

However, such apparent generosity came at a price. India was proposing to requisition all the water of the eastern rivers (Sutlej, Beas, Ravi), and 7% of the western rivers for its own existing and planned uses. Pakistan was to meet all its uses from the remaining 93% flow of the western rivers (Indus, Chenab, Jhelum). In other words, the Bhakra-Beas-Rajasthan project would proceed, and India would make additional withdrawals from the Chenab via the Marhu Tunnel, depositing the water in the Ravi [Michel, 1967: 230].

Just as the Indian Plan had favoured India, the Pakistani Plan favoured Pakistan. In effect, though confined to the Pakistani section of the Indus Basin, the plan proposed to allocate all the water beyond India's present-day uses to Pakistan. Indian uses amounted to 70% of the eastern rivers or 13% of the total water supply in the basin. (The eastern rivers supplied approximately 20% of the total Indus Basin water supply, with the western rivers making up the remaining 80%.)

Table 5.1 1953 Indian and Pakistani Plans for the Indus Basin

	Total/bcm	For Pakistan/bcm[%]	For India/bcm [%]
Indian	147	111 [76]	36 [24]
Pakistani	146	127 [87]	19 [13]

[Source: after Michel, 1967: 231 and IBRD-5/2/54]

Aside from an issue of quantity, Pakistan was keen to maintain its present sources. The highly developed areas of West Punjab were fed principally from the eastern rivers. To change the source of this water supply would entail considerably more expense as link canals, and dams, would be needed to bring replacement water from the western rivers. Pakistan was unwilling to carry the additional expense, especially as it felt it was legally justified in demanding the status quo be maintained. In other words, the quantity and source of water supplied to Pakistan's uses should remain unchanged.

The extent of the divisions between the two Dominions is suggested in a report on the Indian plan [IBRD-12/10/53].[86] The report contested five points in the Indian plan: [i] the method by which the total amount of water available in the basin was calculated; [ii] the fact that allocations to Pakistan were less than its uses already in existence; [iii] that the Indian plan ignored Pakistan's pre-partition plans, and underestimated Pakistan's needs; [iv] that India was still claiming the same amount of water as it had in the unsuccessful Inter-Dominion conferences in 1950, which included part of Pakistan's existing uses. The Tipton report implied that the Indian plan put the responsibility to replace water from other sources upon Pakistan. (This appears to suggest that efforts by the IBRD and the Working Party to reconcile Indo-Pakistani differences had failed); and [v] the plan proposed pooling together all the water of the basin and then allocating it in accordance with the Indian Designee Engineer's instructions. The Designee Engineer would decide which areas in both countries were commandable by the rivers, and the amount of water needed [IBRD-12/10/53]. The Plan appeared not to suggest conferring with the Pakistani irrigation authorities.

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85 Even the Indian claim to 7% of the western rivers was drawn from the River Chenab flowing through Indian controlled Jammu and Kashmir.

86 The report was submitted by Tipton, the consultant engineering firm Pakistan had employed for advice on a comprehensive plan.

The report's author, Tipton, advised Pakistan that "[b]ecause of the character of the submission of the Indian Designee, it appears to me it might be to the best interest of Pakistan to emphasize the additional uses of water that were conceived before Partition" [IBRD-12/10/53]. This implied accepting Indian plans for Bhakra and that extra-basin transfers would occur but it also meant that Pakistan's pre-partition uses had equal weighting as the Bhakra project. But, as it turned out, both countries rejected each other's plan. It fell to the IBRD to attempt to keep the negotiations from falling apart by making its own proposal for the comprehensive development of the Indus Basin.

5.1.1.2 The 1954 World Bank Plan

The Indian and Pakistani Plans were markedly different "in concept and in substance" [IBRD-5/2/54]. Though later discussions would produce some concessions, these were insufficient to result in agreement and the "margin of difference" between India and Pakistan remained wide [IBRD-5/2/54].[87] The principal difference was the matter of existing sources. Pakistan believed it had the right to not only the quantity of water it had enjoyed prior to partition, but that it was also entitled to receive this water from the same source. This belief fuelled Pakistan's efforts in finding a comprehensive plan. India, though not contesting Pakistan's right to water for its existing uses, did challenge the issue of maintaining the same source.

The result was a deadlock in the mechanisms of the Working Party. As Iliff points out:

> "it became apparent that the real issue here was, how were the waters to be divided? How many million acre feet, to use the technical term, were to go to India, and how many million acre feet were to go to Pakistan? And it became

87 "Moreover, there is a large measure of accord between the two Designees on certain fundamentals. The Working Party are in agreement that the average annual flow is not sufficiently dependable to be taken as a basis for planning and that some more conservative figures must be used. For the most practical purposes, they are in agreement on the amount of unusable supplies in the rivers, on the amount that can be developed through storage, on the sites and capacities of possible storage facilities and on the technical feasibility of proposed engineering works. They agree that existing uses of water must be respected (although they differ as to the meaning of "existing uses"). They agree that surplus usable supplies, including supplies that can be developed through storage, must be equitably apportioned among the potential new uses in the interests of the economic development of the basin as a unit (though they differ in defining the boundaries of the basin). They agree that existing inundation canals should be replaced by weir-controlled. canals. Finally both sides appear to accept the concept that the cost of the new works should be allocated to the two countries in the proportion in which they derive benefit therefrom" [IBRD-5/2/54].

obvious that if we didn't get some agreement on that particular point, it was quite hopeless to try to work out any comprehensive engineering plan" [1961].

As Nakayama points out, both countries wanted to break the deadlock [1997: 369]. Speaking to the World Bank on behalf of the Pakistani delegation, Laylin made some candid observations:

> "Both sides have expressed the view that supplementary conversations are necessary to break the deadlock in the Working Party. The Bank has indicated that it is equally anxious to see the deadlock removed. Numerous conversations have taken place to this end. The Working Party has been unable to reach agreement on the separate components of which to build a comprehensive plan because of fear on one side or the other of weakening its position for the future should the present endeavour break down. There appears to be agreement that this deadlock can be broken through an attempt to reach agreement on talks that go directly to the end result" [IBRD-ND1954].

Laylin went on to outline the procedure by which such talks could take place, and accommodate fears both disputants had. Laylin also outlined what Pakistan understood by reaching agreement:

> "We understand that B. K. Nehru is prepared to participate in the supplementary talks but is concerned as to how the conversations can move to the heart of the matter without prejudice to India's position should agreement not be reached. We share this concern but would put it this way. For agreement to be reached each side must take the Bank into its full confidence. Neither side can do this if either side can use what it learns to the prejudice of the other side. It seems to us that to achieve what we both want the conversations should be understood to be unofficial.....Agreement on any reduced supplies will assume agreement on the part of India not to tap the Chenab and agreement by India to bear the cost of installations India proposes that Pakistan build for India's benefit" [IBRD-ND1954a].

The proposed supplementary talks were aimed at not substituting the Working Party discussions, but at assisting the negotiations on an unofficial basis. Despite such apparent conciliatory efforts by the Delegations to resolve their differences, their differences were being reinforced by reports from the Indian Subcontinent. With the rabi season having officially started in mid-October, Pakistan's irrigation authorities began to complain that India was not supplying the full quota of water it was expected to and that the Indian army was obstructing the collection of necessary data regarding the level of supplies being sent [IBRD-14/10/53; 21/10/53a; 24/10/53; 4/11/53]. The Indian army was not alone in being accused of obstruction. The Pakistani army also refused to allow Indian engineers to enter the section of river banks that they controlled. The Indian

Special Commissioner pointed out that "[b]oth Commissioners are helpless in the matter" [IBRD-21/10/53b].

Formal representation was also made by Pakistan to the World Bank regarding the shortage in supply, which in turn informed India of the formal complaint [IBRD-28/10/53a]. The issue of shortages came to involve the senior most level by including the President of the World Bank, and the Prime Ministers of both countries [IBRD-28/10/53a; 28/10/53b; 10/11/53]. Prime Minister Nehru wrote to Prime Minister Ali that having made enquiries into the issue of shortages "there is NO reason for complaint. Apparently misunderstandings have arisen over methods of calculation and rotational programme period. There have been NO actual shortages of any substance on the U.B.D.C while on the S.V canals Pakistan received much larger supplies than due" [IBRD-2/11/53, emphasis in original].

The issue of shortages remained a consistent and persistent thorn during the negotiations. An additional problem that threatened to create further problems for the Bank-led discussions was the distribution of information regarding the dispute, water shortages and the talks themselves. Pakistan had prepared a pamphlet for publication on the subject of the Indus Basin dispute, despite clear instructions and agreement not to disseminate information [IBRD-23/11/53].[88]

Statements in parliament by ministers of the Pakistan Government, were also ill-timed. The Minister for Industry, Khan Abdul Quiyum Khan, was quoted as saying of the procedure for reporting shortages that "Pakistan had agreed to give this procedure a trial at the request of the World Bank, which had lent its good offices in this matter, even though she doubted the efficacy of this agreement" [IBRD-5/11/53]. India, naturally, was unhappy with this development and complained to the World Bank [IBRD-23/11/53]. India was also to make public announcements regarding the Indus Basin dispute, as testified by its Prime Minister's comments in parliament [IBRD-18/5/54].

As the President of the World Bank was to explain, in proposing the Bank's February 1954 plan: "The Indus Basin Working Party have labored long and industriously at their task, but for some time it has been evident to me that no further progress could be made

88 The pamphlet was entitled, *"Pakistan: The Struggle for Irrigation Water and Existence"*, and published in November 1953 for distribution by the Pakistani Embassy in Washington, DC.

at the engineering level unless the Bank took some initiative" [IBRD-8/5/54]. Rather than being a reflection upon the capabilities of the delegates, it was more a matter of the difficulties involved in the dispute that "it appeared unlikely to me that the engineers would be able to make, in open discussions in the Working Party, the kind of concessions that are required to bring about a settlement" [IBRD-8/5/54].

The World Bank realised that "the problem could not be solved solely by technicians; the Bank would, positively, have to negotiate according to a strategy or strategies of its own" [Iliff, 1970]. Therefore, after considerable thought and effort, the Bank had decided to put forward its own proposal.[89] "Informal conversations with the two sides separately disclosed that both would welcome such action" [IBRD-8/5/54]. The World Bank was clear, though, of the limitations to its plan, and openly acknowledged that "[t]he proposed plan will not fully satisfy either side" [IBRD-8/5/54]. But the Bank pointed out that "[n]o plan could do that; there is not enough water to fulfil all demands" [IBRD-8/5/54].

The World Bank believed that progress in the Working Party was not being obstructed by technical matters, but by three basic difficulties that had political implications [IBRD-5/2/54]. Firstly, that the water supplies and storage potential within the basin, were "inadequate to the needs of the basin". Secondly, that though the Working Party was trying to create a comprehensive plan that treated the Indus Basin as a single economic unit, two separate sovereign territories were involved. And thirdly, the delegations had presented plans that differed dramatically in concept regarding the issue of existing sources of supply [IBRD-5/2/54].

Therefore, on 5 February 1954, the World Bank presented its ideas to the Indian and Pakistani delegations in Washington, DC. The residing principle was the division of the waters of the Indus Basin. Pakistan would have complete control and use of the western rivers, the Indus, Jhelum and Chenab. India, in turn, would have complete control and use of the eastern rivers, the Sutlej, Beas and Ravi [IBRD-5/2/54; see Appendix 5 for the complete proposal].

The quantity of water allocated to each country under the plan is shown in Table 5.2. Despite the Bank's claim that its "proposal is no arbitrary compromise, arrived at by

mathematically splitting the differences between the two sides" but a "plan based on concepts of its own, which produce a fair and economic result" [IBRD-5/2/54], comparisons with the Indian and Pakistani plans show the allocations to be halfway between the two.

Table 5.2 1954 World Bank Plan for the Indus Basin

	Total/bcm	For Pakistan/bcm[%]	For India/bcm [%]
Indian Plan	147	111 [76]	36 [24]
Pakistani Plan	146	127 [87]	19 [13]
World Bank Plan	147	120 [82]	27 [18]

[Source: after IBRD-5/2/54]

The Bank reasoned that the accruing independence would negate the problems outlined above. Moreover, the "mutual independence afforded by the Bank proposal would also bring benefits of a different kind. The location of works serving each country on territories under its control, and the assurances against interference by either country with the supplies on which the other depends, should reduce the chances of disputes and tension and contribute to improved relations" [IBRD-5/2/54].

5.1.2 Re-engaging in Mediation

> "The proposed plan will not fully satisfy either side. No plan could do that; there is not enough water to full all demands. However the plan would bring great benefits. It would protect existing irrigation and would permit, and even stimulate, substantial future development. Most important of all, by providing a fair, understandable and definitive division of waters, it would eliminate a point of serious friction between the two countries" [IBRD-8/2/54].

The President of the World Bank was clear that an optimal plan that would satisfy both claimants was unattainable. However, what was possible, given the physical and

89 General Raymond Wheeler, with the approval of the World Bank's Management, put forward a proposal in February 1954 [Iliff, 1961; Sommers, 1961].

political limitations within the Indus Basin, was a plan that would still be of significant benefit to Pakistan and India. The President urged the Governments to accept the principles of the Plan without waiting for the accompanying details, which would be worked out later: "I am convinced that this proposal represents the best opportunity for a settlement that has not yet arisen; that an equally favorable opportunity for a fair settlement is not likely to recur; and that this chance should therefore not be missed. For these reasons I urge you to examine the proposal thoroughly and give it your approval" [IBRD-8/2/54].

Despite such a clear commitment to the World Bank's 1954 Plan by its President to commend it, the Governments of India and Pakistan were to reserve their judgement on the principle of division. India was the first to accept the plan, in March 1954 stating, "in the interest of a speedy and constructive settlement and in the spirit of good-will and friendship that has guided my Government ever since the beginning of this controversy, we accept the principles of the Bank Proposal as the basis of agreement" [IBRD-22/3/54; 25/3/54].

But the Government of India made it clear to the Bank that this was not without sacrifices:

> "The Bank Proposal requires India to give up the use of a large part of the waters flowing through her own territory and thus to abandon, for all time, any hope of the development of a considerable portion of the extensive arid lands in India which has no possible source of water supply other than the Indus system of rivers and which will therefore remain a desert for ever. Its acceptance would also imply a very heavy financial burden for my Government; not only would it involve the payment of large sums of money to Pakistan, but would also make new developments in India much more expensive than if all the waters running through her territory and indispensable for her normal development could have been utilised therein" [IBRD-25/3/54].

Pakistan did not commit to the Bank proposal with the same speed as the Indian Government. This was to be a consistent feature of the mediations, whereby India would readily accept Bank proposals, Pakistan would tread more carefully. Though consistent, it was not unexpected since Pakistan would appear to have the most to lose from a hasty agreement, and it had already experienced the consequences of one such legal instrument, the 1948 Inter-Dominion Agreement.

Iliff believes that the "Bank's February proposal left the Pakistanis cold because it did not recognise their insistence that they be guaranteed the existing uses of water from the existing sources, along with previously planned uses" [Iliff, 1970]. As Iliff pointed out in 1961, Pakistan's reluctance was because it felt "the Bank proposal did not indicate that there would be any provision for reservoir storage on the Pakistan side, and Pakistan felt that it was absolutely essential that she should have this reservoir storage to take care of her irrigation needs during the critical periods of the year when river flow is low" [1961].

While Pakistan was deliberating its formal reply to the Bank Proposal, it had also been constructing irrigation works to safeguard its uses dependent upon the Eastern rivers. This dual policy of negotiation and construction was followed by both India and Pakistan. It was reasoned by both parties that some form of protection of their uses and planned developments was needed in case the negotiations broke down. In addition, neither India nor Pakistan wanted to be held to an agreement if only its opponent was benefiting.

Thus, with Pakistan not committing to the Bank's Proposal, India did not want to be restricted by this plan or the promise not to diminish supply to existing uses in Pakistan. India regarded the talks as having ended, and it was no longer bound by the ground rules of engagement. Interestingly, Pakistan regarded the talks as merely having adjourned. In April 1954, Pakistan opened the Balloki-Suleimanke (BS) link canal to transfer water from the River Ravi to the River Sutlej, still without a clear commitment to the principle of dividing the Indus Basin.

Pakistan's construction and opening of link canals to transfer water from the more western rivers to the River Sutlej, gave India the opportunity to demand Sutlej water for its Bhakra canals. These canals had been under construction since after partition and were now on the verge of completion. Pakistan, naturally, was fearful of the effect of increased withdrawals upon its River Sutlej uses and voiced its concern to the World Bank [IBRD-23/4/54]. India replied that it would use water surplus to Pakistan's existing uses [IBRD-23/4/54]. India defined this surplus as existing once Pakistan used its new link canals to transfer water and, therefore, was to press Pakistan to make immediate use of its link canals.

Though India on the one hand was adamant that the talks had ended, along with its obligations arising from the talks, it was also wary of closing the door to further negotiations. Therefore, India was aware that without Pakistani transfers of water, any additional Indian withdrawals from the River Sutlej could be regarded as reducing water to Pakistan's existing uses. This would contravene the undertaking given to the Bank not to diminish supplies for the duration of its good offices.

India, therefore, forewarned Pakistan of its intention to open the Bhakra canals in June 1954, and expected its neighbour to make the necessary provisions needed to safeguard the SVC. Furthermore, India wanted an interim *ad hoc* arrangement whereby Pakistan would have to transfer water in the BS link, so that India could withdraw water for the Bhakra canals [IBRD-10/5/54a]. The Government of Pakistan agreed to interim talks *vis-à-vis* the Bhakra canals, but these talks were to be without prejudice to the talks for a comprehensive plan [IBRD-10/5/54b].

Unfortunately for Pakistan, though the BS link canal was designed to have a capacity of 425 cumecs (15,000 cusecs), it was never fully realised in operation. Not least because of siltation problems, but also because by the time the link had been completed, India was already withdrawing more water upstream than previously with its new Ravi-Beas (RB) link canal at Madhopur. The Ravi-Beas link canal reduced further the water available on the River Ravi which, even before the link, was uncertain at times throughout the year. Therefore, to augment supplies, another link canal was started by Pakistan in September 1953, the Marala-Ravi (MR) link and was completed in 1956. Unfortunately for Pakistan, the MR link, designed to transfer water from the Chenab River to the River Ravi, was also unable to be run at its full capacity [Michel, 1967: 210].

With India claiming the talks had finished, but that it was willing to consider a new round, and Pakistan refusing to commit to the Bank's Proposal without adjustments, the World Bank considered what further role it had open to it. In a note written by the World Bank, four approaches open to the institution are mentioned: [i] To use the Lilienthal approach. [ii] To consider the Bank's February 1954 proposal to have been rejected, and therefore start "horse-trading" with the supplies of the eastern rivers. [iii] To use the Tipton study. And [iv] to start work on other aspects of the Indus Basin dispute, such as the canals and cost, leaving the principle of division until later [IBRD-ND1954b]. It would appear that the last option was decided upon, since the Bank

appeared unwilling to write-off its 1954 Proposal, and talks were held on interim arrangements.

India and Pakistan sent delegations to Washington, DC, to negotiate the interim arrangements for the kharif (summer) 1954 [IBRD-10/5/54b; 25/5/54; 10/6/54]. Headed by Ghulam Mueenuddin the Pakistani delegation included the Bank Executive Director for Pakistan, Mohammed Shoaib. The Government of Pakistan had decided to expedite matters that otherwise would have required written correspondence and consent. Therefore, their representation before the Bank gained weight with the presence of the Foreign Minister, Zafrulla Khan [IBRD-27/5/54]. The Vice President of the World Bank pointed out that India had attached great importance to opening the Bhakra canals by 10 June 1954. He also noted that India had regarded this achievable since Pakistan would be able to transfer surplus water to the SVC from the Rivers Chenab and Ravi, if it opened the BS link [IBRD-10/6/54].

However, Pakistan had dragged its feet in giving information that would have allowed the Indians to calculate the amount of water they could withdraw. And even with the meeting of the delegations, certain criteria still needed to be completed before an *ad hoc* arrangement could be reached. The World Bank doubted that these criteria could be met in time [IBRD-10/6/54]. Representing Pakistan, Mueenuddin believed that "[i]t is important that the pressure of time should not interfere with a careful examination of the problems involved", but in order to allow the Bhakra canals to open Pakistan was willing to let India withdraw a small amount of water. Mueenuddin wanted the Bank to appreciate that his Government had given consent to this withdrawal despite having insufficient information regarding the flow of the eastern rivers: "They have expressed this agreement as a token of their good will" [IBRD-10/6/54].

Further discussions were held to iron out disagreements and misunderstandings regarding the amount of water involved, the operational practices and legal position thereafter *vis-à-vis* the situation outside the temporary arrangements [IBRD-7/6/54; 9/6/54; 11/6/54a-b; 15/6/54; 17/6/54a-b; 19/6/54; 7/7/54a]. This was not, however, without Indian impatience at the time that was being taken to reach agreement. India asked the World Bank to inform the Pakistani delegation that there was a deadline for further conversation, and unless matters where agreed upon and a procedure resolved by 21 June 1954, the Indian delegation was to return to the Subcontinent [IBRD-11/6/54c].

During the discussions for an *ad hoc* agreement, the World Bank, India and Pakistan were also engaged in talks to satisfy both disputants *vis-à-vis* the Bank's proposal. In May 1954 the Prime Minister of Pakistan had stated that his Government was unwilling to accept the Proposal unless adjustments were made. The Proposal did not meet the test of fairness that the Bank had, itself, lain down. It was essential that any proposal had to assure supply to Pakistan's existing uses [IBRD-14/5/54].

The Government of Pakistan believed the Bank Proposal, as it stood, did not meet this criterion. Nor did the Government like the abiding principle of the Proposal, the division of the Indus Basin. The resultant independence of Pakistani supplies from Indian control was not welcomed since it meant cutting off Pakistan's access to the eastern rivers: "The Government of Pakistan cannot visualize with equanimity the possibility of implementing a plan which would affect its vital interest adversely for all time to come" [IBRD-14/5/54].

India regarded Pakistan's reply as an outright rejection of the Bank's proposal. The World Bank though was more circumspect about its interpretation. The Vice President, in discussing the matter with an Indian representative, agreed that the Pakistani Prime Minister's letter was not an agreement. But the Bank did not regard it as a complete rejection either, and was willing to press for further discussion with Pakistan and clarification [IBRD-18/5/54b].

The World Bank informed the Government of Pakistan that its reply was not seen as being sufficient to act as a basis for continued joint discussions. Any further progress would have to be made with Pakistan accepting the division of the basin as the starting point. If it became clear during the course of negotiations that Pakistan's uses could not be met with the supplies envisaged in the Bank Proposal, then the Bank would use its good offices to bring about the needed adjustments [IBRD-21/5/54]. As described above, the Government of Pakistan sent a delegation to Washington, DC, to discuss the matter further [IBRD-27/5/54].

Pakistan was informed by a representative of the British Government, of the World Bank's reaction to Pakistan's reply: the President "tells me that first reaction of Bank has been that it was probable that this reply could only be construed as rejection of the Bank's proposal and that Amjad Ali had previously been warned of this when he consulted Bank on draft" [IBRD-20/5/54]. The World Bank was, however, keen to

minimise this effect since if the Indian Government interpreted the letter as "a rejection of the Bank proposal it will be impossible for the Bank to persuade them to participate in any further joint discussions" [IBRD-20/5/54]. The consequence of this "of course would mean that the Bank could make no further effective contribution" [IBRD-20/5/54].

However, since the Pakistani representatives in Washington had been asked for clarificatory talks, this gave Pakistan the "opportunity to remove any misunderstandings" [IBRD-20/5/54]. Pakistan was reminded of the advantages that lay for it with the Bank Proposal. Firstly, Pakistan would be assured that India would not interfere with the waters of the River Chenab. Secondly, India would pay for the costs incurred in constructing the replacement works. And thirdly, Pakistan's existing uses would be protected for the duration of the transition period [IBRD-20/5/54].

The British representative continued: "True, Pakistan, under the Bank Proposal, will have less water than she would have if it could be assumed that the existing situation would continue. But this is unfortunately an unrealistic assumption, and a more likely and imminent possibility is that India will cut Pakistan's existing supplies far below what the Bank proposal would assure to her". And therefore it "would be disastrous from every point of view if discussions now broke down and responsibility could be attributed, however unfairly, to Pakistan" [IBRD-20/5/54].

During their discussions with the World Bank the Pakistani representatives made their position clear: "India has other systems from which water would be available. Pakistan has not. Money for water is no proposition - not a question of sentiment or principle" [IBRD-15/6/54]. Nonetheless, after considerable negotiating, an acceptance of the Bank's Proposal by the Pakistani authorities was drafted during July 1954 [IBRD-7/7/54b-c; 12/7/54; 13/7/54a-d; 16/7/54a; 19/7/54]. And the Government of Pakistan formally informed the Bank that it accepted the Proposal of February 1954, as long as the Bank could ensure that all Pakistan's uses could be met by the Western rivers [IBRD-28/7/54a; 29/7/54].

But the fate of future talks regarding the Indus Basin dispute did not rest with Pakistan alone. India was reconsidering its acceptance of the Proposal, in light of what it considered to be Pakistani foot-dragging. The Indian representatives in Washington, DC, doubted whether their Government would be willing to continue with the talks for a

comprehensive plan. But a World Bank representative was to remind the Indians, that once Pakistan had accepted the Bank Proposal it would make "it very difficult for the Pakistanis thereafter to attack the Bank proposal and would represent a great step forward politically if in no other way" [IBRD-6/7/54].

An additional problem was that while Pakistan regarded the talks for a comprehensive plan as having adjourned, India believed that the talks had in fact ended. As the Prime Minister of India was to explain to the World Bank: "The persistently negative and un-cooperative attitude of Pakistan has, therefore, made impossible the continuation of the talks initiated by you in March, 1952, and Pakistan has thereby voided the understanding under which we have been working for the last two years" [IBRD-21/6/54; 11/8/54].

Therefore, India was free, once more, to withdraw as much water as it needed for the Bhakra canals. However, if Pakistan indicated it was willing to continue on the basis of the World Bank's proposal, then India would, too, be willing to talk with the understanding that the Bank's good offices would still be available [IBRD-21/6/54].

The Indian Prime Minister proposed that:

> "Although, in view of the situation explained...above, we are no longer bound now by the unilateral restriction implied in your letter of 13th March 1952 under which, de facto, India could not undertake any major new developments whilst Pakistan could do so without any restriction, we would be willing to include in the arrangements for renewed cooperative work...appropriate provisions for the transitional period which would enable developments to proceed in both countries on an agreed schedule as envisaged in the Bank proposal" [IBRD-21/6/54]

The World Bank informed India that Pakistan's reply on 28 July 1954, was regarded as "acceptance in principle of the Bank Proposal of February 5, 1954, as the basis for agreement" [IBRD-28/7/54b]. Coupled with India's acceptance in principle of the Proposal, this would allow the talks to move towards a "definitive agreement". The Bank invited representatives of the two countries back to Washington, to continue work on for an *ad hoc* agreement for rabi 1954-55, and discussions with the Bank for the general arrangement and procedures to work out a comprehensive plan [IBRD-28/7/54b; 29/7/54].

The Prime Minister of India, in replying to the Bank's letter of 28 July 1954, disagreed with the World Bank's interpretation of Pakistan's acceptance of the Bank Proposal, and the promise it held for further negotiations for *ad hoc* arrangements [IBRD-8/8/54]. Nehru wanted further clarification, and since another Working Party session would necessitate considerable consultation, he proposed holding the meetings in the Indian Subcontinent. This would prevent unnecessary delay and expedite progress towards an *ad hoc* arrangement by the end of August 1954. The Prime Minister asked the World Bank to send its representatives, as soon as possible, to work out the details [IBRD-8/8/54].

Prime Minister Nehru continued:

> "Although since the voidance of the understanding contained in Mr. Black's letter of March 13, 1952, there is no longer any need for an *ad hoc* agreement exempting India from the unilateral restriction of the standstill clause contained in that letter, the Government of India are fully aware, and understand this also to the Bank's view, that early agreement on a transition arrangement is necessary in order to create the proper atmosphere for the successful negotiation of an agreement regarding the basis of a new Working Party" [IBRD-8/8/54].

Perhaps because the World Bank shared the sentiment expressed by Mueenuddin, which the World Bank was reminded of in early August 1954, the President reiterated his invitation to the Governments of India and Pakistan to send their representatives to Washington, DC [IBRD-13/8/54]. Mueenuddin had reminded the Bank that it had agreed earlier that any further talks should be held in Washington, DC, and that these considerations still applied for those now being proposed. This was "to avoid delegates being subjected to political pressure all the time and to avoid tendentious press propaganda in the sub continent" [IBRD-12/8/54].

The World Bank proposed that the new discussions follow an agreed terms of reference, in order to retain focus on what was in dispute, and the objective of the talks. And therefore, with the August 1954 invitation, the Bank also sent two annexes. Annex A outlined the *"Terms of reference and procedure for resumption of cooperative work on basis of Bank Proposal"*, and Annex B proposed the *"Transitional Arrangements for September and October 1954"* [IBRD-13/8/54].

Both Governments gave a cautious acceptance that was accompanied with qualifications. The Indian Prime Minister, writing on behalf of his Government,

continued to insist that the discussions for the *ad hoc* arrangements should be held in India [IBRD-19/8/54]. The Pakistani Foreign Minister outlined his Government's concerns that their existing and planned uses, at Sukkur and Gudu, should be met from the Western rivers. If this was to prove infeasible, then the Government of Pakistan would expect the World Bank to lend its good offices to bring about the necessary adjustments [IBRD-24/8/54].

The World Bank sent out the General Counsel and the Bank's Engineer to the Indian Subcontinent to iron out any misunderstandings or disputes before the advent of the joint comprehensive talks in Washington [IBRD-7/9/54; 16/9/54; 20/9/54a]. However, all the Bank's endeavours did not meet with equal success. The General Counsel had arranged for India and Pakistan to exchange data with one another. The Executive Director for Pakistan, Shoaib, informed the General Counsel in October 1954, that despite repeated requests for this data, India had not furnished it. Pakistan gave notice, that it "also therefore constrained to stop giving the data" [IBRD-11/10/54].

The Bank's Vice President, who was in the Subcontinent during October 1954, also had mixed success. The Pakistani Minister for Interior, Mushtaq Ahmad Gurmani, had remained unclear about the implication for Pakistan, if it was to accept the Bank Proposal, and was concerned that it would lead to the "Bank proposal opening way for India establishing future claims on Jammu Kashmir waters" [IBRD-15/10/54].[90] This matter was cleared up somewhat when the Chief Minister of Punjab, Feroz Khan Noon, asked the Vice President to explain the "exact scope of the words 'relatively insignificant consumptive uses'" [IBRD-20/10/54a].[91]

Chief Minister Noon, went on to explain to the Interior Minister that, the Vice President had:

> "explained that these words were not meant to convey anything more than really insignificant uses, such as minor extensions of irrigation from existing channels or the use of insignificant amounts of water from small feeder streams etc. According to him these words certainly did not cover the

[90] Gulhati had suggested that the World Bank consider publishing the Bank Proposal and the Terms of Reference for the resumed talks. The Bank's Vice President was to agree with this strategy, because he expected that it "[s]hould include clear statement Bank's role which I found much misunderstood also high placed Pakistani still misunderstand proposal" [IBRD-4/11/54].

[91] Feroz Khan Noon later became Prime Minister of Pakistan, December 1957 - October 1958, but was ousted by General Ayub Khan in the military *coup* of October 1958.

construction of new channels or major extensions of existing channels. Nor did they cover the construction of new major works, such as storages, dams, tunnels etc." [IBRD-20/10/54a].

After clarificatory talks in the Indian Subcontinent, the World Bank was informed, once more, that India and Pakistan would participate in the talks in Washington [IBRD-18/10/54a-b]. The Bank representatives discussed, amongst themselves, arrangements and procedures to be adopted in these forthcoming talks.[92] A definition for historical use and the incumbent allocation was also decided upon: "The historical withdrawals were based on pre-participation years. It has been agreed to ignore all withdrawals for the post-participation period" [IBRD-20/10/54b].

The date for the forthcoming talks was, however, subject to continued postponement. It had originally been hoped to hold these joint talks in August 1954. But India and Pakistan still wanted clarifications and assurances from the World Bank during the summer. The designated date shifted from mid-November through to the beginning of December. Though the amount of difference, in the number of days, was small, each postponement, whether arising from the Pakistani or Indian camp, generated considerable correspondence [IBRD-22/10/54a-c; 26/10/54; 29/10/54; 9/11/54; 12/11/54a; 15/11/54]. And the World Bank was caught in the middle of all this activity.

When the talks did finally start, on 6 December 1954, certain aspects of the interaction had changed [IBRD-6/12/54a-c]. Firstly, there was now a deadline by which the cooperative work had to produce some positive results. Unlike the previous Working Party sessions, the new round would comprise of a succession of cooperative periods, often lasting a year, but which had to be formally extended by the Bank and the Governments involved.

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92 Sommers recalls: "Iliff and I going in to see Black and saying together, 'This is no longer a thing that should be treated as a pure engineering matter. You have to have somebody higher up in the Bank's management and also with a little more political savvy in charge of it.' We jointly suggested that one or the other of us be put in charge of it. Iliff was put in charge of it at that time" [1961]. Sommers adds, that Iliff was the natural choice as, "I had a lot of responsibility for the borrowing and the administration side of the Bank as well as the legal, while Iliff's responsibilities were not defined, he was not in charge of the lending Knapp had taken that over, and so I recommended that Iliff be given charge of this and Black accepted that" [Sommers interview, 30/4/96].

Secondly, the make up of the delegations had changed. As Druckman points out "[c]ontinuity of delegations between negotiations can be either advantageous or disadvantageous: experienced negotiators bring with them familiarity with the issues and players; they may also bring a biased view, based on previous encounters, which does not apply to the new situation" [1993: 194]. India and Pakistan both opted to bring in new blood. Gulhati replaced Khosla as the Head of the Indian delegation and Designee Engineer [IBRD-19/11/54]. The rest of the delegation at the start of the talks comprised of: Jaini, Malhotra, Barkatram, a personal assistant, a junior engineer, a research assistant, a computor, a secretary to the delegation and Dr Berber on an occasional basis [IBRD-19/11/54].

The Pakistani delegation had a similar shake up.[93] Mueenuddin was the Head of the Delegation and the Designee Engineer, with Mahbub and Khalil-ur-Rahman from the Central Engineering Authority, Kirmani and Hussain from Punjab. From Sind there was a superintending and an executive engineer. In addition there was a lawyer, and a stenographer who would also act as Mueenuddin's secretary [IBRD-12/11/54]. The Bank team comprised: Iliff, Sommers, Wheeler, Bengston, Colquhoun, Griffin and Drisko who were consultant engineers, and Guinness who was the Secretary of the Team [IBRD-3/12/54; Gulhati, 1973].[94]

The reasons for the World Bank's continued efforts to keep the Indus Basin discussions alive can possibly be gleaned from the explanation the President gave the Prime Ministers of India and Pakistan. The Bank felt that if the situation, following the breakdown of talks, was allowed to continue in its present impasse there would be

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[93] Kirmani, who was part of the 1954 team, mentioned that the "first delegation was a chaos" because it included five Chief Engineers, from NWFP, Punjab, Sind, Baluchistan and Bahawalpur, who were more used to giving orders than working [Kirmani interview, 1/6/96].

[94] Iliff describes the new round of talks that finally lead to the Treaty as: "Practically daily talks throughout that period, interspersed with very frequent visits to India and Pakistan. Of course, I had associated with me General Wheeler as my chief technical advisor, and I also had associated with me a firm of New York consultants, Tibbets, Abbot, McCarthy and Stratton, who did the very necessary and very complicated hydrological studies that were required in order to know really just where we were going. Every proposal that was made, for example, had to be tested with regard to its effect on water uses. And you have no idea of the arguments that developed. I mean, although there's something like 150 million acre feet, more than that, but 180 million acre feet of water in that system, we spent days debating on a matter of five or ten cusecs - which is probably not much more than would fill a good bath. But I mean, water is as precious as that" [1961].

regrettable consequences for both countries. Therefore, the Bank felt it had the responsibility to "persevere zealously" with their efforts, as long as there appeared to the institution the possibility of reaching a solution [IBRD-21/7/54a]. The Bank did realise that though talks on the Indus Basin dispute were to restart, the differences had not diminished, and it could not rely upon the search for a comprehensive plan to get agreement. Other means would be needed to get agreement, and placate Indian and Pakistani fears, pending any comprehensive plan.

5.1.3 Alternative Proposals

The lukewarm response to the World Bank's 1954 plan was matched by the continued Indian and Pakistani 'commitment' to the mediation process. Nonetheless, having persuaded the parties to return to the table for another attempt at cooperation, the World Bank presided over the search for alternative means. The renewed approach did not remove the previous obstructions, nor did it appear that the dispute would be resolved quickly, as negotiations dragged on.

Yet Pakistan's need for water remained; the demand for food and livelihoods was not suspended. Therefore, in 1955, the Bank proposed negotiating temporary agreements for the delivery of water by India to Pakistan, on an *ad hoc* basis. An additional impetus was India's desire to open the new Bhakra canals offtaking the River Sutlej [IBRD-9/12/54]. These negotiations continued alongside the search for a proposal that would mark the 'permanent' resolution of the Indus Basin dispute.

But as the Bank representative explained to the heads of the Indian and Pakistani delegations, the engineers from all three parties were to have free access to each other regarding technical issues. Furthermore, efforts should be made to reach agreement on any outstanding technical questions. However, any changes or compromises of a fundamental nature were to be made only at "at the Iliff, Gulhati and Mueenuddin level" [IBRD-6/12/54b; IBRD-7/12/54]. In other words, the delegation heads would sketch the broad outline, which the engineers could colour in separately.

5.1.3.1 Temporary Ad Hoc Agreements

The World Bank had recognised early in the summer of 1954, shortly after receiving the Indian and Pakistani responses to their plan, that interim arrangements would be

necessary. It surmised work would progress on developing a comprehensive plan and simultaneously work would proceed on developing principles to bring about temporary measures for rabi (winter) 1954 and kharif (summer) 1955 [IBRD-21/7/54b]. Pakistan, with an eye to its existing uses, accepted continued negotiations with the understanding that their uses would be protected by these interim arrangements, while other negotiations proceeded [IBRD-28/7/54a]. The Bank informed India that Pakistan had accepted the criteria for continued cooperative work, and for negotiating the transitional arrangements for the period up to October 1955 [IBRD-28/7/54b].

When the negotiations started again in December 1954, Pakistan was keen to prioritise the interim arrangements above the comprehensive plan's development. However, the Bank was reluctant to comply, because as its representative explained "it can only create ill feeling". This, it was feared, might lead to the process breaking down, and therefore obstructing the comprehensive plan [IBRD-14/12/54]. Pakistan wanted to secure supply for its needs before India demanded water for its new uses. The perennial competition between new and existing uses continued with greater alacrity, with the impending opening of the Bhakra canals.

Herein lay India's impetus for demanding interim arrangements. With progressive completion of the Bhakra project, domestic expectancy for water in India was high. Gulhati warned the World Bank that many of the Bhakra canals were ready to receive water, "and that great difficulties will be created in India unless some water is released to them" [IBRD-9/12/54]. Under such conditions, it would be possible that the political atmosphere would harden, making further cooperation with Pakistan difficult to justify to the Indian government's domestic audience.

The World Bank, fully cognisant of the situation between India and Pakistan, wished to postpone talks on the interim arrangements [IBRD-14/12/54]. It argued that India would want to make withdrawals for use in the Bhakra canals in April 1955. Clearly this would be at the expense of Pakistan's existing uses. Pakistan was constructing the Marala-Ravi (M-R) link to transfer water from the Chenab to the Ravi. This was to replace water India planned to take from the eastern rivers for its new uses. As it became apparent that the M-R link would not be operational before May 1956, India refused to wait till then before it could make its withdrawals. Instead, India proposed sharing the resulting hardship with Pakistan on a rationing basis [IBRD-9/12/54].

Negotiations on the interim arrangements, also known as *ad hoc* agreements, finally started in January 1955. The World Bank had not succeeded in postponing the discussions till March as it had hoped to do. Unfortunately, the mistrust and suspicions characteristic of the comprehensive plan negotiations pervaded these new discussions too. At a joint meeting in May 1955 between the Bank, India and Pakistan to discuss the *ad hoc* agreements, the disputants' attitude was clearly demonstrated, as well as the third party's frustration. "After much bickering" India and Pakistan agreed that there was "no difference" between their data, only in the principles upon which these figures were based [IBRD-17/5/55, emphasis in original]. It was agreed that Mahbub and Gulhati would meet later to sort this difference out.

Nonetheless the tone of the discussions did not alter. The Bank representative was forced, "almost in exasperation", to remind India and Pakistan that it was absurd to spend so much valuable time over a few hundred cusecs, when there were thousands in the Indus Basin to agree upon for the whole system based [IBRD-17/5/55]. He also confirmed that if in twenty-four hours, India and Pakistan had not agreed upon the figures, the Bank would propose some figures instead. The disputants were to bear in mind two concepts. Firstly, that the Bhakra canals should receive some water and secondly, that the quantity awarded to India should not put "too serious" a strain upon Pakistan. Using strong language by the standards of international diplomacy, the Bank representative said, "that he was completely out of sympathy with both India and Pakistan in their attitude over this whole issue", and added that "considerably more reasonableness will have to be shown if any progress is to be made" [*ibid*].

India and Pakistan managed, amidst the repeated bickering, to reach agreement on the *ad hoc* amounts of water to be shared between them. Though the Bank representative's claim that the kharif 1955 agreement was the first Indo-Pakistani agreement to be signed since partition is not strictly correct, this agreement was the first to be implemented on water.[95] The Bank's President telegrammed Prime Ministers Nehru and Mohammad Ali Bogra on 27 June 1955, expressing the Bank's hope that the good work would continue and lead to an acceptable conclusion "in the same helpful atmosphere".

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95 A series of agreements had been signed over other Indo-Pakistani matters including economic trade and refugee property. The Delhi Agreement, signed in May 1948 over the River Sutlej, had in fact added considerable difficulties to the Indus Basin dispute.

Especially as the *ad hoc* agreement was a clear "manifestation of Pakistan's willingness to cooperate" [IBRD-27/6/55].

A succession of agreements were signed: 1 April 1955 - 30 September 1955; 1 October 1955 - 31 March 1956; 1 April 1956 - 30 September 1956; and 1 April 1959 - 31 March 1960. The only period for which the parties were unable to agree was 1 October 1957 - 30 September 1958. This may be linked to a souring of relations between the two countries. Pakistan's Prime Minister Hussain Suhrawardy, regarded India with disfavour. Unfortunately, agreement on *ad hoc* supply was not matched with equal success in the search for a comprehensive plan.

Within the Bank, there was some disagreement as to the course that should be pursued to get a settlement. The General Counsel suggested formulating a treaty from a progressive series of *ad hoc* agreements rather than chasing the elusive comprehensive plan. The Assistant to the President, however, considered a comprehensive plan as essential to a long term settlement of the Indus Basin dispute. After the presentation of the World Bank's proposal in February 1954, and the continuation of the mediations in December 1954, representation of the Bank was made one Bank member's full-time responsibility rather than being in joint care. Under this representative the Bank used both approaches simultaneously as the idea of a comprehensive plan held considerable attraction for Pakistan so that its water supply would be independent of India [Iliff, 1970].

5.1.3.2 The 1956 Aide-Memoire

Pakistan made it clear in the new round of talks that it regarded the 1954 World Bank plan to have allocated insufficient water to Pakistan's needs. During critical times in early and late kharif (summer) Pakistan, it maintained, would face severe water shortages to its crops. Just when water would be needed the most, or else lose the harvest, when the crops of one season were maturing and the new crop about to be sown, the flow of the western rivers would be inadequate to meet even replacement needs. Therefore, storage facilities were needed to ensure an adequate supply at these critical times [Michel, 1967: 244].

Pakistan prevailed upon the World Bank to accept this need for storage. Only after the Bank had asked its consultant engineering firm, TAMS,[96] to evaluate the adequacy of the seasonal supply to Pakistan's uses, and who in early 1956 verified Pakistan's position, did the Bank accept that storage facilities were a necessity. Based upon the consultant's report, the Bank submitted to India and Pakistan an Aide Memoire to the original Bank Proposal on 21 May 1956 [IBRD-21/5/56]. The Aide Memoire envisaged building storage facilities on the western rivers to make up the deficit Pakistan would otherwise face, and to offer once more the World Bank's good offices to obtain necessary adjustments to the 1954 IBRD proposal.

> "The Bank continues to hold the view that the 'division of the waters' contemplated by the Bank Proposal of February 1954 affords the best prospects for a settlement of the Indus Waters question; that out of the flow-cum-storage potential of the rivers allocated to them, India and Pakistan could each develop very substantial irrigation uses, additional to those that they now enjoy; and that no insuperable engineering difficulties are likely to arise in either country in constructing the physical works necessary to develop these additional supplies. The works would, however, be costly; and their financing would present a serious financial problem" [IBRD-21/5/56].

Less than a month after presenting the Aide Memoire, the World Bank began preparing a plan of action in the event that India and Pakistan accepted the proposal [IBRD-18/6/56] though there was no guarantee of acceptance. The World Bank representatives decided that if the proposal was accepted each country would be asked to prepare its own plan based upon the principles embodied in the Aide Memoire. The Bank informed TAMS that it would expect the engineering firm to review and comment upon these plans, and draw up a final plan that would then be sponsored by the Bank.

Any plan TAMS was to draw up should, according to the Bank, have four criteria. First, it should meet the uses envisaged in the Aide Memoire. Second, the plan should be practical. Third, it should be economical. And last, the plan should use the water as it flowed in the river to the maximum rather than rely upon storage, using dams only if there was no other alternative. In addition, the plan and its estimate of India's financial liability were not to be based upon Pakistan's vision of developing its irrigation uses in the long term, but rather on what was necessary to meet the replacement needs [*ibid*].

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96 The American engineering firm Knappen, Tippetts, Abbett and McCarthy (KTAM) which later became Tippetts, Abbett, McCarthy and Stratton (TAMS) was retained by the IBRD at the resumption of Indo-Pakistani talks in 1954.

During June 1956 Pakistan met with the World Bank at different levels of representation to discuss matters concerning the Indus Basin situation. Prime Minister Chaudhuri Mohammad Ali met with the President and one of the Vice Presidents in London for general talks [IBRD-5/6/56]. And in New York, members of the Pakistani delegation met with the Bank's consultants for more detailed technical discussions [IBRD-2/7/56].

The minutes of the latter meeting appear to illustrate the difficulty the Bank faced in its role as intervenor in the dispute [IBRD-2/7/56]. Firstly regarding information, despite the Bank's efforts to communicate relevant material to both sides, the disputants remained sensitive to the merest rumour of being excluded. These suspicions led one Pakistani delegate to state that "he wanted to know if there were any secrets that he hadn't heard about" [IBRD-2/7/56].

Secondly, the process of gathering information could be problematic if it led to implications that were regarded by the disputants as being detrimental to their position. Therefore, the Pakistani delegation questioned why the Bank was investigating irrigation economics in Pakistan. The delegation wanted to know whether it was linked to the rumours they had heard suggesting Pakistan was "getting a free ride". The Pakistani delegation refuted the charge of freeloading at length and appeared to suggest that the negotiations would not result in Pakistan receiving any new allocations of water [IBRD-2/7/56].

Thirdly, irrespective of whether the Bank and its consultants regarded a particular outcome as desirable, unless the disputants were interested the outcome would have to be amended. For example regarding the Trimmu-Islam link that the Bank was considering as part of a final agreement, the consultant engineers had to report back that they "could not arouse any interest in this link" [IBRD-2/7/56].

The Pakistani delegation's claim that Pakistan was not being provided with water for any new uses has its roots in Pakistan's attitude to the timing of plans for particular projects. They made a distinction between projects or 'uses' that had been planned before partition from those that were planned after partition. The pre-partition planned uses were, in Pakistan's view, not to be considered as new projects. Therefore, water allocations to these projects made under any plan were not to be taken as providing water to new developments but as being part of the replacement package.

India contested this interpretation as it believed Pakistan was trying to include development works under the replacement banner. This, as has already been pointed out, would result in India having a larger financial obligation to Pakistan. With limited funds, and its own irrigation needs to develop, India naturally, did not want to spend large amounts of money on schemes from which it would not benefit directly. This, in turn, led to a debate upon the benefits being received by each country from certain works in the proposed plans, as shall be discussed later.

India also challenged Pakistan to accept the Aide Memoire in June 1956. Pakistan agreed instead to continue with the cooperative work, but with qualifications regarding the ultimate plan. The World Bank, in turn, did not regard the Indian and Pakistani replies as constituting a clear and definitive commitment to continuing the search for a comprehensive plan. The Bank's suggestion to continue the work, nonetheless, based upon its 1954 Plan and Aide-Memoire Plan suggests the World Bank was reluctant to throw in the towel. India and Pakistan's acceptance in September 1956 of the plan, gave credence to the Bank's persistence.

A joint meeting was held in Washington, DC, between the World Bank, India and Pakistan marking the start of the new round of talks and to discuss the procedure. The Bank set the agenda, pointing out that as the disputants had agreed to continue cooperative work until 31 March 1957, the pace of work would have to reflect a "very industrious schedule" [IBRD-19/9/56].

The World Bank proposed that India and Pakistan both prepare plans using the principles embodied in the Aide Memoire. The disputants were to ensure that the plans were workable, would exploit the flow of the western rivers water to the maximum, and make the minimum inroads into Pakistan's storage capacity. It was important that these plans should accomplish the uses envisaged in the Aide Memoire, and incorporate details of all the works needed such as link canals, barrages and storage facilities, all with their locations and capacities. The World Bank, mindful of the need for urgency, expected these plans to be ready by October 1956, followed soon after with their estimates of construction costs. To assist preparation of these plans, the Bank proposed making itself available for any technical discussions required [IBRD-19/9/56].

In accordance with the schedule agreed at the joint meeting, India and Pakistan submitted their plans based upon the Aide Memoire in October 1956 to the Bank in

separate meetings [IBRD-16/10/56 and 22/10/56]. Discussing the Pakistani Master Plan in January 1957, Mueenuddin pointed out that the first stage of the plan would take thirteen years, cost $1,300 million and only supply water for replacement needs. The World Bank's reply was that it was a waste to spend so much time and money to achieve so little and, furthermore, it was difficult for the Bank to associate itself with something that the Pakistanis were not even enthusiastic about themselves [IBRD-23/1/57].

Michel claims that only after the Aide Memoire was proposed did Pakistan accept in principle the division of the Indus Basin [1967: 244]. Iliff, in referring to Mueenuddin's reply in September 1956, concurs that this was the first time that division had been accepted by Pakistan [1970]. India, though it had accepted the principle of division, was reluctant to accept the specific works the Aide Memoire was suggesting. Acceptance would, under the congruent principle of beneficiary-pays, mean that India would be liable for the costs of building these storage facilities - especially since Pakistan was adamant that dams were part of the replacement works, and not development works for which Pakistan itself would be financially liable [Michel, 1967: 244].

In October 1956, the Indian delegation met with the World Bank to present its views regarding the principle of beneficiary-pays [IBRD-2/10/56 and 4/10/56]. Berber spoke on behalf of India on this matter rather than Gulhati who, as Head of the delegation, usually voiced Indian concerns.[97] India in accepting the Aide Memoire understood that firstly, irrigation works would be constructed in India, by India but for Pakistan's benefit, and vice-versa in Pakistan, and secondly, that each country would pay for these works in proportion to the benefit derived [IBRD-2/10/56]. The Aide Memoire which put "the Bank's assistance for a long-range irrigation plan in Pakistan outside the cooperative work, was necessary to allay Indian fears about possibly greater costs to India" [Iliff, 1970].

Berber argued that India would not benefit from the works being constructed to replace eastern rivers water in Pakistan [*ibid* and IBRD-4/10/56]. Under the "Principle of Benefits" India would not be financially liable to Pakistan; however, under the "Principle of Equity" each country would be liable to the other. Therefore Berber argued a solution had to be found in equity rather than beneficiary-pays [IBRD-2/10/56]. Berber went on to suggest what the World Bank actually meant in the Aide Memoire

was that India should pay for replacement works to a "certain extent" that is "the costs of the replacements works should be shared by the two countries" [IBRD-4/10/56]. To reiterate that Pakistan was the principal beneficiary from replacement works, Gulhati listed the some of the additional gains India believed Pakistan was making: reduced variability in supply, receiving water when it was needed, and allocations for new projects rather than having to rely upon historic withdrawals. Therefore, Gulhati added that Pakistan would "of course" bear the costs of these additional benefits [*ibid*].

5.1.3.3 The 1957 Heads of Agreement

The Aide Memoire validated Pakistan's persistent claim for storage facilities. Though Pakistan won a moral battle with the Plan's acceptance, the war for the Indus waters still engaged all three parties. Storage facilities are costly affairs, and under the Bank-determined criterion of beneficiary-pays, India was reluctant to accept any bill that Pakistan was gleefully running up as it shopped for dams and supporting works. The location, number and size of these dams were hotly contested, as was the principle of who was benefiting. If, as Pakistan claimed, these dams were part of the replacement works then India as the beneficiary would be financially liable. But if India was correct in stating that these dams were part of the development aspect of any comprehensive plan, then Pakistan would have to pay.

With the participants at loggerheads over implications of the Aide Memoire, the World Bank asked each country to prepare its own plan for the basin. The alternative plans would have to meet the financial requirements of India and the physical requirements of Pakistan. Talks continued from September 1956 through to March 1957. On one level, arrangements for *ad hoc* agreements were being negotiated that would afford Pakistan time to consider a comprehensive plan, and on another level negotiations continued for the comprehensive plan.

The Indian and Pakistani plans that emerged differed substantially in concept and cost due to differing priorities. India prioritised the cost of works in Pakistan over the need for the works, thereby approving an unrealistically frugal list of works. By contrast Pakistan prioritised works over cost, and proposed unrealistically grandiose plans for the

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97 Dr F Berber, an international law expert from Germany, had been employed by the

Indus Basin's development. This plan prompted the Bank to urge Pakistan to seriously re-examine its irrigation plans and objectives.

Michel correctly attributes the bloated Pakistani plan to the Pakistani view that the negotiations' aim was to restore Pakistan to its 1947 status *vis-à-vis* water [1967: 244]. However during the post-Partition period, Pakistan's demographic statistics had begun to change as the population increased; as did the agricultural statistics with land being lost to waterlogging and salinity. Therefore, Pakistan regarded an equitable outcome as one that not only included plans and finances for replacement works, but also for development works, thereby enabling Pakistan to return to its 1947 water status. "These arguments obviously did not carry much weight with the Indians" [*ibid*: 245].

The World Bank President's proposal to the Prime Ministers of India and Pakistan that cooperative work continue till 30 September 1957, was accepted in April 1957. With the assurance that the talks were not going to break down imminently, the World Bank took the step of reviewing the progress thus far, to determine future action. On 13 May 1957, the Bank presented a draft of its ideas or "Heads of Agreement" to the Indian and Pakistani delegations. Intended, as ever, as the basis of resolving the Indus Basin dispute, the Heads of Agreement advocated three principles. Firstly, the division of the Indus Basin, secondly, allowing a transition period for the change in water management to occur, and thirdly, the establishment of a commission to prepare plans and oversee the division of the water.

The Heads of Agreement marked the entrance of a commission to manage water and relations into the proposed outcome. But other than this new innovation, the Heads of Agreement failed to ignite interest amongst the protagonists. The Bank's representative travelled to the Indian Subcontinent to discuss the proposal with each of the Governments, but failed to make any tangible progress though, as he was to point out: "In the course of my conversations with the Government of India and the Government of Pakistan during my visit to the Sub-Continent, I have been repeatedly assured of the desire of both Governments to reach an agreed solution of the Indus Waters question" [IBRD-24/6/57]. Pakistan remained the principal objector. Wary of its opponent, Pakistan wanted clear agreement upon matters before it agreed to part with the eastern

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Indian government to advise it in the Indus Basin dispute with Pakistan.

rivers. Therefore, it focused upon the absence of an agreement regarding the implementation of the basin's division, and the absence of a financial plan.

The World Bank re-worked the Heads of Agreement, making it more general by focusing more upon the principles it embodied, and offered it back to the Indian and Pakistani delegations. As the Bank's representative stated: "I have come to the conclusion that the best prospects of carrying forward the tripartite discussions to a successful conclusion lie in my attempting to obtain from India and from Pakistan respectively, acceptance of certain general Heads of Agreement, based on the Bank Proposal of February 5, 1954, and of the Aide-Memoire dated May 21, 1956, as a firm starting point from which we might proceed to the formulation of the detailed text of an international water treaty" [IBRD-24/6/57].

The re-formulated Heads of Agreement contained a caveat to agreement for both India and Pakistan that was a testimony to the continued suspicions residing at the negotiating table. "The acceptance by either Government of the above Heads of Agreement, or any one of them, as a basis for an approach to an international water treaty, shall not, in the event of failure to conclude such a treaty, be invoked by the other Government in support of any of its legal rights of claims" [IBRD-24/6/57].

The Bank asked the delegates to comment, by 25 July 1957, upon the proposal's acceptability as a base upon which to continue discussion. India and Pakistan made their comments by the July deadline. At the Bank representative's suggestion the delegations met with the World Bank separately for oral discussions, and to give their opinion upon the other delegation's written comments regarding the Heads of Agreement. The objective of the exercise, the representative told the delegates, was that "[h]aving received the comments of each Government on the views of the other, the Bank would then be in a position to reach a conclusion as to whether the employment of its good offices could make any further contribution to a solution and, if so, along what lines we should proceed" [IBRD-24/6/57].

Negotiations were not just held between India, Pakistan and the Bank but internally within the delegations too. For example, as the negotiations dragged on with little hope of reaching a successful conclusion, the World Bank's President began to question the institution's continued involvement in the process. However the appointed Bank representative who was more intimately involved in the negotiations was able to

persuade the President to let the Bank remain involved. Another example of internal differences was the Pakistani delegation's constituency. As Michel and Kirmani both point out, provincial differences typified the delegation and acted to hamper progress [1967: 245; Kirmani interview, 1/6/96]. Sind was concerned that plans it had for the use of the River Indus would be lost to replacement works which would mainly benefit Punjab, and therefore pushed for development works to be included.

5.1.3.4 The 1958 Marhu Tunnel Plan

India, in Spring 1958, presented its Marhu Tunnel Plan to the World Bank and Pakistan.[98] The Plan envisaged India taking water from the River Chenab and returning the same amount of water, in fixed quantities, to Pakistan from the eastern rivers. From the World Bank's perspective the Marhu Plan had a number of advantages to recommend it "over any other approach so far contemplated in the settlement of the Indus Basin dispute", principally, the scheme's economy in time and cost [IBRD-1958a].[99] The Bank's attitude to the ideas in the Marhu Scheme are summed up in the following quote [IBRD-1958b]:

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98 The concept of building a tunnel at Marhu on the River Chenab, in Indian controlled Jammu and Kashmir, was originally touted in the 1953 Indian Plan. Pakistan rejected the concept as it regarded any action by India on the Western rivers as interference, and totally unacceptable. Nonetheless, the concept did not die down. The World Bank, surprisingly, also suggested a scheme using the Marhu tunnel concept, but neither country was to approve the suggestion.

99 The World Bank saw the Marhu Scheme's advantages as [IBRD-1958a]:
"1. It attempts to solve the dispute in stages taking cognisance of India's limited financial capacity.
2. It is the least costly plan so far put forward.
3. It does not, in our estimation, detrimentally effect India's genuine plans for development while still recognising the priority of Pakistan's historic uses.
4. The majority of works to be constructed are in Indian territory.
5. The minimum of foreign exchange to India is involved.
6. The onus is on India to complete the works as quickly as possible so that she can make progress on her development plans utilising the Eastern River water historically used in Pakistan.
7. The question of the very costly replacement of the Sutlej Valley Rabi uses is postponed without any great hardship to either party.
8. It is a much more attractive engineering and hydrologic solution in that works are relatively simple and do not involve complex operation.
9. The control that India can exercise on the Chenab up to and including Phase II is physically limited to not more than about 25% of the flow of that river.
10. It would not be necessary, though certainly desirable, to have joint observation of the works and gauges in India.

> "The ultimate objective of this approach would be to afford India the exclusive use of the quantity of water in the Eastern Rivers and to afford Pakistan the exclusive use of the quantity of water in the Western Rivers, as envisaged in the Bank Proposal of February, 1954. The principle of Pakistan independence of deliveries of water from India, envisaged in the Bank Proposal, would, however be abandoned because of considerations of cost. The quantitative division would be effected by permitting India to divert Western river water for use in India, whilst at the same time requiring India to make substantially equivalent fixed deliveries of water to Pakistan. The system of works necessary to achieve the ultimate objective would be constructed in three phases and, to the extent that works were constructed whether in Pakistan or in India, to maintain historic Pakistan uses, the cost would be borne by India. The principle would be maintained throughout that the development of additional irrigation uses in India should not take place at the expense of historic irrigation uses in Pakistan." [Emphasis in original]

In fact certain members of the Bank's team thought so highly of the scheme, that if Pakistan was to reject the plan, the Bank would be "in a strong position to terminate its good offices" [IBRD-1958c]. Nonetheless, when Pakistan did reject the plan, despite the World Bank's recommendations, the Bank did not withdraw from the talks. Though the plan required less financial cost to implement, Pakistan regarded the Marhu Scheme as too costly to its interests in the long term. Not only would it involve Indian 'interference' on the Chenab River, but more importantly, Pakistan would remain dependent upon India for its water. This latter element was something Pakistan appeared unwilling to countenance after the 1948 incident.

Pakistan promised to present an alternative plan that preserved its water independence. Nonetheless, meeting in Rome in April and May 1958, discussions continued upon the Marhu Tunnel Plan [IBRD-15/5/58]. Interspersing the discussion was the search for an alternative plan acceptable to both protagonists. Using information the Pakistani delegation had supplied, the World Bank proposed locating storage facilities upon the River Jhelum. The stored water would supply replacement water for the Sutlej Valley Canals (SVC), and be cheaper than building a link canal from the Indus to the Sutlej.

As Michel points out, "the Bank, having conceded in the Aide Memoire that storage was necessary for replacement, wanted to confine all replacement storage to the Jhelum"

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11. Water will continue to flow downstream of Harike and Ferozepur thus making much less serious the problem of channel deterioration.

[1967: 245]. To persuade the Pakistani delegation of this was to deal with an internal Sind-Punjab dispute, which the Bank attempted to do. Appearing to agree with Sind, the Bank suggested using the Indus for development, and as already stated the Jhelum for replacement. Pakistan agreed to consider the proposed Jhelum storage and prepare a plan based upon it.

While internal Pakistani sensibilities jostled for air, and the World Bank attempted to remind Pakistan of the need for overall national rather than just provincial benefits, the Bank also had to consider the Indian perspective. India was only willing to pay for replacement works in Pakistan that arose from transfer of the eastern rivers to India. Therefore, the advantage of using the Jhelum for replacement storage was to reduce the cost of replacement works and make Indian compliance more likely [*ibid*].

5.1.3.5 The 1958 London Plan

At the July 1958 meeting held in London, Pakistan presented its aptly named London Plan to the World Bank and India as a cheaper alternative to the Aide Memoire. In eliminating the Upper Indus Link which would have been expensive to construct Pakistan opted, instead, for an array of dams and ten link canals. The cost of Pakistan's cheaper alternative plan varied according to the source. The Indian delegation estimated it as approximately US $666 million or Indian Rs. 3,300 million [IBRD-2/12/58]. The Pakistani estimate was in fact higher at approaching US $728 million [IBRD-5/2/59].[100]

The Tarbela dam on the River Indus would provide storage water for development in Sind, and replacement in Punjab and Bahawalpur. Replacement water would flow to lower Punjab and Bahawalpur via two trans-Thal links going from Kalabagh to Jhelum, and Taunsa to Panjnad. The Mangla Dam on the Jhelum River in Pakistani-held Kashmir would supply replacement water to Punjab. Three additional subsidiary dams

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12. The Marhu Tunnel and ancillary links are well above the flood endangered areas of the plains."

100 Each delegation was making estimates using its local currency and converting to US dollars. But the discrepancies were probably not due to a vastly different exchange rate *vis-à-vis* the dollar. Though that may have been the situation prior to August 1955 when Pakistan devalued its rupee. Pakistan had refused, in 1949, to

were also proposed on tributaries of the rivers Jhelum and Indus. Water stored on the Jhelum would be transferred to the upper parts of Punjab and Bahawalpur via a series of link canals [Michel, 1967: 246].

Negotiations were adjourned to give India time to study the plan in detail. By October 1958 the World Bank was discussing with India policy decisions that would enable the country to accept the Pakistani London Plan. However, events in Pakistan were unfolding that would change the nature of the negotiations dramatically. In October 1958, civilian rule in Pakistan came to an end for the first time with the successful military *coup d'etat* staged by General Mohammad Ayub Khan.

5.1.3.6 The 1958 Indian Plan

Not surprisingly, India's reply to the London Plan was unfavourable. In a separate meeting with the Bank, the Indian delegation stated with regard to the London plan that: "This plan cannot be regarded as an appropriate basis for working out a replacement plan under the Bank Proposal" [IBRD-2/12/58]. India balked at the size of replacement works and, of course, at the congruent financial obligation.

In December 1958, the Indian delegation presented yet another plan to the World Bank, and to Pakistan.[101] In what appears to be both a voice of frustration and an attempt at gaining credibility for the plan the Head of the Indian delegation, in a separate meeting with the Bank, said it was presumptuous to call it an Indian plan when it was really the result of comments the Bank, and its representative had made or insisted upon India. To this the Bank representative interjected that: "Mr. Gulhati should not put the blame of the Marhu Plan on the Bank's shoulders" [IBRD-5/12/58].

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devalue its currency in line with other members of the Sterling Bloc, resulting in a disparity with the devalued Indian rupee.

101 In what appears to be a curious move, considering the World Bank's expectation of no-publicity and each country's agreement to comply, was the publication of the 1958 Indian Plan by A N Khosla in an academic journal, *India Quarterly*, vol. XIV, no 3 (July-Sept 1958), and reprinted by the Indian Council of World Affairs, New Delhi. Khosla had acted as Head of the Indian delegation to the negotiations from 1951-54, and though a reputable engineer had taken up political office as a Member of Parliament in India. Moreover, the decision to make the plan available to the public before giving it the Bank also appears curious.

In what was the first joint meeting of the new round of talks, the Bank reminded the disputants that each side had spent approximately $1 million on the dispute resolution process so far. Moreover, the World Bank would not be able to continue such expenditure for much longer, and therefore it hoped progress would be faster in the sessions ahead [IBRD-9/12/58].

India proposed using a number of sites on the Chenab River in Jammu-Kashmir and Himachal Pradesh. Two diversion tunnels would be built to transfer water from the Chenab to other rivers for transfer to the canal command areas. One tunnel would go from the Chenab River to a tributary of the Ravi, and the second tunnel would go from a tributary of the Chenab, the Chandra, to the Beas River near Palchar. If a storage dam was still needed then one would be built at Dhiangarh on the Chenab. If Pakistan authorised use of these sites, India could guarantee delivery of half of its replacement needs. India had estimated these needs as being 12,340 mcm (10 MAF), and the remaining 6,170 mcm (5 MAF) would be supplied from within Pakistan by the link canals it was building (BRBD, MR, BS) [Michel: 1967, 246].

The Indian Plan's cheaper construction costs and time requirements made the plan, as Gulhati was to state, "in the Indian view the only practicable Plan for a solution of this dispute" [IBRD-9/12/58, emphasis in original]. The time factor was of considerable importance to India as it had already completed a number of works and was constructing more to use the Eastern rivers' water.[102] An additional benefit in India's view was that it would be responsible for the replacement works' construction, and could work at a rate to suit its own timetable [Gulhati, 1973: 250].

An obvious implication of the Indian Plan's proposal to build on the Chenab, and to supply water to Pakistan, was the continued dependency Pakistan would have upon India. This lack of independence had already been rejected in Pakistan's reply to the Indian Marhu Tunnel Plan a few months earlier. As time and cost was of prime importance to India, so independence in water supply was to Pakistan.

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102 India had been busy building its own works to use water from the Eastern rivers. It had completed extensions to the Upper Bari Doab Canals (UBDC), and built new canals, the Sirhind Feeder and the Bhakra canals. The Rajasthan canal was under construction and was expected to be completed by 1962.

In February 1959 at a meeting between the World Bank and the Pakistani delegation, Mueenuddin reiterated that the Indian Plan was unacceptable for three main reasons. Firstly, it would not achieve the necessary results; secondly, it was politically undesirable; and lastly, it did not conform to the Bank's 1954 Plan and 1956 Aide Memoire which entailed the independence criterion [IBRD-3/2/59]. This was reiterated in a document prepared by the Pakistani delegation for the Bank: "There are important major issues like the control of the Chenab by India, Pakistan's dependence on India for deliveries etc. which are not acceptable to Pakistan under any circumstances" [IBRD-5/2/59].

The World Bank had upon initial intervention in the Indus Basin dispute expected to help India and Pakistan create a comprehensive plan for the integrated management and use of the Basin's waters. Unfortunately, the idea of an integrated plan had to be abandoned early on with the presentation of the Pakistani and Indian plans in 1953. It was clear that the concepts underpinning the plans were incompatible. The World Bank proposed, in 1954, to make this incompatibility explicit and divide the water resources of the Indus Basin, something the other plans had held implicit.

The division of the Basin was a step that Pakistan was, initially, reluctant to accept. It feared that if the division was instituted without any assurance to Pakistan's existing uses and provision for financing of the necessary works, then it would be worse off than before the Bank's good offices. Thus, Pakistan only accepted the principle of division once it was clear that provision for storage facilities was also to be included in any final settlement. India, happy though it was to accept the division of the Basin, was wary of incurring a heavy financial obligation to Pakistan and rejected the extravagant plans Pakistan proposed as the basis of agreement.

The plans that were presented by the disputants reflected the concerns each party had. Despite the obvious disagreement the plans engendered, both India and Pakistan repeated the underlying concepts in the 'alternatives' they proposed. India presented plans that had as their main concern the cost of construction and implementation. Thus, its plans were often the most economical when compared to Pakistan's. However, Pakistan was to refuse India's plans, because they often involved a continued dependence upon it for Pakistan's water. This was something Pakistan was no longer willing, after April 1948, to countenance. Pakistan's plans reflected its desire for an independent water supply, and works that could incorporate future development plans

the country might entertain. Thus, its plans were often grandiose and involved a heavy financial input from India, which the latter was unwilling to accept.

The World Bank was equally reluctant to let the talks collapse, and attempted to address the concerns each disputant had in order to perpetuate the talks. Therefore, the Bank suggested holding talks for a comprehensive plan in tandem with talks to arrange a temporary supply of water to Pakistan, and to India. Thus, *ad hoc* agreements were negotiated that would enable India to withdraw a set amount of water upstream of Pakistan's uses, thereby making operational the new works India was building. Pakistan, in turn, was assured of a set amount of water from which to meet its existing uses in conjunction with supplies transferred across from the Western rivers to these uses via its link canals. Agreement, in both the temporary arrangements and the comprehensive plan talks, was subject to 'hard' negotiation by both disputants.

5.2 AGREEMENT

As has already been stated elsewhere, the mediation process is not linear but cyclical. Therefore, agreement does not follow on, spontaneously, after the issues involved have been addressed and relevant options that are acceptable to the disputants have been considered. Rather, agreement is present, and absent, in all stages of mediation. For example, before the World Bank could lend its good offices, India and Pakistan had to agree to the Bank's intervention. Thereafter, the disputants had to agree to comply with certain ground rules for the duration of the Bank's good offices, and upon the issues that characterised the dispute.

Agreement not only takes place at different stages, it also occurs at different levels. Therefore, agreement occurred on relatively minor decisions, such as sharing particular data regarding river discharge, and on larger issues that then changed the nature of the talks, such as the principle of dividing the Indus Basin. Obviously, to make significant progress within the talks, agreement was needed upon the major issues in dispute, though, incremental agreement of the calibre of data-sharing was useful too. However, the absence of agreement upon even the smallest issue, such as data-sharing, was sufficient to obstruct the talks and lead to considerable time being lost over these details.

Despite the appearance, and reality, of a tortured negotiation process, India and Pakistan were able to reach a number of agreements prior to the final agreement that led to the Indus Waters Treaty. The Governments of both countries had agreed to send delegations to discuss the Indus Basin dispute under the aegis of the World Bank's good offices. They had accepted the principles Lilienthal espoused, and attempted for a short duration to find a common route to development of the Basin. There was an understanding that data were to be a shared resource. Talks were resumed, in December 1954, on the agreement that India and Pakistan would engage in cooperative work for a specific duration. The delicate question of financial liability was also accepted with the principle of beneficiary-pays.

However, despite these agreements, substantial differences remained and forestalled the final agreement. Though, with hindsight, it can be seen that these disagreements acted only to postpone the final agreement, at the time of the negotiations the effect appeared more serious. The obstacles were significant and featured at heart the issue of political will. The party most affected by this issue was Pakistan, where political instability was causing considerable problems for their delegation to the Indus Basin talks. Other difficulties also obstructed the talks, and were of a technical and financial nature. Nonetheless, agreement when it came was sufficient to lead to the Indus Waters Treaty.

5.2.1 Obstacles to Agreement

> "Strong value differences mean that parties are reluctant to give away too much for fear of offering a fatal compromise, or of being accused by their constituencies of 'selling out' their water rights" [Lamb and Taylor, 1990: 968].

Both countries had agreed to the World Bank proposal made in 1954, and the Aide-Memoire in 1956. Whereas India was willing to develop a comprehensive plan implementing the principles embodied in these two proposals, Pakistan's acceptance was more begrudging. Dissatisfied with the amount of water being allocated, Pakistan had only accepted the 1954 proposal to keep the negotiations going. Its attitude *vis-à-vis* the Aide-Memoire was more encouraging, as it finally recognised Pakistan's claim that storage was essential in the Indus Basin if enough needs were to be met to get agreement.

But why when there was some agreement in 1956, was a treaty not signed until 1960?[103] What obstacles stood in the way of agreement? The obstacles can be broadly defined as political, financial and technical. Though these factors in effect only postponed the final treaty, at times they looked set to prevent agreement altogether. Of the three, the most important was political, which can be characterised as political will.

India, by virtue of being upstream, had continued with its unilateral development of the water in its territory. Though there were provincial disagreements about the allocation of water, India was not beset by the same political problems at the centre as Pakistan was. Pakistan's downstream status, the reason for its fears *vis-à-vis* India's water withdrawals, led to it demanding continued water supply to its existing uses. Though the World Bank attempted to ensure undiminished supply before the start of the talks, in 1952, the matter had become highly complicated [IBRD-13/3/52d]. The issue of maintaining the status quo at times threatened to scupper the talks.

Though technical and financial matters influenced Pakistan's decisions, the most pertinent factor was the political situation within the country. During the length of the negotiations, rival political leaders of Pakistan were fighting either to get power or maintain their power. Seven different candidates held the Prime Minister's office during that interim. Away from the centre, the provinces were also vying for water, and this entailed considerable internal disagreement.

The Pakistani Head of Delegation after 1954, Ghulam Mueenuddin, was more willing to make new recommendations to the Pakistani government in Karachi but was hampered by the weakness of the political situation in Pakistan which was to remain a formidable obstacle for most of the negotiations [Iliff, 1970]. One consequence of this political jostling at the centre was a jingoistic outlook that hardened as politicians vied with each other to appeal to the public. Another consequence arising out of political weakness, was

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103 Kraske suggests one reason for the delay is that both India and Pakistan enjoy being accurate in the details. Since both parties in a dispute will have different ideas of what constitutes accuracy, this leads to considerable discussion. He, therefore, suggests that the Indus Waters Treaty was signed simply because Prime Minister Nehru had decided that enough discussion had gone on, and that India would agree with the Bank's proposal even if it was not as exact as some Indian agencies might want it to be [Kraske interview, 3/6/96]. Though this might have happened in India, this thesis regards the turning point as being the decision of President Ayub Khan's Government to accept the proposals.

that politicians could not afford to make decisions that could be used against them in the domestic arena.

Having started the negotiations under the relatively strong leadership of Liaquat Ali Khan, the subsequent prime ministers were unable to countenance agreement with their biggest enemy, India, for fear of a domestic backlash. Nor, would it appear, could they stop the negotiations outright in case this too became a weapon in the hands of their political opponents. Therefore, the negotiations limped along beset by the absence of a commitment to make or break the process. It was not until the October 1958 military *coup d'etat* that the leadership was strong enough, and had the political will, to make a decisive settlement with India on the canal waters dispute [Kirmani interview, 1/6/96].

"To exert any influence at all, to change or affect aspects of a dispute, requires the possession or control of some valued resources" [Bercovitch, 1992: 19]. The World Bank's obvious resource was financial capital, which it used to provide an incentive to get agreement [Baxter, 1967: 477]. However, finances were by themselves insufficient to get agreement, as already pointed out, and at times were also an obstacle in themselves.

Unsurprisingly, financial obstacles during the mediated talks revolved around which party would pay for the necessary works. To determine each party's portion of responsibility towards the cost of works, the IBRD determined that payment would be proportional to the benefit derived. For example, since India would benefit by the allocation of the eastern rivers to it, the link canals situated in Pakistan that would enable this to happen, would be India's responsibility.

Therefore, the first financial obstacle arose with each party trying to show that it was not the principal beneficiary from particular works, so as to avoid the liability to pay. The second financial obstacle, which is linked to the first, was the overall cost of works in the final development plan. Storage facilities are very expensive to construct and neither country could afford to pay for them. Both these problems were overcome. The first by the World Bank applying the principle strictly, and the second by the Bank creating a fund to which interested 'friendly Governments' contributed.

Technical difficulties arose in the calculations of needs and other elements that impinged upon the size of works required to supply the needs as understood. Therefore,

before the 1956 Aide-Memoire, Pakistan had insisted that without storage facilities or a large portion of the eastern rivers, its needs would not be met. Technical surveys by a consulting engineering firm confirmed Pakistan's claim and storage facilities were accepted in principle.

The calculation of losses and gains in the rivers and canals were also problematic, as it had implications for the size of replacement works and link canals.[104] As late as December 1958 matters concerning the calculation of gains and losses from canals, ponds and rivers were being challenged. When Mueenuddin suggested collecting together a body of experts to decide the issue Iliff was reluctant because, "he feared that such a decision would be no more acceptable to both sides than a decision made by the Bank engineers" [IBRD-16/12/58]. Other problems arose with estimations made of the amount of water available to Pakistan, whether it included sailab or not. None of these problems, however, was insoluble especially as the engineers were pushing back the frontiers of innovation.

An additional 'technical' problem arose with the management of water and water-carriers that crossed the international boundary. For example, in Spring 1956, while the delegations were discussing proposals for a comprehensive plan, difficulties arose regarding repairs to the Ferozepur headworks. Rather than resolving the matter between the Indian and Pakistani engineering staff at ground level or referring the matter to the Indian Special Commissioner and the Pakistani Irrigation Commissioner the matter was put before the World Bank. When the matter was finally settled with the intervention of the Indian Prime Minister, the Bank was glad that the situation had been resolved by a "display of good sense on both sides of the frontier" [IBRD-28/3/56].

The breakthrough came with the change in Pakistan's political will with the 1958 *coup*. Pakistan unreservedly accepted the World Bank's proposals of 1954 and its 1956 Aide-Memoire. In doing so, the political leadership of the country undertook to divide the basin, and change the source of its supply by relying almost exclusively upon the might of the western rivers through dams and link canals. The decision to reach an agreement with India on this contentious issue rests most probably with the political leadership. But

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104 Michel points out that link canals leak more than ordinary canals because they are cutting across the 'grain' of the basin rather than going with the flow of the rivers [Michel interview, 16/5/96].

Pakistan's engineers would have determined which of the plans on offer to select and advised the political leadership accordingly.

Though not an obstacle to agreement in the manner of disputant obstinance, another problem did exist for the Bank's representatives. The World Bank had entered into the Indus Basin dispute in 1951 thinking its involvement would be needed only in the short term as agreement would be reached relatively quickly. But as negotiations crept along at a snail's pace, members within the Bank's Management began to question their continued presence in these talks, especially when India and Pakistan's commitment to resolution appeared to waver. Thus, "Iliff's mediation was not only between India and Pakistan, but with Black as well, since he more and more wanted to abandon the whole exercise - having believed in the beginning that agreement could be reached in a reasonably short time" [Iliff, 1970].

5.2.2 Drafting the Indus Waters Treaty

The transition from small measured agreements that eked the process along to a large-scale acceptance of an outcome happened literally overnight in Pakistan with the *coup d'etat*. In accordance with the instructions coming from Karachi, the Pakistani delegation unreservedly accepted, on 22 December 1958, the 1954 World Bank Plan and the 1956 Aide Memoire Plan, each dealing, respectively, with the principles of dividing the basin and changing the supply sources. Hereon, the discussions that took place were for the actual plan that was to be implemented, rather than a plan that might be accepted and implemented at some unspecified far-off date. Discussions continued on the viability of the plans already proposed by India and Pakistan, the revised Marhu Plan or 1958 Indian Plan and the London Plan respectively.

As the inherent aims of each country were different, difficulties with these plans remained. As Michel points out [1967: 247], India wanted, broadly, to have unrestricted use of the eastern rivers after a reasonable transition period, and a limit to its contribution for replacement works in Pakistan. By contrast, Pakistan had entwined the concepts of replacement and development such that it was reluctant to separate them. Therefore, though the Marhu Plan had its economy to recommend it to the World Bank, it was clear that there was little in it that was acceptable to the Pakistanis especially with its implication of continued dependency. Thus, the Bank realised that if agreement was

to be found it would need to separate the issues of irrigation works needed from the cost of constructing those works [*ibid*].

Using the 1954 Plan and the Aide Memoire, that India and Pakistan had already accepted, as a basis the World Bank proposed another plan. The Settlement Plan contained the broad provisions that would be incorporated in the Indus Waters Treaty, but aspects remained that needed considerable negotiation before agreement was finally reached. By the Summer of 1959, India had agreed to the criteria it was most concerned with regarding cost and water use. Thereafter, the Bank sought to reach agreement with Pakistan as to which works would be incorporated in the treaty, and therefore be eligible for financing through a Bank-controlled fund, the Indus Basin Development Fund (IBDF).

India had outlined its expectations *vis-à-vis* any final agreement in a series of meetings with the World Bank as far back as September and October 1956 [IBRD-28/9/56 and 10/10/56]. Though these discussions were held over two years before negotiations began for the final treaty, many of the Indus Waters Treaty's key features were highlighted in these discussions. Berber had, in 1956, made a number of points that India would expect to be included in an international treaty between India and Pakistan [IBRD-28/9/56], which it appears were later included in the Indus Waters Treaty.

Berber stated that the participants, and especially the mediator (in the role of referee), would need to bear in mind three points in reaching agreement. Firstly, the place of such a treaty in the constitutions of both countries would have to be considered, as would the possibility of needing the consent of both parliaments to ratify it. Secondly, a preliminary agreement might be needed pending a final agreement as a treaty could take years to complete. Thirdly, neither side while negotiating a final agreement should do anything contrary to the aims of the final agreement. Therefore, to ensure that India, for example, did not infringe upon the western rivers' water, and Pakistan did not hinder or obstruct the replacement works, a standstill agreement would possibly be necessary [IBRD-28/9/56].

The treaty itself would be formed of three sections, Berber continued. The treaty would open with the preamble which would amount to the moral platform for the agreement, and the treaty's intentions. The second section would house the articles which formed the main body of the agreement. And the annexes would make up the last section, and

cover details of the transitional and financial arrangements that had been agreed to by the disputants [IBRD-28/9/56].

Implementing the treaty may raise difficulties not envisaged during the negotiation period, Berber went on to warn. Therefore, it was important not only to outline, in detail, all the issues that had been agreed to, but to provide an avenue to deal with any future disputes. Berber suggested using arbitration rather than adjudication, as India had already refused the latter. He also suggested making provision for a commission to settle administrative issues such as the water used by both India and Pakistan in Kashmir, maintaining the riverbeds of the eastern rivers, and flood control [IBRD-28/9/56].

In later discussions, Berber recommended further aspects of the treaty that should be observed. Regarding the western rivers, India should not tamper with the amount and timing of supply to Pakistan, nor should it build upon the rivers without Pakistan's permission. In addition, the treaty should allow for Indian uses on these rivers in Jammu and Kashmir. Berber recommended again considering possible flood control on the eastern rivers as India did not need to use all the waters, though it might wish to [IBRD-10/10/56].

Though Berber was willing to discuss the treaty's features in general terms, when the Bank suggested drafting an international water treaty in 1956, even in the broadest sense, the Indians were reluctant to do so. Not only because, as Berber pointed out, that "it might be poor tactics from the Indian point of view" but also because India had gone further in the negotiations than Pakistan had [IBRD-10/10/56]. Furthermore, it would be premature to start drafting a treaty when there was insufficient agreement between the disputants. In the meantime, discussions continued regarding the transitional and financial arrangements. Regarding the sections of the treaty that would endure beyond the implementation stage, Berber reiterated the need for an arbitration clause to resolve future disputes, even suggesting that it should operate automatically when either party invokes it [IBRD-10/10/56].

5.2.2.1 The 1959 Settlement Plan

While the disputants were preparing plans that they regarded as providing a settlement to the long-standing dispute, as far back as July 1958, the World Bank had begun its

own preparations for yet another proposal [IBRD-29/7/58]. At the time when Pakistan asked whether "the Bank planned to put a plan on the table", the reply was:

> "the Bank would prefer to have a plan put forward by either side agreed to by both India and Pakistan. However, if such a plan cannot be agreed to, then the Bank would put forward a plan which would be the plan the Bank thinks would effect replacement and form the basis of discussions for financial assistance from other governments. This plan would not be put forward as the Bank Proposal but rather as a plan representing the Bank's view, for discussion with both sides" [IBRD-29/7/58, emphasis in original].

At a meeting in January 1959, with the Pakistani acceptance of the Bank's 1954 Plan and the 1956 Aide Memoire in hand, the World Bank suggested the delegations return to their countries to collect data. Pakistan was to transmit its data by post to the Bank and India, who would comment upon the data with a view to the final plan that was now to be negotiated. India clearly wanted to move faster so that it could withdraw more water for its own works sooner. The Head of the Indian delegation stated that he did not understand why Pakistan took so long to provide information and how he was to explain the delay to the Indian Government. India argued that Pakistan surely had the facts already since it had made preparations for the BS II link, and that the necessary calculations could be done in Washington, DC [IBRD-16/1/59].

The Pakistani delegation was concerned about the proposal the World Bank was preparing since the effect of the plan, if it was accepted, would be felt in Pakistan. Therefore, the delegation attempted to 'influence' the Bank's outlook. At another meeting in January 1959, the delegation made it known to the World Bank that it hoped the Bank would discuss its views with the delegation, before finalising them in a plan. The Bank was, also, reminded that any mistakes in forecasting the gains and losses in the rivers would be borne by Pakistan [IBRD-19/1/59].

In a meeting in February 1959, the delegation made an "earnest request" that the Bank's plan take into account three uses Pakistan considered important: sailab, post-partition increased uses, and reclamation. If the Bank's plan could not meet these uses, then it was to ensure that water was available to Pakistan for these uses. Reference was made once more to the gains/losses calculations, and the Bank was asked to give Pakistan the benefit of any doubt if it arose. The Bank gave a rather stern reply. "Pakistan must remember that the Bank did not get into this dispute to design and build a development scheme for Pakistan, but to find a settlement of this dispute" [IBRD-5/2/59a].

The Indian delegation for its part was still concerned about the financial contribution India would be asked to make. In March 1959, the World Bank and India met to discuss the Indian position *vis-à-vis* the principle of beneficiary-pays. It was made clear to India that the Bank no longer regarded the Marhu Tunnel concept as an acceptable basis for a final plan. Therefore, the Bank would not be putting forward a plan based upon it [IBRD-5/3/59].

The Indian delegation presented its views to the Bank on the final plan and its financial liability in a paper entitled, "*Some Technical Considerations Relating to the Allocations of Costs of a Replacement Plan*". The World Bank understood this paper as presenting the Indian government's views on its financial liability to Pakistan. If this was the case, the Bank's representative said that he would make a recommendation to the Bank's President not to go to the Indian Subcontinent in May 1959 [IBRD-16/3/59]. The President was to have separate talks with the political leadership of both countries regarding various aspects that still needed agreement. The Head of the Indian delegation explained that the report was informal and contained only his own views as he did not know those of the Government of India but suspected that they would want to reserve their judgement for the moment [*ibid*].

The World Bank presented its "Settlement Plan" on the 26 March 1959. The Plan, which was based upon the Bank's 1954 proposal, provided for replacement and development works in India and Pakistan. The Bank sought to distribute the financial burden evenly between the two countries by applying the principle of beneficiary-pays, and taking into regard each country's ability to pay. Therefore, Pakistan was asked to absorb the cost of existing replacement works, and India's payments were calculated to reflect the actual cost of construction. Using loans to pay for works benefiting them, India was liable for the link canals, and Pakistan liable for the storage facilities. If the Settlement Plan was acceptable to the parties, the implementation of this plan would oblige India and Pakistan to sign an international water treaty. This treaty would, in turn, establish an Indus development commission for at least the duration of the transitional period.

In May 1959, the Bank's President travelled to India to discuss with the Indian Government its financial contribution, arrangements for the transitional period, and India's opinion on the incorporation of a reservoir at Mangla as part of the replacement plan. Understanding was reached on five issues: Firstly, that India's contribution would

be limited to $174 million.[105] Secondly, that the transitional period would last for ten years and if Pakistan exceeded this time, it would be penalised financially. Thirdly, if however Pakistan needed to extend the transitional period, it could do so for a single three year period. Fourthly, as part of the Settlement Plan's planned projects in India, the foreign exchange costs of building the Beas dam would be met with loans. And fifthly, India's claim to sovereignty in Jammu and Kashmir would not be harmed, and in fact a suitable formula would be arrived at to protect that claim.

The World Bank found some measure of success in its talks with the Government of Pakistan. Michel points out that the original scheme the Bank was proposing had to be amended when the Pakistani government showed that it could still lead to "small shortages on some canals in exceptional years" [1967: 247]. It was apparent to the Bank that Pakistani thinking had "crystallised around the storage facilities" [*ibid*]. An exchange was agreed in which Pakistan would assume the some of the replacement works' costs, and remove off-channel storage at Rohtas below Mangla on the River Jhelum, if a dam at Tarbela was included in the Settlement Plan [*ibid*: 248].

The amended list of works included: [i] reservoirs at Tarbela and Mangla on the rivers Indus and Jhelum respectively; [ii] eight link canals transferring water from the western rivers to the Sutlej Valley Canals; [iii] a hydro-electric power plant at Mangla; and [iv] tubewells to promote drainage within the Indus Basin. The Pakistani government, also, agreed to absorb the costs already incurred in constructing and operating existing link canals. The World Bank, for its part, agreed to approach other countries, or 'friendly Governments', to fund the amended works [Michel, 1967: 247].

Outstanding issues remained: Indian uses on the western rivers, transitional arrangements and the Head of Agreement that was to encapsulate the form of the final treaty. The parties met in August 1959, in London to discuss these issues [IBRD-5/8/59 and 6/8/59]. Each side was asked, by the World Bank, to prepare a draft of the Heads of Agreement that would later translate into the accepted agreement and formalised as a

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[105] Iliff recalls that the financial negotiations were separate, "between the Bank and India" [1961]. But apparently, the "size of the Indian contribution finally was set by Iliff and B. K. Nehru with the help of a bottle of gin" [Iliff, 1970]. Iliff continues that, "Pakistan of course didn't care whether India was putting up anything or not so long as the system of works was being constructed at no cost to herself. But when I say she didn't mind if India was putting up nothing, she was less concerned with what

treaty. Unfortunately, the drafts that emerged were sufficiently different, even at this late stage after years of negotiations, to warrant the Bank to ask the disputants to find common understanding on three key points. Firstly, the definitions being used, secondly, the transitional arrangements, and lastly, the uses India would have on the western rivers. The Bank asked the parties to focus on these points, because it believed reconciliation of the other points would follow on from agreement over these [IBRD-10/8/59].

Indian uses from the western rivers was much debated. Fowler's belief that Pakistan was fortunate since "it is difficult to envisage any large-scale irrigation project in, or diversion if Indus water from, the upper valley in Kashmir or Tibet that might threaten supplies for canals in the Punjab or Sind" appeared not to placate Pakistan [1950: 599]. It continued to press, for what it regarded as Indian interference on these rivers for use in Indian-controlled areas of Jammu and Kashmir, to be minimised. Mueenuddin stated categorically that there was "no question of India having carte blanche in Jammu and Kashmir" [IBRD-12/8/59].

But Iliff believes Pakistan was caught in a difficult position. Though it did not want to allow India to withdraw water from the western rivers, Pakistan also realised that it could not afford to be seen to limit Kashmiri irrigation. This, after all, would imply that Pakistan did not care for its Muslim brethren, especially in the face of Indian concerns to maintain supply to these uses [1961].

If India was to make significant withdrawals upstream on the western rivers then Pakistan, its delegates argued, should receive compensation for these withdrawals [IBRD-10/8/59 and 12/8/59; Iliff, 1961]. India counterargued that it would not limit irrigation in Jammu and Kashmir so that Sind, Punjab or even Rajasthan could double their uses. The Bank reminded the disputants in the course of this debate that it was unwilling to consider "taking water for development in Pakistan and giving it to India for development" [IBRD-11/8/59].

Moreover, the Bank's representative stated:

> "that he would like to suggest the following guide with respect to these uses; that by 'insignificant', the Bank meant that the effect on Pakistan as a

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India was going to put up than whether or not she (Pakistan) was going to get the whole system of works" [1961].

> result of withdrawals in Jammu and Kashmir should be insignificant, rather than the areas or quantity of water being insignificant. If it were possible, he said, he would like to see the problem approached with this in mind" [IBRD-12/8/59].

Suitably chastised, both parties accepted the suggested approach. Nonetheless, suspicions continued amongst the disputants. This was highlighted in a meeting with the World Bank when the Pakistani delegation expressed concerns regarding the harm India could do if it operated the structures "malevolently". The Bank explained its position: "If India agrees in a treaty to operate these plants in a particular way, then the Bank will assume that she will so so" [IBRD-14/8/59]. Furthermore, the Bank regretted the Pakistani delegation's attitude and approach to this problem.

Table 5.3 The IBRD and Pakistan Plans' Estimate of Cost

In US $m	Total	Local Currency	Foreign Exchange
IBRD Estimate	836	444	392
Pakistani Estimate	950	516	434

[Source: IBRD-17/8/59]

Matters did not improve with "*Pakistan's Tentative Plan*" which outlined Pakistan's estimate of the cost of implementing the works suggested in the Settlement Plan [IBRD-17/8/59]. As Table 5.3 shows, the Pakistani estimate expected implementation to cost US $114 million more than the World Bank's estimate. If Pakistan had hoped that the Bank would accept these figures, it was disappointed. The Bank made it clear that not only was it not going to ask the 'friendly Governments' for more money, Pakistan would also have to restrict its foreign exchange requirements to the allotted US $400 million. The Head of the Pakistani delegation agreed to prepare a plan in accordance with these financial limitations [IBRD-17/8/59].

Discussions continued into September 1959 regarding a draft of the Heads of Agreement requested by the World Bank. For example, on the issue of filling-up periods for the plants generating hydro-electricity using the run-of-the-river, while Pakistan accepted the Bank's draft suggestions, the Indian delegation rejected them. The Head of the

Indian delegation said "he wished he could also accept it but for Pakistan's sake he could not", and proposed postponing a decision till further thought had been given to the matter [IBRD-8/9/59].

The Pakistani delegation's Head replied, referring to the delay being suggested, that the "trouble here is that both sides are too busy looking for legal loopholes" [IBRD-8/9/59]. Mueenuddin suggested that the Heads of Agreement draft the delegations were discussing should not be a legalistic draft, since those issues could be left for more experienced treaty drafters. Instead, the Heads of Agreement should be the Heads of 'Intention'. The Bank sympathised with the approach the Pakistani Designee Engineer was suggesting [IBRD-8/9/59].

From the detailed and extensive talks held during August and September 1959, emerged a general consensus on the nature of the Heads of Agreement. It was agreed by the participants that the following features should form part of any plan: One, the division of the Indus Basin between India and Pakistan. Two, a transitional period during which Pakistan would construct the works needed to prepare for the diversion of water to India. Three, India should be allowed to make use of the western rivers to generate hydro-electricity and for other non-consumptive uses. Four, that the financial liability each country would face would be determined by the benefit it derived from the works agreed under an international water treaty. Five, that India and Pakistan would exchange hydrological data. Six, that there would be some mechanism to ensure future cooperation between the disputants. And finally, that there would also be some provision to resolve any future disputes if they arose.

Agreement, however, had not been reached on details regarding the transitional period arrangements, and Indian consumptive uses on the western rivers. In October 1959, a two-pronged approach matched continuing discussions on these unresolved issues with the start of efforts to draft an international water treaty between India and Pakistan. In February 1960 discussions still continued on the transitional arrangements about which India was particularly unhappy. Gulhati, in a meeting with the World Bank, wanted to demonstrate to the Bank that the transitional arrangements it was proposing were "intolerable for India" [IBRD-8/2/60].

A couple of days later the Head of the Indian delegation also took issue over the calculations upon which the Bank's proposals were based. Gulhati said that taking

averages for the Sutlej Valley Canals, was not a fair approach. The Bank's minutes for that meeting notes: "This is contrary to the Indian position on averages taken throughout the years of negotiations" [IBRD-10/2/60]. Gulhati was also to add in that meeting that while "simplicity was desirable it is not indispensable", and works should not be dismissed because the situation may become more complicated [*ibid*]. The negotiations between the disputants followed the familiar route of aggrievance mixed with some progress.

Meeting with the World Bank in March 1960, the Head of the Pakistani delegation noted that irrigated land was already being taken out of use due to severe salinity, with more land potentially at risk if India was to have substantial consumptive uses on the western rivers in Jammu and Kashmir [IBRD-11/3/60].[106] Furthermore, Pakistan argued, at partition India was only using 9,872 mcm (8 MAF) of water whereas it now hoped to develop its irrigation needs to use 35,786 mcm (29 MAF). By comparison, Pakistan used 80,210 mcm (65 MAF) at partition, and hoped to develop its uses to consume 134,506 mcm (109 MAF) [IBRD-11/3/60]. That entailed an increase for Pakistan in water availability of "only 65% compared with 260% in India" [*ibid*]. Mueenuddin added that "[t]herefore, any water that might be given to occupied Kashmir will create further shortages in Pakistan. However, Pakistan recognises the need for some increased uses in Kashmir" [*ibid*].

As late as March 1960, the World Bank representative had to remind the disputants of the talks' purpose. The Bank's representative asked the delegations to forget comments made by any party regarding interpretations given to phrases in the Bank's proposal. The delegates were asked, instead, to concentrate on the task at hand namely "to find a solution acceptable to both India and Pakistan" [IBRD-11/3/60].

5.2.2.2 The 1960 Indus Water Treaty

The activities of the World Bank during summer 1959, had succeeded in resolving a number of issues and found agreement on the basis of a treaty [Iliff, 1961]. India's objections to the Bank's Settlement Plan had been dealt with in the main part with the fixing of the Indian financial contribution. A couple of outstanding issues remained

106 According to Mueenuddin, Pakistan was losing approximately 100,000 acres (400 km^2) per year to salinity [IBRD-11/3/60]. It is interesting to note that irrigation techniques in the Indus Basin that led to salinisation of the land have not changed in

between the two disputants over consumptive uses in Jammu and Kashmir and transitional period arrangements. Pakistan had also agreed to the Settlement Plan after it had been adjusted during its Government's conversations with the Bank in the Subcontinent. Yet it was to be over a year before the Indus Waters Treaty would be signed, and the Indus Basin Development Fund become operational [Iliff, 1961]. The delay was due to a disagreement between the World Bank and Pakistan regarding the cost of the works envisaged in the final plan.

The Government of Pakistan established the Indus Basin Advisory Board (IBAB) during summer 1959 to coordinate planning in the basin between the different agencies representing Pakistan's interests [Michel, 1967: 249].[107] The IBAB, comprised of sub-committees, was chaired by Ghulam Mueenuddin, who also headed the Pakistani delegation to negotiations with India and the World Bank. The Board first convened in Lahore during June 1959, and again in London during September 1959 [*ibid*: 250]. Presenting its plan in September, the IBAB's estimates were considerably higher than the World Bank's figure even though Mueenuddin had, as pointed out above, agreed to limit the foreign exchange spending to US $400 million [IBRD-17/8/59]. The IBAB Plan included US $94.7 million for land acquisition in Pakistan [Michel, 1967: 250].[108]

Though the Pakistani authorities repeatedly revised their plans, it was usually only upwards. This the World Bank was unwilling to countenance (see Table 5.4) especially as the upward spiralling of costs was due to Pakistani attempts to add some development

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the succeeding years despite innovations in micro-irrigation. Thus loss of land to salinisation remains an annual feature in Pakistani agriculture.

107 The different agencies included the Water and Power Development Authority of West Pakistan (WAPDA), the Department of Irrigation, the Pakistani Delegation to the negotiations and the Delegation's consultant engineers, Tipton.

108 Frederiksen *et al* point out that Rs. 2,490 million (approximately $50 million at 1998 rates) were spent in resettling people between 1968 and 1984, as a result of the Tarbela dam's construction. Yet, despite a "lavish land for land" offer, "much of the compensation to the oustees was paid in cash" [1993: 110]. The author was told separately, in an interview, how land was acquired in Pakistan under the Indus Waters Treaty and the Tarbela supplement. The expected recipients of compensation were, in certain areas, small scale farmers wholly dependent upon the land for their livelihoods. When it came to acquiring the land, a rumour was spread that the Government would seize this land without giving any compensation. Not surprisingly the land's value plummeted. Soon after buyers appeared offering a fraction of the real value, or the compensation, assigned under the Treaty. Resigned to losing their land anyway, these farmers sold their land. The new owners, and beneficiaries of the compensation that was paid out as agreed under the Treaty, were apparently the then top six families of Pakistan.

projects to the Settlement Plan, the cost of land acquisition, and custom duties and taxes upon the materials procured for the construction of the works [Michel, 1967: 253]. Michel gives a detailed description of the successive proposals the Government of Pakistan put forward, and the Bank's reaction [1967: 250-255]. The Bank was to insist upon meeting the figure it had calculated and when Pakistan finally complied, the articles for the Indus Waters Treaty could be signed.

Table 5.4 Differing Estimates of the IBRD and Pakistan Plans.

	IBAB Plan (Sept 1959)	IBRD Plan (Feb 1960)	WAPDA Plan (June 1960)
Cost in US $ million	936	838	1,297.3

[Source: After Michel, 1967: 252]

The difference in estimates of each plan and, therefore, the plans themselves was due to a difference in attitude *vis-à-vis* the purpose of the plans. Pakistan regarded the plans and the works therein as merely compensation for the loss of the eastern rivers to India. Therefore, though the plan paid for replacement works, to be truly just it would have to incorporate development costs too, which were becoming necessary. India was, after all, being given financial assistance to develop its irrigation. However, the World Bank, and by extension the 'friendly Governments', regarded this assistance as being solely for the purpose of replacement and to reach a peaceful solution to the Indus Basin dispute. The Bank was clear that Pakistan was free to develop its irrigation uses, but it must do so at its own expense.

The six 'friendly Governments' who had agreed, by August 1959, to underwrite the international water treaty were: Australia, Canada, New Zealand, West Germany, the United Kingdom and the USA.[109] Together these Governments would subscribe close

[109] Iliff describes the process by which the World Bank arranged the consortium of donors: "Well, when we realized what the cost of this system of works was going to be, we informally got in touch with the various governments that we thought might be likely to chip in some financial assistance, and when we got an indication that in principle they were prepared to do so, then we called a meeting, I mean, put the thing on a much less informal basis. We called together what I might call really an

to $800 million for the works needed in India and Pakistan to bring about a peaceful settlement to the question of the Indus waters (see Table 5.5 for the breakdown of contributions).

Table 5.5 Contributions to the Indus Basin Development Fund

Country	Amount in millions (US $m)		Recipient	Type
Australia	£A 6.96	(15.54)	Pakistan	Grant
Canada	US $ 22.1	(22.190	Pakistan	Grant
New Zealand	£NZ 1.0	(2.78)	Pakistan	Grant
West Germany	DM 126	(30.21)	Pakistan	Grant
UK	£ 20.86	(58.48)	Pakistan	Grant
USA	$ 177		Pakistan	Grant
	$235 in Pkn Rs.		Pakistan	Grant
	$ 70		Pakistan	Loan
	$ 33		India	Loan
World Bank	$ 80		Pakistan	Loan
	$ 23		India	Loan

[Source: After Michel, 1967: 251; who calculated the exchange rate as reported by the IMF]

Comprising grants and loans the money was directed to the Indus Basin Development Fund (IBDF), set up to administer and distribute the funds. By January 1960, the Indus Basin Development Fund Agreement had been drafted and sent to the countries concerned: Pakistan and the 'friendly Governments'. The contributing countries would pay into the IBDF, their agreed share, and the administration thereon would be furnished by the World Bank. The Bank was to decide that payment for the construction costs

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intergovernmental working party of representatives of these various countries here in Washington, and we worked with them. Now, don't ask me how we split the cost, as between countries A, B, C, and D. That was very much plucking the figure out of the air. We said ourselves, 'Well, we think country A can afford so much. On the basis of that country B ought to put out so much,' and so on" [1961]. Iliff also describes how the Bank decided how much of the Indus Basin Development Fund would be loans: "Well, I think there again, we pulled a figure largely out of the air, but of course we were having some regard to Pakistan's capacity to repay hard foreign debt, and we were very anxious to keep the Bank's contribution down, not so much

would only occur after purchase and the production of receipts (see Table 5.6 for a breakdown of the construction costs in India and Pakistan).

Table 5.6 Cost of works under the Indus Waters Treaty.

US $ millions	Local Currency	Foreign Exchange	Total
A. In Pakistan			
I. Storage	169	302	471
II. Links	182	78	260
III. Barrages	35	22	57
IV. Tubewells and Drainage	28	22	50
Sub-total of Works in Pakistan	414	424	838
B. In India			
Beas Dam	117	33	150
Power	2	23	25
Sub-total of Works in India	119	56	175
Total Plan	533	480	1,013

[Source: After IBRD-17/2/60]

The main text of the international treaty had been drafted by December 1959. (See Figure 4. for a map of the works in Pakistan under the Treaty.) After considerable discussion by the Government of Pakistan on its outstanding issues with India and the financial disagreement with the World Bank, a final draft of the treaty was prepared. On 19 September 1960, the President of Pakistan, General Ayub Khan, and the Prime Minister of India, Jawaharlal Nehru, signed the Indus Waters Treaty in Karachi, witnessed by Vice President Iliff.[110]

The ratification of the Indus Waters Treaty, in January 1961, signified the end of Pakistan's dispute with India over the waters of the Basin. However, another dispute

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because we didn't want to invest Bank funds, but because we didn't want to impose an excessive hard currency repayment on Pakistan" [*ibid*].

110 News about the Indus Waters Treaty, from the Bretton Woods twins, was published by the World Bank in the form of a press release, no. 650. 19 September 1960. The International Monetary Fund (IMF) published its account in its newsletter, the *International Financial News Survey*, vol. XII, no. 63, 23 September 1960.

was developing, this time between the World Bank and Pakistan over the financial assistance Pakistan was receiving under the Treaty. This too was, eventually, settled with an additional supplement in 1965 to Pakistan to build the Tarbela Dam. The Bank was to retain a close interest in the implementation of the Treaty throughout the transitional period.

The obstacles to agreement were considerable in the Indus Basin dispute. But rather than being of a technical nature the obstacles, unsurprisingly, had more to do with the political implications any agreement would have upon the disputants' domestic politics. This was especially true for Pakistan, which was contending with a political shambles domestically. By contrast India was in a stronger position, not only because its Government was secure under Prime Minister Nehru, but also because Nehru had taken a personal interest in the outcome of the dispute and could marshall the necessary political forces needed to get agreement. Pakistan was only able to do the latter after Ayub Khan's military government took over control of the country.

An additional obstacle was the financial costs of implementing any plan based upon the principles of division and storage. This the World Bank was able to overcome with the assistance of the six 'friendly Governments' who together set up the Indus Basin Development Fund. With the main obstacles addressed, the actual agreement that led to the Indus Waters Treaty, still took time as both India and Pakistan took care to ensure that the agreement was very specific and limited to the waters of the Basin. The implementation of the Treaty was, in part, successful because of the detailed nature of the agreement that was signed.

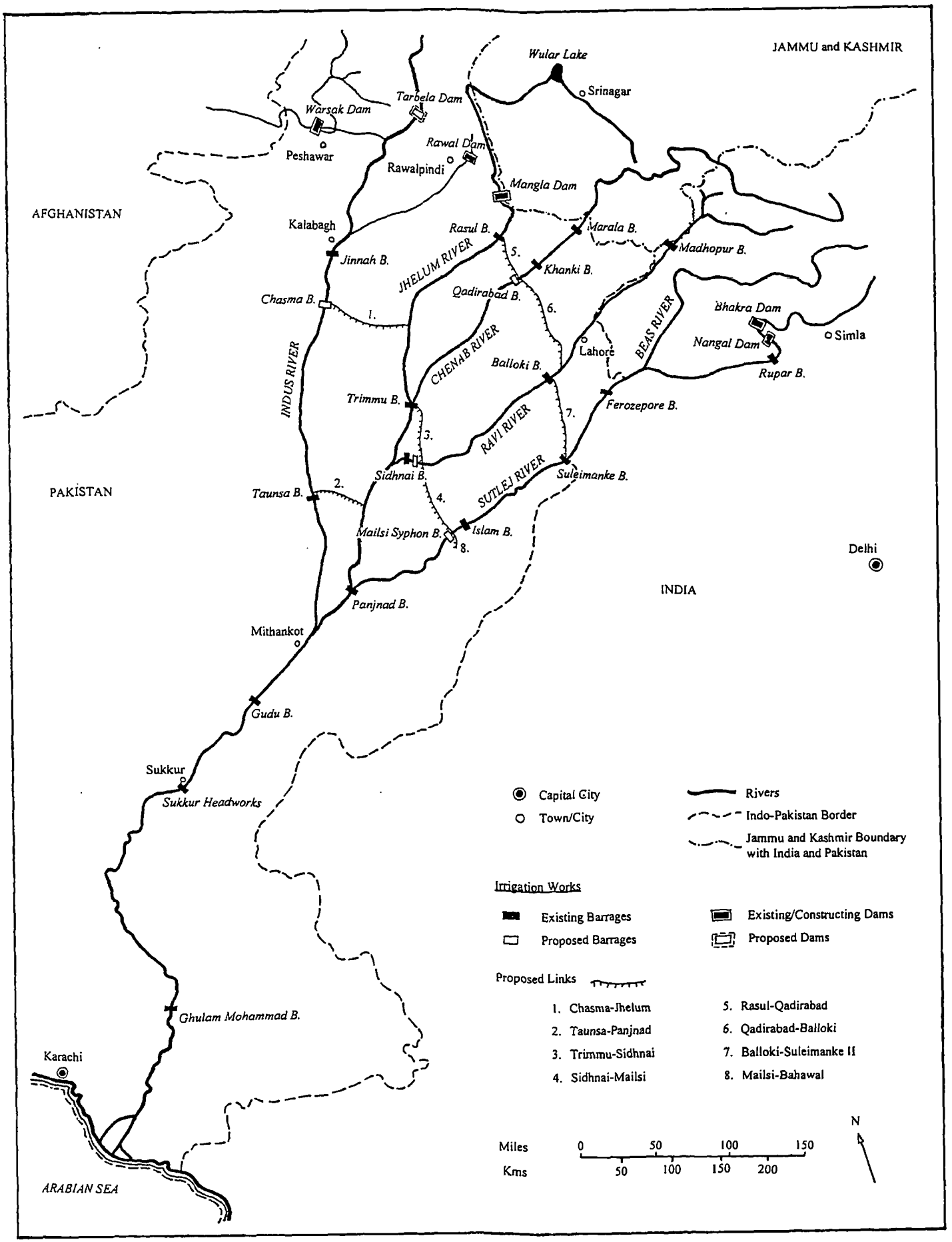

Fig. 4 The Works proposed for Pakistan in the Indus Waters Treaty. [Source: After Ahmad, 1964]

SUMMARY

The World Bank had a particularly difficult task as a mediator. Its primary role was to assist India and Pakistan in their communications with each other. However, though a considerable amount of talking took place, with India and Pakistan talking *at* each other, very little 'listening' accompanied the process. This was a feature of the bilateral negotiations that had taken place before the Bank intervened, and it was replicated in the mediated talks.

For example, India had made it clear that it was willing to pay for a replacement scheme of works, but would only agree to the absolute minimum of costs. While Pakistan drew up grandiose plans that not only provided for the basic replacement works but also lay the foundation for its development interests. In turn, Pakistan was adamant that it would not accept a plan in which India could "interfere" with the waters of the western rivers, even though it would be doing so in Indian controlled Jammu and Kashmir. Yet India proposed not one but two plans which involved using the waters of the Chenab River.

India and Pakistan appeared to approach the exploration of options as if they were hanging off a rung of a climbing frame. They would only move from their position if the rung ahead was one they liked. But having moved, they would again be reluctant to relinquish their position and would retain a tenacious grip. As a result, reaching agreement proved to be difficult. Not only were the overall principles that emerged challenged and negotiated before being accepted, but so were the minute details of the process, data collection and interpretation.

The World Bank was to reiterate during the later stages of the talks that there was no technical obstacle to prevent the resolution of the dispute. What was regarded by the Bank as barring progress were anxieties about the financial liability each disputant had to the other, and political difficulties that prevented politicians from being seen to compromise with an enemy. This was particularly the case with Pakistan. Political instability within the country discouraged the incumbent politicians from making any decisions that had far reaching consequences regarding the waters supporting the country's livelihood.

The overriding and persistent theme throughout the mediations was the fear of setting a precedent that the other party could then use to their advantage. But the dispute was not

just between India and Pakistan. Internal divisions, again especially in Pakistan, influenced the Pakistani delegation's bargaining position. Other divisions also existed, for example the Pakistani delegation did not necessarily agree with the stance being taken by its Government. Therefore, it is important to realise that the parties are not monoliths, and may have had additional problems negotiating because of their internal divisions.

It is also important to realise, and this the World Bank did, the specific nature of the Indus Waters Treaty. Though the negotiations finally did end in agreement, the Treaty would not - and did not - resolve or heal all wounds existing between India and Pakistan. For example, the problem of Kashmir remained, and may even have been heightened because of the reminder that some of the rivers Pakistan was still dependent upon flowed through the disputed state. Yet if matters were so difficult during the multilateral negotiations, why did the parties persist with the World Bank's good offices? The concept of water rationality offers an explanation that is specific to the nature of the resource in question.

In looking at the Indus Basin dispute and the Bank-led mediations that resulted in the Indus Waters Treaty, a particular framework was used. The framework - engaging, issues, options and agreement - has been valuable in making sense of the complicated, and fractious, path of the negotiations in the Indus Basin. This framework, in its inherent simplicity and applicability to other disputes, would appear to allow comparisons to be drawn with other international water dispute resolution processes, and other dispute resolution techniques.

As Bercovitch recognises, the individual events of one mediation are very different to those of another mediation: "Mediating a dispute between two friendly states requires different forms, different setting, different resources and different strategies to that required when the representatives of two antagonistic states seek to have their dispute mediated" [1992: 4]. What these different mediation scenarios would still have in common is that the parties would still engage in the process, they would discuss the issues, explore the options, and if possible arrive at some agreement.

The framework has, also, highlighted the difficulties inherent in third party intervention as experienced by the World Bank, and the complexity of India and Pakistan's dispute. This complexity was not necessarily in the substantive matter of the dispute, but in the

perceptual nature of the dispute. The framework illustrates the cyclical nature of the resolution process which demands, of the third party, a paradox of flexibility and planning to guide the talks. Finally, it highlights the comparative advantages of mediation as a mode of international water dispute resolution. Notably because the decision-making power remains with the disputants, leaving the mediator to control only the process of the resolution.

6

WATER RATIONALITY

In looking at the Indus Water Treaty, and the process leading up to its signing, two factors stand out. Firstly, the spectre of war between India and Pakistan never disappeared from their relationship, it merely ebbed and flowed. Secondly, amidst these tidal movements of potential conflict, representatives from each country sought out means to cooperate with dogged persistence, helped tremendously by the intervening third party, the World Bank.

The question, then, arises: why did the countries cooperate with each other? The cooperation centred, after all, upon a resource that was crucial to not only the livelihood of the people in the basin, but as Pakistan would state, its very survival as a nation. Why then, as enemies, with many disputes between them, not least Kashmir, did Pakistan and India choose to cooperate over the waters of the Indus Basin? In other words, why is the cooperation over water seen as unusual?

As already described in Chapter One, the water wars concept carries with it an expectation of conflict. Countries who share international water resources and are competitors for a finite supply will, the concept suggests, resort to violence to secure their supply. But there is growing evidence of international cooperation between riparians over the issue of fresh water, despite the existence of a wider dispute over other issues. The phrase 'water rationality' has been coined in this thesis to offer an explanation for this 'unexpected' cooperation as also witnessed in the Indus Basin.[111]

Based upon the idea of securing a long-term supply of fresh water, water rationality looks at the policies enacted by governing bodies to manage their resource. This includes policies at the national level, and the international level regarding water

111 In discussing the validity of the water rationality concept with colleagues, it was pointed out by Dr Joe Oppenheimer and Dr Wulf Klohn, that the word 'rationality' has different meanings to different people. Therefore, the word 'rationality' as used in this thesis and water rationality is specified to mean the attitude of political entities towards their water supply.

security. Unfortunately, policies also exist that are considered to be 'water irrational'. Water irrational policies at the domestic and foreign level jeopardise long-term water security for supply in the short-term.

At the international level, water rationality regards the abiding policy to be cooperation, even between hostile countries. This is not to suggest that international water disputes do not exist, or will not exist in the future. Rather water rationality proposes that the disputants will most probably find the means to cooperate, and that in light of this expectation, any third parties involved in the dispute should be prepared to assist this cooperation. In other words, the third party should expect cooperation over fresh water.

6.1 WATER RATIONALITY: EXPECTING COOPERATION

> "We don't understand what really causes events to happen. History is the fiction we invent to persuade ourselves that events are knowable and that life has order and direction. That's why events are always reinterpreted when values change. We need new versions of history to allow for our current prejudices" Calvin [in Watterson, 1994: 152].

Water rationality uses the premise that fresh water entwined with politics may help induce international cooperation even between hostile riparians in order to ensure continued water security [Wolf, 1995a: 3]. The water war concept is being challenged as the primary orthodoxy in hydropolitics by recent research [see Wolf, 1995ab, 1996, 1997ab; Shapland, 1997; Beaumont, 1994; Dolatyar, 1998]. Wolf believes there is little evidence to support the prediction of water wars since the last recorded international water war happened approximately 4,500 year ago. The Sumerian city states of Lagash and Umma fought over the right to exploit boundary channels along the Tigris River in 2,500 BC [1997a].

In addition, the UN's Food and Agricultural Organisation (FAO) has determined that since 805 AD over 3,600 international water agreements have been signed, though most of these relate to navigational uses. Since 1870, 145 international water treaties dealing with non-navigational uses have been signed [Hamner and Wolf, 1998]. In contrast to this array of international cooperation, Wolf claims that only seven minor water skirmishes have occurred, and some even involved other political triggers [1997a]. Homer-Dixon concurs pointing out that examples of conflicts based solely upon a

resource scarcity are rare, since conflicts over resources usually include other tensions as well [1991: 108].

The status of the 1967 Six-Day War, between Israel and the Arab countries, as a water war has already been discussed in Chapter One. Though Israel did make substantial water gains as a result of the territory it captured from the Arabs, Shapland argues that such hydrological gains cannot be made again by military means. The simple reason being that there is none to be made nearby. Furthermore, the "limited advantages that would accrue from military action could not outweigh the international opprobium that Israel would incur by taking it" [1997: 56].

Moreover, Dolatyar believes fresh water is simply too precious for countries to fight over, and therefore they are cooperating [1998]. As Peres points out 'wars fought over water do not solve anything. Gunfire will not drill wells to irrigate the thirsty land, and after the dust of war has settled, the original problems remain' [in Dolatyar, 1998: Abstract]. The cooperation that has occurred appears, to this thesis, to be a means of conflict management even in the instances where a formal treaty has been signed. This is because, "[w]hen the parties of a conflict, for various reasons, are unwilling or unable to resolve their conflict, conflict management is the only option to make a conflict less violent and more tolerable" [Bar-Siman-Tov, 1994: 75].

Thus, "[d]espite the strained relations between Pakistan and India, the two countries have thus successfully negotiated a complex water agreement and have established a permanent piece of consultative organisation governing one of the larger river basins of the world" [Lepawsky, 1963: 545]. Yet, as Lamb and Taylor point out, international water negotiations are more difficult to resolve than the simple two-party conflicts cited in negotiation literature, because of the "interplay of ideology, science, personality, and multiple parties" [1990: 968].

Fresh water is regarded in this thesis as a primary resource in that without it life (human, animal, plant) on this planet is untenable.[112] By comparison, other resources which

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112 Suggestions in the literature that fresh water can be substituted imply that the need for water in agriculture can be substituted by food imports. This thesis would contend that though water can be preserved in this manner in arid areas, the suggestion of substitution is not entirely accurate. Fresh water is still required in the production of any food being imported into the arid realm. Thus, the water is not being substituted, rather the use of it is being reallocated to more temperate areas.

have been termed strategic, such as oil and certain minerals, are secondary resources. These resources are important for the economic development of a state and, realists would therefore argue for national security. But their absence is not a threat to life in the same manner as water's absence.

In light of fresh water's importance, attitudes to it remain inconsistent with its availability in the arid realm. On the one hand it has been taken for granted, and still continues to be regarded as a free resource, even by actors in areas of scarcity. Yet on the other hand, wars are being prophesied over access to and inadequate allocations of water. Both these attitudes towards water are obstacles to the long term security of a nation's water supply. Disregarding the preciousness of water can lead to mismanagement of the national water supply; and expecting war can bypass opportunities to secure supply through co-riparian cooperation and mundane management.

The latter perspective on water correlates with the realist approach to resource management for national security. Essentially, to be safe a nation must control all the resources it needs and violence is a legitimate means of doing this. Water has been recently included in the list of vital and therefore strategic resources which could lead to conflict and war if tampered with. The momentum of the water war concept, had closed off debate as to whether water was strategic. But more importantly it suggests conflict as the logical result of competition for scarce fresh water resources. Yet, as Shapland points out, "[w]hile sharp words continue to be uttered by Middle Eastern governments regarding the use of water by fellow riparian states, the experience of the last few decades has been that armed conflict over water (or even the threat thereof) is extremely rare" [1997: 166-167].

It is this expectation of international conflict based upon competition for water resources that water rationality suggests is misplaced. The idea of water rationality proposes that countries will act to safeguard their long-term supply of fresh water. Instances in which such security has been achievable through war are limited. What has emerged is a range of policies focusing primarily upon the means of managing the national water system, and managing co-riparian relations. Even in the situation of an existing conflict, overall peace is not regarded as a prerequisite of water rationality. This contests Lowi's

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This is a form of agricultural globalisation, i.e. agricultural delegation based not

suggestion that to get overt water cooperation it is necessary first to settle any wider conflict within which the water dispute may be situated [1993].

Cooperation appears as a constant theme in co-riparian relations, and is suggested by water rationality to be the more probable expectation. Even if an international dispute over shared water resources does arise, it is still suggested that any observers should expect cooperation as an outcome. This is not to diminish the conflict or competition for fresh water, nor suggest that cooperation is an automatic response.

As Wolf points out, that:

> "while no 'water wars' have occurred, there is ample evidence that the lack of clean freshwater has lead to occasionally intense political instability and that, on a small scale, acute violence can result. What we seem to be finding, in fact, is that geographic scale and intensity of conflict are *inversely* related" [1997a; emphasis in original].

International cooperation is simply regarded, in this thesis, as being more probable, it does not mean that war is not possible. It is, also, recognised that the road to cooperation may be difficult and involve considerable delays, since "water disputes have ramifications requiring that parties negotiate over a long time span, continuing work together to achieve useful results" [Lamb and Taylor, 1990: 974].

An additional factor of importance in the event of an international water dispute, is how an intervening third party views the prospects of cooperation between the disputants. Third party perceptions are important, in that they can influence the procedures for conflict resolution. If the third party regards water security as the disputants' primary concern it will be aware that cooperation is, potentially, more probable. However, if the third party is blinded by the 'violence' of the conflict then windows for cooperation that may have existed, however fleetingly, may be lost.

Examples

Internationally, there are more examples of policies or attitudes that follow water rationality. Le Moigne *et al* advocate international collaboration as a preventative measure, whereby countries agree to share data, and jointly develop the water resources

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upon labour costs but water costs.

[1994: 87]. Though some examples exist of co-riparians cooperating as a preventative measure cooperation, however reluctant, after a conflict has started is far more arresting. The latter situation is also assessed with the attitude of any intervening third party. But first, collaborative efforts by co-riparians are addressed.

The co-riparians of a number of international basins in southern Africa have had the foresight to initiate a process of prevention rather than waiting to rely upon a cure. In 1992, the Southern African Development Community (SADC) was set up comprising, in the first instance, Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe. South Africa and Mauritius joined later [Barta, 1997]. The aim was to set up a forum to promote the development of resources, in particular water, within their jurisdiction. The SADC region's international riversare: the Cunene, Limpopo, Okavango, Orange, Rovuma, Save and Zambezi [*ibid*]. In 1995, riparian cooperation continued with the signing of the SADC Protocol on Shared Water Course Systems, which was closely followed by the establishment of a Water Sector under the regional body in 1996 [Kasimona, 1997].

Within the SADC region, Zambia and Zimbabwe, co-riparians on the Zambezi River, set up the Zambezi River Authority (ZRA) in October 1987 [Kapinga and Mukono, 1997]. The ZRA was established to jointly monitor and regulate the surface watercourses common to these countries - a section of the Zambezi River and Lake Kariba. One of the ZRA's functions is to collect and process hydrological and environmental data on the river for improved use of its waters, and for any other benefit to the two countries [*ibid*].

Another example of water rational policies is the present competition for water in the Iberian Peninsula. The five international rivers shared by Spain and Portugal are the Minho, Lima, Douro, Tejo and Guadiana. The rivers originate in Spain before entering Portugal [Maia and Ribeiro, 1997]. An agreement was signed in 1968 that extended to all the shared rivers in which Portugal and Spain traded their rights on the different rivers. Portugal was particularly anxious to keep the Guadiana, the southernmost river, for its own irrigation in the arid Alentejo region [*The Financial Times*, 1995]. Though, Spain encroached upon the Portuguese share of the Guadiana, another agreement was drafted in 1993 [*The Financial Times*, 1995], with the most recent version being proposed by Portugal in 1997 [Maia and Ribeiro, 1997]. Water irrationality, however, does come in the form of the present day use of water, with extensive agriculture and tourism uses exacerbating the scarcity during the Summer.

Even in a situation where the co-riparians are involved in conflict, whether this is specifically water related or entails other issues, cooperation has occurred. Kliot highlights the necessity of cooperation with reference to the Middle East. "Water scarcity in this region is so severe that 'water wars' are not going to solve them - only co-operation and co-operative management of these resources will benefit the whole region" [1995: 200]. In fact, throughout the Arab-Israeli conflict, water has on occasions led to secret talks and negotiated agreements between enemies [Wolf, 1995a: 2].

Though the Johnston Plan was formally rejected by the Arab states in 1956, Israel and Jordan did tacitly agree to allocate the Jordan basin's water between them in accordance with the Plan [Lowi, 1993: 198; Kliot, 1994: 202].[113] In fact, technical representatives from Jordan and Israel have met since the mid-1950s, two or three times a year, to discuss allocations at the 'Picnic Table Talks' [Wolf, 1992: 935]. Lowi believes, Jordan was willing to 'cooperate' with Israel because its "interest in securing access to water may have taken precedence over political concerns regarding cooperation" [1995: 135].

As Wolf points out, "[i]t has been shown that people who will not talk together about history or politics do, when their lives and economies depend on it, talk about water" [1995a: 83]. This has also been exemplified by talks Syria and Iraq held after Turkey closed supply to these countries in January 1990. Turkey was filling the Ataturk Dam which is part of the Southeast Anatolia Project (GAP) [*The Independent*, 1994]. Situated downstream of Turkey on the Tigris and Euphrates rivers, Syria and Iraq - who viewed each other with hostility - met in an effort to join forces against Turkey on the issue of water.

Other examples of parties in conflict agreeing to cooperate specifically over water exist. Relations between the riparians of Lake Chad can on occasion be tense because of issues between them that have the potential for conflict. The issues are with regard to disputed international boundaries, water rights, generating hydroelectric power and management of the shared water resource. Nonetheless, the riparians - Chad, Niger, Nigeria, Cameroon - were able to set up and maintain the Lake Chad Basin Commission

113 Sponsored by the US government, the Johnston or Unified Plan was an attempt to model water development in the Jordan Valley along lines established by the Tennessee Valley Authority (TVA) by getting Israel, Jordan, Lebanon and Syria to cooperate. See Lowi [1993: 79-114] for details.

(LCBC) in 1964 [Isiorho and Njock-Libii, 1996; Kliot, 1995: 195; Kliot *et al*, 1997: 187]. In fact, "the Commission has demonstrated considerable resolve in that it has survived for almost thirty years as an organisation for international cooperation, despite the serious problems of war and economic depression experienced by some of its member states" [Kliot *et al*, 1997: 191].

The ten riparian states of the Niger basin are Mali, Nigeria, Niger, Algeria, Guinea, Cameroon, Upper Volta, Benin, Cote d'Ivoire, and Chad. In 1964 an agreement on the navigation uses, and establishment of a river commission was signed by most of the riparians. In 1966 the Niger River Commission was established and was only replaced, in 1980, with the Niger Basin Authority. The move was designed more as a renewal of the riparians' commitment to the river authority, and a symbol that these independent countries were not obliged to uphold treaties or agreements signed during the colonial era [Kliot *et al*, 1997: 168]. Coming after an episode of political instability during the 1960s and 1970s in the region [*ibid*: 171], the efforts to reinvigorate co-riparian commitment were of considerable importance. "The cooperation in the Niger basin is noteworthy because some of the states have urgent water needs and a severe water scarcity and they choose co-operation over competition and conflict" [Kliot, 1995: 197].

Prior to the 1997 handover of Hong Kong by the British government to China, the latter country was regarded with suspicion. Despite a self-sufficiency drive in Hong Kong during the 1970s to meet the domestic demand for water by building desalination plants, water was still bought from mainland China. The imported water was regarded, curiously, as being politically secure and also less costly than using desalinated water which was held in reserve [Kally, 1993: 59]. The water comes via a 60 km long pipeline [Dabbagh *et al*, 1994: 205].

Six countries share the Mekong River basin - Cambodia, Laos, Thailand, Vietnam, China and Myanmar [Bingham *et al*, 1994: 124]. Cooperation over water has prevailed between some of the riparians (Cambodia, Laos, Thailand and Vietnam) in the Mekong river basin since the formation of the Mekong Committee, in 1957 [Jacobs, 1995]. The withdrawal of the Cambodian government from the Committee in 1978, resulted in a re-arrangement. The Committee has been known since then, despite the return of Cambodia in 1991, as the Interim Mekong Committee [Kliot *et al*, 1997: 64].

This cooperation has occurred despite the outbreak of war in South-East Asia. For example, in 1965, despite tensions between Thailand and Laos both countries signed and maintained an agreement to buy and sell electricity. In 1970, a plan for the large-scale development of the lower basin was drawn up, though it could not be implemented due to war, the Indicative Plan was revised and updated in 1987 [Bingham *et al*, 1994: 134]. The Mekong Committee, in its various guises, has promoted cooperation by the sharing of data (hydrological and meteorological), and flood forecasting since 1969 [Jacobs, 1995]. In 1994, the four countries of the lower basin signed a treaty regulating use of the river [*The Economist*, 1995c: 90].[114]

After gaining independence from Pakistan in 1971, Bangladesh signed an agreement with India on the Ganges River.[115] A window had appeared with the new political entity, which was keen to break with past animosities and put its relationship with India on a friendly footing This was despite the grievances the East Pakistanis had had with Indian policies with respect to the Farakka barrage [Crow, 1995: 96]. And the process was repeated again, with the signing of another treaty between the two countries in December 1996 [Nakayama, 1997: 377].

6.1.1 Water Security

Realist perceptions of state security centre upon the state's physical ability to defend itself from military attack. A derivative of this perspective is to guard all resources considered essential. Naturally, what resources are included is dependent upon the needs

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114 For more details on the Mekong River, see Biswas, Asit K. and Tsuyoshi Hashimoto, (eds) (1996), *Asian International Waters: From Ganges-Brahmaputra to Mekong*. Oxford University Press: Bombay; Report of the International Symposium, (1996), *Regional Development for the Mekong Basin*. United Nations University Press: Tokyo; and Blake *et al*, 1997.

115 For further information on the Ganges-Brahmaputra basin problems, also see Verghese, B.G. and Ramaswamy R. Iyer, (eds) (1993), *Harnessing the Eastern Himalayan Rivers*. Konark Publishers: New Delhi; Verghese, B.G., (1994), *Winning the Future: From Bhakra to Narmada, Tehri, Rajasthan Canal*. Konark Publishers: New Delhi; Verghese, B.G., Ramaswamy R. Iyer, Q.K. Ahmad, B.B. Pradhan and S.K. Malla, (eds) (1994), *Converting Water into Wealth: Regional Cooperation in Harnessing the Eastern Himalayan Rivers*. Konark Publishers: New Delhi. For a Nepalese perspective on the problem, see Thapa, Bhekh B. and Bharat B. Pradhan, (eds) (1995), *Water Resources Development: Nepalese Perspectives*. Konark Publishers: New Delhi. For a legal aspect to the problem, see Islam, M. Rafiqul,

of the state, and the perceptions of its governing body. For example, countries with abundant rainfall relying upon rainfed agriculture will have a different attitude to any watercourses it may share internationally than those wholly dependent upon such supplies. De Bono defines these perceptions as comprising a security bubble. Each country has its own security bubble, dependent upon its own perceptions of security which, in turn, relate to its resource capabilities [1985].

The labelling of water as strategic has stifled debate as to whether water is, or is not, strategic and what this implies for co-riparian cooperation. The water wars concept has gained credence from actors viewing water scarcity within the context of the Middle East, and its complicated story of conflict. An oft cited example of the promise of a water war is the comment attributed to Sadat, President of Egypt, in 1978, that his country would go to war with anyone interfering with its water supply from the Nile [Kliot, 1994: 68]. It appears that politicians, having taken water for granted in their development programmes, have gone to the opposite extreme in designating water a strategic resource. This appears to confer upon water the status of a secondary resource rather than a primary resource.

Such treatment reduces water's myriad facets to just one. Water is not like oil; it is not static and uniformly expensive. Fresh water has a set of characteristics: it flows; though cheap per unit of volume it is expensive to produce through desalination; and though it is widely used, it is irreplaceable. Under these circumstances, the reasons given to explain water wars are used here to explain the prevailing tendency towards cooperation. It is *because* water is scarce, vital, expensive, a security issue, and demand is outstripping supply that states are finding ways to cooperate to secure their supplies. In other words, the logic of the water wars scenario is turned on its head.

Three broad modes of securing water have been identified under water rationality: national water management, international co-riparian relations, third party perceptions of a water dispute. All three are interlinked because if the national management scheme is inefficient and supply cannot meet demand it could lead to a conflict of interests with co-riparians sharing a river or aquifer. In turn, this could lead to the involvement of a third party to resolve the dispute.

(1987), *The Ganges Water Dispute: Its International Legal Aspects*. University

Firstly, there is the issue of whether internal water management policies a state implements safeguard the water supply in the long term. Then there is the question of how the government perceives any water shortage: [i] Does the government believe that it really is short of water, or is it a matter of mismanagement. [ii] Which sectors are regarded as facing a water shortage. [iii] What options does the regime have to alleviate the shortage, can it increase supply or need it decrease demand. [iv] What are the political costs, to the ruling regime, of changing the existing water use pattern. And [v] is the ruling regime willing to cover these costs?

There are potentially many different ways in which countries can approach water security, but not all would prove politically feasible. For example, integrated management of an international basin would involve one riparian devolving control over its water resources to a co-riparian. Politically this would probably prove difficult to reconcile however much the scheme might benefit the countries. But other instances of water rationality do exist, as well as examples of water irrationality. Moreover, except for a few situations where water quality has been irretrievably squandered, the potential for water irrational policies to be altered in line with water rational criteria remain high.

Examples

A number of examples exist of states managing their national water supply prudently, with an eye to the future and ensuring long term water security. In areas of water scarcity, a judicious policy is to decrease demand for water. Since in these areas agriculture is the principle sponge, soaking up 70-90% of the annual water budget [Wolf, 1995a: 105], this sector probably has room for improvement and can be 'squeezed' for excess water. Squeezing can generally take two forms: either re-allocating water to another sector such as industry, or improving the efficiency of application to the land by better irrigation techniques. The latter technique is the more probable, as changing sectors usually entails greater political conflicts.

Israeli water management displays a number of water rational policies, as well as some that would be considered water irrational. Their principal mode of squeezing has been to improve the efficiency of water use either when applying it to the land, or by utilising

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Press: Dhaka.

water of a lower quality. Land application efficiency was boosted by the development and large scale use of drip irrigation in Israel. By the early 1990s, approximately 50% of land irrigated in Israel was being fed by a 'teaspoon' [Postel, 1992: 104-106]. Israel is not alone in using drip irrigation; at least twenty other countries across the seven continents also use micro-irrigation techniques. In 1991, the amount of land irrigated by the teaspoon was nearly 16,000 km^2 [Postel, 1992: 105].

The use of non-potable water opens up a range of possible sources, including recycled domestic or agricultural water, and brackish water. Israel, in the early 1990s, was treating 40% of the nation's domestic sewage for agricultural reuse - amounting to 110 million cubic metres (mcm) per year [Wolf, 1995a: 92]. Postel puts the figure higher at approximately 70% of national sewage [1992: 128]. She also adds that the factors that make waste water, 'waste', can be an added advantage, because the accompanying nutrients can replenish those lost from the land by modern-day agricultural practices [Postel: 1992: 127].

Actions that promote water security are considered to be water rational and also include the relationship a state maintains with its co-riparians, specifically upon the subject of shared water. "In the case of riparian dispute, the factor that will almost invariably lead states to seek technical collaboration is that of acute need for water resources and/or dependence upon a specific, shared body of water. The failure to establish a water-sharing regime would be considered threatening to the state's continued survival" [Lowi, 1993: 198]. However, water irrational policies do, also, exist. These are policies that jeopardise the long-term welfare of a source for short-term benefit and supply. Thus, the parties that engage in such policies are sacrificing their own water supply in the long-term, and this forms a neo-security dilemma.

6.2 WATER IRRATIONALITY

Water irrationality (WIrr) is behaviour by a state and its governing body that jeopardises the long term quality and security of its water supply. This situation generally arises from the short term policies a government uses to guide its water management either nationally or internationally *vis-à-vis* its co-riparians. Such policies can include, nationally, the inadvertent polluting of a water source or, internationally, the refusal to

cooperate over shared waters. It is suggested here, that such water insecurity arises from the neo-security dilemma that encompasses water management.

6.2.1 Neo-Security Dilemma

The neo-security dilemma, proposed here, is regarded as a derivative of the security dilemma that afflicts nations pursuing their military security. The security dilemma was used to describe and explain the arms race between the USA and the USSR that was a key feature of the Cold War. Whichever country tried to increase its sense of security by increasing its weaponry, the other country would feel threatened, and so seek to increase its own armaments to a level beyond the first country. This spiral, though it may have been an attempt to increase the sense of security, was in fact a spiral of increasing insecurity. Each country regarded the other as hostile to its interests, nationally and internationally. Therefore, to see the other as having more arms meant seeing them as more powerful than itself. This, in turn, meant being vulnerable to attack.

The key issue in the security dilemma is the idea of a nation's security being threatened by another country. In the neo-security dilemma, a state's security is affected by its own actions. Security is, also, given a broader definition than just the military security of the country. It encompasses issues of resource access, availability and quality. More importantly, the neo-security dilemma involves a timescale. In other words, what a state does in the short term to secure its resources, may jeopardise its long term resource security. But the dilemma comes in trying to balance short term needs with safeguarding the resource in the long term.

Instances involving the neo-security dilemma, and water irrationality, come in many forms. Nationally, the choices made by the water management authorities are often constrained by political criteria necessary to safeguard the ruling regime's interests. How these interests are defined are varied, and of course, can change. The following short term policies are examples of water irrationality, and will probably lead to long term problems unless rectified. If aquifer extraction rates exceed the recharge rate, it can lead to irreversible damage to the aquifer's water quality. This is especially true for coastal aquifers, as over extraction can lead to saline intrusion [Das Gupta, 1997: 143]. "Ultimately, overpumping ground water for irrigation is unsustainable and must fail" [Gleick, 1993a: 7].

Applying water inefficiently to the soil during irrigation is not only a waste of water but can lead to problems such waterlogging and salinisation of the soil, both of which are expensive to rectify. Inefficient application appears to include the mode of application, and also the environment into which the water is being applied. Therefore, possibly the worst case scenario that would most probably lead to soil salination would be the use of flood irrigation in desert areas with high evaporation rates, mixed with heavy use of chemical fertilisers.

Internationally, water irrationality and the neo-security dilemma arise in the relationships co-riparians have with one another. Are co-riparians willing to cooperate in order to safeguard the water resource, and their access and allocations from it? Cooperation over water covers a spectrum of activity from sharing data to agreeing to integrated water management. The latter implies that the geographic features of the basin, as a whole, are taken into account when deciding where to locate storage facilities or irrigate land for example. This would mean, for example, using highland areas for dams even though it may mean that the downstream riparian is dependent upon the upstream riparian to release water for its uses. The decision not to cooperate in whatever capacity and thereby jeopardise the long term security of the water would be deemed, here, to be water irrational.

Examples

As examples of policies and actions by states exist that can be termed water rational, so do examples exist of water irrational actions. Except for a few cases where water quantity and quality have been irreparably damaged, most of these policies can still be turned around and made to safeguard the long term security of the water supply. Water rational policies that safeguard long term water supply need to be maintained. If treaties are signed under conditions of water rationality, but are not implemented or maintained, such negligence damages water supply in the long term, and water irrationality creeps back in.

Examples of water irrational national management exist across the regions. In Saudi Arabia, efforts to gain some form of food security led to the production of wheat using fossil fresh water (see Beaumont, 1977, for more details of agriculture in the desert

kingdom in the late 1970s). "Formerly an importer of wheat, the Kingdom has become the world's sixth largest exporter" [Wilson and Graham, 1994: 221]. Though the international sale of this produce generated approximately US $300 million, the cost of production was estimated to be between three and five times higher than the cost of wheat on the international market [*ibid*].

The Saudi Arabian Government was encouraging the production of cereals by paying their farmers five to six times the international price for cereals during the 1980s, while simultaneously subsidising the inputs needed such as diesel fuel to pump ground water up to the surface [Richards and Waterbury, 1996: 160; Shapland, 1997: 149]. Wheat output jumped from less than 3,300 tonnes in 1978, to over 3.9 million tonnes in 1992 [Richards and Waterbury, 1996: 160].

The ground water used to produce wheat in the desert was from the Saq Formation which is also shared by Jordan, where it is known as the Disi Aquifer. The Jordanian Government was concerned about that the Saudi extraction would damage the aquifer for Jordanian uses [World Bank, 1994: 18]. Fortunately, the Saudi Government changed its policies in the mid-1990s, and ceased such large scale waste of its precious existing freshwater resources [Shapland, 1997: 150].

Though, the United Kingdom (UK) does not rely upon irrigated agriculture, dry summers have highlighted the problem with leaks and getting water to the point of use. Estimates put the loss of water to leaks, as high as 30% [*The Economist*, 1997b: 30]. With privatisation of the water in December 1989, the costs of repair and infrastructural maintenance are proving a testing ground for decisions that involve a political aspect i.e. who pays for the necessary work? [Beecher, 1997; *The Economist*, 1995a: 25]. In addition, Britain is simply using too much water [*The Economist*, 1997b: 30].

Pakistan, by contrast, does rely heavily upon irrigated agriculture but has similarly made little effort to employ better water management techniques. The agricultural sector accounts for 98% of the total annual use [Frederiksen *et* al, 1993: 10]. The Indus Water Treaty, through a succession of dams and link canals, allocated the basin's water between India and Pakistan. Despite soil conditions that would tolerate only a certain amount of water, age old practices of flood irrigation continue. This has led to large scale waterlogging and salinisation of the soil [Ahmad and Kutcher, 1992: 37; *Dawn*, 1998]. The Food and Agricultural Organisation (FAO) estimates 21% of the irrigated

land in Pakistan suffers from salinity [in Abdel-Dayem, 1997: 99]. This figure is the third highest in the world after China (23%) and the USA (28%) [*ibid*].[116]

Damage to the irrigation system could be costing Pakistan 25% of its potential production, or approximately US $2,500 million per year [Ahmad and Kutcher, 1992: 44]. In effect, Pakistan is running to standstill. Therefore, despite having access to water, the mode of application is not only damaging the soil, but also restricting new uses that might emerge as national competition continues to grow for the resource. Ground water extraction is believed currently to be happening at a rate that is 50% more than the annual recharge rate [Kijne and Kuper, 1995: 73].

By using micro-irrigation techniques, Pakistan could prevent further land from becoming waterlogged and saline. Moreover, with improved efficiency more water would be made available for other users as provincial competition grows for fresh water. Because of inefficient use, this competition has focused attention on another dam to be built on the River Indus at Kalabagh [Dawn, 1998]. Postel estimates the costs of constructing new irrigation works to be between $1,500 and $4,000 per hectare for large projects in Pakistan [1993: 57].

With Pakistan on the verge of bankruptcy, and the disastrous affects of inefficient water use, constructing the dam would appear to be a water irrational policy. Yet in June 1998, the beleaguered Prime Minister of Pakistan, Nawaz Sharif, stated that the controversial Kalabagh dam would be built [*The Economist*, 1998c: 48]. Frederiksen explains such decisions are, usually, due to political pressures with the result that "governments often proceed with projects that in total far exceed supply, wasting huge investments, both public and private" [1997: 544-545].[117]

National management policies that effect other riparians, though the policies are enacted within the territorial jurisdiction of one country, include the exploitation of groundwater sources. Aquifers remain an enigma, revealing their secrets only with reluctance as technology advances. In Israel, before the formation of the Palestinian National

116 See Abdel-Dayem, 1997, for a discussion on the problems of waterlogging and salinity in irrigated agriculture.

117 For further information on water management in the Indus Basin, see Frederiksen *et al*, 1993; Mustafa, Daanish, and James L. Wescoat, Jr., (1997), "Development of Flood Hazards Policy in the Indus River Basin of Pakistan, 1947-1996." *Water International*. vol 22, no. 4. pp 238-244.

Authority (PNA) and its resident water body the Palestinian Water Authority (PWA), the coastal aquifer underlying the Gaza strip was being mined at a rate faster than its recharge [Nasser, 1996: 50]. The result has been extensive seawater intrusion, which continues under the new management. This is a clear example of water irrationality. In securing a water supply today, tomorrow's supply is being damaged.

Another example of aquifer mining that appears questionable is the Libyan effort to create the Great Manmade River. Libya is in the process of constructing the infrastructure to extract fossil water from the Nubian Sandstone aquifer which is estimated to contain 6,000,000 mcm [World Bank, 1994: 10]. Libya intends to eventually to extract approximately 1,900,000 mcm per year [Shapland, 1997: 151]. The purpose of mining this fossil water, and transporting it "thousands of miles through a vast pipeline" is "to irrigate crops worth a tenth the value of the water" [*The Economist*, 1995-1996: 73]. The water being diverted comes from an ancient aquifer that is shared, and used, by Egypt and Sudan as well [Shapland, 1997: 151]. The exact size and other characteristics of the aquifer remain unknown, as does the question of the effect upon Egyptian and Sudanese uses if Libya does extract water at the rate it intends to.

SUMMARY

> "War over water seems neither strategically rational, hydrographically effective, nor economically viable" [Wolf, 1997a].

Water rationality is quite simply the belief that cooperation over international water resources is more probable than conflict. Water rationality challenges the premise upon which the water war concept is based. Recent work has shown that there is no evidence to support the expectation of conflict over water, and that there is a plethora of international water treaties. (It is worth reiterating that the water war concept is only an expectation, and one that treats water as strategic resource.) Therefore, any third party observing an international water dispute must still expect cooperation rather than conflict.

The reasoning behind water rationality, and that leads to its opposite, water irrationality, is the idea of nations trying to secure their fresh water supply in the long term. This entails, for the main part, prudent national water management, and also sensible co-

riparian relations. However, any policy that supplies water in the short term, but jeopardises the long term supply is termed water irrational. Water irrational policies are based upon the neo-security dilemma, whereby a country is responsible for damaging its own long term supply. Thus, leaving the last words to Wolf, who believes "the more valuable lesson of international water is as a resource whose characteristics tend to induce cooperation, and incite violence only in the exception" [1997a].

7

THE GEOGRAPHY OF COOPERATION IN THE INDUS BASIN

The clash of political boundaries with those of the terrain in the Indus Basin set the environment for conflict between India and Pakistan. The geography of cooperation that emerged from the Indus Water Treaty quietened the din specifically with regard to water. Unfortunately, peace has not fallen like a blanket across the basin, soothing Indian and Pakistani anxieties. The fact of water's status as a primary resource, it is argued here, forced India and Pakistan to consider water rational options such as third party intervention.

A consequence of mediation was the creation of space within which the two parties could arrive at an acceptable settlement. This was done by talking, and with that, changing perceptions and the prevailing discourse. As Yi-Fu points out, "[i]n a modern society in which empiricism, hard science, control over matter are highly valued, people still find it difficult to accept the seemingly magical idea that mere words can call places into being" [1991: 691].

7.1 WATER RATIONALITY IN THE INDUS BASIN

Water rationality has been defined as actions by a state that secure, in the long term, its water supply both in quantity and quality. This implies the state not only manages its water prudently but if it is dependent upon an international watercourse, the state's relations with its co-riparians is conducive to the long term 'welfare' of the shared waters. However, should a dispute arise over an international watercourse, the attitude of a third party intervening to reach resolution comprises the third aspect of water rationality. If the intervenor expects continued conflict, opportunities to cooperate may be missed. Therefore, it is suggested that the third party approach the situation anticipating cooperation.

Using these criteria, what instances of water rationality can be said to have occurred in the Indus Basin? Why did India and Pakistan agree to the mediation process? How was their long term water supply made safe? Much has been made of the financial incentives India and Pakistan had to cooperate [Biswas, 1992; Lowi, 1993; Nakayama, 1997]:

> "In summary, the dispute between India and Pakistan was successfully resolved with external finances that also enabled the development of additional water resources and separation of the resources of the disputing sides. The additional water made it possible to give each side more than it had originally claimed, and the separation diminished the danger of future conflict" [Kally, 1993: 61].

Undoubtedly, the availability of finances played an important role in concluding the negotiations once agreement was reached by India and Pakistan, but it does not explain the delay in coming to agreement. The IBRD had made it clear, from the outset in 1951, that any final agreement would be funded with some form of assistance by the institution [IBRD-6/9/51]. Yet, it was not until winter 1958-59 that the delegations started to draft the agreement. It appears that the delay was neither due to finances, nor technological breakthroughs, rather the political situation in the Indian Subcontinent. The breakthrough came with the *coup d'etat* in Pakistan, and rule by General Ayub Khan [Kirmani interview, 1/6/96].

The bottom line at the start, and for the duration of the mediations for both countries was the need and desire to secure their long term water supply. Pakistan felt that upstream developments on the River Sutlej would wreck its existing uses from that river and threaten its very livelihood. India, in turn, felt keenly the pressure of poverty and wanted to develop its own potential for irrigation from that river. The countries were united only in their need to, first, feed their populations, and then to develop their economies. It is suggested here that the principal reason why India and Pakistan cooperated is because each wanted to secure its long term water supply from the Indus Basin. Having already tried, unsuccessfully, bilateral negotiations - including international tribunals of different types - it appears that there remained few peaceful and productive avenues open to the countries.

In terms of water security, India and Pakistan's agreement to undergo the mediation process was in itself an act of water rationality. The World Bank's perspective that cooperation was possible, to achieve long term water security, was another water rational act. The signing of the Indus Water Treaty was also water rational. The Treaty delimited in detail the resources between India and Pakistan thereby securing, in the

long term, each country's water supply. Despite a public outcry in both countries, the implementation stage was another water rational act, as was the subsequent cooperation. This cooperation was institutionalised in the Treaty's establishment of the Permanent Indus Commission (PIC) to monitor the Indus waters situation.

7.2 MEDIATION IN THE INDUS BASIN

> "The key to peaceful solutions of disputes over shared water resources is continued communication between the states concerned, preferably on the technical level, over everything from hydrologic and meteorological data to basin-wide development plans" [Gleick, 1993a: 10].

The Indus Water Treaty has been the focus of study to see what possible lessons can be extracted that could have application in other international riparian disputes. In looking at how cooperation happened in the Indus Basin, the focus has been on the mediator's role, and how the World Bank dealt with issues throughout the multilateral negotiations. Clearly, this involves attempts and measures at removing obstacles and assisting communication that otherwise might have impeded cooperation.

A clear example of the role of the mediator in the Indus Basin dispute is illustrated by Iliff, in an interview, shortly after the signing and ratification of the Indus Waters Treaty [1961]. Iliff recalled that Pakistan had agreed to Indian withdrawals from the western rivers for use in Indian-controlled Kashmir. However, even after almost a decade of negotiations under the World Bank's good offices, Pakistan was still wary of Indian intentions and feared that it may withdraw more water than it was entitled to. Thus, Pakistan demanded a system of inspection. India, naturally, refused this idea: 'Certainly not. We've put our name to a treaty, you got to accept that we are going to carry out that treaty, and we're not going to have any action of the Government of India policed by Pakistan' [Iliff, 1961].

The Bank, as mediator, was able to get the parties to compromise on this issue, that would otherwise have stalled the talks. Iliff explains the outcome, and illustrates the advantage of an impartial third party:

> "Well, we got that one compromised eventually, on this sort of basis, that the treaty provides for the appointment of a permanent Indus Commission, to consist of a representative appointed by the government of India, one

> appointed by the government of Pakistan, and those two commissioners have got complete freedom to inspect works on any of the rivers in the system. Now, Pakistan didn't regard that as entirely satisfactory, but in our view it was a very important step forward, and we strongly recommended to Pakistan that they ought not to break on this issue and ask for any more" [1961].

A series of points or 'lessons' have been raised that suggest ways in which disputants can be encouraged to talk with each other as an alternative to violence. The points are interlinked and examples given to support one point may be equally valid for other points. Nonetheless, these points overall can, broadly, be separated into two groups: conceptual and procedural. Conceptual points are regarded as ideas, or an awareness, the participants have as they enter the mediation process. Procedural points are principally ideas that the mediator can use during the process to assist communication between the disputants.

7.2.1 Conceptual Underpinnings

It can hardly be surprising that of all the conceptual, and procedural, points raised the most important is political will. If the political bodies of the disputants had been unwilling to condone and support involvement in the mediation process, this forum would quite simply not have been used. Their political will is based, however, upon their perceptions of a number of issues including the actual dispute, and their political standing domestically. If the political bodies are willing, the mediator's intervention can create space for the disputants to cooperate.

Nonetheless, it is imperative to realise that the outcome will probably not be unadulterated joy and peace. Conflict and cooperation are continuums, not absolutes. Therefore, there is some mingling of the two in a mediation process. Matters cannot be assigned 'low' politics status, nor can it be assumed either that cooperation is automatic or that cooperative spillover into 'high' politics will occur. Cognitive disputes remain likely, where the collection and interpretation of data are contested.

7.2.1.1 Political Will

> "The national interest indeed is what the nation is interested in, particularly from the point of view of the major decision-makers, although these people cannot usually retain power unless their images are widely shared among the population" [Boulding, 1991: 147]

All the issues of integrated basin management and optimalisation of water that are presently popular amongst scholars focusing on water, fall at the hurdle that is political will. Though optimal use of a basin certainly would entail treating all users as belonging to a single hydrological unit, it is usually not politically optimal and therefore is rejected by riparians. Therefore, the parties in a dispute have to be willing to talk, and define the parameters of discussion [McDonald interview, 25/4/96].

"In fact, progress within international negotiating fora was often contingent on policies moving forward at the domestic level" [Auer, 1995: 47]. The will of political decision makers is based upon a number of criteria. At the simplest level, it appears that political decision-makers will only countenance action if their position in power remains safe. Therefore, even if agreeing to third party intervention in a dispute is risky, if the decision-makers feel their position is strong enough to withstand any internal backlash, they will agree to the intervention [Mitchell and Banks, 1996: 58]. As Frederiksen points out, "[p]olitical will to change and strong leadership to carry it through are essential" [1997: 534].

Though, Druckman is correct in saying that "it pays to keep the...head of state involved in the process, especially if he is the person who must 'sign off' on any agreement reached" [1993: 198], attaining the will of the national decision-makers is not always sufficient. National leaders may agree to cooperate with opponents but these agreements made on the international stage may be sabotaged. As policies created by governments are implemented by officials on the ground, should these officials not agree to a cooperative approach, obstacles can arise despite the official policy of cooperation. It appears therefore that at different stages, different levels of officials need to give their backing to the cooperative process.

Lintner believes that political will is a key point in any negotiation, but it is something the mediator cannot facilitate because of a country's autonomy and sovereignty [Lintner interview, 9/4/96]. Though the mediator cannot get involved in the decisions that a

government makes, it can give the ruling regime the incentive to get involved. Even with the consent and political will of a government, the situation is not simple. This is because, as Frederiksen points out, "[i]n many countries, a weak conviction that change is needed coupled with the desire by both [executive and legislative] bodies of government to retain power sidetracks reform in the short term while conditions worsen" [1997: 534].

Clearly, then, political will is needed not just to get the disputants involved in the mediation process, but also to keep them there, and to deal with the inevitable impasses that arise during negotiations [Druckman, 1993: 198]. Citing the 1996 Ganges Water Sharing Treaty, Nakayama concurs that riparian will is very important in arriving at an agreement. The Indian and Bangladeshi Governments that signed that Treaty were new and interested in facilitating good relations with each other [1997: 377].

In the Indus Basin, the political will of both countries was important in letting the World Bank engage in the dispute. Pakistan was willing to allow any international body to intervene that promised to help it with its difficulties in the basin. India, by contrast, was equally reluctant to allow international intervention, and had, in fact, refused to let another international entity - the ICJ - be involved.

It would appear to this thesis that India's political will was formed by the perception that the ICJ would damage its position in the dispute, and the World Bank could potentially benefit it. The Bank had, after all, promised to "consider any financing proposals that might develop as a result of joint planning" and make available any technical help needed to get a settlement [IBRD-15/8/51; 6/9/51]. Thus, the Government of India stated: "We can agree to any reasonable proposal which has as its objective that the whole Indus system should be considered and examined as a single unit, and which aims at its cooperative development" [IBRD-25/9/51b].

7.2.1.2 Perceptions

> "Our society tends to discount the psychological, even though we know from common experience that changes in perception and attitude can seem to alter an environment more markedly than if it had been physically changed." [Yi-Fu, 1991: 689]

It can be argued that at the base of any conflict, especially on water, are the perceptions of the decision-makers [de Bono, 1985]. Firstly, to determine whether there is a problem with the national water supply, then who is to blame for it, and what can be done to resolve the issue. Sometimes, for other contingent reasons such as domestic politics, it is pertinent to rescind responsibility for the problem, and blame a co-riparian. Nonetheless, what emerges is that perceptions form the conflict, and therefore, by changing perceptions cooperation may be possible. As Kliot points out, it is not a matter of images and perceptions being of importance "even" to power politics but *especially* to all politics, since politics is but perceptions manifested [1991: 10].

Ury and Smoke believe that a "[c]risis exists ultimately in people's heads" [1985: 94]. In particular the decision-makers' perceptions are key to any crisis. By changing these perceptions, the crisis can either be defused or escalated. Four variables that contribute to the perception of a crisis are: options, uncertainty, time and stakes [Ury and Smoke, 1985: 99]. The disputants have many views as to what the conflict is about, and people standing on the periphery of the conflict may have even more [Mitchell and Banks, 1996: 100].

There is a danger that an intervening third party may confuse matters further by adding its own version of what it regards as the real issues in conflict. Therefore, it is important for the third party to talk to the disputants to understand what are the issues, "but particularly to gain some empathy for the perceptions and emotions of those actually involved in the dispute" [Mitchell and Banks, 1996: 99]. Perceptions are important in creating the space for cooperation; but how to change these perceptions which are subjective and not objective, is the challenge [Ury and Smoke, 1985: 94].

Boulding believes that "[h]uman decisions are not formed in total knowledge of reality but rely upon perceptions of reality which are always incomplete and inaccurate" [in Kliot, 1991: 8]. The means by which people, including politicians, then communicate their perceptions of the[ir] social world is, Painter argues, through language [1995: 148]. Language, he continues, is a social construct and therefore very important in conveying a particular power structure. During the mediations, the Bank's representatives were careful to use language that sought to diffuse rather than exacerbate the inherent difficulties of the situation. Thus, the Indus Basin dispute was referred to not as the "problem" but as the "issue" [IBRD-6/7/54].

As Colosi points out, "negotiators during the negotiation process rely upon their own perceptions" [1986: 248]. Therefore, the mediating body must take care to demonstrate its impartiality. As Bailey, correctly, states "[i]t is not simply a matter of being impartial: one must also be seen to be impartial" [1985: 209]. The World Bank was careful to demonstrate its impartiality. It did this, for example, by explicitly informing Prime Ministers of India and Pakistan that each had been sent a similar, or identical, letter to the one they were receiving [IBRD-15/8/51; 6/9/51].

Druckman believes the composition of the delegations sent to represent all the parties, can be an indicator of the participants' commitment to the mediation process. Therefore, the representatives sent to the mediating table need to be of comparable stature and expertise [1993: 190]. The perceptions of all the participants in the mediation process are important, including the mediator. For example, at the time of its offer of good offices, the World Bank doubted whether the Indian Prime Minister would accept the intervention. The institution's representatives thought the conditions in the Indian Subcontinent would need to change before third party intervention in the water dispute would be accepted [IBRD-7/8/51].

7.2.1.3 Space to Cooperate

> "The precise way by which the human presence, human feelings, and human communication add to the warmth and aliveness of a place, or, to the contrary, drain it of warmth and meaning is little understood: indeed, social scientists and cultural geographers have taken little notice of the fact itself - the fact that the quality of human communication, including (preeminently) the kinds of words and the tone of voice used, seems to infect the material environment, as though a light - tender, bright, or sinister - has been cast over it." [Yi-Fu, 1991: 689]

A conflict becomes intractable when the disputants begin to question whether any benefit is to be gained from cooperating having, they feel, already reached their maximum gain [Ross and Stillinger, 1991: 390]. Ury and Smoke's characterisation of a crisis based on the variables - options, uncertainty, time and stakes - suggests how a crisis is escalated. The psychological feature of crises is the constriction of these variables, as the decision-makers become more inflexible, and close windows of peace. Furthermore, as the sense of crisis increases so do the decision-makers' sense of what is

important and desired as an outcome. Therefore, by reversing the trends that lead to escalation, the crisis can begin to be defused [1985: 94-98].

Therefore, to create space for cooperation, amidst the prevailing discourse that surrounds a conflict, entails physical and psychological factors. An intervening party can assist in the creation of this space by supplying provisions that encourage the disputants to feel safe. On a physical level, it can provide a location for the mediated talks. The location should be neutral, easily accessible, and removed from the dispute [Druckman, 1993: 195]. Mitchell and Banks suggest the atmosphere and connotations sought are one of professionalism, dispassionate scholarship and analysis [1996: 89].

The aim is to limit the political overtures that hover vulture-like ready to feed upon fragile moves being made towards cooperation. "Merely suggesting a negotiating venue, for instance, seems minor enough in light of great issues like survival or sovereignty. But it is something that disputants cannot propose nonstrategically" [Princen, 1992b: 44]. The World Bank recommended the Indus Basin talks should be held in Washington, "to avoid delegates being subjected to political pressure all the time and to avoid tendentious press propaganda in the sub continent" [IBRD-12/8/54].

By creating a physical space "so the participants may feel themselves to be on a mental 'island'" [Mitchell and Banks, 1996: 88], a psychological space may open up as the conflict discourse begins to be examined, and hopefully changed. A symbiotic relationship exists between the physical and the psychological spaces; the creation of the former can assist the creation of the latter. The psychological space allows the disputants' representatives to explore, safely, alternatives to the prevailing discourse. They can test whether cooperation is possible, and how their individual domestic audiences would react. The most important virtue to arise, if successful, would be the building of trust between the intervenor and each disputant, and between the disputants themselves.

When the decision-makers of disputing parties adhere to rigid images of each other, cooperation is made more difficult. However, images are based upon socialisation and can, therefore, change by altering the images formerly adhered to and attendant perceptions [Kliot, 1991: 9]. Thus, by giving the disputants the space to cooperate, or at least to gauge the costs of cooperation, it can change the parties' perceptions of each sufficiently to work out an acceptable solution. In 1951, Pakistan was quoted as saying

that it believed India was trying to destroy Pakistan by any means [IBRD-28/8/51]. Though India refuted this suggestion [IBRD-1/9/51], Pakistan adhered to its belief. Yet, Pakistan was willing to negotiate with India over the Indus basin's waters.

Though the mediator manages the process by which the disputants interact, the disputants retain control over decision making. Thus, the World Bank gave the disputants opportunities to vent their opinions and feelings, without commenting on them [IBRD-4/10/56]. The impartial listening tactic was to ensure the Bank did not enter into a slanging match with a disputant, or have to legitimise one side's view over another, and therefore compromise the third party's impartiality. The Bank also sought to reduce the number of issues being considered, to ensure that the procedures did not get 'bogged down' [IBRD-31/1/55].

Druckman believes that ambiguity can be a useful tool for all parties in negotiations, as "[i]t can be used tactically to avoid making premature commitments and to preserve options" [1993: 200]. Though, he adds, "[i]t is not, however, necessarily a good strategy for communicating progress to or for seeking instructions form the bureaucracy" [*ibid*].

The Bank's President, had a policy, during the Indus Basin talks, of only putting the minimal amount of discussion on paper so as to allow more flexibility:

> "People like Gene Black felt, as I do, that if you want to have a difficult negotiation avoid writing too much down. You may write down some basic facts like the flow of water of the rivers and things like that, but don't write down, he wants this and he wants that and he's willing to concede, I think you have to do it...(a) you have to do it without being too clear about everything...that guides you, and secondly, one of the principle things in the Bank meditation role was no publicity....no body make any statements outside" [Sommers interview, 30/4/96].

An example of this policy's implementation by the World Bank, is a meeting between the institution and the Pakistani delegation [IBRD-2/7/56]. The Bank's representative at that meeting wanted a Pakistani delegate to feel free to talk without restraint, and so did not take notes during the meeting.

7.2.1.4 Specificness

> "I might make one point clear. The Canal Waters dispute between India and Pakistan has nothing to do with the Kashmir issue; it started with and has been confined to the irrigation systems of East and West

> Punjab. So far as the rivers flowing into Pakistan from Kashmir are concerned, there is no question of reducing the quantity of water which they carry into Pakistan by diversion or any other device" [Prime Minister of India, Jawaharlal Nehru in IBRD-25/9/51b].

International relations theories, alternative dispute resolution (ADR) techniques and international law appear to regard conflict and cooperation as absolutes. Countries are either fighting, or cooperating; and once agreement has been reached the dispute is solved. This thesis would suggest that cooperation, like conflict, is a continuum in that there are 'degrees' of cooperation from tacit understandings to full-blown treaties.[118] Moreover, cooperation, again like conflict, can occur over specific issues.

Realism, by comparison, argues that since all states are in conflict, cooperation is unlikely. Liberalism regards the interdependent nature of the international system to lead to cooperation in every field, and conflict not to occur. International law, full of prescriptive advice for states, and ADR regard the final stage of a dispute as reaching agreement. Therefore, once a treaty has been signed or some equivalent action taken, the wounds should also have been healed.

Unfortunately, neither scenario appeared in the Indus Basin. India and Pakistan were neither cooperating over all Indo-Pakistani issues, or engaging in blanket warfare over these same issues. What appeared to happen instead was selective and specific cooperation in the midst of rising and falling tensions. Moreover, the Indus Water Treaty's signing and later ratification did not automatically heal the wounds each side had incurred during the course of the dispute. Relations remained tense between the two countries, leading to war in 1965 and again in 1971 (and in 1998 to the testing of nuclear devices). These wars highlighted the specific nature of cooperation over water in the Indus Basin. Despite the war in 1965, India maintained its obligations under the Treaty and continued to pay the agreed instalments to Pakistan.

As Druckman points out holding discussion on one topic does not resolve all the issues that surround the negotiations [1993: 204]. This was verified by the Government of Pakistan in a letter to the World Bank [IBRD-25/9/51a]. It pointed out that Lilienthal

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118 This thesis would contend that fear is also a continuum. Governments feel more or less afraid, rather than a complete and absolute absence of fear. As security is seen to be a *feeling* of freedom from fear, it is a very subjective entity. Art concurs that "[i]n this sense security depends on the perceptions people have of their environment, not on an objective view of that environment." [in Krieger, 1993: 820].

had hoped that settlement of one Indo-Pakistani dispute would promote progress in other disputes. This would only be possible if all sides to the talks tackled water dispute as a separate question, and would "refrain from using the negotiations in one dispute to delay progress in solving any other" [*ibid*].

In the Indus Basin dispute, there is little evidence of the cooperative spillover with which the talks had first been proposed by Lilienthal. Functionalism which would expect a spillover reasons that even if matters such as technical data and welfare are not apolitical they do constitute, at the very least, low politics. Whereas high politics comprises, for example, matters such as military security and decisions involving a country's foreign policy. One manner of documenting this divide in politics is the ease with which hostile countries are said to interact. Enemies are expected to be able to cooperate on matters of low politics because these do not affect national security. It is then hoped that by such cooperation, enemies will be able to find ways to cooperate, eventually, over matters of high politics.

There are two problems suggested with this functionalist perspective. Firstly, the artificial divide between low and high politics. Painter suggests that politics pervades and fashions all issues. Therefore matters that would otherwise be designated 'low' politics can be as contentious and difficult to resolve as matters of 'high' politics are thought to be [1995]. This is further validated by the tenacious grip India and Pakistan each maintained on collecting and interpreting data, often leading to cognitive disputes. Secondly, the cooperative spillover that is thought to happen was not seen in the Indus Basin. Agreement on the Indus waters did not lead to talks and cooperation on wider Indo-Pakistani issues such as Kashmir, though that had been the initial hope of the intervenors. Cooperation instead of snowballing, remained specific and muted.

7.2.1.5 Cognitive Disputes

> "Analysis requires data and *the data consist mainly and most importantly of the perceptions and experiences of the parties 'represented' by the participants present at the workshop.* By definition, the perceptions of the two sides will differ in any conflict." [Mitchell and Banks, 1996: 97, emphasis in original]

There remains a basis assumption amidst observers of water disputes that cooperation over technical issues is possible when perhaps other more 'political' issues cannot be broached. This assumption is based upon the idea that "small conflicts are easier to resolve than large ones, and the early resolutions provide evidence of progress necessary to sustain the process" [Druckman, 1993: 197]. As McDonald points out, however, technical issues cannot be separated from the politics surrounding them [McDonald interview, 25/4/96].

As Wolf points out, the most common route suggested in the literature is to cooperate in collecting, and sharing, the necessary data [1995: 96]. The underlying implication is that data is somehow apolitical or 'safe'. Yet data can be manipulated to suit the preferences of the parties involved, thereby providing the rationale for making a particular decision [Ozawa and Susskind, 1985: 25]. "Indeed, one strategy in competitive negotiations is to become the arbiter of what is factual" [Lamb and Taylor, 1990: 974].

Scientists are believed to be rational actors, who stand unmoved by the political considerations of their sponsors, the decision-makers and politicians. However, "values influence how evidence is interpreted by experts, their sponsors and other key actors. Values also affect the research agendas of experts, including which problems they choose to study and the methods selected to study them" [Auer, 1995: 37]. Deconstructionism would, therefore, suggest that the perspective taken of the question means that not only does 'pure' data not exist, but that these adulterated data are then analysed subjectively [Ozawa and Susskind, 1985: 26]. Winham suggests that the attitude of the disputants towards data collection is an indication of their commitment to the mediation process, especially if the act of collecting data, and the methods of doing so are political and contested since they could have consequences, later, for national interests [1986: 87].

Iliff recalls the attitude of the Indian and Pakistani delegations during the mediated talks:

> "But I mean, one got into questions for example of how much rainfall was there in this little particular area of about seven square miles, and can't you, with all that rainfall coming down there, do you need any irrigation water at all? And so on. Days were consumed in studying these rainfall statistics, and also statistics of transpiration, as they call it. Oh, it was all a highly technical process" [1961].

Political decision makers juggle technical information with political considerations in arriving at a decision. Usually, political factors will outweigh any technical factors,

which will only be used to garner support for a politically favoured outcome. If technical opinion is divided, it is an excuse for heavier reliance upon any political factors [Ozawa and Susskind, 1985: 26].

For example, the figures India and Pakistan each presented for irrigable areas in the Indus Basin differed considerably in both the actual total and the distribution of this land. India believed the total irrigable land in the Basin to be 65 million acres, with 26 million acres in India and 39 million acres in Pakistan. Pakistan by comparison estimated that there were 82.4 million acres in total with, only, 7.6 million acres in India and the remaining 74.8 million acres in Pakistan [Shivananda, 1961: 6].

This thesis believes the reasons for this marked difference, especially in distribution, is political. India was trying to demonstrate to the World Bank that its need for the Indus waters was equal to Pakistan's. The figure probably included areas that could be argued to be extra-basin, such as the desert state of Rajasthan, which ultimately did receive water from the Indus system. Pakistan, by comparison, was desperate to illustrate its complete reliance upon the Indus Basin, and India's marginal reliance. Thus, the Pakistani figure probably included all the areas that the Government would hope to develop within Pakistan, and only the areas adjacent to the rivers in India.

Ozawa and Susskind suggest disagreements over technical information can arise between 'experts' in four situations [1985: 27-29]: [i] Miscommunication whereby information is used intentionally to confuse opponents; [ii] different research questions are being asked and answered; [iii] errors during the research process; and [iv] interpretation of the data and the implications drawn from the results, especially if there is a conflict over policy issues, which is more a matter of politics than science. Therefore, to reiterate, data is not objective and can lead to what Vlachos calls 'cognitive disputes' [in Anderson, 1994]. The collection, verification and interpretation of data, generally, have political implications and can, therefore, be an additional matter for conflict.

Examples of difficulties with data in the Indus Basin are numerous. There was a dispute between India and Pakistan over the method of collecting, and handling, the data [IBRD-15/2/55; 16/2/55]. The manner in which the data was presented was used by both parties to emphasise what was seen as inequitable water allocations [IBRD-12/8/59; 11/3/60]. India wanted the World Bank to put in writing, and therefore on record, what it

was interpreting from a piece of text so as to ensure Pakistan did not put interpret it differently [IBRD-13/7/54d]. The Bank was also to question, at one stage, the quality of data being collected by Pakistan [IBRD-13/7/54b].

Data sharing can also be problematic, and an indication of the party's commitment to the process. As Beaumont point outs with regard to Israel, "[t]he actual capacity of the National Water Carrier has never been disclosed for strategic reasons" [1994: 16]. During a visit to the Indian Subcontinent the World Bank's General Counsel had arranged for Pakistan and India to share certain data. Pakistan was to report later to the Bank that despite repeated requests for this data, India had not furnished it, even though it would allay Pakistan's fears [IBRD-16/7/54b]. And therefore, Pakistan felt "constrained to stop giving the data" [IBRD-11/10/54].

7.2.2 Procedural Matters

The manner in which space for cooperation can be created during the mediation process includes ensuring confidentiality. The advantage of keeping talks secret, or at least the topics discussed confidential, are that the participants are encouraged to explore options that are publicly untenable. Agreement is also encouraged if each participant's agendas are met. This can involve many aspects. For example, the reasons for attending the talks, the options that are considered, and the issues that are agreed upon. Agreement can be assisted by selective linkages, so that there is an exchange of benefit. But the final criteria, and herein lies the advantage of the mediated process, is the implementation of the agreement. This will only be possible if the disputants regard the outcome as beneficial to their interests.

7.2.2.1 Confidentiality

> "Communication is extremely delicate. Public pronouncements, especially those aimed at one's constituency and other third parties, tend to obscure rather than clarify intentions" [Princen, 1992b: 225].

In attempting to create space for cooperation, the mediator has at least two fronts to consider. Events happening within the mediations, and influences encroaching upon the mediations from the outside. A key tool in clearing the jungle of influences and interests

is confidentiality which, in turn, engenders trust. Furthermore, by maintaining confidentiality the mediator helps change the disputants' focus away from their domestic audiences, towards the issues in dispute and ways of resolving them.

All the participants, disputants and mediator alike, have to account for their actions to certain audiences [Druckman, 1993; Princen, 1992b]. Usually these audiences want to be reassured that their representatives are not compromising their interests which, in turn, can result in negotiating tactics that are "designed to prove resolve and are aimed at constituencies and third parties, not opponents" [Princen, 1992b: 225]. Who comprise these audiences ranges far and wide. People representing the disputing parties will have their own governments, public, bureaucracy and remaining political interests to answer to. The international community may also be observing events and have interests that prefer particular outcomes.

The mediating body will also have to explain its actions to the participants, its governing authority and the international community. The result of such scrutiny is the resort to posturing by the participants, especially the disputants, who are probably anxious to reassure their respective audiences. "The resort to public statements leads to a hardening of the parties' positions and restricts not only their freedom of action but also that of the mediator" [Bindschedler, 1981: 724]. Therefore, secrecy is vital to the success of difficult negotiations [Colosi, 1986; Druckman, 1993; Bailey, 1985].

Interpretation by the media, both domestic and international, and manipulation of the media can be problematic in adding to the difficulties already existing in a mediation. De Bono gives an example of media interpretation:

> "There is a apocryphal story about an American ambassador who had a race with a Russian ambassador. The American ambassador won. The race was reported in the local press to the effect that there had been a race and the Russian ambassador had come second and the American ambassador had come just one before the last person in the race. There was no mention that this was a two-person race." [1990: 46].

Clearly, the suggestion to keep mediations secret contravenes the current trend to encourage stakeholder participation and transparency. Ideally, all the people affected by a conflict especially one over a primary resource would have the opportunity to state their perspective and needs. Unfortunately, such participation can itself, at times, impede cooperation.

If the disputants cannot even be seen to be talking to one another, let alone exploring cooperative avenues, the involvement of all stakeholders would close any windows to cooperation that may exist. Therefore, such transparency needs to be demanded, and applied, cautiously taking into regard the dispute's specific characteristics. As Princen points out, "[f]or most disputants, there is a big difference between negotiating under the watchful eye of the public and negotiating in secrecy" [1992a: 171].

This thesis believes there are certain advantages in keeping difficult negotiations away from the public eye. Firstly, it allows exploratory talks to occur, to see if any cooperation is possible, without injuring the disputants' position *vis-à-vis* their domestic audiences. Secondly, though the talks may not yield substantive benefits immediately, they will have allowed the disputants to have made contact with their counterparts. Should an opportunity later arise for cooperation, then the disputants know who to talk to, thereby speeding up the process. And lastly, however reluctant the interaction may be, each side can begin to see the other as human and not an abstract caricature. This might even lead to each side appreciating that the demands they are making on the other might simply not be possible, in particular on a political level, and therefore, the demands are reduced.

Admittedly the major disadvantage in secret negotiations, is the potential exclusion of relevant stakeholders. Though this is undesirable, any mediator must seek to use means that are appropriate to the dispute's specific situation. There has to be a consideration of 'appropriateness'. For example, the secret intervention of the Norwegian Government in the Arab-Israeli conflict, the Oslo Channel, was appropriate to starting the cooperative process. If there had been public knowledge of these talks, the Madrid Agreement would probably not have been arrived at and signed.

Though the Olso Channel is one example of a mediation, and the next example is also an instance of mediation, the appropriateness of action is different. Thus, in water disputes in the western part of the USA, public participation is necessary to ensure that all the users are accommodated in the water allocation calculation. In this instance secret negotiations would be damaging to the overall process of good water management.

The World Bank when it intervened in the Indus Basin dispute was clear that it wanted to minimise publicity for the duration of the talks. For example, the Bank wanted to prevent discussion of the negotiations that might prove inflammatory, such as happened

with a broadcast of the Information Service of India: "The broadcast kept pretty well to the facts but put a very tendentious and highly controversial interpretation on the facts which greatly annoyed the Pakistanis". Though the Government of Pakistan refrained from any official comment, the Pakistani press were in uproar, and attacked India bitterly [IBRD-13/7/54b].

Sommers describes the difficulties with having 'open' negotiations:

> "Yeah, as far as I know, that was what Black believed in very s...you're going to have these negotiations, you're going to make them public and every time you say something, somebody in Congress or somebody in the Legislature or the journalists put you in a position where you can't negotiate any further. And you can see that now in Israel and Lebanon, but you can see it very strongly in the United States, we try to do everything openly and it restricts our ability to mediate" [Sommers interview, 30/4/96].

In October 1951, after the Bank had stated its interest in being a good officer, but all the necessary details of engagement had not yet been worked out, the Management was concerned that any leaks from either side "might endanger all chances of progress" [IBRD-3/10/51]. This concern, and policy, was reiterated in November 1951, with the Bank's President stating: "I feel strongly that publicity should be avoided at least until an agreement on procedure has been reached by the working party at the initial meeting. Whether any public statement should be made after a working procedure has been decided upon would be a matter for discussion between the two Governments and the Bank" [IBRD-8/11/51].

Though, Pakistan through its representatives assured the Bank that "there would be no leaks from the Pakistan side" [IBRD-3/10/51], it was to use publicity to garner support for its position in the dispute. In March 1951, the Government of Pakistan published, *"A Review of the Efforts made to Settle the Irrigation Water Dispute between Pakistan and India"* [IBRD-23/3/51]. This action was, obviously, not appreciated by India since Pakistan had given an undertaking to not publicise events for the duration of the Bank's good offices.

Other than secrecy, confidentiality also comprises the issue of trust. Within the mediating room confidentiality is vital in letting trust enter quietly, with minimal resistance from the disputants. Mediator-disputant, disputant-disputant relationships involve varying degrees of mistrust. To begin the process of changing the atmosphere to one of more trust, the mediator needs to allow each disputant a forum to voice its anger

and opinions without detriment to its position *vis-à-vis* its opponent. This the World Bank did, by seeing the disputants separately at times [IBRD-16/11/56; 3/12/58].

"Confidentiality is an important asset for mediators. It makes face-to-face encounters easier. It makes creative alternatives easier to explore and concessions easier to disguise" [Princen, 1992a: 170]. Therefore, by maintaining each disputant's confidence, the mediator can get them to move from their adopted positions to reveal their interests. Bailey warns mediators, however, that though they might not need to "tell the whole truth" they should ensure that they "tell nothing but the truth" to keep the disputants' trust [1985: 210].

In addition, it is important to realise, this thesis believes, that trust is not something that can be built once, and then needs no further tending. Rather, trust is not an absolute entity, but a perception that fluctuates and therefore needs to be maintained at a sufficient level to get agreement. An example of the absence of fluctuation of trust in the Indus Basin talks was Pakistan's attitude to India. Though, Pakistan had developed some level of trust in the process and the mediator, it remained wary of its opponent even towards the end of the negotiations and wanted to incorporate some means of policing India's actions *vis-à-vis* its commitments under the proposed Treaty [Iliff, 1961].

The World Bank was clearly aware of this factor because it sought to assure India and Pakistan in the beginning that "[b]efore selecting its representative, the Bank would ascertain that he would be acceptable to the two Governments" [IBRD-8/11/51]. Then throughout the negotiations, whenever the World Bank sent out a *communiqué* to both India and Pakistan, it would inform both parties that either an identical letter had been sent to the other party. This was to allay any suspicion the disputants' might have regarding the Bank's impartiality, or that they were not receiving all the information [IBRD-13/3/52].

7.2.2.2 Agendas

> "The incongruous thing is that while the storm clouds continue to gather over the Indus, the U.S., the World Bank and several Commonwealth nations are giving economic aid to both parties to the dispute. It is this very support, actual and prospective, that enables India to press ahead with its Five Year Plan, which threatens to sharpen the

> controversy still more. It would seem only common sense for the U.S., as well as the other lenders, to withhold further aid from both India and Pakistan until the two have agreed on a common plan for development of the river basin on which the economy of both depends" [Perham, 1952].

Disputants have agendas they each wish to satisfy. These agendas, as well as those of the mediator, have to be met for the mediation process to succeed. What these agendas are will most probably vary, but it is not the variety that is of consequence, but the existence of the issues. Thus, as Sand point out, "[i]n negotiating international rules for pollution control and rights to common property resources, treaty-makers tend to adopt the lowest common denominator of possible obligations" [in Auer, 1995 :50].

The benefit of the mediation process is that the parties can begin to be more direct in asserting their agendas without having to return to conflict. Moreover, the mediator can assist the parties in reaching an outcome that best fits these agendas. Ideally, a mediator will be impartial and only intervene in the process for the benefit of the disputants. This is not to say that the mediator does not have reasons for having entered in the process, and then staying. But simply that these reasons should not be imposed upon the final agreement, if one arises.

The World Bank made an effort to know the agendas of India and Pakistan, and to state its own interests clearly [IBRD-31/1/51; 15/8/51; 6/9/51]. The latter policy was to help remove any suspicion the disputants' may have in the third party's reasons for intervening, and to build trust in the mediator. In order to safeguard their interests and agendas, disputants might choose to "[p]reserve negotiating options by avoiding premature commitments to proposals made in the formal negotiations" [Druckman, 1993: 203]. This, Pakistan, did with respect to the Bank's 1954 proposal, and the result was the 1956 Aide Memoire. The details of the issues and interests of each party have already been dealt with in Chapter Four.

7.2.2.3 Selective Linkages

Linking different issues together can simultaneously assist or hinder cooperation depending upon the issues involved. Lowi believes that linkages, in light of a larger conflict, are obstructive to settlement in the water dispute. Therefore, she argues that the

water dispute cannot be settled until the larger conflict is resolved [1993]. However, in the Indus Basin dispute, examples of *selective* linkages were found to have a positive affect upon the talks' progress.

Herein lies one of the advantages of using mediation to resolve an international water dispute. The process encourages bringing to the fore the issues involved, and explores any possible links. Selective linking can work either by preventing a link being made, or making the link. An example of not linking issues to make progress is the attitude India and Pakistan had towards their dispute over Kashmir. If by agreeing to mediation on the Indus Basin dispute, India and Pakistan were obliged to similar talks on the issue of Kashmir, it is unlikely that the Indus dispute would have reached the mediating table.

An example of positive linking is the possibility of help in financing any agreement. Another example, stands in the reaction of the World Bank to India and Pakistan's failure to negotiate an *ad hoc* agreement for rabi 1957. The Bank's representative simultaneously told the delegates that the institution was rethinking its involvement in the talks, and pressured them to work out a year-long *ad hoc* agreement [IBRD-21/8/57a].

7.2.2.4 Implementing the Agreement

> "The experts have identified a range of shortcomings in treaties and treaty-making. Agreements are often designed to satisfy the requirements of the least ambitious participants; enforcement mechanisms are lax; non-state interest groups are under-represented; implementation is costly; and scientific evidence of risk is frequently underutilized" [Auer, 1995: 50].

"If words are less important than actions during the process of negotiating, they are not less important when the agreement is being drafted. The distinction is between words as tactical devices and as reflections of real interests" [Druckman, 1993: 205]. The ultimate success and aim of a dispute resolution process, is not to have a nice piece of paper with good intentions scattered in regimented lines, but to implement the agreement. Unfortunately, "[e]xisting accounts of environmental mediation tend to stress settlement as the primary goal of the process" [Dryzek and Hunter, 1987: 90]. Unless the abstract ideas represented on paper, are rooted in reality and practicality, they will float away. Gone will be all the effort and trust that the disputants' built grudgingly and laboriously.

There appear to be two broad criteria to getting implementation. Firstly, that the disputants should want the outcome reached and have the political will to implement it [Nakayama, 1997: 379]. Secondly, that the practical steps to making the outcome concrete should be spelt out step by step. It is here, Druckman argues, that lawyers have a special role to play in the negotiation process, to ensure the correct blend of ambiguity and precision necessary to the agreement [1993: 206]. As Dryzek and Hunter point out, "[t]he content of any mediated agreement is important, but only insofar as it responds to the immediate concerns of each party in a way that promotes the likelihood of assent and compliance on the part of the actors involved" [1987: 91]. Without the details of who is doing what, when and where, the agreement can flounder in principles that signify grand ideas but are little more than general guides and rhetoric.

The World Bank's care to ensure that the Treaty that was signed had every chance of being implemented is evident in the text of the Indus Waters Treaty (Appendix 7). The main theme to these articles appears, to this thesis, to be to prevent any future disputes between India and Pakistan from obstructing the implementation of the Treaty. Therefore, any terms that were used, such as agricultural and domestic uses, were given exact definitions in Article I. In Article IV matters relating to the financial arrangements between India and Pakistan were detailed, stating how much money India was to give Pakistan, and when. Details of a possible extension to the transitional period was also worked out, and the conditions under which Pakistan would be able to use it in Article X. Finally, not only did the Treaty make provisions for cooperation between the two signatories in Articles VI and VII, but it also made detailed provisions for future dispute settlement Article IX. The Permanent Indus Commission was also set up to address any future complaints.

7.2.2.5 Institutional Competence

> "Because the process of mediation is so politically fragile, especially during its earliest stages, it is important that the proper auspices be selected, that all stakeholders be consulted, and that the high quality of mediation services be maintained" [Susskind and Babbitt, 1992: 44].

The World Bank entered into the Indus Basin talks, in part, to establish a credible reputation with the American financial market. To have any leverage and credibility

within the talks, the Bank's reputation would depend upon its professionalism and impartiality. One of the key factors upon which the institution's professionalism would be based was the presentation of an united front to the disputants. An additional factor that would influence the Bank's reputation would be the quality of expertise it used in its representation to the disputants.

As Druckman points out, the mediator must "[e]nsure that decisions made by policymaking agencies are coordinated with proposals made and tactics employed by the negotiating team; lack of communication between the bureaucracy and team can result in retractions, premature commitments, and impasses" [1993: 203]. This entailed keeping all Bank representatives informed of events, decisions and policy as they happened, and sorting out any internal divisions privately. The latter issue is important because "[d]ivisions within delegations can lead to problems...unresolved internal differences cause delays and make a delegation vulnerable to exploitation" [*ibid*: 191].

Sommers describes the decision making process within the World Bank regarding matters to do with the Indus Basin dispute:

> "I think they were made on one level by Black, but to the extent that Iliff felt he had Black's approval, he wouldn't need to go back and consult with him on every single individual step but items like the dam and things like that were, and I'm sure, the ultimate formula had to be approved by Black. But Black was interested, but Black wasn't an expert on the merits of the deal, he was an expert on the technique of negotiation and mediation" [Sommers interview, 30/4/96].

Examples of the Bank keeping its representatives informed include: [i] When the Government of Pakistan accepted the Bank's good offices in 1952, this information was relayed to the relevant people in the Bank [IBRD-18/10/54]. [ii] Prior to the Bank's intervention, in January 1950, discussions with the Indian Executive Director, involving the River Sutlej Dispute, were also relayed [IBRD-2/3/50]. [iii] During Black's time as President of the Bank, he improved the atmosphere within the institution by keeping the directors informed of operations, rather than just presenting them with a *faits accompli* as had happened under the previous administrations, which Sommers believes was "vastly overdone" even if it was necessary [1961].[iv] In October 1951 at a weekly meeting of the Bank's Staff Loan Committee (SLC) there was a consensus on the approach the World Bank should take. "It was generally realised that it is of great importance that the Bank should write the terms of reference as far as general principles are concerned" [IBRD-16/10/51]. And [v] the Bank's Management believed that the

American Ambassador to India, Chester Bowles, should also be informed of the Bank's involvement in the water dispute, so that they did not work at cross purposes [IBRD-9/10/51].

The World Bank, as a mediator in a highly technical dispute resolution process, had to have sufficient technical expertise to understand the concepts involved, and assess the solutions being proposed. As Iliff points out there were a number of "rather complicated engineering and hydrological points" [1961]. The Bank was well equipped with internal staff, and consultants to supplement in any areas needed. With knowledge of the technical matters involved, the Bank could then also be demonstratively impartial in its dealings, as it would not need to rely upon any one disputant's explanation of the details. But impartiality was more importantly demonstrated in the Bank's interaction with India and Pakistan. For example, in January 1950, the World Bank informed India that it was not judging which party was right or wrong, but that it would not fund water projects using the disputed River Sutlej [IBRD-11/1/50].

7.2.2.6 Leverage

> "Influence, in turn, relies on the judicious application of some kind of interpersonal power. That is, by relying on one of several possible kinds of resources, the mediator must be able to leverage disputants into behaving differently than they would otherwise" [Rubin, 1992: 254].

The World Bank's leverage as a third party in the Indus Basin talks came principally from its status as an international financier. Kraske argues differently, claiming that the Bank does not, in fact, have a strong position. The most the institution can do is not give a loan, and it can only do that once. And if the Bank is not involved in the situation, it cannot influence the parties any further. He admits this is in contrast to the external perception of the Bank's strength, which regards it as powerful *because* it can withhold financial aid [Kraske interview, 3/6/96].

However, Kraske's argument does not account for the continued relationship a country will have with the Bank. So though, the Bank may reject one loan application, it does not mean that other applications will be as unsuccessful. Therefore, it is this ongoing relationship that contributes to the World Bank's leverage as an international actor.

The Bank had clearly stipulated that it was willing to fund any agreement arising out of the talks [IBRD-8/11/51]. However, as long as the dispute remained, the Bank would refuse to consider any loan application for projects using the disputed waters [IBRD-9/1/50; 11/1/50]. Clearly, with India and Pakistan keen to protect and develop this water resource, this added to the Bank's leverage. Admittedly, India was progressing unilaterally with its construction on the River Sutlej, but the costs were high and foreign exchange assistance would be welcome.

The World Bank was simultaneously providing ongoing assistance to India and Pakistan for other development projects, for the duration of the mediations. Though the disputants were wary of having the Bank look upon them with disfavour, it did not mean that they did not contest plans and proposals they considered unacceptable.

As Sommers points out:

> "Iliff had to keep very closely in touch with Black all the time because Black was the real heart and soul of these negotiations, his ability as a 'good officer' and his, it was not Iliff's personality but it was the influence of the Bank as an institution and the fact that its future attitude towards these two countries would be very important to both of them. I'm sure they didn't want to, they wouldn't mind turning off Iliff but they wouldn't want to disgust Black, make him hostile to either Pakistan or India because that would be a source of alot of funding for them" [Sommers interview, 30/4/96].

Yet Kraske believes that these other loans the Bank was making did not influence the Indus Basin talks [Kraske interview, 3/6/96]. Though the actual loans may not have been linked to the Indus Basin talks, India and Pakistan were interested in retaining an ongoing relationship with the Bank. Thus, the Bank's threat of walking away from the talks gave it added leverage [IBRD-21/8/57a]. Probably the most influential element that increased the Bank's leverage was, not its capacity to be involved and to finance any agreement but, its will to be involved and to finance any agreement. Though there had been internal divisions regarding the Bank's involvement, the institution had, in the end, stayed the course till agreement was reached [Iliff, 1970].

In the Indus Basin talks, the World Bank used the conceptual underpinnings and procedural matters described above to create space for the disputants to cooperate. In other words, the Bank was trying to: [i] build trust in the institution, the process, and the disputants; [ii] prevent any party from losing face; [iii] prevent the disputants from posturing because this would only delay progress and divert attention from the main

focus of the process - getting and implementing agreement; [iv] encourage the disputants to think about the details of implementation rather than getting bogged down in the detail of which party was to blame; [v] to move the parties beyond the naming-blaming-claiming stage to exploring possible solutions; and [vi] to be a fair and impartial mediator. Thus, having succeeded once the World Bank can, if it wishes, find ways to assist other riparians to reach agreement over their shared water resources.

7.3 SUGGESTIONS FOR THE BANK'S FUTURE ROLE, AND POSSIBLE APPLICATION TO ANOTHER INTERNATIONAL BASIN.

> "Riparian countries are also aware that there is no third party as well placed as the Bank to assist them in addressing international inland water issues, finding fair and equitable solutions, and mobilizing the resources to implement such solutions. The United Nations has not played a major role in negotiating the settlement of transboundary water disputes although some of its agencies are involved in water development activities that facilitate riparian cooperation" [Kirmani and Rangeley, 1994: 11].

The bulk of the loans the World Bank has made through its history have been for water-related projects, and it seems unlikely that this trend will change in the near future with the importance of water becoming ever more apparent. The Bank has a significant role to play in the sustainable development of global water resources in both infrastructural and dispute resolution processes [Frederiksen *et al*, 1993; Kirmani and Rangeley, 1994]. The Bank can offer substantial technical and financial assistance to countries looking to develop their water resources [Kirmani and Rangeley, 1994].

In the event that these water resources are in dispute with a co-riparian, then the Bank can also offer its good offices. The herculean effort by the World Bank in bringing India and Pakistan to the mediating table, and keeping them there until the Indus Waters Treaty was signed, is a testimony to the Bank's commitment to its member countries, and to resolving international water disputes. The institution was willing to intervene in other such disputes, after the success of the Indus Waters Treaty. However, the riparians of the Rivers Nile, Tigris-Euphrates and the Ganges-Brahmaputra all refused the Bank's offer to intervene [Kirmani and Rangeley, 1994].

Naturally whatever the Bank's will and capacity to intervene, it is the disputants' decision as to whether the institution does or does not intervene. Given the labour intensive example of the Indus Basin, and there is little to suppose that other international water disputes will be any different, intervention in a dispute is a daunting task to undertake. Thus, if the World Bank is unwilling to entertain full responsibility for intervention, it could jointly intervene with another international agency.

The agencies could delegate the daily mediator tasks to the non-financial partner which would still have considerable leverage since the Bank would be supporting any successful outcome from the talks. The Bank's role could then be to supplement any technical expertise required, and devise the financial arrangements needed to implement any agreement. The World Bank could, potentially, intervene in the any number of international water situations, including the situation between Spain and Portugal.

This thesis believes there are some parallels to be drawn between the situation in Spain and Portugal and the Indus Basin. Spain, like India in the Indus Basin, is upstream of Portugal on all their shared rivers. Portugal, like Pakistan, relies heavily upon these rivers because they form the bulk of surface water available to the country. Spain, however like India, has other rivers to draw upon. Spain is the more powerful country of the two, and is planning to increase its withdrawals from the international rivers to the detriment of Portuguese uses. Though, there is not the same hostility between Spain and Portugal as between India and Pakistan, there is considerable rivalry.

As described already in Chapter Six, the Iberian Peninsula has been the setting for some water rational policies between Spain and Portugal, in the form of international water agreements. Despite these agreements, and those presently being proposed, there is a real issue of water scarcity between the countries which remains unsettled. Both countries rely heavily on agriculture and tourism for income generation. As elsewhere in the arid world, Spanish irrigated agriculture consumes approximately 80% of the annual water supply, with increased use during the summer [*The Economist*, 1995d: 52]. In addition, commenting on the whole Mediterranean, Hamdy *et al* point out, that "[t]ourism on the coast during the summer can double and triple withdrawals and lead to crisis situations" [1995: 177].

Yet the Iberian Peninsula has a finite amount of water for which there is growing competition, as both Spain and Portugal seek to develop their economies. Water stress is

at its highest during the summer months when reduced rainfall is coupled with increased demand. The Portuguese are, therefore, "extremely sensitive to the question of how much water the country receives and is set to receive in future, its quality, and the potential damage its exploitation may have on the environment" [*The Economist*, 1995e].

However, the problem is not just one between the sovereign nations of Spain and Portugal, but also an issue within Spain [Wheeler: 1988]. For example, there is talk of transferring water from the Ebro basin in the north to the south [*The Economist*, 1995d: 52]. This has, understandably, met with considerable opposition from farmers and other users in the north, as has the plan to introduce water pricing.

But, if a draft agreement is already before the governments of Spain and Portugal, what possible role could the World Bank, or the European Bank for Reconstruction and Development, have in the Iberian Peninsula? The draft agreement even after ratification will require implementation. Evidence from other international basins has shown that agreements can fall at this hurdle. The Bank can intervene to assist the parties to build capacity and infrastructure that will facilitate implementation. This will by necessity include addressing the demand for water in Spain's regions.

SUMMARY

> "Indeed, without the aid of good offices such as you have offered, little, if any, progress toward a constructive solution could be anticipated. Three years of direct negotiations have failed to achieve agreement even on a procedure for reaching a solution" [Government of Pakistan in IBRD-25/9/51a; 27/9/51].

India and Pakistan had realised, before the World Bank's intervention, that in order to sustain their long term water supply in the Indus Basin they would need to resolve their water dispute. Thus, through a series of bilateral negotiations attempts were made to come to an acceptable understanding, but unfortunately, resulted in a politically motivated stalemate. Accepting the Bank's good offices was, therefore, a water rational act by both India and Pakistan as they both continued to try find ways to cooperate.

As the mediator, the World Bank's primary aim was to give India and Pakistan the space to cooperate and to assist them in their communications. The means by which the Bank created this space are seen by this thesis as comprising two sections - the conceptual underpinnings and the procedural matters. Five conceptual issues were identified dealing with the ideas that are useful outside the mediating room. And six procedural matters were identified that dealt with the actual process inside the mediating room.

The conceptual underpinnings are: One, the political will of all the participants is crucial at every stage of the mediation process, from engaging to acceptance of proposals. Two, the conflict is formed by the perceptions of the disputants, therefore, if these perceptions are changed then the nature of the dispute will also change. Three, disputants need to have a 'safe' space to explore means of non-violent interaction, away from excessive external pressures. Four, in resolving, or managing, a dispute any agreement is specific to that particular dispute and will probably not result in cooperative spillover. Also cooperation and conflict are continuums rather than absolutes, therefore, parties are not engaged in either full-scale war or peace. And five, data is not apolitical as collection, interpretation and sharing of data all entail political aspects and can lead to cognitive disputes.

The procedural matters are: One, confidentiality is important to the process in two ways, no publicity and trust. The disputants can communicate more freely if they do not have worry about their audiences. Also the mediator needs to maintain an adequate level of trust throughout the negotiations, in order to move towards an agreement. Two, all the parties in a mediation process have their own agenda, which a successful settlement will incorporate. Three, selective linkaging can assist or hinder cooperation. Four, the final result of a mediation process is not just to get an agreement, but to have this agreement implemented. Implementation can be assisted by a detailed treaty outlining each party's responsibilities. Five, disputant trust of the mediator is based partly upon the mediator's competence, both in terms of professionalism and expertise. And six, different types of mediators have different types of leverage in the mediation process.

The World Bank has throughout its history invested heavily in water related projects around the world. With water set to continue to play a significant role in economic development, and supply of fresh water being stretched, there is plenty of work for the Bank if it wishes to involve itself. The Bank can participate in the sustainable development of water, by providing its technical and financial assistance. Or it can

intervene, subject to disputant acceptance, in international water disputes by offering its good offices again. The World Bank and other international agencies could even collaborate, and intervene jointly. The former providing the financial backing, and the latter facilitating the daily negotiations. A potential application of the water rationality, and irrationality, concept, and future Bank involvement, is the water situation between Spain and Portugal.

8

CONCLUSION

There is an expectation in hydropolitics that water scarcity can lead to international conflict between the riparians of a shared watercourse. This is especially true if the supply is finite, demand is high due to the arid nature of the environment, and relations between these countries are already tense due to an existing conflict unrelated to water. This is the situation in the Middle East with its aridity and long-standing Arab-Israeli conflict amidst other tensions.

The region, more than any other, has in turn influenced the field of hydropolitics. Therefore, the field has been influenced not only by the nature of the environment in this region, both physical and political, but also by the theoretical framework that has dominated outside perceptions of the Middle Eastern countries. But opinion is beginning to change regarding the response to water scarcity, and with it the expected outcome. War and conflict are no longer proposed to be the most probable outcome, rather the odds are on cooperation.

Though obvious, it is of sufficient importance to reiterate that water is a primary resource. Life is, quite simply, impossible to sustain without access to fresh water. The demand for fresh water is growing, especially in arid areas where there is a finite supply that has already been extensively exploited. Factors influencing the increase in demand include: increasing population whether through a growing birth-rate, or migration; increasing consumerism whereby as the standard of living rises so do expectations of convenience; increasing industrialisation which, of all the uses, pollutes the heaviest; and also urbanisation, since city dwellers are known to use more water per capita for their domestic uses than their rural counterparts.

Linked, obviously, to a growing population is the need to feed them, with the resultant focus upon increasing agricultural output. Since in the semi-arid climate of the Middle East, agricultural products can only be grown with irrigation, this sector of most economies consumes the lion's share of fresh water. Figures are estimated to be as high

as 70-90% of all fresh water available to water managers on an annual basis. Expanding the food basket to meet the needs of the increasing population can be achieved in three ways.

One approach is to expand the amount of land being irrigated. This is a popular approach for some governments, as it has high public visibility. Showing areas of land that once lay 'barren' now producing food, is good publicity for governments. Such projects also can employ large numbers of people, thereby providing an added bonus to the actual production of food. The difficulty with this approach is to find additional sources of fresh water that can be used. One solution is to use recycled water.

Another approach is to improve the efficiency with which the existing water supply is used. Different irrigation techniques are considered to have different efficiencies. One of the most inefficient techniques, and that can lead to considerable additional problems such as waterlogging and salinisation, is flood irrigation. By contrast, micro-irrigation is one of the most efficient. And as the name suggests, the amount of water required to irrigate crops is small in comparison. Though there are additional benefits to be had by using micro-irrigation, the biggest drawback is the initial investment needed to set up the infrastructure to supply water in this manner to the plants.

Using the notion of efficiency once more, is the approach to increasing food supply by buying grains and cereals on the international market rather than growing them in semi-arid areas that are ill-equipped to produce food. Importing food is akin to importing 'virtual water'. Though this option is used in the Middle East, the position of agriculture and food security in national politics can discourage governments from relying heavily upon this approach. An issue that is linked to the economy of importing food, is the notion of pricing water and charging those users, usually in agriculture, who have been subsidised thus far. However, there are political problems with water pricing that make application of this approach a particular challenge for governments.

Overlying all these practical problems with water supply and use, are the political tensions of the Middle East. There are three major international river basins in the region: the Nile, Jordan and Tigris-Euphrates. In all three basins, relations between all or some of the riparians was, or is, uneasy. In the Nile Basin, Egypt is wary of its upstream co-riparians diverting water away from the Nile and its tributaries. In the Jordan Basin, Israel's peace with Jordan has not led to an equal situation with the Palestinians, who

also depend upon water within the Jordan Basin. In the Tigris-Euphrates Basin, Turkey, Syria and Iraq regard each other with suspicion. But as downstream riparians, Syria and Iraq are especially wary of Turkey's monumental project in Southeast Anatolia (GAP), which will give Turkey considerable control over the waters of this basin.

Aside from the region's characteristics, another factor that has influenced the expectation of conflict and war over scarce shared water resources is the theoretical framework used in looking at the region. The assumption that two states with hostile relations would not choose to cooperate with one another over a primary resource, such as water, appears to be reasonable. Since there is no supra-national authority to safeguard a country from hostility, it would appear prudent to maintain full control over those resources that are of national importance.

This issue of autarky, necessary in an anarchic international system, derives from the realist analysis of international politics. Realism regards power as the primary motivation for state action, and assumes that the survival of a state depends upon it being able to impose its will upon weaker states. Strength comes, therefore, from being invulnerable and is based upon controlling resources, and being independent. Cooperation is regarded as the act of weak states because the strong do not need to look to other states as they possess all the resources they need for their national security.

Subsumed in the notion of strategic resources, is the perception that access to certain resources is vital to a nation's security. And that when access is either restricted or denied, the result can be to put the nation's security and interests in jeopardy. Therefore, to prevent such a situation from arising, or to rectify it, violence is regarded as a legitimate means of securing supply. This theme has, under the concept of water wars, been extended to securing a nation's fresh water supply.

Other power-based approaches share the assumption that a powerful actor will not only be able, but willing to impose its will on other less powerful actors. How these approaches differ is in their definition of power. Liberalism regards individual states as being less powerful than groups of states, and therefore encourages cooperation in what it sees as an interdependent international system. Game theory does not expect cooperation, though it regards it as the optimal strategy, as a probable outcome. Power is defined as wit and time. Geopolitics recognises that the geographic components of a state can add to its level of vulnerability, and defines power in terms of geographic

resources and access. Critical geopolitics, however, questions not the definition of power but the knowledge upon which those definitions are based.

Another approach within the framework is international law, which regards disputes to be about the 'rights' of the parties involved. International law is, therefore, applied to cases where a conflict already exists. How this conflict is defined may vary from the traditional image of war, but a conflict is expected to exist nonetheless. In addition to this expectation, international water law's principles of equitable use and appreciable harm are inadequate in prioritising uses and, therefore, the claims based upon these uses. This difficulty with prioritisation, can lead to further problems between the disputants as both can cite legal justifications for their positions.

Therefore, if water scarcity is set to increase, alongside water demand, adding to existing tensions then perhaps water conflicts, and even war, are a possibility in the future. Such a possibility has, clearly, to be circumvented. One approach of the many that are possible, is the studying of successful international water treaties, in the hope that something may be gleaned and emulated, thereby preventing a future water war. Of the international treaties that exist on matters dealing with international fresh water, the Indus Waters Treaty is notable for its durability in an admittedly hostile environment.

The 1960 Indus Waters Treaty has its origins in an international water dispute that would be expected, under the water war concept, to lead to war. India and Pakistan were, and still are, enemies. As with the Arab-Israeli dispute in the Middle East, the Kashmir dispute has acted as a constant thorn in their relations. Regarding the Sutlej River both countries wanted to make use of the finite amount of water therein. Pakistan wanted to maintain its existing uses, and India wanted to develop new uses. As the upstream riparian, India had a geographical advantage and could enforce its will upon Pakistan, the downstream riparian. In addition the Delhi Agreement signed in 1948 on the River Sutlej, only acted to exacerbate tensions, and complicate subsequent negotiations. Thus with relations hostile overall, and the Kashmir issue souring any Indo-Pakistani interaction, the River Sutlej dispute seemed ripe for a water war.

However, what arose was cooperation. India and Pakistan negotiated terms and conditions under the aegis of the World Bank for approximately nine years, before finally signing and ratifying the Indus Waters Treaty. With all this expectation of conflict, it begs the question: how did India and Pakistan cooperate, and why? The

process of cooperation was choreographed by the intervening mediator. The reasons why India was willing to have multilateral talks over the River Sutlej differed to Pakistan's reasons for joining the discussions.

The process that led to the Treaty fits the general framework of mediation comprising four segments: engaging, issues, options and agreement. The World Bank was able to engage in the River Sutlej dispute because India and Pakistan were willing to allow it to intervene. At this point the voluntary nature of the process is important. Should the presence of any of the participants be involuntary, then the subsequent talks would fail at the first obstacle. Once the third party is allowed to intervene, and the talks begin, attention is focused upon the issues characterising the dispute. In order to keep the talks on track, all three participants needed to know what were the issues in dispute. Not only was it important for the Bank to understand what each disputant felt was involved, but the disputants themselves needed to be aware of each other's perceptions.

Once the issues were clear, the exploration of acceptable options could begin. Obviously, solution to a dispute would necessitate meeting the criteria that the disputants held as important. The World Bank, India and Pakistan drew up a number of plans to allocate the waters of the Indus Basin between them. The negotiations dragged on for many years, because the plans did not fit the criteria India and Pakistan had at those times. Agreement finally came when political changes in Pakistan allowed the politicians to make the decision to agree, and when India's financial liability was clarified by the Bank. Though described here as a linear process, mediation is in fact a cyclical process. Agreement is needed throughout the four stages, as are the functions of clarifying the issues and exploring acceptable options.

Certain points have emerged from the study of the Indus Waters Treaty's negotiations relating to the mediation process. Most of these points are interlinked, but for clarity are explained separately. However, a broad grouping has been given to these points upon the basis of whether they can be termed conceptual or procedural. The conceptual points are ideas and awareness with which the participants can approach the mediation room. Procedural points are those used by the mediator, in the room, to assist the disputants in finding an acceptable resolution.

There are five points that are assigned as conceptual: [i] The political will of the disputing governments is important in making significant decisions, such as allowing the

initial intervention of the third party. [ii] The perceptions these governments have of the dispute, the intervening body and any possible solutions will influence the outcome of the settlement process. [iii] Disputants, and in particular their representatives, need space to cooperate. This means that there is a safe environment within which the parties can explore the idea of cooperating, and what it will mean to them. The mediator can address this need by providing the physical location, and minimising publicity to allow for 'mental' space. [iv] Cooperation and conflict are continuums, whereby there is more, or less, cooperation over certain features. In addition, cooperation in the Indus Basin was specific to water, and did not lead to a cooperative spillover and congenial Indo-Pakistani relations such that resolution of the Kashmir dispute became possible. And [v] data is not a neutral area upon which there is complete and automatic consensus. Data collection and interpretation can lead to cognitive disputes.

There are six points that are considered to be more procedural: [i] Confidentiality is vital to keeping the talks alive. Confidentiality means both building trust into the process, and ensuring the participants, and talks, are subjected to the minimal publicity possible. [ii] For a plan to be acceptable to the disputants, it must meet their agendas. But the disputants are not alone in having an agenda, the mediator has one too, but related, often, to reasons for engaging in the process rather than criteria to get agreement. [iii] Meeting these agendas can involve selectively linking items together. The emphasis is upon being selective, as otherwise it may forestall agreement. [iv] Having finally reached agreement, it is a matter of implementing it. This is made easier by ensuring that the responsibilities of each signatory are clear and accounted for in a detailed agreement. [v] Institutional competence affects the way in which the disputants perceive the mediator, therefore it is important for the third party to be professional and impartial. And [vi] the leverage a mediator has in the talks depends upon what it is that this party can offer the disputants.

Regarding the agendas of each participant, the World Bank became involved in the River Sutlej dispute for two reasons. Firstly, as member countries India and Pakistan had applied for loans to construct projects using water from the river. But in line with Bank policy, these loans had to be refused for no other reason than the existing dispute. Clearly this was a frustration to all parties concerned, especially since they were interested in making progress with the economic development of the Indian Subcontinent. Secondly, the Bank was, at the time, keen to make a name for itself, and

believed that successful intervention in this dispute, leading to resolution of the problem would establish a reputation for the new institution.

In observing the situation in the Indus Basin at the time of the World Bank's offer of good offices, it is unsurprising to note Pakistan's acceptance of such international intervention. Pakistan had long pressed India to put the dispute before a third party, though it had in those suggestions envisaged a legal entity such as the International Court of Justice (ICJ). India was to refuse these suggestions repeatedly. Pakistan's position as the downstream riparian appeared more vulnerable, especially when the extent of Pakistan's dependence upon the River Sutlej became clear. Thus, though Pakistan was to accept the Bank's intervention, it was cautious in committing itself to any agreement that did not meet all the uses it presently had, and had planned. Pakistan having been burnt once with a quick agreement with India, over water in 1948, was wary of repeating the experience.

India's position stood in clear contrast to Pakistan's. As the upstream riparian with minimal, if any, existing uses dependent upon the River Sutlej, what India wanted was to use the water for further development. In addition, the livelihood and ability of the country to feed itself, did not lie with this particular river as it did for Pakistan. Yet India was not expected to be amenable to third party intervention. But acceptance did come, and it appears the decision was based not only on the desire to improve Indo-Pakistani relations but also because India had 'nothing to lose', Michel concurs with this point [Michel interview, 16/5/96]. For the duration of the talks, India maintained its construction schedule on the River Sutlej. If the talks failed to resolve the dispute, India would still be able to withdraw and use the water it had claimed. If an acceptable outcome did emerge, then it would resolve the dispute and still allow India to use the waters it wanted.

With hindsight it is possible to construct reasons for the cooperation in the Indus Basin. But at the outset of the talks in 1951, much was made of the potential, and expectation, of conflict over the shared waters of the Basin. Though international conflict over fresh water is no longer an expectation within the Indus Basin, it remains an expectation in other international river basins around the world. Yet this expectation of conflict over scarce water supplies does not appear to correlate with the examples that are emerging in the literature of hydropolitics. In fact, there is considerable evidence that rather than go to war over water, countries, even enemies, are cooperating to ensure the security of

their long-term supply. This has led to doubts being raised in other works regarding this expectation of conflict.

Why then does it appear that countries are choosing to cooperate, and that the expectation of conflict should be changed to one of cooperation? (Cooperation is regarded as having a broad definition, and one that ranges from data sharing and flood warning to integrating basin management between riparians.) This dissertation proposes the idea of water rationality, whereby countries enact policies that promote the long-term security of their fresh water supply. These policies are effective in their national water management strategies, and also in their foreign policy *vis-à-vis* other riparians. Taking its cue from the expectations of the World Bank in the Indus Basin dispute, water rationality also suggests that any interested third parties, observing an international fresh water dispute, should also be prepared to expect cooperation.

The overall theme of this thesis rests with the concept of water wars. The concept derives from the assumption that scarcity in a primary resource, such as water, would lead competing users to conflict. The water war concept, therefore, expects conflict at an international level between co-riparians. Though water disputes may, and do, occur at a national level there is limited evidence of water wars at the international level. What has emerged, in fact, is a picture of cooperation over shared water by international actors. Thus, the suggestion of this thesis is not that water wars between international actors are impossible, but that these wars are not probable given the historical and present day evidence being gathered. What is regarded as probable, is that co-riparians will be willing to cooperate in some manner rather than fight over their shared watercourses, even in the situation of scarcity. Therefore, the expectation of conflict should perhaps be an expectation of cooperation.

PROSPECTS FOR FURTHER WORK

This thesis has highlighted the process by which India and Pakistan were able to reach sufficient agreement over the Indus Basin to sign an international water treaty. It has described the intervention of the World Bank in the international conflict, and how the third party circumvented the considerable difficulties obstructing agreement. Naturally, the process of enquiry has also raised a number of questions that cannot be fully explored in the confines of one thesis. For the most part these questions focus upon the

mediation process, and the effect of the Indus Waters Treaty upon the signatories, though other questions linked to the broader topic of water are also asked.

As recognised in Chapter Four, this thesis treats India and Pakistan as monoliths. Though this reductionist consideration of the disputants is undesirable overall, since it would appear to nullify the complex characteristics of the countries and the consequent influence upon their societies and politics, it has been necessary for the duration of this thesis. However, questions remain that would seek to unpack the reductionist monoliths and examine the interactions therein. This, clearly, would lead enquiry to enter the realm of domestic politics and its influence upon foreign policy.

Pakistan and India were treated as single units, which operated in complete harmony internally though there was external discord *vis-à-vis* the other disputant. This implied not only coherent policy and practice between the Government and its representative delegation, but also complete compliance between the different provinces and states comprising these countries. The implication of coherence continued all the way through these societies coming to rest, finally, with local water users in agriculture, industry and the municipalities.

However, there are suggestions that this coherence did not exist, to different degrees, in either country. For example, the Head of the Pakistani delegation confided to the World Bank opinions that were in marked contrast to the position his Government was taking; the political instability that Pakistan experienced as different groups within the country vied for political power and office; the rivalry between the East and West wings of Pakistan. In India, though the political instability was not as pronounced, there were squabbles for power and influence. This was apparent, for example, with the demand for linguistic unity in the organisation of the Indian states, which led to a restructuring of the political map of India.

What, therefore, was the effect of these disparate groups upon the negotiating position the disputants took? How did the interests of those in power and able to influence the mediated discussions, effect these talks? What was the internal dynamic between the Government and its representative delegation? What was the structure of command, and how did this influence the negotiations? For example, were a number of parties involved in making a decision, no matter how small, before the negotiations could progress further? What factors of the internal political make-up of the countries either spurred on

discussion, or acted as an obstacle to international cooperation? To what extent, if any, did the individual personalities of the decision-makers effect decisions made during the mediated talks?

Regarding the international rivalry between India and Pakistan, did the Governments of the day have to 'sweeten' constituents to allow the talks to continue on the Indus Basin? What forms of political discourse was necessary to reassure the public that cooperation was a 'safe' option? Considering the internal rivalry between East and West Pakistan, did the talks with India on the Indus Basin, influence the talks with India for the Ganges-Brahmaputra Basin with its dispute over the Farakka Barrage? Going one step further, how did the rivalry between the provinces in West Pakistan affect not only the negotiations, but also the public perceptions of the mediated talks' efforts?

At the start of the mediations, when the World Bank was offering its good offices, the Prime Ministers of both India and Pakistan were categorical in pointing out the limitations of the proposed talks. Discussions pertaining to the Indus Basin would have no bearing on the Kashmir dispute, nor would they discuss possible solutions to that tenacious dispute. Naturally, this conferred upon the subsequent Indus Basin discussions a very narrow remit. But it also questions the position of the international water dispute with the national priorities of the two countries. Did the water issue only serve as rhetoric used periodically at the whim of politicians in both domestic and foreign policy matters? Was it a pawn, used as a bargaining tool between different actors within the countries, especially in Pakistan? Therefore, what was the role of water in the relations between the Centre and the Provinces, and between the Provinces themselves? And what was the effect of the assigned positioning in priorities upon the negotiations in progress?

Internationally the Indus Waters Treaty was, and still, is regarded as a success. However this sentiment appears not to be shared in the Indian Subcontinent. The international community, the World Bank included, see the signing of the Treaty as a watershed, successfully transforming dispute into peace. The implementation and maintenance of the Treaty for almost forty years is also seen, internationally, as reaffirming its success. Indian and Pakistani attitudes differ somewhat to the international community's. Though the incumbent Governments were happy to sign the Treaty, and ratify it in 1961, public perception of the Treaty was very different to the official reception. Both Governments were chastised for having 'sold-out'. Opinion in Pakistan decried the loss of the three

Eastern rivers, despite the vast sums of financial aid Pakistan was receiving in lieu of this 'loss'. In India, public opinion decried the loss of its claims to the Western rivers.

What then marks an international water treaty as a success in the eyes of not only the international community, but the countries involved? And what is the role of the national media in influencing perceptions of a treaty? Does this influence change if the media is state controlled, or free to make and display its enquiries as it wills? How do politician and bureaucrats make use of the national media to further their own interests *vis-à-vis* a treaty? Having suggested that publicity is of limited use during the negotiations, is it prudent for an intervening body to then inform the public of the disputants of the aims of any treaty? How would this effect the issue of national sovereignty?

The mediation training that was undertaken with UNITE, suggests that delay is an inevitable part of the mediation process, and has to be expected and accepted as such. The delay refers mainly to the time between the presenting of an option, and its acceptance much later in the process. This was witnessed in the Indus Basin talks, with the presentation of the World Bank Proposal in 1954 and the Aide Memoire in 1956 but a clear acceptance of these plans not being made by Pakistan until December 1958. Therefore, the question arises as to whether this delay can be avoided either by better information about the disputants' interests, or by designing an alternative resolution process? Or is delay and perhaps loss of opportunity an unavoidable hazard of mediated talks? Related to this notion of delay and designing resolution processes, is the question of encouraging disputants to relinquish their positions, and look more towards their interests. Is there a way of improving the process without creating more problems as happened with the World Bank and the issue of status-quo?

The World Bank has shown itself to be interested in playing a more active role in international water dispute resolution. Historically, this has been demonstrated in the Indus Basin, and though it was not asked to intervene it was, for example, prepared to offer its services in the Jordan Valley and the Ganges Basin. With the present interest in international fresh water, the Bank appears to be looking once more for an active role in encouraging peace. This raises the question of the role third parties can play in smoothing tensions over shared watercourses. What are the criteria needed for a successful intervention, and what type of actors are suited to meet these criteria? Are international institutions better suited to intervene between sovereign nations, or would another sovereign nation be more effective in bringing the dispute to an end?

During the mediations, the Bank continued to finance other development projects in the Indian Subcontinent. But from the Indus Basin Files it is not clear whether this had an affect on the role of the Bank as a mediator in the Indus Basin talks. Therefore, what influence, if any, did the continued supply of finance from the World Bank have upon India and Pakistan's decision making process?

The Indus Waters Treaty's significance comes from the fact that it was not only negotiated but that once the negotiating process was over, it was implemented. And once implemented, the decisions and principles the Treaty embodies have been maintained. Implementation appears to be a three-stage process. The first stage involves the assembling, in minute detail, of an international water treaty and is obviously done during the negotiations. The second and third stages occur after the treaty has been ratified, and entail the practical realities of transferring abstract plans on paper into physical units on the ground. Not only is it asked, how were the plans implemented, but also what lessons can be learnt from the process that can act as feedback to improve the first and subsequent stages?

Therefore, how was the Indus Waters Treaty implemented in India and Pakistan? Who was responsible for the implementation? Were the different provinces in each country represented in the management of this stage, or was there a central body responsible for it? Did public perceptions of the project change as work progressed? Who benefited from the project? Was corruption an issue at this stage, if ever? And regarding maintenance of the procedures outlined in the Treaty, which have been most effective and useful? How does the Permanent Indus Commission (PIC) function? And have further disputes over shared Indus Basin water been put, by India and Pakistan, before the PIC?

Almost forty years have passed since the signing of the Indus Waters Treaty in 1960. What has been the effect of the Treaty upon the agricultural sectors of India and Pakistan? With the availability of a more uniform supply of water, has there been any interest in the efficiency with which the water is being used? What manner of irrigation is being practised in the Indus Basin? For example, have the benefits of micro-irrigation been adopted or is flood irrigation still the principle method of applying water to the land? What is the awareness and perception of water as a finite resource in the Basin amongst local users and the political framework?

Does this awareness, if it exist, alter with location? For example, do local users in Karachi, a urban area with use principally concentrated in the industrial and domestic sectors, have a different perspective to those in the villages of the Punjab, with agricultural use dominating local demand? What would be the effect of water pricing upon these users, if they do not already pay for water use? And is awareness changing with the quality of water available? Finally, what are the water resources of the Indus Basin at present, and how effectively are they being used with attention to environmental needs?

All these questions arise out of research into the Indus Basin dispute as detailed in this thesis. The nature of a thesis obligates a restricted, and selective, recounting of the research undertaken in answering certain key questions. Naturally, as is the case with the research process, more questions have arisen than can be answered by one thesis. These questions have been highlighted above. The author hopes that in undertaking research into more of the influences, and issues, affecting disputants at the negotiating table more can be known about the costs of negotiating to the disputants. This, it is also hoped will lead to an expanded understanding of international water disputes, and the means by which third parties can assist the disputants in achieving resolution.

APPENDIX 1

Letter from the World Bank President, Eugene Black, to the Prime Minister of Pakistan, Liaquat Ali Khan; 6 September 1951.
[A similar letter was sent to the Prime Minister of India, Jawaharlal Nehru.]

There appeared in the popular American magazine "Colliers" of August 4, 1951, an article by Mr. David E. Lilienthal proposing a cooperative regional approach to the development of the water resources of the Indus Basin. Because of the wide circulation of this magazine and Mr. Lilienthal's reputation as an authority in the field of regional development, this article has attracted a great deal of interest in the United States. I assume that copies of Mr. Lilienthal's article have been brought to the notice of the Government of Pakistan.

Mr. Lilienthal's proposal contemplates meeting the requirements of both countries for expanded irrigation through the cooperative construction and operation of storage dams and other facilities to be financed in part perhaps by this Bank. It is the essence of the proposal, as I read it, that the development of the Indus water resources should be dealt with on an engineering basis and it appears to be Mr. Lilienthal's belief, after visiting both countries and talking with the highest personalities in the governments, that it is within the realm of practicability to treat water development as a common project that is functional, and not political, in nature and that could therefore be undertaken separately from the political issues with which Pakistan and India are confronted.

As you may be aware, both Pakistan and India have from time to time raised with the Bank the possibility of financing irrigation and hydroelectric works in the Indus Basin and in each case the international water-rights problem has been an obstacle. A constructive programme for the effective use of the water resources would, moreover, have important implications for the economic development of both countries in other fields. Since the matter is therefore of interest to the Bank and since the Bank's name has now been publicly mentioned in this connection, I should like to ask you whether you are disposed to look with favor upon Mr. Lilienthal's proposal. If so, I can assure you that, if your Government and the Government of India desired to approach the development of the Indus water resources along the lines suggested by Mr. Lilienthal, I should be most happy to recommend that the Bank lend its good offices in such directions as might be considered appropriate by the two governments, make available qualified members of its staff and consider any financing proposals that might develop as a result of joint planning.

I am sending a letter in similar terms to the Prime Minister of India.

APPENDIX 2

Letter from the World Bank President, Eugene Black, to the Prime Minister of Pakistan, Khwaja Nazimuddin; 8 November 1951.
[A similar letter was sent to the Prime Minister of India, Jawaharlal Nehru.]

I have previously expressed my profound regrets on learning of the death of Mr. Liaquat Ali Khan. I must now revert to the subject of my correspondence with him which was interrupted by that tragic event.

I was much gratified to receive, in Mr. Liaquat Ali Khan's reply of September 25, 1951, to my letter of September 6, 1951, assurance that the Pakistan Government favours looking at the Indus basin water resources from a regional viewpoint with the objective of cooperative development and that he welcomed my proposal along the lines indicated in his letter, which I have carefully studied.

The Prime Minister of India has also sent a favourable reply.

These two letters have convinced me that a solution to the problem of using the water resources of the Indus basin in such a way was to make a maximum contribution to the development of both countries is well within the bounds of practicability. I am therefore encouraged to suggest to the two Governments a procedure which seems to me to afford the best prospects of accomplishing that objective.

I shall base my suggestions on the essential principles of Mr. Lilienthal'sproposal which are, as I understand them, the following:
(a) The Indus basin water resources are sufficient to continue all existing uses and to meet the further needs of both countries for water from that source.
(b) The water resources of the Indus basin should be cooperatively developed and used in such manner as most effectively to promote the economic development of the Indus basin viewed as a unit.
(c) The problem of development and use of the Indus basin water resources should be solved on a functional and not a political plane, without relation to past negotiations and past claims and independently of political issues.

I assume that, in indicating their willingness to proceed on the basis of Mr. Lilienthal's proposals, the two Governments have accepted these principles. My suggestions as to procedure, which I believe faithfully reflect these principles, are based on that assumption.

I should perhaps add that, through its contacts with the two countries, the Bank is convinced that the engineers and other technicians of Pakistan and India are fully qualified to provide the principal technical and planning skills needed to develop, for submission to the two Governments, a comprehensive program for the utilization of the Indus basin water resources. That has been a major consideration in my formulation of a suggested procedure.

My proposal is as follows:
(a) Pakistan and India would each delegate a qualified engineer of high standing to prepare, jointly with the designee of the other, a comprehensive long-range plan for the

most effective utilisation of the water resources of the Indus basin in the development of the region. Each designee would be instructed to govern himself by the principles stated above and to approach the problem on its merits in the interest of economic development of the Indus basin viewed as a unit. Each designee would have such technical assistants as he might desire and as might be available, and the two together would be authorized to retain the services of such engineers, agricultural technicians, economists and other experts, from either or both of the two countries of from other countries, as they might mutually find desirable.

(b) An engineer selected by the Bank would be continuously available during the planning stage to work with the designees of the two countries. He would keep himself informed of the planning in view of the Bank's previously expressed readiness to consider financing proposals and would participate in the working party as an impartial adviser, free to express his views on any aspects of the matter and available to perform such other services as might be mutually determined to be appropriate. He could thus assist in solving problems without being in the position of an arbitrator. Before selecting its representative, the Bank would ascertain that he would be acceptable to the two Governments. There would be available to him, and through him to the entire working party, such technical assistance furnished by the Bank as might be needed to supplement the resources otherwise available.

(c) The working party would hold an initial meeting for the purpose of determining the procedure to be followed in working out the plan, the steps needed to be taken, the order and manner in which those steps would be undertaken and the persons by whom they would be undertaken, and would set target dates for completion of the various steps. On reaching agreement on these matters, the working party would promptly, without the need of any further authorization, put the agreed procedure into effect and begin work on the plan.

I suggest that this initial meeting take place on January 3, 1952, at the Bank's Washington Office.

I feel strongly that publicity should be avoided at least until an agreement on procedure has been reached by the working party at the initial meeting. Whether any public statement should be made after a working procedure has been decided upon would be a matter for discussion between the two Governments and the Bank.

If I assume, the Governments of Pakistan and India are in agreement on the principles underlying Mr. Lilienthal's proposal, as I have set them forth above, I anticipate fruitful results from this suggested procedure. At the present stage I have not felt free to bring this matter before the Executive Directors of the Bank but I believe that I can assure you that if the two Governments are prepared to proceed, the Executive Directors, as well as the management and staff, will be happy to cooperate with them in facilitiating a solution to this vital development problem.

APPENDIX 3

Letter from the World Bank President, Eugene Black, to the Prime Minister of Pakistan, Khwaja Nazimuddin; 13 March 1952.
[A similar letter was sent to the Prime Minister of India, Jawaharlal Nehru.]

I refer to the conversation we have had about the Indus Basin water problem and to similar conversations I have had with the Prime Minister of India. I am happy to say that I have found common understanding as to the bases on which we can go forward under the Lilienthal proposal.

We all agree that the function of the working party is to work out, and the ultimate objective is to carry out, specific engineering measures by which the supplies effectively available to each country will be increased substantially beyond what they have ever been. Except as the two sides may hereafter agree, legal rights will not be affected and each side will be free to withdraw at any time; but while the cooperative work continues with the participation of the Bank neither side will take any action to diminish the supplies available to the other side for existing uses.

It should be understood that the three main principles set forth in my letter of November 8, 1951 provide the broad basis on which the engineers will meet but are not intended as rigidly fixed terms of reference. Within the broad outline of the basic framework the engineers should be free to put forward or consider proposals in pursuance of the general objective.

With these clarifications both Governments are ready to go forward in accordance with my letter of November 8, 1951, the first meeting of the working party to be held on April 7, 1952 [April is crossed out, replaced by May]. I am therefore happy to invite the designee of your Government, and his technical assistants, to be present at the Bank's Washington office on that date.

I am sending an identical letter to the Prime Minister of India.

APPENDIX 4

Inter-Dominion Agreement Dated The 4th May 1948 On The Canal Water Dispute Between The East And West Punjab

A dispute has arisen between the East and West Punjab Governments regarding the supply by East Punjab of water to the Central Bari Doab and the Depalpur canals in West Punjab. The contention of the East Punjab is that under the Punjab Partition (Apportionment of Assets and Liabilities) Order, 1947, and the arbitral award the proprietary rights in the waters of the rivers in East Punjab rest wholly in the East Punjab Government and that the West Punjab Government cannot claim any share of these waters as a right. The West Punjab Government disputes this contention, its view being that the point has conclusively been decided in its favour by implication of the Arbitral Award and that in accordance with international law and equity, West Punjab has a right to the waters of the East Punjab rivers.

2. The East Punjab Government has revised the flow of water into these canals on certain conditions of which two are disputed by West Punjab. One, which arises out of the contention in paragraph 1, is the right to the levy of seignorage charges for water and the other is the question of the capital cost of the Madhavpur Head Works and carrier channels to be taken into account.

3. The East and West Punjab Governments are anxious that this question should be settled in a spirit of goodwill and friendship. Without prejudice to its legal rights in the matter the East Punjab Government has assured the West Punjab Government that it has no intention suddenly to withhold water from West Punjab without giving it time to tap alternative sources. The West Punjab Government on its part recognise the natural anxiety of the East Punjab Government to discharge the obligation to develop areas where water is scarce and which were under-developed in relation to parts of West Punjab.

4. Apart, therefore, from the question of law involved, the Governments are anxious to approach the problem in a practical spirit on the basis of the East Punjab Government progressively diminishing its supply to these canals in order to give reasonable time to enable the West Punjab Government to tap alternative sources.

5. The West Punjab Government has agreed to deposit immediately in the Reserve Bank such ad hoc sum as may be specified by the Prime Minister of India. Out of this sum, that Government agrees to the immediate transfer to East Punjab Government of sums over which there is no dispute.

6. After an examination by each party of the legal issues, of the method of estimating the cost of water to be supplied by the East Punjab Government and of the technical survey of water resources and the means of using them for supply to these canals, the two Governments agree that further meetings between their representatives should take place.

7. The Dominion Governments of India and Pakistan accept the above terms and express the hope that a friendly solution will be reached.
Signed in New Delhi:

For India - Jawaharlal Nehru, Swaran Singh, N V Gadgil.
For Pakistan - Ghulam Mohammad, Shaukat Hyat Khan, Mumtaz Daultana

APPENDIX 5

Proposal by the International Bank Representative for a Plan for the Development and use of the Indus Basin Waters, 5 February 1954

Introduction

The Indus Basin Working Party, consisting of engineers designated by India and Pakistan and their advisors assisted by the Bank Representative and consultants, have for almost two years worked at their task of preparing a comprehensive plan for the utilization of the waters of the Indus system, in accordance with the suggestion made by Mr David E Lilienthal in August, 1951. Over a year was spent in compiling and analyzing data in a field trip of more than 9000 miles in the basin. Efforts to agree in advance on a common approach having proved fruitless, the two Designees, at the suggestion of the Bank Representative, each proposed a comprehensive plan.

As presented the plans differed widely in concept and in substance. Subsequent discussions have produced substantial concessions, but these have not been enough to bring about an agreement and the margin of difference between the two plans remains wide. In rough approximation, the two plans (as modified by recent concessions) provide for the following division of usable supplies of water:

Indian Plan	Usable supplies allocated to
India	- all of the Eastern rivers and 7% of the Western rivers
Pakistan	- none of the Eastern rivers and 93% of the Western rivers

Pakistan Plan	Usable supplies allocated to
India	-30% of the Eastern rivers and none of the Western rivers
Pakistan	- 70% of the Eastern rivers and all of the Western rivers

In quantitative terms, the division of the usable supplies of water may be approximately shown as follows (in millions of acre-feet):

	Total uses excluding losses and unusable supplies		
	For India	For Pakistan	Total Usable
India	29	90	119
Pakistan	15.5	102.5	118

The present status is that it has not yet been possible to reach agreement and that, in the absence of some new development, there is no prospect of further progress in the Working Party. Before considering what step should next be taken, it will be useful to analyze the reasons that have so far prevented agreement.

Essential Elements of the Problem

The inability to agree in the Working Party has not been due to the technical difficulties or inability to devise appropriate engineering works and measures to make the most effective use of the waters. If this were the whole problem, a solution would doubtless have been found before now.

The available technical resources are impressive. The proficiency of the Indian and Pakistani engineers in canal irrigation techniques is unsurpassed, and perhaps unequalled, anywhere in the world. Abundant technical data is at hand. It is doubtful whether such complete recorded flow data exists for the Indus system of rivers and canals could be duplicated for any comparable river system in any other country.
Moreover, there is a large measure of accord between the two Designees on certain fundamentals. The Working Party are in agreement that the average annual flow is not sufficiently dependable to be taken as a basis for planning and that some more conservative figures must be used. For the most practical purposes, they are in agreement on the amount of unusable supplies in the rivers, on the amount that can be developed through storage, on the sites and capacities of possible storage facilities and on the technical feasibility of proposed engineering works. They agree that existing uses of water must be respected (although they differ as to the meaning of "existing uses"). They agree that surplus usable supplies, including supplies that can be developed through storage, must be equitably apportioned among the potential new uses in the interests of the economic development of the basin as a unit (though they differ in defining the boundaries of the basin). They agree that existing inundation canals should be replaced by weir-controlled. canals. Finally both sides appear to accept the concept that the cost of the new works should be allocated to the two countries in the proportion in which they derive benefit therefrom.

The extensive compilation of data and the large area of agreement that already exists provide firm foundations for a settlement, and thus represent most valuable contributions by the Working Party to an ultimate solution. Unfortunately, they are not enough in themselves to bring about an agreement. What hampers further progress in the Working Party is no matter of engineering complexity, but rather a combination of three basic difficulties which have so far prevented the Working Party from reaching the heart of the problem - a fair division of the waters between the two countries.

The first difficulty lies in the fact that water supplies and storage potentialities are inadequate to the needs of the basin. The Indus is one of the world's greatest river systems. With proper development by engineering works, it is capable of providing substantially more irrigation to each country than has ever been enjoyed. But even after full development, there will not be enough water to supply all the needs of the water.

This means that there can be no ideal plan which will fully satisfy both sides. Any plan must involve a large element of compromise under which each country will have to forego some of the irrigation uses that it would wish to develop if adequate supplies and storage were available.

The second difficulty is that although the Working Party are planning on the basis of the development of the Indus Basin as an economic unit, two sovereign states are involved. This greatly limits the practical potentialities of planning. A comprehensive plan can achieve maximum efficiency, economy and usefulness when it is developed and administered by a single authority. Under such an authority, decisions can be made

promptly, plans can be readily changed to meet new circumstances and accommodations made to meet emergencies.

When two sovereign authorities are concerned, it is difficult to use resources to the greatest advantage. Problems must be solved by negotiation and agreement rather than by decision. Minor questions of planning and operational detail must be referred to high authority and dealt with, perhaps, through diplomatic channels. Moreover the two countries may follow different development policies, or may have unequal resources available for development. They may also (as has been evident in the present discussions) be reluctant to have works regulating water supplies on which they depend constructed in territory controlled by another country. All these factors make agreement difficult.

In the present case, it would be unrealistic to ignore this difficulty. The prospects of being able to establish an efficient and smooth-running joint administration are not favorable. At present, any comprehensive plan must be framed with this limitation in mind.

The third difficulty, the most serious of all, has arisen in the course of discussions. The plans put forward by the two sides differ fundamentally in concept. An essential part of the Pakistan concept is that existing uses of water must be continued from existing sources. Moreover "existing uses", in the Pakistan plan, include not only the amounts of water that have actually been put to use in the past, but also the allocations of water which have been sanctioned prior to partition, even though the necessary supplies have not been available for use. This concept protects Pakistan's actual and potential uses on the Eastern rivers and reserves most of the water in the Western rivers for use in Pakistan.

The corresponding concept of the Indian plan, on the other hand, is that although existing uses (here defined to include only actual historic withdrawals) must be continued, they need not necessarily be continued from existing sources. This concept permits the water in the Eastern rivers which is now used in Pakistan to be released for use in India and replaced by water from the Western rivers.

The basic divergence of concept, together with the other two difficulties mentioned above, effectively blocks progress towards a settlement. As long as it persists, there is no prospect that further discussions will prove fruitful.

The Bank Proposal

Both sides have repeatedly stated that they sincerely desire a settlement and that in this they reflect the desires of their Governments. It is vital that a settlement be reached. Moreover, after two years' concern with the problem, the Bank is convinced that, despite the difficulties mentioned above, no insurmountable obstacle exists to a settlement which will benefit both countries. On the contrary, there is no doubt that this dispute can be settled on terms by which 'the supplies effectively available to each country will be increased substantially beyond what they have ever been.'[119]

In the circumstances, the Bank Representative feels that he has the responsibility to put forward a proposal for the consideration of both sides to serve as the basis of a

[119] Letters of President Black to the Prime Ministers, March 13, 1952.

comprehensive plan. The proposal has the concurrence of the engineering consultants to the Bank Representative and is put forward with the full support of the management of the Bank.

This proposal has been framed in complete realisation of the nature of the Bank's role in these discussions. Though the Bank Representative is 'free to express his views on any aspect of the matter,'[120] neither he nor the Bank is in the position of a judge or arbitrator. The Bank cannot, therefore, pass upon any of the legal contentions that have been put forward by the parties in the past. The proposal here made does not express, and is not intended to imply, any opinion on those contentions.

The Bank proposal is no arbitrary compromise, arrived at by mathematically splitting the differences between the two sides. It is a plan based on concepts of its own, which produce a fair and economic result.

In the formulation of the Bank proposal, the divergence of concept in the Working Party as to treatment of existing uses had to be faced at the outset. The Bank proposal embodies the principle that historic withdrawals of water must be continued, but not necessarily from existing sources. This principle allows water to be used so as most effectively to promote development. A requirement that existing uses must be supplied from existing sources would unduly limit the flexibility of operation needed for the efficient use of waters. In fact, no fair and adequate comprehensive plan could, in the opinion of the Bank Representative, be devised under such a requirement.

The Bank proposal also embodies the principle that, in view of existing circumstances, allocation of supplies to the two countries should be such as to afford the greatest possible freedom of action by each country in the operation, maintenance and future development of its irrigation facilities. It is desirable, so far as practicable, to avoid control by India over waters on which Pakistan will be dependent, and to enable each country to control the works supplying the water allocated to it and determine in its own interests the apportionment of waters within its own territories. This principle has not merely the negative advantage of minimizing friction between the two countries (a matter of some significance in view of the disputes that have arisen from sharing waters from the same river) and of avoiding the necessity of a costly and perhaps ineffective permanent joint administration. It also has a positive advantage. There is every reason to believe that leaving each country free to develop its own water resources in the light of its own needs and resources, and without having to obtain the agreement of the other at each point, will in the long run mostly effectively promote the efficient development of the whole system.

This does not mean that the Bank proposal places any obstacle in the way of cooperation between the two countries. On the contrary, it encourages cooperation and permits full advantage to be taken of any willingness to cooperate. But it is capable of bringing benefits even if a full degree of cooperation does not develop as rapidly as might be hoped.

Statement of Bank Proposal

The Bank proposal is that there be taken as a basis for agreement between India and Pakistan a plan under which the waters of the Western rivers would be reserved to

[120] Letters of President Black to the Prime Ministers, November 8, 1951.

Pakistan and the waters of the Eastern rivers would, subject to a relatively short transition period, be reserved to India. The plan may be summarized as follows:

> The entire flow of the Western rivers (Indus, Jhelum and Chenab) would be available for the exclusive use and benefit of Pakistan, and for development by Pakistan, except for the insignificant volume of Jhelum flow presently used in Kashmir.
>
> The entire flow of the Eastern rivers (Ravi, Beas and Sutlej) would be available for the exclusive use and benefit of India, and for development by India, except that for a specified transition period India would continue to supply from these rivers, in accordance with an agreed schedule, the historic withdrawals from these rivers in Pakistan.
>
> The transition period would be calculated on the basis of the time estimated to be required to complete the link canals needed in Pakistan to make transfers for the purpose of replacing supplies from India. A temporary cooperative administration would be needed to supervise the carrying out of the transitional arrangements.
>
> Each country would construct the works located on its territories which are planned for the development of the supplies. The costs of such works would be borne by the country to be benefited thereby. Although no works are planned for joint construction by the two countries, certain link canals in Pakistan will, as stated above, be needed to replace supplies from India. India would bear the costs of such works to the extent of the benefits to be received by her therefrom. An appropriate procedure would be established for adjudicating or arbitrating disputes concerning the allocation of costs under this principle.

Some additional explanation may be helpful to a consideration of the Bank proposal.

The entire flow of the Indus, Jhelum and Chenab Rivers (Western rivers) would be allocated to Pakistan. These rivers are now used within Pakistan, except for the insignificant volume of the Jhelum that is used in Kashmir. Although the Indus River has its source outside Pakistan in Tibet and flows for a considerable length before entering Pakistan, the mountainous topography is unfavourable for irrigation development. Therefore, unhindered use by Pakistan of its waters seems assured. The Jhelum River rises and flows for some distance in Kashmir and, although here also reasons of topography limit the opportunities for irrigation diversion, there should be agreement that the flow will not be disturbed. The Chenab River rises in India and before it enters Kashmir, provides a substantial flow that could be diverted for use in India. Assurance by India that the flow of this river will not be disturbed is essential.

The entire flow of the Sutlej, Beas and Ravi Rivers (Eastern rivers) would be allocated to India when the necessary works have been completed to permit transfers of supplies from the Western rivers to replace historic withdrawals in Pakistan from the Eastern rivers. At present, India is not receiving the entire flow of these rivers but is supplying therefrom a substantial amount for canals in Pakistan, principally in the Sutlej Valley.

The works that are necessary to replace supplies from India consist of link canals connecting the Western to the Eastern rivers. Several such link canals have already been constructed by Pakistan, one is nearing completion and some additional canals will undoubtedly be necessary. As the necessary link canals are to be constructed in Pakistan, their integration with present planning there must be determined by Pakistan.

Since any plan for transfer of supplies is susceptible of various modifications, accurate determination of costs must await completion of engineering studies.
It is proposed that the costs of these works will be borne by the two countries in proportion to the benefits. Thus, the cost of a canal in Pakistan of the capacity required to replace supplies from India would be borne by India; but if Pakistan decides, in its own interests, to increase the capacity beyond what is needed for such replacement, the cost would be shared proportionately by the two countries.

It will be necessary, under the Bank proposal, for India to continue to supply the Pakistan canals until the necessary works are completed by Pakistan for transfer of supplies from the Western rivers. This will involve preparation of a construction time schedule and of a time schedule for actual transfer of supplies.
These schedules would allow the actual transfers of supplies to come into effect progressively and the deliveries by India to diminish accordingly. They must be prepared cooperatively and agreed to by both countries. The period required for completion of the necessary link canals is roughly estimated to be about 5 years.

As indicated in the summary, temporary cooperative administrative machinery would be needed in the transition period to facilitate the carrying of the time schedules. There would be exchange of data on river discharges and withdrawals and on construction of interest to both countries. Joint observations would be provided for. Arrangements for settling disputes concerning allocations of cost by arbitration or adjudication would also be needed.

The Bank proposal contemplates that no reservoir storage (aside from the Bhakra dam which should be completed by the end of the transition period) will be required to supplement flow water in continuing the historic withdrawals. The inter-connected system which the link canals would provide could be so operated as the meet the existing requirements of the Sutlej Valley lands except, perhaps, in small amounts in a few canals in exceptional years.

Even without further storage construction, the Bank plan would permit the following uses after the transition period:

> Pakistan could supply her historic withdrawals and could bring most of the Sutlej Valley Canals up to allocation. She could also meet the requirements of projects in progress on the Indus.
>
> India could supply her historic withdrawals and meet the requirements of projects in progress except that some modifications of the Rajasthan Canal project would be required, at least until further reservoir capacity is available.

There can be no doubt, however, that additional reservoir storage is necessary for the full development of the system and such storage is contemplated by the Bank plan. Any further storage capacity would greatly reduce the possibility of shortages and would support substantial new irrigation uses.

So far as is now known the potential storage capacities which could be developed by the two countries under the Bank plan would be about equal. However, no thorough engineering studies have been made and accordingly storage capacity (except for Bhakra) cannot be definitely determined. Further studies may well disclose additional reservoir possibilities not now known. Costs can obviously not be estimated at present and construction time can be only approximated.

The following table gives a rough quantitative comparison (in millions of acre-feet of usable supplies) between the Indian and Pakistan plans, as modified by recent concessions, and the Bank plan:

Plan	Total Uses Excluding Losses and Unusable Supplies		
	For India	For Pakistan	Total Usable
Indian	29	90	119
Pakistan	15.5	102.5	118
Bank	22	97	119

Comments on Bank Proposal

An essential test of a comprehensive plan is its fairness. The Bank proposal provides a fair division of the waters. It protect existing irrigation uses from disturbance and allocates surplus supplies, those already developed and those that may be developed, in accordance with the principle of equitable apportionment.

The Bank Representative is aware that certain minor adjustments would make the plan more economic if there were a sufficient assurance of cooperation between the parties to permit these measures to be planned and carried out.

At the present time, however, no such adjustments are recommended. If in the course of the transition period the prospects for long-term cooperation appear favorable enough, there will then be ample opportunity to agree on adjustments. But in present circumstances, their disadvantages appear to be greater than their benefits. Most such adjustments would require the establishment of a permanent joint commission. Administrative arrangements of that kind are costly, and the costs recur annually. More significantly, joint commissions are likely to be inefficient except in extremely favourable conditions.

One of the merits of the Bank proposal is that, unlike the plans of the two Designees, it avoids the complexities that would require the establishment of a permanent joint commission.

A further advantage of the Bank proposal lies in the fact that, after transfer works are completed, each country will be independent of the other in the operation of its supplies. Each country will be responsible for planning, constructing and administering its own facilities in its own territories as it sees fit. This should provide strong incentives to each country to make the most effective use of water, since any efficiency accomplished by works undertaken by either country for storage, transfer, reduction of losses and the like will accrue directly to the benefit of that country. The same will be true of efficiency achieved in operations. Pakistan, for instance, will be able to take full advantage of the flexibility afforded by an inter-connecting system. As the flow of the rivers varies with the seasons, and from year to year, supplies that are surplus in one river can be transferred to a river in which supplies are low. Likewise India will be able to operate Bhakra so as to meet the varying requirements of different areas. By contrast, if the supplies from particular rivers were shared by the two countries, the administrative complexity of arranging necessary adjustments to meet variations in flow and scheduling for crop needs would be formidable.

The mutual independence afforded by the Bank proposal would also bring benefits of a different kind. The location of works serving each country on territories under its control, and the assurances against interference by either country with the supplies on which the other depends, should reduce the chances of disputes and tension and contribute to improved relations.

All these factors should serve to promote the development of the entire basin.

A number of contentions have been made in the Working Party discussions which need not be resolved by agreement if the Bank proposal is adopted. There has been discussion about the location of the easterly boundary of the Indus Basin, a question which is difficult to settle since the area is a desert with no discernible watershed. Under the Bank proposal, the question need not be settled by agreement. Each country will be free to use the waters allocated to it as it sees fit.

There has also been discussion about the proper allowance for gains and losses, for salinity repulsion and for tubewell supply. It is not possible to answer these questions precisely at this time; nor will it be possible for some years until upstream storage and use permits much less wastage to the sea. The best method of dealing with these questions is to let each country make such provision out of supplies allotted to it, or take such engineering measures, as it deems wise.

It might perhaps be said that the allocation of the waters of a river to lands far removed from its banks, rather than to adjacent lands, is abnormal. But the practice is not new; it was well-known in the Indus Basin before partition and has been followed since partition. Besides, recent history of the Indus Basin has not been normal. It is unusual, to say the least, to find an elaborate irrigation system, originally planned and operated under a single political regime, suddenly cut in two by a new political boundary.

It might also be said that the Bank proposal differs from pre-partition plans in that it contemplates irrigation of lands for which irrigation was not formerly planned. There would be substance in such a statement. The justification is that social and economic conditions have changed. Political developments have shifted large masses of population to new homes and these people now need irrigated land. No comprehensive plan would be realistic that failed to take account of the changed situation.

Conclusion

The Bank proposal is simple, workable and fair. It will effectively promote the economic development of the Indus Basin and will benefit both countries by substantially increasing the amount of usable water available to each of them. The Bank Representative recommends its acceptance as the basis of agreement.

APPENDIX 6

Aide Memoire, 21 May 1956

1. Cooperative work on the Indus Basin question was resumed in November 1954 on the basis of "Terms of Reference and Procedure" proposed by the Bank and accepted by the Government of India and the Government of Pakistan. The objective of this latest phase of the cooperative work has been to prepare 'a comprehensive plan for the consideration of Governments, on the basis of the Bank proposal of February 5, 1954, taking as a starting point the division of waters envisaged therein.'

2. The Delegations of India and Pakistan, together with the Bank Group, have now been at work for almost 18 months. During this time a series of studies have been carried out by both Delegations and numerous memoranda have been submitted by each side bearing on the various issues arising out of Paragraphs 2 and 3 of the Terms of Reference. The Bank has also arranged for the Bank Consultants (TAMS) to carry out a series of independent studies of the same nature.

3. The present status of the discussions can be summarized as follows:

[a] It has not been possible to secure full agreement between the two Delegations on:-

[i] the quantitative aspects of certain of the uses specified in Paragraph 2 and in Paragraph 3 of the Terms of Reference.

[ii] certain technical considerations involved (e.g. the effect of the proposed changed regime of the rivers on "Gains and Losses")

[b] In the absence of agreement on the points mentioned in [a] above, it has not been possible to secure a common approach to the actual engineering features of a "Comprehensive Plan."

4. The Bank continues to hold the view that the "division of the waters" contemplated by the Bank Proposal of February 1954 affords the best prospects for a settlement of the Indus Waters question; that out of the flow-cum-storage potential of the rivers allocated to them, India and Pakistan could each develop very substantial irrigation uses, additional to those that they now enjoy; and that no insuperable engineering difficulties are likely to arise in either country in constructing the physical works necessary to develop these additional supplies. The works would, however, be costly; and their financing would present a serious financial problem.

5. The Bank is of the opinion that no useful purpose is likely to be served by continuing to devote the cooperative work to an attempt to obtain agreement of the two Delegations on the issues arising out of Paragraph 2 and Paragraph 3 of the Terms of Reference. The Bank, however, feels it desirable, at the stage which the discussions have now reached, that the Bank should consider, in the light of the studies made by the consultants, whether any "adjustment" in the Bank Proposal of February 1954 is called for; and also to make proposals to the two Governments with regard to future Bank participation.

Paragraph 2 Uses and Surplus

6. [a] The Bank's consultants have studied the extent to which the flow of the Western Rivers will meet the uses envisaged in Paragraph 2 of the Terms of Reference, and the nature and extent of any surplus.

[b] For this purpose, the Bank asked its Consultants to adopt the following quantum of uses:-

[i] Historic withdrawals of all canals (except the Pakistan Sutlej Valley Canals);

[ii] Allocations for the Pakistan Sutlej Valley Canals (11.1 MAF)*;

[iii] 3.6 MAF for Thal;*

[iv] 9.5 MAF for Kotri.*

(* With distribution shown in Appendix A).

[c] These studies have led the Bank Group to the conclusion that, after taking into account the possibilities of the transfer of flow supplies of the Indus, Jhelum and Chenab by a system of link canals:-

[i] There would be no shortages in Kharif, except for occasional 10-day periods in April and September in occasional years.

[ii] There would be consistent surpluses in Kharif, significant in quantity, duration and frequency.

[iii] There would be consistent shortages in Rabi, occasionally beginning in late September of extending into early April (see [i] above), of a degree, duration and frequency which the Bank Group could not regard as "tolerable".

Paragraph 3 Uses

7. [a] Additional Requirements of Sukkur and Gudu

Pakistan has claimed for Sukkur substantial additional uses both in Rabi and in Kharif, and for Gudu substantial additional uses during Kharif only. If the pre-partition regime of the six rivers were to continue undisturbed, no significant additional Rabi irrigation at Sukkur could be developed on any dependable basis, from flow alone. Consequently, none could be developed only from the flow of the Western Rivers. So far as Kharif uses at Sukkur and at Gudu are concerned, the Kharif surplus referred to in Paragraph 6[c] [ii] above is available to allocate to new Kharif uses at these two projects, and to employ as a substitute for "Sailab."

[b] Future Development in the State of Jammu and Kashmir

India has claimed that some part of the flow of the Jhelum and Chenab should be reserved for future development in the State of Jammu and Kashmir. It has been stated by India that this development would involve "relatively insignificant consumptive uses." This question should, in the Bank's view, be postponed until the point has been reached when the provisions of an international water treaty might be under consideration.

"Adjustments" to the Bank Proposal

8. [a] In the light of the conclusions at which the Bank has arrived, as set out in Paragraphs 6 and 7 above, the Bank feels that an adjustment in its Proposal of February 1954 is called for. This adjustment should, in the Bank's view, assure to Pakistan "timely" water sufficient to eliminate the shortage referred to in Paragraph 6[c] [iii].

[b] The adjustment referred to in [a] above might take any of the following forms, or a combination of any two or all of them:-

[i] Supplies from tubewells.

[ii] Continued deliveries to Pakistan of "timely" water from the Eastern Rivers.

[iii] Construction of storage on the Western Rivers.

[c] When the Bank made its proposal of February 1954, the possibility, both in India and in Pakistan, of supplementing flow by supplies from tube-wells, was realized. But this source of supply is not, in the Bank's view, an appropriate means, over the long term, of eliminating any part of the disclosed shortage. Accordingly, and if the Division of Waters contemplated by the Bank Proposal is maintained, the adjustment should be in the form of storage on the Western Rivers.

9. The system of works to implement the Bank Proposal, as adjusted, should, therefore, in the Bank's view, be based on the principle that, for the purpose of meeting the "Paragraph 2 Uses," flow of the Western Rivers (Indus, as well as Jhelum and Chenab) should be exploited to the maximum possible extent, and that the minimum inroads should be made on Pakistan's limited storage capacity. In the Bank's view, the cost of this system of works should be the basis of the calculation of India's financial liability.

10. The Bank now wishes to propose to the two Governments the following course of action:-

[a] The completion of negotiations with the two Delegations of ad hoc amounts for Indian withdrawals from the Eastern Rivers during the period 1st April 1956 to 31st March 1957.

[b] A continuance of the period of the cooperative work until 31st March 1957.

[c] After the two Governments had agreed to [b] above, the conclusion of an inter-Governmental Agreement to cover [a] above.

[d] That the Bank should then proceed to use its good offices to bring about acceptance of an appropriate adjustment of the Bank Proposal of February 1954, along the lines indicated.

11. The Bank feels that if, by 31st March 1957, the Bank should see no reasonable prospects for a settlement on the basis of the Bank Proposal, with an appropriate adjustment, the Bank would have to consider whether the employment of its good offices could make any further contribution to a solution.

APPENDIX 7

The Indus Waters Treaty, 1960

Preamble

The Government of India and the Government of Pakistan, being equally desirous of attaining the most complete and satisfactory utilisation of the waters of the Indus system of rivers and recognising the need, therefore, of fixing and delimiting, in a spirit of goodwill and friendship, the rights and obligations of each in relation to the other concerning the use of these waters and of making provision for the settlement, in a cooperative spirit, of all such questions as may hereafter arise in regard to the interpretation or application of the provisions agreed upon herein, have resolved to conclude a Treaty in furtherance of these objectives, and for this purpose have named as their plenipotentiaries:

The Government of India:
Shri Jawaharlal Nehru,
Prime Ministerof India,
and
The Government of Pakistan:
Field Marshal Mohammad Ayub Khan, HP., H.J.,
President of Pakistan;

who, having communicated to each other their respective Full Powers and having found them in good and due form, have agreed upon the following Articles and Annexures:-

Article I

Definitions

As used in this Treaty:

[1] The terms 'Article' and 'Annexure' mean respectively an Article of, and an Annexure to, this Treaty. Except as otherwise indicated, references to Paragraphs are to the paragraphs in the Article or in the Annexure in which the reference is made.

[2] The term 'Tributary' of a river means any surface channel, whether in continuous or intermittent flow and by whatever name called, whose waters in the natural course would fall into that river, e.g. a tributary, a torrent, a natural drainage, an artificial drainage, a *nadi*, a *nallah*, a *nai*, a *khad*, a *cho*. The term also includes any sub-tributary or branch or subsidiary channel, by whatever name called, whose waters, in the natural course, would directly or otherwise flow into that surface channel.

[3] The term 'The Indus', 'The Jhelum', 'The Chenab', 'The Ravi', 'The Beas' or 'The Sutlej' means the named river (including Connecting Lakes, if any) and all its Tributaries: Provided however that
[i] none of the rivers named above shall be deemed to be a Tributary;
[ii] The Chenab shall be deemed to include the river Panjnad; and
[iii] the river Chandra and the river Bhaga shall be deemed to be Tributaries of The Chenab.

[4] The term 'Main' added after Indus, Jhelum, Chenab, Sutlej, Beas or Ravi means the main stem of the named river excluding its Tributaries, but including all channels and creeks of the main stem of that river and such Connecting Lakes as form part of the main stem itself. The Jhelum Main shall be deemed to extend up to Verinag and the Chenab Main up to the confluence of the river Chandra and the river Bhaga.

[5] The term 'Eastern Rivers' means The Sutlej, The Beas and The Ravi taken together.

[6] The term 'Western Rivers' means The Indus, The Jhelum and The Chenab taken together.

[7] The term 'the Rivers' means all the rivers, The Sutlej, The Beas, The Ravi, The Indus, The Jhelum and The Chenab.

[8] The term 'Connecting Lakes' means any lake which receives water from, or yields water to, any of the Rivers; but any lake which occasionally and irregularly receives only the spill of any the Rivers and returns only the whole or part of that spill is not a Connecting Lake.

[9] The term 'Agricultural Use' means the use of water for irrigation, except for irrigation of household gardens and public recreational gardens.

[10] The term 'Domestic Use' means the use of water for:
[a] drinking, washing, bathing, recreation, sanitation (including the conveyance and dilution of sewage and of industrial and other wastes), stock and poultry, and other like purposes:
[b] household and municipal purposes (including use for household gardens and public recreational gardens); and
[c] industrial purposes (including mining, milling and other like purposes);
but the term does not include Agricultural Use or use for generation of hydroelectric power.

[11] The term 'Non-Consumptive Use' means any control or use of water for navigation, floating of timber or other property, flood protection or flood control, fishing or fish culture, wild life or other like beneficial purposes, provided that, exclusive of seepage and evaporation of water incidental to the control or use, the water (undiminished in volume within the practical range of measurement) remains in, or is returned to, the same river or its Tributaries; but the term does not include Agricultural Use or use for the generation of hydroelectric power.

[12] The term Transitional Period' means the period beginning and ending as provided in Article II [6].

[13] The term 'Bank' means the International Bank for Reconstruction and Development.

[14] The term 'Commissioner' means either of the Commissioners appointed under the provisions of Article VIII [1] and the term 'Commission' means the Permanent Indus Commission constituted in accordance with Article VIII [3].

[15] The term 'interference with the waters' means:
[a] Any act of withdrawal therefrom; or
[b] Any man-made obstruction to their flow which causes a change in the volume (within the practical range of measurement) of the daily flow of the waters: Provided however that an obstruction which involves only an insignificant and incidental change in the volume of the daily flow, for example, fluctuations due to afflux caused by bridge piers or a temporary by-pass, etc., shall not be deemed to be an interference with the waters.

[16] The term 'Effective Date' means the date on which this Treaty takes effect in accordance with the provisions of Article XII, that is, the first of April 1960.

Article II

Provisions Regarding Eastern Rivers

[1] All the waters of the Eastern Rivers shall be available for the unrestricted use of India, except as otherwise expressly provided in this Article.

[2] Except for Domestic Use and Non-Consumptive Use, Pakistan shall be under an obligation to let flow, and shall not permit any interference with, the waters of the Sutlej Main and the Ravi Main in the reaches where these rivers flow in Pakistan and have not yet finally crossed into Pakistan. The points of final crossing are the following: [a] near the new Hasta Bund upstream of Suleimanke in the case of the Sutlej Main, and [b] about one and a half miles upstream of the syphon for the B-R-B-D Link in the case of the Ravi Main.

[3] Except for Domestic Use, Non-Consumptive Use and Agricultural Use (as specified in Annexure B), Pakistan shall be under an obligation to let flow, and shall not permit any interference with, the waters (while flowing in Pakistan) of any Tributary which in its natural course joins the Sutlej Main or the Ravi Main before these rivers have finally crossed into Pakistan.

[4] All the waters, while flowing in Pakistan, of any Tributary which, in its natural course, joins the Sutlej Main or the Ravi Main after these rivers have finally crossed into Pakistan shall be available for the unrestricted use of Pakistan: Provided however that this provision shall not be construed as giving Pakistan any claim or right to any releases by India in any such Tributary. If Pakistan should deliver any of the waters of any such Tributary, which on the Effective Date joins the Ravi Main after this river has finally crossed into Pakistan, into a reach of the Ravi Main upstream of this crossing, India shall not make use of these waters; each Party agrees to establish such discharge observation stations and make such observations as may be necessary for the determination of the component of water available for the use of Pakistan on account of the aforesaid deliveries by Pakistan, and Pakistan agrees to meet the cost of establishing the aforesaid discharge observation stations and making the aforesaid observations.

[5] There shall be a Transition Period during which, to the extent specified in Annexure H, India shall
[i] limit its withdrawal for Agricultural Use,
[ii] limit abstractions for storages, and
[iii] make deliveries to Pakistan from the Eastern Rivers.

[6] The Transition Period shall begin on 1st April 1960 and it shall end on 31st March 1970, or, if extended under the provisions of Part 8 of Annexure H, on the date up to which it has been extended. In any event, whether or not the replacement referred to in Article IV [1] has been accomplished, the Transition Period shall end not later than 31st March 1973.

[7] If the Transition Period is extended beyond 31st March 1970, the provisions of Article V [5] shall apply.

[8] If the Transition Period is extended beyond 31st March 1970, the provisions of Article V [5] shall apply during the period of extension beyond 31st March 1970.

[9] During the Transition Period, Pakistan shall receive for unrestricted use the waters of the Eastern Rivers which are to be released by India in accordance with the provisions of Annexure H. After the end of the Transition Period, Pakistan shall have no claim or right to releases by India of any of the waters of the Eastern Rivers. In case there are any releases, Pakistan shall enjoy the unrestricted use of the waters so released after they have finally crossed into Pakistan: Provided that in the event that Pakistan makes any use of these waters, Pakistan shall not acquire any right whatsoever, by prescription or otherwise, to a continuance of such releases of such use.

Article III

Provisions Regarding Western Rivers

[1] Pakistan shall receive for unrestricted use all those waters of the Western Rivers which India is under obligation to let flow under the provisions of Paragraph [2].

[2] India shall be under an obligation to let flow all the waters of the Western Rivers, and shall not permit any interference with these waters, except for the following uses, restricted (except as provided in item [c] [ii] of Paragraph 5 of Annexure C) in the case of each of the rivers, The Indus, The Jhelum and The Chenab, to the drainage basin thereof:
[a] Domestic Use;
[b] Non-Consumptive Use;
[c] Agricultural Use, as set out in Annexure C; and
[d] Generation of hydro-electric power, as set out in Annexure D.

[3] Pakistan shall have the unrestricted use of all waters originating from sources other than the Eastern Rivers which are delivered by Pakistan into The Ravi or The Sutlej, and India shall not make use of these waters. Each Party agrees to establish such discharge observation stations and make such observations as may be considered necessary by the Commission for the determination of the component of water available for the use of Pakistan on account of the aforesaid deliveries by Pakistan.

[4] Except as provided in Annexures D and E, India shall not store any water of, or construct any storage works on, the Western Rivers.

Article IV

Provisions Regarding Eastern Rivers and Western Rivers

[1] Pakistan shall use its best endeavours to construct and bring into operation, with due regard to expedition and economy, that part of a system of works which will accomplish the replacement, from the Western Rivers and other sources, of water supplies for irrigation canals in Pakistan which, on 15th August 1947, were dependent on water supplies from the Eastern Rivers.

[2] Each Party agrees that any Non-Consumptive Use made by it shall be so made as not to materially change, on account of such use, the flow in any channel to the prejudice of the uses on that channel by the other Party under the provisions of this Treaty. In executing any scheme of flood protection or flood control each Party will avoid, as far as practicable, any material damage to the other Party, and any such scheme carried out by India on the Western Rivers shall not involve any use of water or any storage in addition to that provided under Article III.

[3] Nothing in this Treaty shall be construed as having the effect of preventing either Party from undertaking schemes of drainage, river training, conservation of soil against erosion and dredging, or from removal stones, gravel or sand from the beds of the Rivers: Provided that
[a] in executing any of the schemes mentioned above, each Party will avoid, as far as practicable, any material damage to the other Party;
[b] any such scheme carried out by India on the Western Rivers shall not involve any use of water or any storage in addition to that provided under Article III;

[c] except as provided in Paragraph [5] and Article VII [1] [b], India shall not take any action to increase the catchment area, beyond the area on the Effective Date, of any natural or artificial drainage or drain which crosses into Pakistan, and shall not undertake such construction or remodelling of any drainage or drain which crosses or falls into a drainage or drain which crosses as might cause material damage in Pakistan or entail the construction of a new drain or enlargement of an existing drainage or drain in Pakistan; and

[d] should Pakistan desire to increase the catchment area, beyond the area on the Effective Date, of any natural or artificial drainage or drain, which receives drainage waters from India, or, except in an emergency, to pour any waters into it in excess of the quantities received by it as on the Effective Date, Pakistan shall, before undertaking any work for these purposes, increase the capacity of that drainage or drain to the extent necessary so as not to impair its efficacy for dealing with drainage waters received from India as on the Effective Date.

[4] Pakistan shall maintain in good order its portions of the drainage mentioned below with capacities not less than the capacities as on the Effective Date:-

[i] Hudiara Drain

[ii] Kasur Nala

[iii] Salimshah Drain

[iv] Fazilka Drain.

[5] If India finds it necessary that any of the drainages mentioned in Paragraph [4] should be deepened or widened in Pakistan, Pakistan agrees to undertake to do so as a work of public interest, provided India agrees to pay the cost of the deepening or widening.

[6] Each Party will use its best endeavours to maintain the natural channels of the Rivers, as on the Effective Date, in such conditions as will avoid, as far as practicable, any obstruction to the flow in these channels likely to cause material damage to the other Party.

[7] Neither Party will take any action which would have the effect of diverting the Ravi Main between Madhopur and Lahore, or the Sutlej Main between Harike and Sueimanke, from its natural channel between high banks.

[8] The use of the natural channels of the Rivers for the discharge of flood or other excess waters shall be free and not subject to limitation by either Party, and neither Part shall have any claim against the other in respect of any damage caused by such use. Each Party agrees to communicate to the other Party, as far in advance as practicable, any information it may have in regard to such extraordinary discharges of water from reservoirs and flood flows as may affect the other Party.

[9] Each Party declares its intention to operate its storage dams, barrages and irrigation canals in such manner, consistent with the normal operations of its hydraulic systems, as to avoid, as far as feasible, material damage to the other Party.

[10] Each Party declares its intention to prevent, as far as practicable, undue pollution of the waters of the Rivers which might affect adversely uses similar in nature to those to which the waters were put on the Effective Date, and agrees to take all reasonable measures to ensure that, before any sewage or industrial waste is allowed to flow into the Rivers, it will be treated, where necessary, in such manner as not materially to affect those uses: Provided that the criterion of reasonableness shall be the customary practice in similar situations on the Rivers.

[11] The Parties agree to adopt, as far as feasible, appropriate measures for the recovery, and restoration to owners, of timber and other property floated or floating down the Rivers, subject to appropriate charges being paid by the owners.

[12] The use of water for industrial purposes under Articles II [2], II [3] and III [2] shall not exceed:

[a] in the case of an industrial process known on the Effective Date, such quantum of use as was customary in that process on the Effective Date;

[b] in the case of an industrial process not known on the Effective Date:

[i] such quantum of use as was customary on the Effective Date in similar or in any way comparable industrial processes; or

[ii] if there was no industrial process on the Effective Date similar of in any way comparable to the new process, such quantum of use as would not have a substantially adverse effect on the other Party.

[13] Such part of any water withdrawn for Domestic Use under the provisions of Articles II [3] and III [2] as is subsequently applied to Agricultural Use shall be accounted for as part of the Agricultural Use specified in Annexure B and Annexure C respectively; each Party will use its best endeavours to return the same river (directly or through one of its Tributaries) all water withdrawn therefrom for industrial purposes and not consumed either in the industrial processes for which it was withdrawn or in some other Domestic Use.

[14] In the event that either Party should develop a use of the waters of the Rivers which is not in accordance with the provisions of this Treaty, that Party shall not acquire by reason of such use any right, by prescription or otherwise, to a continuance of such use.

[15] Except as otherwise required by the express provisions of this Treaty, nothing in this Treaty shall be construed as affecting existing territorial rights over the waters of any of the Rivers or the beds or banks thereof, or as affecting existing property rights under municipal law over such waters or beds or banks.

Article IV

Financial Provisions

[1] In consideration of the fact that the purpose of part of the system of works referred to in Article IV [1] is the replacement, from the Western Rivers and other sources, of water supplies for irrigation canals in Pakistan which, on 15th August 1947, were dependent on water supplies from the Eastern Rivers, India agree to make a fixed contribution of Pounds Sterling 62,060,000 towards the costs of these works. The amount in Pounds Sterling of this contribution shall remain unchanged irrespective of any alteration in the par value of any currency.

[2] The sum of Pounds Sterling 62,060,000 specified in Paragraph [1] shall be paid in ten equal annual instalments on the 1st of November of each year. The first of such annual instalments shall be paid on 1st November 1960, or if the Treaty has not entered in to force by that date, then within one month after the Treaty enters into force.

[3] Each of the instalments specified in Paragraph [2] shall be paid to the Bank for the credit of the Indus Basin Development Fund to be established and administered by the Bank, and payment shall be made in Pounds Sterling, or in such other currency or currencies as may from time to time be agreed between India and the Bank.

[4] The payments provided for under the provisions of Paragraph [3] shall be made without deductions or set-off on account of any financial claims of India on Pakistan arising otherwise than under the provisions of this Treaty: Provided that this provision shall in no way absolve Pakistan from the necessity of paying in other ways debts to India which may be outstanding against Pakistan.

[5] If, at the request of Pakistan, the Transition Period is extended in accordance with the provisions of Article II [6] and of Part 8 of Annexure H, the Bank shall thereupon pay to India out of the Indus Basin Development Fund the appropriate amount specified in the Table below:-

Table

Period of Extension of Transition Period	*Aggregate Payment to India*
One year	£Stg. 3,125,000
Two years	£Stg. 6,406,250
Three years	£Stg. 9,850,000

[6] The provisions of Article IV [1] and Article V [1] shall not be construed as conferring upon India any right to participate in the decisions as to the system of works which Pakistan constructs pursuant to Article IV [1] or as constituting an assumption of any responsibility by India or as an agreement by India in regard to such works.

[7] Except for such payments as are specifically provided for in this Treaty, neither Party shall be entitled to claim any payment for observance of the provisions of this Treaty or to make any charge for water received from it by the other Party.

Article VI

Exchange of Data

[1] The following data with respect to the flow in, and utilisation of the waters of, the Rivers shall be exchanged regularly between the Parties:-

[a] Daily (or as observed or estimated less frequently) gauge and discharge data relating to flow of the Rivers at all observations sites.

[b] Daily extractions for or releases from reservoirs.

[c] Daily withdrawals at the heads of all canals operated by government or by a government agency (hereinafter in this Article called canals), including link canals.

[d] Daily escapages from all canals, including link canals.

[e] Daily deliveries from link canals.

These data shall be transmitted monthly by each Party to the other as soon as the data for a calendar month have been collected and tabulated, but not later than three months after the end of the month to which they relate: Provided that such of the data specified above as are considered by either Party to be necessary for operational purposes shall be supplied daily or at less frequent intervals, as may be requested. Should one Party request the supply of any of these data by telegram, telephone, or wireless, it shall reimburse the other Party for the cost of transmission.

[2] If, in addition to the data specified in Paragraph [1] of this Article, either Party requests the supply of any data relating to the hydrology of the Rivers, or to canal or reservoir operation connected with the Rivers, or to any provision of this

Treaty, such data shall be supplied by the other Party to the extent that these available.

Article VII

Future Co-operation

[1] The two Parties recognize that they have a common interest in the optimum development of the Rivers, and, to that end, they declare their intention to co-operate, by mutual agreement, to the fullest possible extent. In particular:-

[a] Each Party, to the extent it considers practicable and on agreement by the other Party to pay the costs to be incurred, will, at the request of the other Party, set up or install such hydrologic observation stations within the drainage basins of the Rivers, and set up or install such meteorological observation stations relating thereto and carry out such observations thereat, as may be requested, and will supply the data so obtained.

[b] Each Party, to the extent it considers practicable and on agreement by the other Party to pay costs to be incurred, will, at the request of the other Party, carry out such new drainage works as may be required in connection with new drainage works of the other Party.

[c] At the request of either Party, the two Parties may, by mutual agreement, co-operate in undertaking engineering works on the Rivers.

The formal arrangements, in each case, shall be as agreed upon between the Parties.

[2] If either Party plans to construct any engineering work which would cause interference with the waters of any of the Rivers and which, in its opinion, would affect the other Party materially, it shall notify the other Party of its plans and shall supply such data relating to the work as may be available and as would enable the other Party to inform itself of the nature, magnitude and effect of the work. If a work would cause interference with the waters of any of the Rivers but would not, in the opinion of the Party planning it, affect the other Party materially, nevertheless the Party planning the work shall, on request, supply the other Party with such data regarding the nature, magnitude and effect, if any, of the work as may be available.

Article VIII

Permanent Indus Commission

[1] India and Pakistan shall each create a permanent post of Commissioner for Indus Waters, and shall appoint to this post, as often a vacancy occurs, a person who should ordinarily be a high-ranking engineer competent in the field of hydrology and water-use. Unless either Government should decide to take up any particular question directly with the other Government, each Commissioner will be the representative of his Government for all matters arising out of this Treaty, and will serve as the regular channel of communication on all matters relating to the implementation of the Treaty, and, in particular, with respect to

[a] the furnishing or exchange of information or data provided for in the Treaty, and

[b] the giving of any notice provided for in the Treaty.

[2] The status of each Commissioner and his duties and responsibilities towards his Government will be determined by that Government.

[3] The two Commissioners shall together form the Permanent Indus Commission.

[4] The purpose and maintain co-operative arrangements for the implementation of this Treaty, to promote co-operation between the Parties in the development of the waters of the Rivers and, in particular,

[a] to study and report to the two Governments on any problem relating to the development of the waters of the Rivers which may be jointly referred to the Commission by the two Governments: in the event that a reference is made by one Government alone, the Commissioner of the other Government shall obtain the authorization of his Government before he proceeds t act on the reference;

[b] to make every effort to settle promptly, in accordance with the provisions of Article IX [1], any question arising thereunder;

[c] to undertake, once in every five years, a general tour of inspection of the Rivers for ascertaining the facts connected with various developments and works on the Rivers;

[d] to undertake promptly, at the request of either Commissioner, a tour of inspection of such works or sites on the Rivers as may be considered necessary by him for ascertaining the facts connected with those works

[e] to take, during the Transition Period, such steps as may be necessary or sites; and

for the implementation of the provisions of Annexure H.

[5] The Commission shall meet regularly at least once a year, alternately in India and Pakistan. This regular annual meeting shall be held in November or in such other month as may agreed upon between the Commissioners. The Commission shall also meet when requested by either Commissioner.

[6] To enable the Commissioners to perform their functions in the Commission, each Government agrees to accord to the Commissioner of the other Government the same privileges and immunities as are accorded to representatives of member States to the principal and subsidiary organs of the United Nations under Sections 11, 12 and 13 of Article IV of the Convention on the Privileges and Immunities of the United Nations (dated 13th February, 1946) during the periods specified in those Sections. It is understood and agreed that these privileges and immunities are accorded to the Commissioners not for the personal benefit of the individuals themselves but in order to safeguard the independent exercise of their functions in connection with the Commission; consequently, the Government appointing the Commissioner not only has the right but is under a duty to waive the immunity of its Commissioner in any case where, in the opinion of the appointing Government, the immunity would impede the course of justice and can be waived without prejudice to the purpose for which the immunity is accorded.

[7] For the purposes of the inspections specified in Paragraph [4] [c] and [d], each Commissioner may be accompanied by two advisers or assistants to whom appropriate facilities will be accorded.

[8] The Commission shall submit to the Government of India and to the Government of Pakistan, before the first of June of every year, a report on its work for the year ended on the preceding 31st March, and may submit to the two Governments other reports at such times as it may think desirable.

[9] Each Government shall bear the expenses of its Commissioner and his ordinary staff. The cost of any special staff required in connection with the work mentioned in Article VII [1] shall be borne as provided therein.

[10] The Commission shall determine its own procedures.

Article IX

Settlement of Differences and Disputes

[1] Any question which arises between the Parties concerning the interpretation or application of this Treaty or the existence of any fact which, if established, might constitute a breach of this Treaty shall first be examined by the Commission, which will endeavour to resolve the question by agreement.

[2] If the Commission does not reach agreement on any of the questions mentioned in Paragraph [1], then a difference will be deemed to have arisen, which shall be dealt with as follows:

[a] Any difference which, in the opinion of either Commissioner, falls within the provisions of Part 1 of Annexure F shall, at the request of either Commissioner, be dealt with by a Neutral Expert in accordance with the provisions of Part 2 of Annexure F;

[b] If the difference does not come within the provisions of Paragraph [2] [a], or if a Neutral Expert, in accordance with the provisions of Paragraph 7 of Annexure F, has informed the Commission that, in his opinion, the difference, or a part thereof, should be treated as a dispute, then a dispute will be deemed to have arisen which shall be settled in accordance with the provisions of Paragraph [3], [4] and [5]:

Provided that, at the discretion of the Commission, any difference may either be dealt with by a Neutral Expert in accordance with the provisions of Part 2 of Annexure F or be deemed to be a dispute to be settled in accordance with the provisions of Paragraphs [3], [4] and [5], or may be settled in any other way agreed upon by the Commission.

[3] As soon as a dispute to be settled in accordance with this and the succeeding paragraphs of this Article has arisen, the Commission shall, at the request of either Commissioner, report the fact to the two Governments, as early as practicable, stating in its report the points on which the Commission is in agreement and the issues in dispute, the views of each Commissioner on these issues and his reasons therefor.

[4] Either Government may, following receipt of the report referred to in Paragraph [3], or if it comes to the conclusion that this report is being unduly delayed in the Commission, invite the other Government to resolve the dispute by agreement. In doing so it shall state the names of its negotiators and their readiness to meet with the negotiators to be appointed by the other Government at a time and place to be indicated by the other Government. To assist in these negotiations, the two Governments may agree to enlist the services of one of more mediators acceptable to them.

[5] A Court of Arbitration shall be established to resolve the dispute in the manner provided by Annexure G

[a] upon agreement between the Parties to do so; or

[b] at the request of either Party, if, after negotiations have begun pursuant to Paragraph [4], in its opinion the dispute is not likely to be resolved by negotiation or mediation; or

[c] at the request of either Party, if, after the expiry of one month following receipt by the other Government of the invitation referred to in Paragraph [4], that Party comes to the conclusion that the other Government is unduly delaying the negotiations.

[6] The provisions of Paragraphs [3], [4] and [5] shall not apply to any difference while it is being dealt with by a Neutral Expert.

Article X

Emergency Provision

If, any time prior to 31st March 1965, Pakistan should represent to the Bank that, because of the outbreak of large-scale international hostilities arising out of causes beyond the control of Pakistan, it is unable to obtain from abroad the materials and equipment necessary for the completion, by 31st March 1973, of that part of the system of works referred to in Article IV [1] which relates to the replacement referred to therein, (hereinafter referred to as the "replacement element"), and if, after consideration of this representation in consultation with India, the Bank is of the opinion that

[a] these hostilities are on a scale of which the consequences is that Pakistan is unable to obtain in time such materials and equipment as must be procured from abroad for the completion, by 31st March 1973, of the replacement element, and

[b] since the Effective Date, Pakistan has taken all reasonable steps to obtain the said materials and equipment and, with such resources of materials and equipment as have been available to Pakistan both from within Pakistan and from abroad, has carried forward the construction of the replacement element with due diligence and all reasonable expedition,

the Bank shall immediately notify each of the Parties accordingly. The Parties undertake, without prejudice to the provisions of Article XII [3] and [4], that, on being so notified, they will forthwith consult together and enlist the good offices of the Bank in their consultation, with a view to reaching mutual agreement as to whether or not, in the light of all the circumstances then prevailing, any modifications of the provisions of this Treaty are appropriate and advisable and, if so, the nature and the extent of the modifications.

Article XI

General Provisions

[1] It is expressly understood that

[a] this Treaty governs the rights and obligations of each Party in relation to the other with respect only to the use of the waters of the Rivers and matters incidental thereto; and

[b] nothing contained in this Treaty, and nothing arising out of the execution thereof, shall be construed as constituting a recognition or waiver (whether tacit, by implication or otherwise) of any rights or claims whatsoever of either of the Parties other than those rights or claims which are expressly recognized or waived in this Treaty.

Each of the Parties agrees that it will not invoke this Treaty, anything contained therein, or anything arising out of the execution thereof, in support of any of its own rights or claims whatsoever or in disputing any of the rights or claims whatsoever of the other Party, other than those rights or claims which are expressly recognized or waived in this Treaty.

[2] Nothing in this Treaty shall be construed by the Parties as in any way establishing any general principle of law or any precedent.

[3] The rights and obligations of each Party under this Treaty shall remain unaffected by any provisions contained in, or by anything arising out of the execution of, any agreement establishing the Indus Basin Development Fund.

Article XII

Final Provisions

[1] This Treaty consists of the Preamble, the Articles hereof and Annexures A to H hereto, and may be cited as "The Indus Waters Treaty 1960."

[2] This Treaty shall be ratified and the ratifications thereof shall be exchanged in New Delhi. It shall enter into force upon the exchange of ratifications, and will then effect retrospectively from the first of April 1960.

[3] The provisions of this Treaty may from time to time be modified by a duly ratified treaty concluded for that purpose between the two Governments.

[4] The provisions of this Treaty, or the provisions of this Treaty as modified under the provisions of Paragraph [3], shall continue in force until terminated by a duly ratified treaty concluded for that purpose between the two Governments.

IN WITNESS WHEREOF the respective Plenipotentiaries have signed this Treaty and have hereunto affixed their seals.

Done in triplicate in English at Karachi on this Nineteenth day of September 1960.

FOR THE GOVERNMENT OF INDIA:

(Sd) Jawaharlal Nehru

FOR THE GOVERNMENT OF PAKISTAN:

(Sd) Mohammad Ayub Khan
Field Marshall, H.P., H.J.

FOR THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT for the purposes specified in Articles V and X and Annexures F, G and H:

(Sd) W. A. B. Iliff

APPENDIX 8

Chronology of the Indus Basin Dispute and Mediations

1947	Aug 14	Pakistani independence and the Arbitral Tribunal dealing with the partition of the Punjab comes into effect.
	Aug 15	Indian independence, and India inherits automatic membership of international organisations from British India. Indian states are obliged to accede to one dominion or other by this date.
	Aug 17	Radcliffe's Boundary Awards are published for the provinces of Punjab and Bengal, delinating the international boundary between India and Pakistan.
	Sept	Pakistan applies for and becomes a member of the United Nations.
	Oct 26	Jammu and Kashmir accede to India. The next day starts an undeclared war between India and Pakistan in which Pakistan is contesting the accession.
	Nov	The province of Junagadh after having first acceded to Pakistan, now joins India.
	Nov 30	5 references are made to the Arbitral Tribunal to do with financial adjustments arising out of Punjab's partition.
	Dec 20	A Standstill Agreement is signed by the Chief Engineers of divided Punjab. They agree to continue the supply of water to UBDC and Dipalpur canals from Ferozepur Headworks, at pre-partition levels. (The Agreement is due to expire on 31 March 1948, the same day the Arbitral Tribunal expires.)
	Dec 22	A sixth reference is made to the Arbitral Tribunal regrading West Punjab's (Pakistan) claim to the Mandi hydroelectric scheme.
1948	Jan 30	Gandhi is assassinated.
	March 17	Arbitral Tribunal makes its awards regarding all 6 referrals.
	March 29	East Punjab (India) notifies West Punjab (Pakistan) of the Standstill Agreements' expiry on 31 March 48.
	March 31	Arbitral Tribunal and Standstill Agreements cease to exist.
	April 1	East Punjab (India) stops supply of water from the Ferozepur Headworks to the Dipalpur and Upper Bari Doab canals.
	April 15	Chief Engineers of West and East Punjab meet in Simla to resolve the water problem. The Prime Minister of Pakistan, Liaquat Ali Khan, telegrams the Prime Minister of India, Jawaharlal Nehru requesting immediate action to restore the water; and expressing his regret that before India and Pakistan have had the time to settle their existing problems East Punjab has created new ones.
	April 16	Prime Minister Nehru telegrams Prime Minister Liaquat Ali Khan, to say that he trusts the Simla conference between the Chief Enginners will reach a solution.
	April 17	In the meantime the West Punjab Government suspends the issuing of permits to remove valuables from bank lockers, and

		orders bank managers to stop any transfer of securities from West Punjab to India.
	April 18	2 Simla Agreements signed by the Chief Engineers of West and East Punjab, on the Dipalpur canals and CBDC. But it is not ratified by West Punjab.
	April 24	Prime Minister Liaquat Ali Khan telegrams Prime Minister Nehru saying that an Inter-Dominion conference is needed to discuss the Simla Agreements; so can he please fix a date and place as soon as possible.
	April 30	Prime Minister of India orders the East Punjab Government to resume the supply of water to West Punjab on the basis of the Simla Agreement, subject to variations from the forthcoming Inter-Dominion conference to be held on 3 May 48.
	May 3-4	Inter-Dominion Conference held in New Delhi.
	May 4	Inter-Dominion (Delhi) Agreement signed by Pakistan and India.
	July 21	Lahore Conference, India and Pakistan meet again to discuss water.
	Sept	The State of Hyderabad joins India after its decision to accede to Pakistan was thwarted by India.
	Sept 11	The Governor General of Pakistan, Mohammad Ali Jinnah dies.
1949	Jan 1	UN ceasefire from midnight in Jammu and Kashmir.
	June 16	Pakistan writes to India saying its is unhappy with the Delhi Agreement and wants another Inter-Dominion Conference. If this conference fails to get agreement, then Pakistan would want to take the Sutlej water dispute to the International Court of Justice. India refuses to countenance submitting the case to the ICJ.
	Aug 4-6	The Indian proposed Inter-Dominion conference is held in New Delhi.
1950	Jan 9	The World Bank tells India to resolve its water dispute with Pakistan over River Sutlej before it will finance the Bhakra and Nangal dam projects.
	Feb 14	The Prime Minister of Pakistan writes to the Prime Minister of India stating that they have to settle the Canal Waters dispute (over use of water from the River Sutlej) before anything else can be done.
	March 27-29	The Inter-Dominion Conference proposed at the conference in August 1949, is held in Karachi.
	May 29-31	A second Inter-Dominion Conference proposed at the conference in August 1949, is held in New Delhi.
	May 10	India registers the Delhi Agreement with the Secretariat of the United Nations, as Treaty No. 794. Pakistan counters by registering a certified statement disclaiming this treaty's validity.
	Jun-July	Pakistan stops paying disputed seignorage charges to India.
	Oct 8	The Prime Minister of India writes to the Prime Minister of Pakistan offering to set up a tribunal to settle the Canal Waters dispute. The international tribunal would comprise four judges, two each from Pakistan and India. Pakistan refuses saying this

would only lead to stalemate and India is trying to gain time by proposing such a tactic.

1951	Feb	David Lilienthal tours the Indian Subcontinent.
	March 23	There is a strong chance that Pakistan would take the Canal Waters dispute to UN's Security Council.
	Aug 4	Lilienthal's article is published in Colliers, "*Another Korea in the Making?*"
	Aug 8	Lilienthal meets with members of the World Bank Management: President Black, General Counsel Sommers and Assistant to the President Iliff.
	Sept 6	The President of the World Bank writes to the Prime Ministers of India and Pakistan offering its good offices in settling the Canal Waters dispute.
	Sept 25	The Prime Ministers of India and Pakistan accept the World Bank's good offices, writing separately to President Black.
	Oct 8	Lilienthal meets again with members of the World Bank Management: Vice-President Garner, General Counsel Sommers and the Bank's engineer General Wheeler. Lilienthal warns the Management against taking an engineering approach to the dispute before there is clear political agreement upon the principles to settle the dispute.
	Oct 16	The Prime Minister of Pakistan, Liaquat Ali Khan, is assassinated. Khwaja Nazimuddin is appointed the new Prime Minister.
	Nov 8	President Black writes again to the Prime Ministers of India and Pakistan suggesting setting up a Working Party. The Working Party would work out the procedure to start creating a comprehensive plan using Lilienthal's principles as a basis. These principles, as Black sees them, are: [i] there is enough water for all existing and future needs in the Indus basin for both countries; [*ii*] unitary development is needed, therefore all the rivers in the basin are to be considered in finding a solution and not just the Sutlej alone; [iii] talks will be conducted on a functional plane in which past claims and disputes will be avoided. Black's Working Party was to have indigenous engineers from India and Pakistan who would be assisted by the World Bank's Designee engineer. This latter engineer would only be available to advise the parties, not to arbitrate between them. Furthermore, the Bank's engineer was also to ensure that the plans being suggested were financially viable. Once the Working Party had decided upon the initial procedures, it would implement them to start creating the comprehensive plan without the need for further authorisation from the Indian and Pakistani Governments.
1952		India completes the Harike Barrage.
	Jan-Feb	President Black visits India and Pakistan, and tries to get complete commmitment to the method outlined by the Bank.
	March 13	President Black writes to the Prime Ministers of India and Pakistan outlining terms under which the agreed Working Party would proceed. Black also requests that for the duration of the Bank's good offices, neither side would diminish supplies to

		existing uses. It is agreed that the shared objective is to increase water to both countries substantially. Black invites India and Pakistan to send their Designee engineer and party to meet in Washington DC in May 1952 to start discussions.
	May 7	The Working Party holds its first meeting in the World Bank's headquarters in Washington, DC.
	Nov	The Working Party meet again in Washington, DC.
	Dec 16	The Pakistani Foreign Minister and representative to the UN's Security Council, Mohammad Zafrulla Khan, mentions the Canal Waters dispute (Indus Basin Dispute) to the Security Council.
1953	Jan	The Working Party meet again in Washington, DC.
	April 17	Pakistan's Governor General, Ghulam Mohammad, sacks Khwaja Nazimuddin as Prime Minister, and appoints Mohammad Ali Bogra instead.
	April	India appoints G R Garg to ensure compliance with President Black's stipulation in his letter of 13 March 1952, to not diminish supplies. However, the initial title of this appointment causes some controversy with Pakistan as it refers to ensuring compliance with the disputed Delhi Agreement. The World Bank refuses to endorse this appointment until India changes the title. The Bank explains that though the appointment is a good idea, the effect of this action is lost through reference to the disputed agreement. India changes the title to the "Special Commissioner for Canal Waters".
	May 13	Pakistan confirms to the World Bank, that it has appointed K A Ghafoor as its Irrigation Commissioner to partner India's Special Commissioner, and ensure compliance with President Black's letter of 13 March 1952.
	May 21	India opens a new distributary system near the towns of Mudki and Golewala, drawing water from the Sutlej river above Ferozepur. The Pakistani Irrigation Commissioner protests against this opening to the Indian Special Commissioner for Canal Waters.
	June 27	N D Gulhati replaces Dr Khosla as Indian Designee Engineer to the Working Party.
	Oct 6	India and Pakistan submit their proposals for the comprehensive plan to the World Bank. The Indian Plan calculates the total water suply in the Indus Basin to be 119 MAF. Out of this the plan allocates to Pakistan 90 MAF (93% of the western rivers), and to India 29 MAF (all of the eastern rivers and 7% of the western rivers). The Paksitani Plan calculates the total water to be 118 MAF. Pakistan allocates itself 102.5 MAF (all the western rivers and 30% of the eastern rivers), and India 15.5 MAF (70% of the eastern rivers). Neither party accepts the other's plan.
1954	Feb 5	The World Bank presents its own proposal in which the division of the Indus Basin that was implicit in the Indian and Pakistani plans, is made explicit: Pakistan would get the entire Western rivers except for small uses in Jammu and Kashmir and India would get all the water in the Eastern rivers. Since India was the

	principle beneficiary, it would pay for the link canals taking water from the Western rivers to areas previsously dependent upon the Eastern rivers. A transitional period was envisaged during which India could progressively withdraw water from the Eastern rivers as long as Pakistani existing uses were not reduced and the link canals were built according to schedule. The World Bank was giving India its historical withdrawals, and surplus water for future development. Pakistan was getting its historic withdrawals; the Sutlej Valley Canals would be brought upto allocation in all but unusually bad years; enough water would be available to meet the planned Thal and Kotri projects offtaking the River Indus; and in an average year Pakistan would have enough surplus water to meet additional needs planned on the Indus at Sukkur and Gudu.
Feb 8	President Black writes to the Prime Ministers of India and Pakistan putting forward the World Bank proposal.
March 22-25	India accepts the World Bank proposal, and emphasises the need to protect existing uses within the State of Jammu and Kashmir, and future development which would probably involve small consumptive uses. Pakistan does not give a clear commitment to the Proposal. It believes the Sukkur and Gudu irrigation schemes should be taken into account, which would then show the Proposal to have significant shortages, unless Pakistan is guaranteed a substantial portion of the Eastern rivers.
April 2	Pakistan opens the Balloki-Suleimanke Link.
May	Pakistan accepts military aid from the USA.
May 10	India announces to Pakistan and the World Bank, that it intends to open the Bhakra Main Line Canal in June 1954.
May 14	The Prime Minister of Pakistan condemns the World Bank proposal as unfair, and sends Pakistani representatives to negotiate the necessary adjustments. Indian representatives see this as Pakistan rejecting the Bank's Proposal, whereas the Bank itself awaits clarification of Pakistan's message before passing judegement.
May 21	The World Bank informd the Pakistani Government that its message has not been seen as acceptance of the Bank's Proposal, nor can it be regarded as the basis for further joint discussion. It emphasises that Pakistan must accept the division of rivers as the starting point. If then during negotiations it becomes clear that Pakistan's envisaged irrigation uses would not be met by such division, then the World Bank would offer its good offices to bring about acceptable adjustments.
May 27	The Pakistani Government propose to hold discussions with the World Bank.
June	Pakistan's new team arrives in Washington, DC headed by Ghulam Mueenuddin and includes Mohammad Shoaib (the World Bank Executive Director for Pakistan, and later the Minister of Finance under Ayub Khan).
June 15	The World Bank start discussions with the Pakistani Foreign Minister Sir Zafrulla Khan who is visiting Washington, DC, regarding Pakistan's acceptance of the World Bank proposal.

	July 28	The Pakistani Foreign Minister accepts the World Bank proposal in principle, as long as the plan that is worked out so that Pakistan's uses can be met from the Western rivers.
	Aug 8	The Prime Minister of India writes to the World Bank expressing reservations regarding Pakistan's acceptance of the Proposal, and wants to hold clarificatory talks with the Bank's representatives, meeting in the Indian Subcontinent.
	Aug 13	President Black writes to the Prime Minister of India and the Pakistani Foreign Minister suggesting that instead of holding clarificatory talks with either side in the Indian Subcontinent, their representatives meet in Washington DC to resume work on creating a comprehensive plan. The starting point though should be the division of the rivers. And if Pakistani needs are not met by the Western rivers alone, then other means may be introduced.
	Aug 19	The Prime Minister of India accepts President Black proposal some with qualifications but still wants to hold talks, on transitional arrangements, in India.
	Aug 24	The Pakistani Foreign Minister agrees to President Black's proposal but also with qualifications.
	Sept 1-16	World Bank representatives, General Wheeler and General Counsel Sommers, go to India and Pakn for discussions.
	Oct	Pakistan's Governor General, Ghulam Mohammad, appoints General Ayub Khan as Minister of Defence.
	Oct 4	World Bank representatives hold discussions with Indian representatives in Washington, DC.
	Oct 7	President Black writes to the Prime Ministers of India and Pakistan that the Bank has taken note of the Indian and Pakistani comments. The bank willnot consider either side to be bound by them, and is willing to resume cooperative work under the terms of reference already suggested. Black invites the Indian and Pakistani representatives back to Washington, DC on that basis. Both Governments accept the invitation.
	Dec 6	Talks to work out a comprehensive plan resume.
1955	June 2	The World Bank brings about interim arrangements that keep the situation in the Indus Basin under control while work to create a comprehensive plan continues. Pakistan and India enter *ad hoc* transitional agreement for 1 April - 30 Sept 1955. The agreement allows Pakistan to withdraw *ad hoc* amounts from the Eastern rivers during the agreed period, after Pakistan has transferred whatever amount of water its can from the Western rivers. Efforts in 1954 to arrange such an agreement had failed despite prolonged negotiations.
	Aug	Pakistan devalues its currency, the rupee.
	Oct	The Pakistani Prime Minister, Mohammad Ali Bogra, resigns and is replaced by Chaudhuri Mohammad Ali.
	Oct 14	One Unit Rule is established in West and East Pakistan.
	Oct 31	Another *ad hoc* transitional agreement covering the period 1 Oct 1955 - 31 March 1956, is signed by India and Pakistan.
1956	Spring	Discussions continue between the Indians and Pakistanis under the good offices of the World Bank. The issues involved are

		studied, and agreement cannot be reached on two points: [i] the amount of water needed for some uses specified in the terms of reference prescribed by the Bank; and [ii] certain technical considerations especially the effect of dividing the Basin's water upon the gains and losses experienced in the rivers. The absence of agreement implies that the disputants still do not have a common approach to the actual engineering features of a comprehensive plan.
	March 23	Pakistan's first constitution is passed by the Constituent Assembly.
	May 21	Consultants, employed by the World Bank, decide that the Western rivers not inadequate to meet Pakistan's needs envisaged under the Bank's Proposal of February 1954. The Bank, based upon these studies, draws up an Aide-Memoire. This amendment envisages constructing storage facilities on the Western rivers to make up any deficit. The Aide Memoire also offers the Bank's good offices to get agreement upon any adjustments to the original proposal that may be required.
	June 1	The World Bank proposes the continuance of cooperative work until 31 March 1957.
	June 18	India agrees to the continuance, but asks Pakistan to accept the principle of division without any qualification before proceeding with negotiations.
	June 27	Pakistan agrees to continue cooperative work, but with provisos re: any ultimate plan.
	June 30	The World Bank does not regard the Indian and Pakistani replies as adequate to continuing the cooperative work, but recommends continuing work based upon the Bank's 1954 Proposal and Aide Memoire.
	Sept	India and Pakistan agree to continue cooperative work on the proposed basis.
	Sept 24	Another *ad hoc* transitional agreement, 1 April 1956 - 31 March 1957, is signed by India and Paksitan.
	Oct	The Pakistani Prime Minister, Chaudhuri Mohammad Ali, resigns and is replaced by H S Suhrawardy.
	Nov	Members of the World Bank Management are involved in trying to resolve the Suez Crisis.
Sept 56 - March 57		Talks continue and the plans that emerge are vastly different in concept and cost. The Indian plans is too 'tight', since their main concern is the size of their financial liability to Pakistan to cover the cost of the replacement works. By contrart the Pakistani plan is too grandiose, prompting the World Bank to urge Pakistan to look, seriously, into its irrigation planning.
1957	April 11	President Black writes to the Prime Ministers of India and Pakistan proposing a formal extension of cooperative work until 30 Sept 1957. The Indian and Pakistani delegates are not needed in Washington, DC for the duration. In the meantime, the World Bank will review the progress to date and determine what future action is needed. This proposal is agreed to by the two countries.

	May 13	The World Bank gives the delegations a draft of the "Heads of Agreement" as a basis to resolve the dispute on the international waters. The Agreement reiterates the division of water, a transitional period, and setting up a commission with responsibilities that include preparing the plan that is needed to implement the proposed water division.
	May 27	Vice-President Iliff discusses the Heads of Agreement with the Indian delegates.
	June 10	Vice-President Iliff has further discussions regarding the Heads of Agreement, in New Delhi, with representatives of the Indian Government.
	June 11-14	Iliff discusses with representatives of the Pakistani Government in Lahore, the Heads of Agreement. No tangible progress is made as Pakistan's main objections are based upon the absence of any agreed plan to implement the works arising out of the division, and the unsettled matter of financial liability for the works.
	June 24	The World Bank makes the Heads of Agreement more general, and asks the delegates whether it is now acceptable as the basis for further discussions.
	July 13	Pakistan gives its view.
	July 25	India gives its view.
	Aug 21	Vice-President Iliff meets separately the representatives of the Indian and Pakistani Government. He suggests that each country submits in writing its opinion on the Heads of Agreement. And then to meet separately with the World Bank for oral discussions, and to give its opinion on the written views of the other Government. The purpose of this excercise is to allow the World Bank to make up its mind regarding its future involvement, if any, in the dispute. Iliff, also, suggests that the disputants attempt to negotiate another *ad hoc* agreement for the period from 1 October 1957 - 30 September 1958.
	Oct	The Pakistani Prime Minister, H S Suhrawardy, is dismissed and replaced by I Chandrigar.
	Nov-Dec	Negotiations in Karachi and New Delhi fail to reach agreement regarding an *ad hoc* agreement.
	Dec	The Pakistani Prime Minister, I Chandrigar, resigns and is replaced by Firoz Khan Noon.
1958		West Pakistan's Water and Power Development Authority (WAPDA) is established.
	Spring	India puts forward Marhu Tunnel Plan: taps Chenab for use in India, gives same water amount in fixed deliveries to Pkn from eastern rivers. Pkn rejects plan cos: (i) Indian interference in Chenab waters (ii) increase Pkni dependence on India for water. Pkn says will present own plan soon which preserves independence from India.
	April	The Marhu Tunnel Plan is discussed in Rome. No Pkni alternative discussed, but using information given by Pkn re: storage possibilities on Jhelum, IBRD suggests using such storage to replace SVC supplies, this would be cheaper than link canal replacement from Indus. Pkn agrees to look at idea and prepare plan on this basis.

	July	Pkn presents London Plan, in London. Proposing series of dams (i) Tarbela, Indus and 600,000 kw power plant (ii) Mangla, Jhelum in Azad Kashmir and 300,000 kw power plant (iii) 3 subsidary dams on Jhelum and 10 link canals. Discussions adjourned to allow India to study plan in detail.
	Oct 7-8 night	In Pakistan the democratically elected government is overthrown by a *coup d'etat* that installs General Ayub Khan as President.
	Oct	The World Bank discusses with India the policy decisions needed to get agreement.
	Dec	The World Bank holds discussions with India and Pakistan in Washington, DC on the Pakistan's London Plan, and the Indian Plan (which is in effect a revised Marhu Tunnel Plan). Pakistan does not accept the Indian Plan, and India does not accept the London Plan saying it is too big, too costly, and the transitional period is too long.
	Dec 22	In a dramatic turn around, the Pakistani representatives accept the World Bank's 1954 Proposal and Aide Memoire, unconditionally, as the basis upon which to continue cooperative work.
1959	March 26	The World Bank present its Settlement Plan incorporating the principles of the 1954 Proposal and Aide Memoire. The Plan provides for irrigation replacement in Pakistan and the development of irrigation and power in Indian and Pakistan. Regarding the financing of the Plan, the World Bank suggest the following guidelines to working out each country's liability: [a] the replacement works should not be a financial burden upon Pakistan; [b] but the Indian contribution should reflect the real cost of implementation and its ability to pay; and [c] the country benefitting from a particular scheme should pay for its construction through loans. The Plan's implementation would see an international water treaty being signed by India and Pakistan. This treaty would in turn set up an Indus Development Commission which would exist for, at least, the transitional period.
	April 17	Another year long *ad hoc* agreement is signed for the period 1 April 1959 - 31 March 1960.
	May 13	President Black and Vice-President Iliff meet the Prime Minister of India and other governmental representatives in New Delhi. Discussion focuses upon India's possible financial contribution, the arrangements for hte transitional period and the Indian Government's opinion regarding the inclusion of a reservoir at Mangla as part of the replacement plan. Understanding is reached that the Indian liability to Pakistan would be limited to $175 million, the transitional period would last for 10 years, and Paksitan would incur financial penalties if it went beyond this time, though a 3 year extension had been envisaged. India would also get the foreign exchange costs of building the Beas dam in India. This dam and a 200,000 kw power plant would be part of the Settlement Plan's projects in India. And finally Indian claim to sovereignty over Jammu and Kashmir would be protected by a suitable formula.

	May 18	World Bank representatives get Pakistan to agree to amended works in Pakistan under the Bank's Settlement Plan. New works include 2 reservoirs at Tarbela and Mangla; 8 link canals transfering water from the Western rivers to the Sutlej Valley canals; a 300,000 kw hydroelectric power station at Mangla and tubewells to promote drainage. Pakistan agreed to absorb costs already incurred in constructing the existing link canals, and withdraws any claims for compensation for operation and maintenance of these replacement works. The World Bank would be willing to seek funds from friendly Governments, to finance the amended works' system. Further negotiations were still needed for Indian uses on the Western rivers regarding additional consumptive uses, and hydroelectric uses.
	June	The Pakistani established Indus Basin Advisory Board (IBAB) holds its first meeting in Lahore.
	Aug 5	Talks are held between the Bank, India and Pakistan in London regarding the transitional arrangements; Indian rights on the Western rivers; and drafting the Heads of Agreement for the international water treaty. These talks and others during September reach agreement on the Heads of Agreement: [i] the division of the Indus rivers' water; [ii] the transitional arrangements; [iii] Indian hydro-electric and non-consumptive uses on the Western rivers; [iv] financial provisions involving the Indian and Pakistani Governments; [v] the exchange of hydrological data regarding the rivers; [vi] future cooperation; [vii] further discussion of proposals to establish a routine to resolve future disputes; and [viii] some general matters.
	Sept	IBAB's second meeting in London.
	Oct	Discussions are held in Washington, DC regarding detailed transitional period arrangements, and Indian consumptive uses on western rivers. Drafting of the water treaty's text begins.
	Dec 9	The water treaty's main text is drafted. The more important articles provide for: [a] allocation of the Eastern rivers to India after the transitional period; [b] Western rivers allocation to Pakistan with provision for Indian hydroelectric and non-consumptive uses; [c] Indian payment into the Indus Basin Development Fund for the replacement works; [d] the exchange of hydrological data between India and Pakistan; [e] future cooperation between India and Pakistan; [f] the establishment of the Permanent Indus Commission who's purpose and function is to establish and maintain a cooperative implementation of the Treaty, and promote cooperative development of rivers; [g] establish a procedure to resolve future differences and disputes. Still to be resolved are the annexes regarding the transitional period, and Indian consumptive uses on western rivers. Draft copies of the text are sent to the Indian and Pakistani Governments.
1960	Jan 6	The Indus Basin Development Fund draft is completed, and copies are sent to the Pakistani Government and the contributing 'friendly' Governments. The Fund will be administered by the World Bank, and all contributions will first

		be paid into the Fund from which the Bank would disburse upon receiving the receipts.
	Jan 18-20	Engineering consultants meet in Washington, DC regarding the implementation of the Settlement Plan in Pakistan.
	Sept 19	The Indus Water Treaty is signed in Karachi by the Pakistani President, Ayub Khan, the Indian Prime Minister, Nehru, and the World Bank Vice-President, Iliff.
1961	Jan	The Indus Waters Treaty is ratified by both countries in New Delhi, bringing into effect the Indus Basin Development Fund.

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Interview transcript of Sir William Iliff by Robert Oliver, Brookings Institution, 12-16 August 1961. The World Bank Project transcribed by the Oral History Research Office of Columbia University.

Notes from a conversation with Sir William Iliff, 10 June 1970. *The Indus Negotiations.*

Interview transcript of Davidson Sommers by Robert Oliver, Brookings Institution, 2 August 1961. The World Bank Project transcribed by the Oral History Research Office of Columbia University.

NB. [i] "IBRD-13/4/49" refers to material from the IBRD files on the Indus Basin Dispute, with that particular date. It does not mean that the IBRD has neccessarily written the material in question. [ii] "IBRD-ND1954" refers to material that is undated, but is believed by this author to be of a particular year.

13/4/49	IBRD memo written by Rucinski → Aldewerald, Dr Basch (Dr Lund, Gilmartin).
2/6/49	IBRD memo written by Rucinski → Dr Basch, Clark, Beescroft, Ripman, *"India"*.

3/6/49	IBRD memo written by Beescroft, *"India-Pakistan Water-Rights Problem"*.
28/9/49	Letter India → IBRD, *"Canal Water Dispute Between India and Pakistan"*.
9/1/50	IBRD memo written by Hoar, *"India"*.
11/1/50	IBRD memo written by Hoar, *"India"*.
2/3/50	Letter within IBRD, Iliff → Rucinski.
22/6/50	IBRD memo written by Iliff, copied to Hoar, Rucinski, Burgess, *"Pakistan"*.
24/10/50	Letter Pakistan → IBRD, Laylin to Sommers.
31/1/51	Letter IBRD: Rucinski → Lilienthal.
23/3/51	IBRD memo from Iliff → Rucinski, *"Water Dispute between Pakistan and India"*.
2/8/51	Letter Pakistan → IBRD, Laylin to Black.
7/8/51	Letter USA: Assistant Secretary of State, George C McGhee → Lilienthal. [Lilienthal sent copy to IBRD: Iliff].
13/8/51	Letter from Lilienthal → IBRD: Black.
15/8/51	Draft letter from IBRD → India and Pakistan, from President Black to the Prime Ministers.
28/8/51	The Washington Post, *"Pakistan Envoy rejects view his Nation, India will unite"*.
1/9/51	The Washington Post, *"Mme Pandit denies saying India Pakistan will unite"*.
6/9/51	Letter IBRD → India and Pakistan, from President Black to Prime Ministers Nehru and Liaquat Ali Khan.
18/9/51	Letter India → Pakistan, from the Ministry of External Affairs, New Delhi to the Pakistani High Commission in New Delhi.
25/9/51a	Letter Pakistan → IBRD, Prime Minister Liaquat Ali Khan to President Black.
25/9/51b	Letter India → IBRD, Prime Minister Nehru to President Black.
27/9/51	Letter Pakistan → IBRD, from Ambassador to Washington, DC, M A H Ispahani, to President Black.
3/10/51	Letter IBRD: Sommers → Lilienthal.
9/10/51	IBRD memo from Sommers, *"India and Pakistan Water Rights"*.
12/10/51	Draft letter IBRD → India and Pakistan, from President Black to Prime Ministers Nehru and Liaquat Ali Khan.
16/10/51a	Letter Lilienthal → IBRD: Black.
16/10/51b	Internal IBRD letter to Loan Director, A S G Hoar.
22/10/51	Draft letter IBRD → India and Pakistan, from President Black to the Prime Ministers.

24/10/51	IBRD memo from Sommers → President Black, Vice-President Garner, General Wheeler, Loan Director Hoar, and Rist.
8/11/51	Letter IBRD → India and Pakistan, from President Black to Prime Ministers Nehru and Khwaja Nazimuddin.
16/11/51	Letter USA → IBRD, from the Director, Office of South Asian Affairs, US State Department, Donald D Kennedy to Vice-President Garner
13/12/51	Letter Lilienthal → India: A N Khosla, Additional Secretary, Ministry of Natural Resources and Scientific Research, Indian Government.
ND1951	Note, *"Note on Mr. Black's letter of November 8, 1951"*.
19/12/51	Telegram within IBRD, from Iliff in Karachi → Garner in Washington, DC.
21/12/51	IBRD memo written by Allan Christelow → President Black with telegrams from Iliff.
14/1/52	IBRD memo written by Sommers → Joseph Rucinski, Chief of the Asia and Middle East Division.
18/1/52	Letter Pakistan → IBRD, from the Ambassador in Washington, DC, M A H Ispahani to President Black.
23/1/52	IBRD notes from Sommers → President Black's Party and copied to Rucinksi, *"India-Pakistan Water Rights"*.
24/1/52	Letter from IBRD: Iliff → Lilienthal.
25/1/52	Telegram within IBRD, from Bengston → Rucinksi.
29/1/52	Telegram within IBRD, from Bengston → Rucinksi.
10/2/52	Telegram within IBRD, from Bengston → Rucinksi.
20/2/52	Letter IBRD → USA, from Sommers to Donald D Kennedy, US State Department.
4/3/52	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
8/3/52a	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
8/3/52b	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
8/3/52c	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
8/3/52d	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
8/3/52e	Telegram within IBRD, from Bengston in Karachi → Black in Australia.
9/3/52	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
10/3/52a	Telegram within IBRD, from Sommers in Washington, DC → Bengston in Karachi.
10/3/52b	Telegram within IBRD, from Sommers in Washington, DC → Black in Australia.

12/3/52a	Telegram within IBRD, from Black in Australia → Sommers in Washington, DC.
12/3/52b	Telegram within IBRD, from Black in Australia → Bengston in Karachi.
13/3/52a	Telegram within IBRD, from Bengston in New Delhi → Sommers in Washington, DC.
13/3/52b	Telegram within IBRD, from Bengston in New Delhi → Sommers in Washington, DC.
13/3/52c	Telegram within IBRD, from Bengston in New Delhi → Black in Australia.
13/3/52d	Letter IBRD → Pakistan and India, from President Black to Prime Ministers Khwaja Nazimuddin and Nehru respectively.
14/3/52a	Telegram within IBRD, from Sommers in Washington, DC → Black in Australia.
14/3/52b	Telegram within IBRD, from Sommers in Washington, DC → Bengston in New Delhi.
15/3/52a	Telegram within IBRD, from Bengston in New Delhi → Black in Australia.
15/3/52b	Telegram within IBRD, from Bengston in New Delhi → Black in Australia.
16/3/52a	Telegram within IBRD, from Black in Australia → Bengston in Karachi.
16/3/52b	Telegram within IBRD, from Black in Australia → Bengston in Karachi.
16/3/52c	Telegram within IBRD, from Bengston in Karachi → Sommers in Washington, DC.
20/3/52	Telegram within IBRD, from Black in Australia → Sommers in Washington, DC.
16/6/52	Memo written by Pakistan → IBRD, from Laylin to Iliff, *"Indo-Pakistan Water Dispute"*. The memo was sent to Black, Garner and Hoar by Iliff.
15/8/52	IBRD memo written by Fontein, *"Pakistan - Proposed Warsak Hydroelectric Power Project"*.
5/1/53	Telegram within IBRD, from Wheeler in Lahore → Black in Washington, DC.
24/3/53	Letter within Pakistan, from Legal Counsel, John G. Laylin, to the IBRD Executive Director for Pakistan Mohammad Shoaib.
26/3/53	Letter IBRD → Pakistan, from Assistant to the President Iliff to the IBRD Executive Director for Pakistan, Mohammad Shoaib, copied to Sommers.
28/3/53a	Letter Pakistan → IBRD, from the Embassy in Ankara, Ghazanfar Ali Khan, to President Black.
28/3/53b	Telegram IBRD → Pakistan, from President Black to the Deputy Minister of Economy, Nasir Ahmad.

31/3/53	Letter Pakistan → IBRD, from the Embassy in Paris, Habib Ibrahim Rahimtoola, to President Black.
6/4/53	Letter India → Pakistan, from Prime Minister Nehru to Prime Minister Nazimuddin.
7/4/53	IBRD memo written by Sommers and copied to Wheeler, Bengston, Iliff and Prud'homme.
8/4/53	IBRD memo written by Hector Prud'homme to General Counsel, Sommers, *"Notes on Mr.Black's Conversations with Representatives of Pakistan and India during his Middle East Trip on the subject of the Indus River Water Dispute."*
9/4/53	IBRD memo written by Sommers to the Indian Executive Director, B K Nehru.
10/4/53	Letter Pakistan → IBRD, from Legal Counsel Assistant, C F Barber, to General Counsel Sommers.
13/4/53	IBRD memo, from the Indian Executive Director, B K Nehru to General Counsel Sommers, *"Indus Basin Water Problem"*.
15/4/53	Letter IBRD → Pakistan, from Assistant to the President, Iliff to the Ambassador in Washington, DC, Mohammad Ali; and copied to Bengston.
17/4/53	Agenda of a meeting between India and Pakistan.
21/4/53	Letter IBRD → Lilienthal, from President Black and copied to Cross, Wheeler, Sommers and Iliff.
29/4/53a	Letter Pakistan → IBRD, from the Charge d'Affaires ad interim, Shafqat, to Iliff.
29/4/53b	Note within the IBRD, from Iliff to Sommers.
1/5/53	Draft IBRD letter written by Sommers to Iliff, Wheeler, Gregh and Bengston.
4/5/53	IBRD memo written by Wheeler → Sommers, *"Indus Water Dispute"*.
8/5/53	Letter IBRD → Pakistan, from Assistant to the President, Iliff, to the Charge d'Affaires ad interim, M.Shafqat, copied to Sommers, Cross and Gregh.
13/5/53	Letter Pakistan → IBRD, from the Charge d'Affaires ad interim, Shafqat, to Iliff.
22/5/53	IBRD memo written by Sommers and copied to Iliff, Wheeler, Bengston, Gregh, Garner and Black, *"Indus Water Dispute"*.
25/5/53	Letter Pakistan → India, from the Irrigation Commissioner, Ghafoor, to Special Commissioner for Canal Waters, Garg.
6/6/53	Letter India → Pakistan, from Special Commissioner, Garg, to Irrigation Commissioner, Ghafoor.
28/7/53	Letter Pakistan → India, from the Irrigation Commissioner, Ghafoor, to Special Commissioner for Canal Waters, Garg.
12/10/53	Report for Pakistan by Tipton, *"Comments on India's Draft Outline of Plan"*.

14/10/53	Telegram within Pakistan, from Irrigation Commissioner Ghafoor, *"Cable report for 1-10 October 1953"*.
21/10/53a	Routing slip within IBRD, from Pakistan Executive Director, Shoaib to Bengston.
21/10/53b	Letter within India, from Special Commissioner for Canal Waters, Garg to the Deputy Secretary to the Indian Government in the Ministry of Irrigation and Power, Shri Vidya Ratna.
24/10/53	Telegram within Pakistan, from Lahore, Punjab to Parep in Washington, DC.
28/10/53a	IBRD memo from Sommers and copied to Wheeler, *"Indus Basin"*.
28/10/53b	Letter Pakistan → India, from Prime Minister Mohammed Ali to Prime Minister Jawaharlal Nehru.
2/11/53	Telegram India → Pakistan, from Prime Minister Nehru to Prime Minister Ali.
4/11/53	Note [probably Pakistan], *"Assuring Compliance with 13 March 1952 Agreement"*.
5/11/53	Letter within India, from Special Commissioner for Canal Waters, Garg, to Gulhati.
10/11/53	Telegram India → Pakistan, from Prime Minister Nehru to Prime Minister Ali.
23/11/53	IBRD memo from Sommers, *"Indus Basin Water Dispute"*.
ND1954a	Memo Pakistan → IBRD, from Laylin to Sommers, *"Supplementary Conversations to Break the Deadlock in the Working Party"*.
ND1954b	IBRD note. [Estimated to have been written by Sommers, in May 1954.]
5/2/54	IBRD Proposal.
8/2/54	Letters IBRD → India and Pakistan, from President Black to Prime Ministers Nehru and Mohammed Ali.
22/3/54	Letter India → IBRD, from Prime Minister Nehru to President Black.
25/3/54	Letter India → IBRD, from Khosla to General Wheeler.
23/4/54	IBRD memo from Iliff → Wheeler, copied to Bengston, *"Indus Basin"*.
10/5/54a	Letter India → Pakistan, from Ministry of External Affairs to the High Commission in New Delhi.
10/5/54b	IBRD memo from Iliff → Black copied to Wheeler, Bengston and Garner, *"Indus Basin Discussions"*.
14/5/54	Letter Pakistan → IBRD, from Prime Minister Mohammed Ali to President Black.
18/5/54a	Extracts from Debates in the Indian Council of States on Foreign Affairs, with comments by the Prime Minister.
18/5/54b	Telegram within IBRD, from Vice President Garner in Washington, DC to President Black in London.
20/5/54	Telegram UK → Pakistan.

21/5/54	Letter IBRD → Pakistan from Vice President Garner to Ambassador to Washington, DC, Syed Amjad Ali.
25/5/54	Newspaper report in the Pakistan Times.
27/5/54	Letter Pakistan → IBRD, from Ambassador to Washington, DC, Syed Amjad Ali to President Black.
7/6/54	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin: Ad hoc Agreement"*.
9/6/54	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin"*.
10/6/54	Letter Pakistan → IBRD, from Designee Engineer Mueenuddin to Vice President Garner.
11/6/54a	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin - Ad Hoc Agreement"*.
11/6/54b	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin - Ad Hoc Agreement"*.
11/6/54c	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin - Ad Hoc Agreement"*.
15/6/54	IBRD notes of meeting at 11.30am. Present: Pakistan - Zafrulla Khan, Mueenuddin and Shoaib; and IBRD - Black and Sommers.
17/6/54a	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin: Ad hoc Agreement"*.
17/6/54b	IBRD memo written by Sommers, copied to Garner and Wheeler, *"Indus Basin: Ad hoc Agreement"*.
19/6/54	Letter within Pakistan, from Foreign Minister Zafrulla Khan → Prime Minister Mohammed Ali.
21/6/54	Letter India → IBRD, from Prime Minister Nehru to President Black.
6/7/54	IBRD memo written by Sommers, copied to Wheeler.
7/7/54a	IBRD memo written by Sommers, copied to Wheeler, *"Indus Basin: Interim Arrangement"*.
7/7/54b	IBRD memo written by Sommers, copied to Wheeler, *"Draft Pakistan Acceptance"*.
7/7/54c	IBRD note.
12/7/54	Letter draft by IBRD Executive Director Shoaib.
13/7/54a	Telegram within IBRD, from Iliff in Washington, DC to Black in Amsterdam.
13/7/54b	Letter within IBRD, from Iliff to Black, copied to Wheeler.
13/7/54c	IBRD memo written by Iliff, copied to Wheeler, *"Indus Waters"*.
13/7/54d	IBRD memo written by Iliff, copied to Wheeler.
16/7/54a	Letter draft by IBRD Executive Director Shoaib.
16/7/54b	Letter Pakistan → India, from Irrigation Commissioner, Ghafoor to Special Commissioner, Garg.
19/7/54	IBRD memo, from Shoaib → Iliff, *"Pakistan"*.

20/7/54	Confidential letter draft, IBRD's President Black → Indian and Pakistani Prime Minsters, Nehru and Mohammad Ali Bogra respectively.
21/7/54a	Telegram draft, IBRD's President Black → Indian and Pakistani Prime Minsters, Nehru and Mohammad Ali Bogra respectively.
21/7/54b	IBRD note.
21/7/54c	IBRD note written by Iliff, *"Indus Waters - Procedure for Next Move (as seen on July 21, 1954)"*.
21/7/54d	IBRD note written by Iliff.
28/7/54a	Letter Pakistan → IBRD, Foreign Minister Zafrulla Khan to President Black.
28/7/54b	Letter IBRD → India, Vice-President Garner to Prime Minister Nehru.
11/8/54	Letter India → IBRD, from S N Haksar to Vice President Garner.
12/8/54	Telegram Pakistani delegation head, Mueenuddin → IBRD.
13/8/54	Letter IBRD → India and Pakistan, from President Black to Prime Minister Nehru and Foreign Minister Zafrulla Khan.
19/8/54	Letter India → IBRD, from Prime Minister Nehru to President Black.
24/8/54	Letter Pakistan → IBRD, from Foreign Minister Zafrulla Khan to President Black.
7/9/54	Telegram within IBRD, from Wheeler and Sommers in New Delhi → Black, Iliff and Garner in Washington, DC.
16/9/54	Telegram within IBRD, from Sommers in Karachi → Black in Washington, DC.
20/9/54	IBRD notes on Sommers and Wheeler mission to the Indian Subcontinent, 1-16 September.
11/10/54	IBRD memo written by Pakistan Executive Director, Shoaib → Sommers, *"Canal Waters"*.
15/10/54	IBRD note, from M T Flett → Iliff.
18/10/54a	Letter Pakistan → IBRD, from Prime Minister Mohammed Ali Bogra to President Black.
18/10/54b	Telegram within IBRD, from Iliff in Washington, DC → Garner in Pakistan.
20/10/54a	Letter within Pakistan and copied to the IBRD. From the Chief Minister of Punjab, Malik Feroz Khan Noon to the Minister for Interior, Mushtaq Ahmad Gurmani; copied to Vice President Garner.
20/10/54b	IBRD meeting of the Bank team, held in Iliff's office: Iliff, Sommers, Wheeler, Colquhoun, Bengston, Bass and Guinness.
22/10/54a	Telegram within IBRD, from Iliff in Washington, DC → Garner in Bombay.
22/10/54b	Telegram within IBRD, from Garner in New Delhi → Iliff in Washington, DC.
22/10/54c	Telegram within Pakistan, from Shoaib in Washington, DC → Karachi.

26/10/54	Telegram within IBRD, from Iliff in Washington, DC → Garner in New Delhi, copied to Wheeler.
29/10/54	Letter India → IBRD, from Ambassador in Washington, G L Mehta to President Black.
4/11/54	Telegram within IBRD, from Garner in Colombo → Iliff in Washington, DC.
9/11/54	Letter India → IBRD, from Prime Minister Nehru to President Black.
12/11/54a	Letter Pakistan → IBRD, from Shoaib to President Black.
12/11/54b	IBRD memo written by Shoaib → Mendels copied to Iliff, *"Indus Basin - Pakistan Delegation"*.
15/11/54	IBRD memo written by Iliff, copied to Wheeler and Sommers, *"Indus Basin"*.
19/11/54	IBRD memo written by Iliff → Wheeler, *"Indus Basin Discussions"*.
3/12/54	IBRD note, *"Indus Basin Discussions"*.
6/12/54a	Meeting at 10.30am between whole Indian and Pakistani delegations, and IBRD group excepting Bashore and Bass.
6/12/54b	Meeting at 4.30pm in Shoaib's office between Mueenuddin, Shoaib, Iliff and Bengston.
6/12/54c	IBRD note on the Indus Basin Discussions Meeting, Dec 6, 1954. Black's opening remarks.
7/12/54	Meeting at 10am in Iliff's office between Gulhati, B K Nehru, Iliff and Bengston.
9/12/54	Meeting at 11am in Iliff's office between Gulhati, Malhotra, B K Nehru, Iliff and Bengston.
14/12/54	Meeting at 10.30am in Iliff's office between Iliff, Bengston, Wheeler, Colquhoun, Griffin, Drisko (who joined later), Guinness and Pakistan's consultant engineers, Tipton and Hilliard.
31/1/55	Meeting at 3pm in G Street office between India, Pakistan and IBRD. Present were IBRD: Iliff, Wheeler, Bengston, Griffin, Drisko, Guinness; Pakistan: Mueenuddin, Mahbub, Dr Quraishy, Khalil; and India: Gulhati, Jaini, Malhotra, Vasudeva.
15/2/55	Meeting at 11am in G Street office between India, Pakistan and IBRD. Present were IBRD: Iliff, Wheeler, Griffin, Drisko, Guinness; Pakistan: Mueenuddin, Mahbub, Khalil, Kirmani, Altaf; and India: Gulhati, Jaini, Malhotra, Vasudeva, Lala.
16/2/55	Meeting in G Street office between India, Pakistan and IBRD. Present were IBRD: Iliff, Wheeler, Griffin, Drisko, Guinness; Pakistan: Mueenuddin, Mahbub, Dr Quraishy, Khalil; and India: Gulhati, Jaini, Malhotra, Ram, Vasudeva.
17/5/55	Meeting at 3pm in G Street office between India, Pakistan and IBRD. Present were India: Gulhati, Jaini, Malhotra, Ram, Vasudeva; Pakistan: Mueenuddin, Mahbub, Dr Quraishy, Khalil, Altaf, Memon; and IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness.

27/6/55	Telegram IBRD → India and Pakistan, from President Black to Prime Ministers Nehru and Mohammad Ali Bogra.
22/11/55	Meeting at 10am between the IBRD and India. Present were IBRD: Iliff, Sommers, Wheeler, Bengston, Griffin, Drisko, Guinness, Russler, Rowland, and Lorber; India: Gulhati, Jaini and Malhotra
2/7/56.	IBRD memo from J B Drisko → Indus Group of the IBRD, *"Pakistan group visit, June 28, 29"*.
28/3/56	Letter from IBRD → India, President Black to Prime Minister Nehru.
21/5/56	IBRD memo written by Iliff, *"Indus Basin"*.
5/6/56	Telegram within IBRD. From Iliff in Washington → President Black in London.
18/6/56	IBRD meeting between Iliff, Bengston and Wheeler, with the minutes copied to Drisko of TAMS.
2/7/56	IBRD memo written by J B Drisko → Indus Group of the IBRD, *"Pakistan group visit, June 28, 29"*. Pakistan: Hamid, Quaraishy, and Kirmani met with TAMS: Drisko, Russler, Rowland.
19/9/56	Joint meeting held at 4pm between IBRD, Pakistan and India. Present were IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness; Pakistan: Mueenuddin, Hamid, Mahbub, Quraishy, Kirmani, Niaz, Soonra and India: Gulhati, Jaini, Malhotra, Ram, Vasudeva.
28/9/56	Meeting held at 10.30am between the IBRD and India. Present were IBRD: Wheeler, Bengston, Drisko, Guinness; and India: Dr Berber, Gulhati.
2/10/56	Meeting held at 10.30am between the IBRD and India. Present were IBRD: Wheeler, Bengston, Drisko, Guinness; and India: Dr Berber, Gulhati, Dr Malhotra.
4/10/56	Meeting held at 10am between the IBRD and India. Present were IBRD: Wheeler, Bengston, Drisko, Guinness; and India: Dr Berber, Gulhati, Dr Malhotra.
10/10/56	Meetings held over three different days, 10th, 12th, 16th October at 10.30am, between the IBRD and India. Present were IBRD: Wheeler, Bengston, Drisko, Guinness; and India: Dr Berber, Gulhati, and Jaini.
16/10/56	Meeting at 2.30pm between IBRD and India. Present were IBRD: Bengston, Drisko, Guinness; and India: Gulhati, Jaini, Malhotra, Ram, Vasudeva.
22/10/56	Meeting at 3pm between IBRD and Pakistan. Present were IBRD: Wheeler, Bengston, Drisko, Guinness; and Pakistan: Mueenuddin, Hamid, Mahbub, Quraishy, Kirmani, Niaz.
16/11/56	Meeting held at 10.30am between the IBRD and India. Present were IBRD: RAW, LHB, Griffin, Drisko, Guinness, Russler, Rowland; and India: Gulhati, Jaini, Malhotra, Ram, Vasudeva.
23/1/57	Meeting at 10am between the IBRD and Pakistan. Present were IBRD: Iliff, Bengston, Griffin, Guinness; and Pakistan: Mueenuddin, Hamid and Tipton.

10/6/57	IBRD note regarding a meeting in New Delhi, Monday 11.30am. Present were India: Minister, Deputy Minister, Secretary, Khosla, Gulhati, Jaini, Kalra; and IBRD: Iliff, Bengston, Guinness.
11/6/57	IBRD note regarding a meeting in Lahore, Tuesday 5pm. Present were Pakistan: Prime Minister, Finance Minister, Governor of West Pakistan; and IBRD: Iliff. They were later joined by Pakistani engineers, and Bengston and Guinness.
24/6/57	Letter from IBRD→India, Pakistan. From Vice-President Iliff to Indian Designee Engineer Gulhati, and Pakistan Designee Engineer Mueenuddin. Containing Heads of Agreement in appendix.
14/7/57	Extracts of interview of Prime Minister of Pakistan, H S Suhrawardy, in USA, "Face the Nation".
25/7/57	Statement by Indian Minister of Irrigation and Power, on Indus Basin Dispute in Lok Sabha.
21/8/57a	IBRD memo written by Iliff copied to DS, RAW, LHB, *"Indus Basin Water Dispute"*.
21/8/57b	Statement by Indian Minister of Irrigation and Power, on Indus Basin Dispute in Rajya Sabha.
ND1958a	IBRD note, *"Marhu"* listing the advantages of the Marhu Scheme over other proposals to date. [Date estimated around March 1958.]
ND1958b	IBRD report, *"An Approach Towards a Settlement of the Indus Basin Dispute through Replacement Works Partially in India"*. [Date estimated around March 1958.]
ND1958c	IBRD note written By R A Wheeler → K L Guinness. [Date estimated after 4 March 1958.]
15/5/58	IBRD memo written by B H Russler, *"Report of Indus Basin Conference, Rome, Italy - April 16th to May 5th, 1958"*. Attended by IBRD: Iliff, Bengston, Guinness; TAMS: Russler, I Lorber; India: Gulhati, Malhotra, Khalra, Berber; and Pakistan: Mueenuddin, Hamid, Khalil-ur-Rahman and Kirmani.
29/7/58	Meeting at 3pm between the IBRD, Pakistan and India. Present were IBRD: Iliff, Wheeler, Bengston, Guinness; and Pakistan: Mueenuddin; joined later by India: Gulhati.
2/12/58	Meeting at 3pm between the IBRD and India. Present were India: Gulhati, Malhotra, Ram; and IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler and Lorber.
3/12/58	Meeting at 3pm between the IBRD and India. Present were IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler, Lorber; and India: Gulhati, Malhotra, Ram.
5/12/58	Meeting at 3pm between the IBRD and India. Present were India: Gulhati, Malhotra, Ram; and IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler and Lorber.
9/12/58	Meeting at 10.30am between the IBRD, Pakistan and India. Present were India: Gulhati, Malhotra, Ram; and IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler, Lorber; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani and Manzoor Ahmed.

16/12/58 Meeting at 10am between the IBRD and Pakistan. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Russler, Lorber; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani and Manzoor Ahmed.

16/1/59 Meeting at 3pm between the IBRD, Pakistan and India. Present were the IBRD: Wheeler, Bengston, Drisko, Guinness; Pakistan: Mueenuddin, Hamid, Niaz, Ahmed; and India: Gulhati, Malhotra, Kalra and Ram.

19/1/59 Meeting at 10am between the IBRD and Pakistan. Present were the IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler, Lorber; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Niaz, Ahmed and Malik.

3/2/59 Meeting at 11am between the IBRD and Pakistan. Present were IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness, Russler; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Niaz, Malik and Manzoor Ahmed.

5/2/59a Meeting at 10.30am between the IBRD and Pakistan. Present were the IBRD: Iliff, Wheeler, Bengston, Drisko, Guinness; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Niaz, Manzoor and Malik.

5/2/59b Document prepared by the Pakistani delegation for the IBRD, *"Cost of the London Plan and the Indian Plan"*.

5/3/59 Meeting between the IBRD: Iliff, Wheeler, Guinness, Drisko; and India: Gulhati, Malhotra, Kalra, Ahuja and Ram.

16/3/59 Meeting between the IBRD: Iliff, Wheeler, Guinness, Drisko; and India: Gulhati, Malhotra, Kalra and Ram.

5/8/59 Meeting at 4pm between the IBRD: Iliff, Guinness; Pakistan: Mueenuddin; and India: Gulhati.

6/8/59 Meeting at 3pm between the IBRD, Pakistan and India. Present were IBRD: Iliff, Guinness, Russler, Lorber; Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Altaf, Soomro; and India: Gulhati, Malhotra, Kalra.

10/8/59 Meeting at 10am between the IBRD, Pakistan and India. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Russler, Lorber; Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Altaf; and India: Gulhati, Malhotra and Kalra.

12/8/59 Meeting at 10am between the IBRD and India. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Russler, Lorber; and India: Gulhati, Malhotra and Kalra.

14/8/59 Meeting at 10am between the IBRD and Pakistan. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Russler, Lorber; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Altaf, Soomro.

17/8/59 Meeting at 10am between the IBRD and Pakistan. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Griffin, Russler, Lorber; and Pakistan: Mueenuddin, Hamid, Kirmani, Soomro.

8/9/59 Meeting at 10am between the IBRD, India and Pakistan. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Griffin, Russler, Lorber; India: Gulhati, Kalra; and Pakistan: Mueenuddin, Hamid, Khalil, Kirmani, Altaf and Soomro.

8/2/60	Meeting at 4pm between the IBRD and India. Present were IBRD: Iliff, Wheeler, Guinness, Drisko, Russler, Lorber; and India: Gulhati, Malhotra, Kalra, Ahuja and Sengupta.
10/2/60	Meeting at 3pm between the IBRD and India. Present were IBRD: Iliff, Wheeler, Guinness, Drisko, Russler, Lorber; and India: Gulhati, Malhotra, Kalra, Ahuja and Sengupta.
17/2/60	IBRD document, *"Indus Basin Settlement Plan"*, sent to the US Development Loan Fund.
11/3/60	Meeting at 3pm between the IBRD and Pakistan. Present were IBRD: Iliff, Wheeler, Drisko, Guinness, Russler; and Pakistan: Mueenuddin, Hamid, Kirmani, Khalil and Altaf.
26/8/60	Telegram IBRD → India, from Iliff to the Governor of the Reserve Bank in Bombay.

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