



Treaty Series No. 34 (1961)

The Indus Basin Development Fund Agreement

[with Annexures, including the Indus Waters Treaty]

Karachi, September 19, 1960

*Presented to Parliament by the Secretary of State for Foreign Affairs
by Command of Her Majesty
November 1961*

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INDUS BASIN DEVELOPMENT FUND AGREEMENT

AGREEMENT, dated this 19th day of September, 1960 between the Governments of the COMMONWEALTH OF AUSTRALIA (Australia), CANADA (Canada), the FEDERAL REPUBLIC OF GERMANY (Germany), NEW ZEALAND (New Zealand), PAKISTAN (Pakistan), the UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND (United Kingdom) and the UNITED STATES OF AMERICA (United States) and the INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter sometimes called the Bank).

WHEREAS the Government of India (India) and Pakistan have concluded (subject to exchange of ratifications) the Indus Waters Treaty 1960 (hereinafter called the Treaty, and of which a copy is annexed hereto as **Annexure A**) providing, *inter alia*, for the sharing between India and Pakistan of the use of the waters of the Indus Basin;

AND WHEREAS the effective utilisation by Pakistan of the waters assigned to it by the Treaty entails the construction of a system of works part of which will accomplish the replacement of water supplies for irrigation canals in Pakistan which hitherto have been dependent on water supplies from the waters assigned by the Treaty to India;

AND WHEREAS, by the terms of Article V of the Treaty, India has undertaken to make a payment of £62,060,000 towards the costs of the replacement part of such works, such sum to be paid to an Indus Basin Development Fund to be established and administered by the Bank;

AND WHEREAS, in concluding the Treaty, Pakistan has been influenced by the consideration that financial assistance of the nature and amounts specified hereinafter will be made available to Pakistan;

AND WHEREAS Australia, Canada, Germany, New Zealand, the United Kingdom, the United States and the Bank, in view of the importance which they attach to a settlement of the Indus Waters problem from the point of view both of the economic development of the area and of the promotion of peace and stability therein, have agreed, as hereinafter set forth, to make a contribution towards the costs of such system of works and also to make such contribution available through the above-mentioned Indus Basin Development Fund;

NOW THEREFORE, the Parties hereto agree as follows :

ARTICLE I

Establishment of Indus Basin Development Fund

SECTION 1.01. There is hereby established the Indus Basin Development Fund (hereinafter called the Fund), constituted by the monies which the contracting parties shall from time to time transfer to the Fund in accordance with Articles II and III of this Agreement, together with the monies to be paid to the Fund by India under the provisions of Article V of the Treaty,

and any other assets and receipts therein, to be held in trust and administered by the Bank and used only for the purposes, and in accordance with the provisions, of this Agreement.

SECTION 1.02. The Fund and its assets and accounts shall be kept separate and apart from all other assets and accounts of the Bank and shall be separately designated in such appropriate manner as the Bank shall determine.

SECTION 1.03. The Bank is hereby designated Administrator of the Fund. The term Administrator will hereinafter be used to refer to the Bank acting in that capacity.

ARTICLE II

Contributions to Fund

SECTION 2.01. Each of the Governments specified below undertakes, as a party to this Agreement, subject to such parliamentary or congressional action as may be necessary, to make a contribution to the Fund in its own currency of the nature and in the amount specified opposite its name below :

		<i>Grant</i>	<i>Loan</i>
Australia ...	... £A	6,965,000	—
Canada ...	... Can.\$	22,100,000	—
Germany ...	... DM.	126,000,000	—
New Zealand ...	... £NZ	1,000,000	—
United Kingdom ...	... £	20,860,000	—
United States ...	... U.S.\$	177,000,000	Proceeds of a U.S. dollar loan to Pakistan (repayable in rupees) in an amount not exceeding U.S.\$70,000,000 (hereinafter referred to as the United States loan)

SECTION 2.02. The following contribution (hereinafter referred to as the Bank loan) will also be made to the Fund :

The proceeds of a loan to Pakistan from the Bank in an amount not exceeding U.S. \$80,000,000 equivalent, of which the terms and conditions are set out in the Loan Agreement annexed hereto as **Annexure B**.

SECTION 2.03. The United States, in addition to its contributions specified in Section 2.01 above, undertakes, subject to any necessary Congressional action, to make a contribution to the Fund of an amount in Pakistan rupees (hereinafter called rupees) equivalent to U.S.\$235 million. This contribution shall be in the form of grants or loans or both to Pakistan in amounts and under conditions to be agreed between the United States and Pakistan.

SECTION 2.04. Pakistan undertakes to make the following contributions to the Fund :

- (a) a contribution in pounds sterling of £440,000, and
- (b) a contribution in rupees in an amount equivalent to £9,850,000.

ARTICLE III

Provisions regarding Payment of Contributions

SECTION 3.01. Upon the entry into force of this Agreement the Administrator shall promptly notify each Party of the amount required to be contributed by it to the Fund to cover estimated disbursements of the Fund during the half-year period commencing 1st October 1960, and shall before the beginning of each succeeding half-year period commencing 1st April or 1st October thereafter (at a time to be agreed in each case between the Administrator and the Party concerned) notify each Party of the amount so required to be contributed by it for such period. Each Party undertakes to make the payment specified in such notice at the time and in the amounts specified therein. The payments of the contributions under Section 2.01 hereof shall be made in the currency of the Party concerned, freely useable or convertible for purchases anywhere, or in such other currency or currencies as may be agreed between the Party and the Administrator. Each payment to the Fund shall be made to or on the order of the Administrator as specified in the notice covering the same.

SECTION 3.02. It is understood and agreed that:

- (a) the payment to be made to the Fund by Pakistan in pounds sterling shall be £22,000 in each half-year,
- (b) the payment to be made to the Fund by New Zealand shall be £NZ.50,000 in each half-year,
- (c) in each half-year the amount called up for payment to the Fund from the sources specified in Sections 2.01 and 2.02 hereof shall (after leaving out of account the payment by Pakistan under (a) above and the payment by New Zealand under (b) above) be divided between grants and loans in the ratio of 65 to 35: Provided that:
 - (i) the aggregate payments from grants, as so determined, shall be apportioned among the contributing Parties according to the percentages set out below:

	<i>Per cent.</i>
Australia	5.13
Canada	7.63
Germany	9.86
United Kingdom	19.20
United States	58.18
	<hr/>
	100.00
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- and (ii) the aggregate payments from loans, as so determined, shall be apportioned between the Bank loan and the United States loan in the ratio of 80 to 70, or in such other ratio as the Bank and the United States may, from time to time, agree.

SECTION 3.03. It is understood and agreed that the aggregate rupee requirements of the Fund during each half-year shall be met as follows:

- (a) By a payment to the Fund by Pakistan in rupees in the equivalent of £492,500.

(b) The balance thereof:

- (i) as to 60 per cent., from contributions to the Fund under Section 2.03 hereof, and
- (ii) as to 40 per cent., from rupees which the Administrator shall cause the Fund to purchase, against foreign exchange, from the State Bank of Pakistan.

SECTION 3.04. A preliminary estimate of the annual amounts to be contributed to the Fund by each Party to this Agreement is annexed hereto as **Annexure C**. The Administrator will keep such estimate as up to date as possible and will promptly notify the Parties of any material changes therein.

SECTION 3.05. The Parties hereto agree to accept the Administrator's decision as to estimated requirements and receipts of the Fund for the purposes of Sections 3.01, 3.02 and 3.03 hereof, and as to the best practical method of accomplishing the apportionment provided for in Sections 3.02 and 3.03 hereof, using approximate amounts and estimates; provided, however, that no Party shall be obligated to make any payment to the Fund except to the extent it shall have undertaken so to do either by the provisions of this Agreement or otherwise. By agreement among the Parties, changes may be made in the apportionment, including changes to take account of any contributions arising under Article XII.

ARTICLE IV

Special Reserve

SECTION 4.01. It is understood and agreed that the Administrator shall retain in the Fund, out of each payment to the Fund by India, such amount as the Administrator may estimate to be necessary to build up a special reserve in pounds sterling (hereinafter called the Special Reserve) to meet the maximum obligations of the Fund under Article V (5) of the Treaty.

SECTION 4.02. If, at the request of Pakistan, the Transition Period provided for in the Treaty is extended in accordance with the provisions of Part 8 of Annexure H thereto, the Administrator shall pay to India in pounds sterling out of the Special Reserve such amounts as shall be payable to India pursuant to the provisions of Article V (5) of the Treaty. After the amounts, if any, payable to India pursuant to this Section shall have been finally determined, the Administrator shall pay to Pakistan in pounds sterling the amount of the Special Reserve, less such amounts, if any, as shall have become so payable to India.

SECTION 4.03. Income from investments of the Special Reserve shall be used by the Administrator to purchase rupees from the State Bank of Pakistan, and such rupees shall be treated as payments to the Fund pursuant to Section 3.03 (a).

ARTICLE V

Disbursements from Fund

SECTION 5.01. Amounts in the Fund may be disbursed to Pakistan by the Administrator, and shall be used by Pakistan, exclusively to finance the cost

of equipment, supplies, other property and services (hereinafter called "goods") required to construct the system of works described in **Annexure D** to this Agreement, such system of works being herein collectively called the Project. The specific items to be financed from the Fund shall from time to time be determined by agreement between Pakistan and the Administrator, and the agreed list thereof may be changed from time to time by agreement between them.

SECTION 5.02. (a) Subject to the provisions of this Agreement, there shall be disbursed from the Fund: (i) such amounts as shall be required by Pakistan to reimburse it for the reasonable cost of goods to be financed from the Fund and (ii), if the Administrator shall so agree, such amounts as shall be required to meet the reasonable cost of such items.

(b) Except as otherwise provided herein or as shall be otherwise agreed between Pakistan and the Administrator, no disbursement shall be made on account of: (i) expenditures prior to April 1, 1960, or (ii) expenditures in the territories of any country which is not a member of the Bank (except New Zealand and Switzerland) or for goods produced in, or services supplied from, such territories.

SECTION 5.03. Disbursements from the Fund shall be in such currencies as the Administrator shall elect: Provided that disbursements on account of expenditures in rupees or for goods produced in, or services supplied from, Pakistan shall be in rupees, except as the Administrator may otherwise agree.

ARTICLE VI

Applications for Disbursements

SECTION 6.01. When Pakistan shall desire to receive any disbursement from the Fund, Pakistan shall deliver to the Administrator a written application in such form, and containing such statements and agreements, as the Administrator shall reasonably request in accordance with the Bank's usual procedures, and as may be necessary or desirable to enable the Administrator to furnish the information and make the reports provided for in Section 8.01 of this Agreement.

SECTION 6.02. Pakistan shall furnish to the Administrator such documents and other evidence in support of each such application as the Administrator shall reasonably request in accordance with the Bank's usual procedures, whether before or after the Administrator shall have permitted any withdrawal requested in the application.

SECTION 6.03. Each application and the accompanying documents must be sufficient in form and substance to satisfy the Administrator that Pakistan is entitled to receive from the Fund the amount applied for, that the amount to be disbursed by the Fund is to be used only for the purposes specified in this Agreement, that the goods on account of which disbursement is requested are suitable for the Project, and that the cost thereof is not unreasonable.

ARTICLE VII

Undertakings of Pakistan

SECTION 7.01. (a) Pakistan shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound engineering and financial practices, and shall accord appropriate priority, satisfactory to the Administrator, to that part of the Project whose purpose is replacement.

(b) All goods required for the Project shall be procured on the basis of international competition under arrangements satisfactory to the Administrator, except as the Administrator shall otherwise agree on grounds of efficiency or economy.

SECTION 7.02. Pakistan shall cause all goods financed out of monies disbursed by the Fund to be used exclusively in the carrying out of the Project, except as the Administrator may otherwise agree in respect of goods no longer required for the Project.

SECTION 7.03. (a) Pakistan shall cause to be furnished to the Administrator, promptly upon their preparation, the plans and specifications, cost estimates and construction schedules for the Project, and any material modifications subsequently made therein, in such detail as the Administrator shall from time to time request.

(b) Pakistan shall maintain or cause to be maintained records adequate to identify the goods financed out of monies disbursed by the Fund, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect in accordance with consistently maintained sound accounting practices the operations and financial condition of the agency or agencies of Pakistan responsible for the construction of the Project or any part thereof; shall enable the Administrator's representatives to inspect the Project, the goods used or acquired for the Project, and any relevant records and documents; and shall furnish to the Administrator all such information as the Administrator shall reasonably request concerning the expenditure of the monies disbursed by the Fund, the Project, and the operations and financial condition of the agency or agencies of Pakistan responsible for the construction of the Project or any part thereof.

SECTION 7.04. (a) Pakistan and the Administrator shall cooperate fully to assure that the purposes of this Agreement will be accomplished. To that end, each of them shall furnish to the other all such information as it shall reasonably request with regard to the general status of the Project.

(b) Pakistan and the Administrator shall from time to time exchange views through their representatives with regard to matters relating to the purposes of this Agreement. Pakistan shall promptly inform the Administrator of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of this Agreement, and the Administrator shall forward a report thereon to each of the other Parties to this Agreement.

SECTION 7.05. Without detracting from the obligations assumed under this Agreement by the Central Government of Pakistan, Pakistan may, from time to time, designate a government agency or agencies to carry out on behalf of the Central Government such duties incidental to the implementation of this Agreement as the Central Government may deem appropriate.

ARTICLE VIII

The Administrator

SECTION 8.01. The Administrator shall, within 30 days after 31st December 1960 and after each 30th June and 31st December thereafter, send to each Party a report containing appropriate information with respect to the receipts and disbursements of, and balances in, the Fund, the progress of the Project, and other matters relating to the Fund, the Project and this Agreement. The Administrator will consult with the respective Parties from time to time concerning the form and substance of such reports.

SECTION 8.02. The Administrator may invest monies held by the Fund pending disbursement in such short-term securities as it shall deem appropriate. This provision will apply primarily to the Special Reserve. The Administrator will, however, have power to invest on a short-term basis any monies from the contributors which are surplus to its immediate requirements on the understanding that the Administrator will take all reasonable steps under Article III of this Agreement to avoid building up balances in the Fund in excess of the amounts necessary to enable disbursements for the Project to be made as required. Subject to the provisions of Section 4.03, the income from such investments shall become part of the assets of the Fund.

SECTION 8.03. Whenever it shall be necessary for the purposes of this Agreement to value one currency in terms of another currency, such value shall be as reasonably determined by the Administrator in accordance with the Bank's usual procedures.

SECTION 8.04. The Administrator shall receive no compensation other than for expenses incurred solely because of services rendered under this Agreement, for which it shall be entitled to reimburse itself out of the Fund.

SECTION 8.05. The Bank, in acting as Administrator, shall exercise the same care in the administration and management of the Fund and in the discharge of its other functions under this Agreement, as it exercises in respect of the administration and management of its own affairs.

ARTICLE IX

Consultation

SECTION 9.01. The following are hereby specified as Events for the purposes of this Article IX :

- (a) an extraordinary situation shall have arisen, which shall make it improbable that Pakistan will be able to complete the Project;
- (b) at any time amounts likely to be available for the Project shall not be sufficient to complete the Project;
- (c) a default shall have occurred in the performance of any undertaking on the part of Pakistan under this Agreement.

SECTION 9.02. (a) If any of the Events specified in Section 9.01 shall have happened and in the judgment of the Administrator shall be likely to continue,

the Administrator shall promptly notify the other Parties hereto and, in the case of an Event specified in Section 9.01 (c), may by notice to Pakistan suspend disbursements from the Fund.

(b) The Parties hereto shall forthwith consult with one another concerning the measures to be taken to correct the Event or Events. A majority of the Parties shall have the power to decide that any suspension imposed by the Administrator pursuant to sub-section (a) of this Section shall be continued or removed. The Administrator shall act in accordance with any such decision.

(c) If any such Event shall continue, and a majority of the Parties hereto shall decide that it is not likely to be corrected and that the purposes of this Agreement are not likely to be substantially fulfilled, and so inform the Administrator, the obligations of the Parties hereto to make contributions to the Fund shall cease and, subject to the provisions of Section 11.03 hereof, this Agreement shall terminate.

ARTICLE X

Settlement of Disputes

SECTION 10.01. Any dispute between any of the Parties hereto concerning the interpretation or application of this Agreement, or of any supplementary arrangement or agreement, which cannot be resolved by agreement of such Parties, shall be submitted for final decision to an arbitrator selected by such Parties, or, failing such selection, to an arbitrator appointed by the Secretary General of the United Nations.

ARTICLE XI

Termination

SECTION 11.01. Subject to the provisions of Section 11.03 hereof this Agreement, unless sooner terminated pursuant to Section 9.02 (c) hereof, shall terminate upon the completion of the Project or upon the disbursement from the Fund of all amounts due to be disbursed from it for the Project, whichever is the earlier.

SECTION 11.02. (a) If at termination there shall remain in the Fund any amounts derived from the contributions of the Parties (including interest), the Parties shall consult together as to their disposal.

(b) Any amounts remaining in the Fund which shall not have been derived from the contributions of the Parties other than the Special Reserve, shall be paid at termination by the Administrator to Pakistan.

SECTION 11.03. Notwithstanding any termination pursuant to the provisions of Sections 9.02 (c) and 11.01 hereof, this Agreement shall remain in force for the purpose of receiving into the Fund any amounts due from India under the provisions of the Treaty, which amounts, except such part thereof as shall be retained for the Special Reserve, shall be paid to Pakistan by the Administrator as they are received. The provisions of Article IV shall continue to apply to the Special Reserve.

ARTICLE XII

Additional Parties

SECTION 12.01. Any other Government or institution may, with the prior approval of the Parties hereto and in accordance with such arrangements as they shall agree, become a Party to this Agreement, upon deposit with the Bank of an instrument stating that it accepts all the provisions hereof and that it agrees to be bound thereby.

SECTION 12.02. The Administrator may receive on behalf of the Fund from any Government or institution, whether or not a party hereto, amounts not provided for herein to be held and used as part of the Fund subject to the provisions hereof, in accordance with such arrangements, not inconsistent herewith, as the Parties hereto may approve.

ARTICLE XIII

Entry into Force

SECTION 13.01. This Agreement shall enter into force on the date on which the Treaty enters into force⁽¹⁾ pursuant to the provisions thereof, and will then take effect retrospectively as from the first April, 1960.

ARTICLE XIV

Title

SECTION 14.01. This Agreement may be cited as "The Indus Basin Development Fund Agreement, 1960."

DONE AT Karachi, this 19th day of September, 1960, in a single original to be deposited in the archives of the International Bank for Reconstruction and Development, which shall communicate certified copies thereof to each of the Governments signatory to this Agreement.

FOR THE GOVERNMENT OF THE COMMONWEALTH OF AUSTRALIA :
A. R. CUTLER.

FOR THE GOVERNMENT OF CANADA :
V. C. MOORE.

FOR THE GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY :
HEINZ VON TRÜTZSCHLER.

FOR THE GOVERNMENT OF NEW ZEALAND :
G. R. POWLES.

FOR THE GOVERNMENT OF PAKISTAN :
M. SHOAIB.

⁽¹⁾ The Treaty entered into force on January 12, 1961.

FOR THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND :

RICHARD THOMPSON.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA :

WILLIAM M. ROUNTREE.

FOR THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT :

W. A. B. ILIFF.

ANNEXURE A—THE INDUS WATERS TREATY 1960

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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 Minister of India,
and

THE GOVERNMENT OF PAKISTAN:

Field Marshal Mohammad Ayub Khan, H.P., 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 Lake ” 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 of 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 the generation of hydro-electric 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 hydro-electric power.

(12) The term “ Transition 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 withdrawals 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 Paragraph (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 or 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 of 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 so crosses or falls into a drainage or drain which so 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 drainages mentioned below with capacities not less than the capacities as on the Effective Date:

- (i) Hudiana 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 condition 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 Suleimanke, 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 Party 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 or 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 to 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 V

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 agrees 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 into 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 deduction 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

<i>Period of Aggregate Extension of Transition Period</i>	<i>Payment to India</i>
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 observation 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 are 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 the 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 as 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 or response to 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 functions of the Commission shall be to establish 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 authorization of his Government before he proceeds to 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 or sites; and
- (e) to take, during the Transition Period, such steps as may be necessary 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 be 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 of 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 Paragraphs (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 or 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, at 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 consequence 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⁽²⁾ and will then take 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.

(2) Ratifications were exchanged on January 12, 1961.

(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 :

JAWAHARLAL NEHRU

FOR THE GOVERNMENT OF PAKISTAN :

MOHAMMAD AYUB KHAN

Field Marshal, 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 :

W. A. B. ILIFF

ANNEXURE A—EXCHANGE OF NOTES BETWEEN THE GOVERNMENT OF INDIA AND THE GOVERNMENT OF PAKISTAN

I. Note dated 19th September 1960, from the High Commissioner for India in Pakistan, Karachi, to the Minister for Foreign Affairs and Commonwealth Relations, Government of Pakistan.

EXCELLENCY :

19th September, 1960

I have been instructed by my Government to communicate to you the following :

“ The Government of India agrees that, on the ratification of the Indus Waters Treaty 1960, the Inter-Dominion Agreement on the Canal Water Dispute signed at New Delhi on 4th May, 1948 (of which a copy is annexed hereto) and the rights and obligations of either party thereto claimed under, or arising out of, that Agreement shall be without effect as from 1st April 1960.

The position of the Government of India stated above and Your Excellency's Note of to-day's date stating the position of the Government of Pakistan on this question will form part of Annexure A to the Indus Waters Treaty 1960.”

Accept, &c.

ANNEX

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 Government 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 vest 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 by 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 revived 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 seigniorage 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

*sic “ Madhopur ”

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.

JAWAHARLAL NEHRU
N. V. GADGIL
SWARAN SINGH

GHULAM MOHD
SHAUKAT HYAT KHAN
MUMTAZ DAULTANA

NEW DELHI,
May 4, 1948.

II. Note dated 19th September 1960, from the Minister for Foreign Affairs and Commonwealth Relations, Government of Pakistan, to the High Commissioner for India in Pakistan, Karachi.

EXCELLENCY :

19th September, 1960

I have been instructed by my Government to communicate to you the following :

“ The Government of Pakistan agrees that, on the ratification of the Indus Waters Treaty 1960, the document on the Canal Water Dispute signed at New Delhi on 4th May 1948 (of which a copy is annexed hereto) and the rights and obligations of either party thereto claimed under, or arising out of, that document shall be without effect as from 1st April 1960.

The position of the Government of Pakistan stated above and Your Excellency's Note of to-day's date stating the position of the Government of India on this question will form part of Annexure A to the Indus Waters Treaty 1960.”

Accept, &c.

ANNEX

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 Government 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 vest 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 by 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 revived 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 seigniorage 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.

JAWAHARLAL NEHRU
N. V. GADGIL
SWARAN SINGH

GHULAM MOHD
SHAUKAT HYAT KHAN
MUMTAZ DAULTANA

NEW DELHI,
May 4, 1948.

*sic "Madhopur"

ANNEXURE B—AGRICULTURAL USE BY PAKISTAN FROM
CERTAIN TRIBUTARIES OF THE RAVI

(ARTICLE II (3))

1. The provisions of this Annexure shall apply with respect to the Agricultural Use by Pakistan from certain Tributaries of The Ravi under the provisions of Article II (3) and, subject to the provisions of this Annexure, such use shall be unrestricted.

2. Pakistan may withdraw from the Basantar Tributary of The Ravi such waters as may be available and necessary for the irrigation of not more than 100 acres annually.

3. In addition to the area specified in Paragraph 2, Pakistan may also withdraw such waters from each of the following Tributaries of The Ravi as may be available and as may be necessary for the irrigation of that part of the following areas cultivated on *sailab* as on the Effective Date which cannot be so cultivated after that date: Provided that the total area whether irrigated or cultivated on *sailab* shall not exceed the limits specified below, except during a year of exceptionally heavy floods when *sailab* may extend to areas which were not cultivated on *sailab* as on the Effective Date and when such areas may be cultivated in addition to the limits specified:—

<i>Name of Tributary</i>	<i>Maximum Annual Cultivation (acres)</i>
Basantar	14,000
Bein	26,600
Tarnah	1,800
Ujh	3,000

4. The provisions of Paragraphs 2 and 3 shall not be construed as giving Pakistan any claim or right to any releases by India in the Tributaries mentioned in these paragraphs.

5. Not later than 31st March 1961, Pakistan shall furnish to India a statement by Districts and Tehsils showing (i) the area irrigated and (ii) the area cultivated on *sailab*, as on the Effective Date, from the waters of each of the Tributaries specified in Paragraphs 2 and 3.

6. As soon as the statistics for each crop year (commencing with the beginning of *kharif* and ending with the end of the following *rabi*) have been compiled at the District Headquarters, but not later than the 30th November following the end of that crop year, Pakistan shall furnish to India a statement arranged by Tributaries and showing for each of the Districts and Tehsils irrigated or cultivated on *sailab* from the Tributaries mentioned in Paragraphs 2 and 3:

- (i) the area irrigated, and
- (ii) the area cultivated on *sailab*.

ANNEXURE C—AGRICULTURAL USE BY INDIA FROM
THE WESTERN RIVERS

(ARTICLE III (2) (c))

1. The provisions of this Annexure shall apply with respect to the Agricultural Use by India from the Western Rivers under the provisions of Article III (2) (c) and, subject to the provisions of this Annexure, such use shall be unrestricted.

2. As used in this Annexure, the term "Irrigated Cropped Area" means the total area under irrigated crops in a year, the same area being counted twice if it bears different crops in *kharif* and *rabi*. The term shall be deemed to exclude small blocks of *ghair mumkin* lands in an irrigated field, lands on which cultivation is dependent on rain or snow and to which no irrigation water is applied, areas naturally inundated by river flow and cultivated on *sailab* thereafter, any area under floating gardens or *demb* lands in and along any lakes, and any area under water-plants growing within the water-spread of any lake or in standing water in a natural depression.

3. India may withdraw from the Chenab Main such waters as India may need for Agricultural Use on the following canals limited to the maximum withdrawals noted against each:

<i>Name of Canal</i>	<i>Maximum Withdrawals for Agricultural Use</i>
(a) Ranbir Canal	1,000 cusecs from 15th April to 14th October, and 350 cusecs from 15th October to 14th April
(b) Pratap Canal	400 cusecs from 15th April to 14th October, and 100 cusecs from 15th October to 14th April

Provided that:—

- (i) The maximum withdrawals shown above shall be exclusive of any withdrawals which may be made through these canals for purposes of silt extraction on condition that the waters withdrawn for silt extraction are returned to the The Chenab.
- (ii) India may make additional withdrawals through the Ranbir Canal up to 250 cusecs for hydro-electric generation on condition that the waters so withdrawn are returned to The Chenab.
- (iii) If India should construct a barrage across the Chenab Main below the head regulators of these two canals, the withdrawals to be then made, limited to the amounts specified in (a) and (b) above, during each 10-day period or sub-period thereof, shall be as determined by the Commission in accordance with sound irrigation practice and, in the absence of agreement between the Commissioners, by a Neutral Expert in accordance with the provisions of Annexure F.

4. Apart from the irrigation from the Ranbir and Pratrapp Canals under the provisions of Paragraph 3, India may continue to irrigate from the Western Rivers those areas which were so irrigated as on the Effective Date.

5. In addition to such withdrawals as may be made in accordance with the provisions of Paragraphs 3 and 4, India may, subject to the provisions of Paragraphs 6, 7, 8 and 9, make further withdrawals from the Western Rivers to the extent India may consider necessary to meet the irrigation needs of the areas specified below:—

<i>Particulars</i>	<i>Maximum Irrigated Cropped Area (over and above the cropped area irrigated under the provisions of Paragraphs 3 and 4) (acres)</i>
(a) From The Indus, in its drainage basin	70,000
(b) From The Jhelum, in its drainage basin	400,000
(c) From The Chenab,	
(i) in its drainage basin ...	225,000 of which not more than 100,000 acres will be in the Jammu District
(ii) outside its drainage basin in the area west of the Deg Nadi (also called Devak River), the aggregate capacity of irrigating channels leading out of the drainage basin of The Chenab to this area not to exceed 120 cusecs ...	6,000

Provided that

- (i) in addition to the maximum Irrigated Cropped Area specified above, India may irrigate road-side trees from any source whatever;
- (ii) the maximum Irrigated Cropped Area shown against items (a), (b) and (c) (i) above shall be deemed to include cropped areas, if any, irrigated from an open well, a tube-well, a spring, a lake (other than a Connecting Lake) or a tank, in excess of the areas so irrigated as on the Effective Date; and
- (iii) the aggregate of the areas specified against items (a), (b) and (c) (i) above may be re-distributed among the three drainage basins in such manner as may be agreed upon between the Commissioners.

6. (a) Within the limits of the maximum Irrigated Cropped Areas specified against items (b) and (c) (i) in Paragraph 5, there shall be no restriction on the development of such of these areas as may be irrigated

from an open well, a tube-well, a spring, a lake (other than a Connecting Lake) or a tank.

(b) Within the limits of the maximum Irrigated Cropped Areas specified against items (b) and (c) in Paragraph 5, there shall be no restriction on the development of such of these areas as may be irrigated from General Storage (as defined in Annexure E): the areas irrigated from General Storage may, however, receive irrigation from river flow also, but, unless the Commissioners otherwise agree, only in the following periods:—

(i) from The Jhelum: 21st June to 20th August

(ii) from The Chenab: 21st June to 31st August:

Provided that withdrawals for such irrigation, whether from General Storage or from river flow, are controlled by Government.

7. Within the limits of the maximum Irrigated Cropped Areas specified against items (b) and (c) in Paragraph 5, the development of these areas by withdrawals from river flow (as distinct from withdrawals from General Storage *cum* river flow in accordance with Paragraph 6 (b)) shall be regulated as follows:—

(a) Until India can release water from Conservation Storage (as defined in Annexure E) in accordance with sub-paragraphs (b) and (c) below, the new area developed shall not exceed the following:—

(i) from The Jhelum: 150,000 acres

(ii) from The Chenab: 25,000 acres during the Transition Period and 50,000 acres after the end of the Transition Period

(b) In addition to the areas specified in (a) above, there may be developed from The Jhelum or The Chenab an aggregate area of 150,000 acres if there is released annually from Conservation Storage, in accordance with Paragraph 8, a volume of 0.2 MAF into The Jhelum and a volume of 0.1 MAF into The Chenab; provided that India shall have the option to store on and release into The Chenab the whole or a part of the volume of 0.2 MAF specified above for release into The Jhelum.

(c) Any additional areas over and above those specified in (a) and (b) above may be developed if there is released annually from Conservation Storage a volume of 0.2 MAF into The Jhelum or The Chenab, in accordance with Paragraph 8, in addition to the releases specified in (b) above.

8. The releases from Conservation Storage, as specified in Paragraphs 7 (b) and 7 (c), shall be made in accordance with a schedule to be determined by the Commission which shall keep in view, first, the effect, if any, on Agricultural Use by Pakistan consequent on the reduction in supplies available to Pakistan as a result of the withdrawals made by India under the provisions of Paragraph 7 and, then, the requirements, if any, of hydro-electric power to be developed by India from these releases. In the absence of agreement between the Commissioners, the matter may be referred under the provisions of Article IX (2) (a) for decision to a Neutral Expert.

9. On those Tributaries of The Jhelum on which there is any Agricultural Use or hydro-electric use by Pakistan, any new Agricultural Use by India shall be so made as not to affect adversely the then existing Agricultural Use or hydro-electric use by Pakistan on those Tributaries.

10. Not later than 31st March 1961, India shall furnish to Pakistan a statement showing, for each of the Districts and Tehsils irrigated from the Western Rivers, the Irrigated Cropped Areas as on the Effective Date (excluding only the area irrigated under the provisions of Paragraph 3), arranged in accordance with items (a), (b) and (c) (i) of Paragraph 5: Provided that, in the case of areas in the Punjab, the date may be extended to 30th September 1961.

11. (a) As soon as the statistics for each crop year (commencing with the beginning of *kharif* and ending with the end of the following *rabi*) have been compiled at the District Headquarters, but not later than the 30th November following the end of that crop year, India shall furnish to Pakistan a statement showing for each of the Districts and Tehsils irrigated from the Western Rivers, the total Irrigated Cropped Areas (excluding the area irrigated under the provisions of Paragraph 3) arranged in accordance with items (a), (b), (c) (i) and (c) (ii) of Paragraph 5: Provided that, in the case of areas in the Punjab, the 30th November date specified above may be extended to the following 30th June in the event of failure of communications.

(b) If the limits specified in Paragraph 7 (a) or 7 (b) are exceeded for any crop year, the statement shall also show the figures for Irrigated Cropped Areas falling under Paragraph 6 (a) and 6 (b) respectively, unless appropriate releases from Conservation Storage under the provisions of Paragraph 8 have already begun to be made.

ANNEXURE D—GENERATION OF HYDRO-ELECTRIC POWER BY INDIA ON THE WESTERN RIVERS

(ARTICLE III (2) (d))

1. The provisions of this Annexure shall apply with respect to the use by India of the waters of the Western Rivers for the generation of hydro-electric power under the provisions of Article III (2) (d) and, subject to the provisions of this Annexure, such use shall be unrestricted: Provided that the design, construction and operation of new hydro-electric plants which are incorporated in a Storage Work (as defined in Annexure E) shall be governed by the relevant provisions of Annexure E.

Part 1—Definitions

2. As used in this Annexure:

- (a) “Dead Storage” means that portion of the storage which is not used for operational purposes and “Dead Storage Level” means the level corresponding to Dead Storage.
- (b) “Live Storage” means all storage above Dead Storage.
- (c) “Pondage” means Live Storage of only sufficient magnitude to meet fluctuations in the discharge of the turbines arising from variations in the daily and the weekly loads of the plant.

- (d) "Full Pondage Level" means the level corresponding to the maximum Pondage provided in the design in accordance with Paragraph 8 (c).
- (e) "Surcharge Storage" means uncontrollable storage occupying space above the Full Pondage Level.
- (f) "Operating Pool" means the storage capacity between Dead Storage level and Full Pondage Level.
- (g) "Run-of-River Plant" means a hydro-electric plant that develops power without Live Storage as an integral part of the plant, except for Pondage and Surcharge Storage.
- (h) "Regulating Basin" means the basin whose only purpose is to even out fluctuations in the discharge from the turbines arising from variations in the daily and the weekly loads of the plant.
- (i) "Firm Power" means the hydro-electric power corresponding to the minimum mean discharge at the site of a plant, the minimum mean discharge being calculated as follows:

The average discharge for each 10-day period (1st to 10th, 11th to 20th and 21st to the end of the month) will be worked out for each year for which discharge data, whether observed or estimated, are proposed to be studied for purposes of design. The mean of the yearly values for each 10-day period will then be worked out. The lowest of the mean values thus obtained will be taken as the minimum mean discharge. The studies will be based on data for as long a period as available but may be limited to the latest 5 years in the case of Small Plants (as defined in Paragraph 18) and to the latest 25 years in the case of other Plants (as defined in Paragraph 8).

- (j) "Secondary Power" means the power, other than Firm Power, available only during certain periods of the year.

Part 2—Hydro-Electric Plants in Operation, or under Construction, as on the Effective Date

3. There shall be no restriction on the operation of the following hydro-electric plants which were in operation as on the Effective Date:—

<i>Name of Plant</i>	<i>Capacity (exclusive of standby units) (kilowatts)</i>
(i) Pahalgam	186
(ii) Bandipura	30
(iii) Dachhigam	40
(iv) Ranbir Canal	1,200
(v) Udhampur	640
(vi) Poonch	160

4. There shall be no restriction on the completion by India, in accordance with the design adopted prior to the Effective Date, or on the operation by India, of the following hydro-electric plants which were actually under construction on the Effective Date, whether or not the plant was on that date in partial operation:—

<i>Name of Plant</i>	<i>Designed Capacity (exclusive of standby units) (kilowatts)</i>
(i) Mahora	12,000
(ii) Ganderbal	15,000
(iii) Kupwara	150
(iv) Bhadarwah	600
(v) Kishtwar	350
(vi) Rajouri	650
(vii) Chinani	14,000
(viii) Nichalani Banihal	600

5. As soon as India finds it possible to do so, but not later than 31st March 1961, India shall communicate to Pakistan the information specified in Appendix I to this Annexure for each of the plants specified in Paragraphs 3 and 4. If any such information is not available or is not pertinent to the design of the plant or to the conditions at the site, it will be so stated.

6. (a) If any alteration proposed in the design of any of the plants specified in Paragraphs 3 and 4 would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 5, India shall, at least 4 months in advance of making the alteration, communicate particulars of the change to Pakistan in writing and the provisions of Paragraph 7 shall then apply.

(b) In the event of an emergency arising which requires repairs to be undertaken to protect the integrity of any of the plants specified in Paragraphs 3 and 4, India may undertake immediately the necessary repairs or alterations and, if these repairs or alterations result in a change in the information furnished to Pakistan under the provisions of Paragraph 5, India shall as soon as possible communicate particulars of the change to Pakistan in writing. The provisions of Paragraph 7 shall then apply.

7. Within three months of the receipt of the particulars specified in Paragraph 6, Pakistan shall communicate to India in writing any objection it may have with regard to the proposed change on the ground that the change involves a material departure from the criteria set out in Paragraph 8 or 18 of this Annexure or Paragraph 11 of Annexure E as the case may be. If no objection is received by India from Pakistan within the specified period of three months, then Pakistan shall be deemed to have no objection. If a question arises as to whether or not the change involves a material departure from such of the criteria mentioned above as may be applicable, then either Party may proceed to have the question resolved in accordance with the provisions of Article IX (1) and (2).

Part 3—New Run-of-River Plants

8. Except as provided in Paragraph 18, the design of any new Run-of-River Plant (hereinafter in this Part referred to as a Plant) shall conform to the following criteria:—

- (a) The works themselves shall not be capable of raising artificially the water level in the Operating Pool above the Full Pondage Level specified in the design.
- (b) The design of the works shall take due account of the requirements of Surcharge Storage and of Secondary Power.
- (c) The maximum Pondage in the Operating Pool shall not exceed twice the Pondage required for Firm Power.
- (d) There shall be no outlets below the Dead Storage Level, unless necessary for sediment control or any other technical purpose; any such outlet shall be of the minimum size, and located at the highest level, consistent with sound and economical design and with satisfactory operation of the works.
- (e) If the conditions at the site of a Plant make a gated spillway necessary, the bottom level of the gates in normal closed position shall be located at the highest level consistent with sound and economical design and satisfactory construction and operation of the works.
- (f) The intakes for the turbines shall be located at the highest level consistent with satisfactory and economical construction and operation of the Plant as a Run-of-River Plant and with customary and accepted practice of design for the designated range of the Plant's operation.
- (g) If any Plant is constructed on the Chenab Main at a site below Kotru (Longitude $74^{\circ} - 59'$ East and Latitude $33^{\circ} - 09'$ North), a Regulating Basin shall be incorporated.

9. To enable Pakistan to satisfy itself that the design of a Plant conforms to the criteria mentioned in Paragraph 8, India shall, at least six months in advance of the beginning of construction of river works connected with the Plant, communicate to Pakistan, in writing, the information specified in Appendix II to this Annexure. If any such information is not available or is not pertinent to the design of the Plant or to the conditions at the site, it will be so stated.

10. Within three months of the receipt by Pakistan of the information specified in Paragraph 9, Pakistan shall communicate to India, in writing, any objection that it may have with regard to the proposed design on the ground that it does not conform to the criteria mentioned in Paragraph 8. If no objection is received by India from Pakistan within the specified period of three months, then Pakistan shall be deemed to have no objection.

11. If a question arises as to whether or not the design of a Plant conforms to the criteria set out in Paragraph 8, then either Party may proceed to have the question resolved in accordance with the provisions of Article IX (1) and (2).

12. (a) If any alteration proposed in the design of a Plant before it comes into operation would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 9, India shall immediately communicate particulars of the change to Pakistan in writing and the provisions of Paragraphs 10 and 11 shall then apply, but the period of three months specified in Paragraph 10 shall be reduced to two months.

(b) If any alteration proposed in the design of a Plant after it comes into operation would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 9, India shall, at least four months in advance of making the alteration, communicate particulars of the change to Pakistan in writing and the provisions of Paragraphs 10 and 11 shall then apply, but the period of three months specified in Paragraph 10 shall be reduced to two months.

13. In the event of an emergency arising which requires repairs to be undertaken to protect the integrity of a Plant, India may undertake immediately the necessary repairs or alterations; if these repairs or alterations result in a change in the information furnished to Pakistan under the provisions of Paragraph 9, India shall, as soon as possible, communicate particulars of the change to Pakistan in writing to enable Pakistan to satisfy itself that after such change the design of the Plant conforms to the criteria specified in Paragraph 8. The provisions of Paragraphs 10 and 11 shall then apply.

14. The filling of Dead Storage shall be carried out in accordance with the provisions of Paragraph 18 or 19 of Annexure E.

15. Subject to the provisions of Paragraph 17, the works connected with a Plant shall be so operated that (a) the volume of water received in the river upstream of the Plant, during any period of seven consecutive days, shall be delivered into the river below the Plant during the same seven-day period, and (b) in any one period of 24 hours within that seven-day period, the volume delivered into the river below the Plant shall not be less than 30%, and not more than 130%, of the volume received in the river above the Plant during the same 24-hour period: Provided however that:

- (i) where a Plant is located at a site on the Chenab Main below Ramban, the volume of water received in the river upstream of the Plant in any one period of 24 hours shall be delivered into the river below the Plant within the same period of 24 hours;
- (ii) where a Plant is located at a site on the Chenab Main above Ramban, the volume of water delivered into the river below the Plant in any one period of 24 hours shall not be less than 50% and not more than 130%, of the volume received above the Plant during the same 24-hour period; and
- (iii) where a Plant is located on a Tributary of The Jhelum on which Pakistan has any Agricultural Use or hydro-electric use, the water released below the Plant may be delivered, if necessary, into another Tributary but only to the extent that the then existing Agricultural Use or hydro-electric use by Pakistan on the former Tributary would not be adversely affected.

16. For the purpose of Paragraph 15, the period of 24 hours shall commence at 8 A.M. daily and the period of 7 consecutive days shall

commence at 8 A.M. on every Saturday. The time shall be Indian Standard Time.

17. The provisions of Paragraph 15 shall not apply during the period when the Dead Storage at a Plant is being filled in accordance with the provisions of Paragraph 14. In applying the provisions of Paragraph 15:

- (a) a tolerance of 10% in volume shall be permissible; and
- (b) Surcharge Storage shall be ignored.

18. The provisions of Paragraphs 8, 9, 10, 11, 12 and 13 shall not apply to a new Run-of-River Plant which is located on a Tributary and which conforms to the following criteria (hereinafter referred to as a Small Plant):—

- (a) the aggregate designed maximum discharge through the turbines does not exceed 300 cusecs;
- (b) no storage is involved in connection with the Small Plant, except the Pondage and the storage incidental to the diversion structure; and
- (c) the crest of the diversion structure across the Tributary, or the top level of the gates, if any, shall not be higher than 20 feet above the mean bed of the Tributary at the site of the structure.

19. The information specified in Appendix III to this Annexure shall be communicated to Pakistan by India at least two months in advance of the beginning of construction of the river works connected with a Small Plant. If any such information is not available or is not pertinent to the design of the Small Plant or to the conditions at the site, it will be so stated.

20. Within two months of the receipt by Pakistan of the information specified in Appendix III, Pakistan shall communicate to India, in writing, any objection that it may have with regard to the proposed design on the ground that it does not conform to the criteria mentioned in Paragraph 18. If no objection is received by India from Pakistan within the specified period of two months, then Pakistan shall be deemed to have no objection.

21. If a question arises as to whether or not the design of a Small Plant conforms to the criteria set out in Paragraph 18, then either Party may proceed to have the question resolved in accordance with the provisions of Article IX (1) and (2).

22. If any alteration in the design of a Small Plant, whether during the construction period or subsequently, results in a change in the information furnished to Pakistan under the provisions of Paragraph 19, then India shall immediately communicate the change in writing to Pakistan.

23. If, with any alteration proposed in the design of a Small Plant, the design would cease to comply with the criteria set out in Paragraph 18, then the provisions of Paragraphs 18 to 22 inclusive shall no longer apply and, in lieu thereof, the provisions of Paragraphs 8 to 13 inclusive shall apply.

Part 4—New Plants on Irrigation Channels

24. Notwithstanding the foregoing provisions of this Annexure, there shall be no restriction on the construction and operation by India of new

hydro-electric plants on any irrigation channel taking off the Western Rivers, provided that

- (a) the works incorporate no storage other than Pondage and the Dead Storage incidental to the diversion structure, and
- (b) no additional supplies are run in the irrigation channel for the purpose of generating hydro-electric power.

Part 5—General

25. If the change referred to in Paragraphs 6 (a) and 12 is not material, India shall communicate particulars of the change to Pakistan, in writing, as soon as the alteration has been made or the repairs have been undertaken. The provisions of Paragraph 7 or Paragraph 23, as the case may be, shall then apply.

APPENDIX I TO ANNEXURE D

(Paragraph 5)

1. *Location of Plant*

General map showing the location of the site; if on a Tributary, its situation with respect to the main river.

2. *Hydraulic Data*

- (a) Stage-area and stage-capacity curves of the reservoir, forebay and Regulating Basin.
- (b) Full Pondage Level, Dead Storage Level and Operating Pool.
- (c) Dead Storage capacity.

3. *Particulars of Design*

- (a) Type of spillway, length and crest level; size, number and top level of spillway gates.
- (b) Outlet works: function, type, size, number, maximum designed capacity and sill levels.
- (c) Aggregate designed maximum discharge through the turbines.
- (d) Maximum aggregate capacity of power units (exclusive of standby units) for Firm Power and Secondary Power.
- (e) Regulating Basin and its outlet works: dimensions and maximum discharge capacity.

4. *General*

Probable date of completion of river works, and dates on which various stages of the plant would come into operation.

APPENDIX II TO ANNEXURE D

(Paragraph 9)

1. *Location of Plant*

General map showing the location of the site; if on a Tributary, its situation with respect to the main river.

2. *Hydrologic Data*

- (a) General map (Scale: $\frac{1}{4}$ inch or more=1 mile) showing the discharge observation site or sites or rainfall gauge stations on whose data the design is based. In case of a Plant on a Tributary, this map should also show the catchment area of the Tributary above the site.
- (b) Observed or estimated daily river discharge data on which the design is based (observed data will be given for as long a period as available; estimated data will be given for as long a period as possible; in both cases data may be limited to the latest 25 years).
- (c) Flood data, observed or estimated (with details of estimation).
- (d) Gauge-discharge curve or curves for site or sites mentioned in (a) above.

3. *Hydraulic Data*

- (a) Stage-area and stage-capacity curves of the reservoir, forebay and Regulating Basin, with contoured survey maps on which based.
- (b) Full Pondage Level, Dead Storage Level and Operating Pool together with the calculations for the Operating Pool.
- (c) Dead Storage capacity.
- (d) Estimated evaporation losses in the reservoir, Regulating Basin, head-race, forebay and tail-race.
- (e) Maximum designed flood discharge, discharge-capacity curve for spillway and maximum designed flood level.
- (f) Designated range of operation.

4. *Particulars of Design*

- (a) Dimensioned plan showing dam, spillway, intake and outlet works, diversion works, head-race and forebay, powerhouse, tail-race and Regulating Basin.
- (b) Type of dam, length and height above mean bed of river.
- (c) Cross-section of the river at the site; mean bed level.
- (d) Type of spillway, length and crest level; size, number and top level of spillway gates.
- (e) Type of intake, maximum designed capacity, number and size, sill levels; diversion works.
- (f) Head-race and tail-race: length, size, maximum designed capacity.
- (g) Outlet works: function, type, size, number, maximum designed capacity and sill levels.
- (h) Discharge proposed to be passed through the Plant, initially and ultimately, and expected variations in the discharge on account of the daily and the weekly load fluctuations.

- (i) Maximum aggregate capacity of power units (exclusive of standby units) for Firm Power and Secondary Power.
- (j) Regulating Basin and its outlet works: type, number, size, sill levels and designed maximum discharge capacity.

5. *General*

- (a) Estimated effect of proposed development on the flow pattern below the last plant downstream (with details of estimation).
- (b) Probable date of completion of river works, and dates on which various stages of the Plant would come into operation.

APPENDIX III TO ANNEXURE D

(Paragraph 19)

1. *Location of Small Plant*

General map showing the location of the site on the Tributary and its situation with respect to the main river.

2. *Hydrologic Data*

- (a) Observed or estimated daily Tributary discharge (observed data will be given for as long a period as available; estimated data will be given for as long a period as possible; in both cases, data may be limited to the latest five years).
- (b) Flood data, observed or estimated (with details of estimation).
- (c) Gauge-discharge curve relating to discharge site.

3. *Hydraulic Data*

- (a) Stage-area and stage-capacity curves of the forebay with survey map on which based.
- (b) Full Pondage Level, Dead Storage Level and Operating Pool together with the calculations for the Operating Pool.

4. *Particulars of Design*

- (a) Dimensioned plan showing diversion works, outlet works, head-race and forebay, powerhouse and tail-race.
- (b) Type of diversion works, length and height of crest or top level of gates above the mean bed of the Tributary at the site.
- (c) Cross-section of the Tributary at the site; mean bed level.
- (d) Head-race and tail-race: length, size and designed maximum capacity.
- (e) Aggregate designed maximum discharge through the turbines.
- (f) Spillway, if any: type, length and crest level; size, number and top level of gates.
- (g) Maximum aggregate capacity of power units (exclusive of standby units) for Firm Power and Secondary Power.

ANNEXURE E—STORAGE OF WATERS BY INDIA ON THE WESTERN RIVERS

(ARTICLE III (4))

1. The provisions of this Annexure shall apply with respect to the storage of water on the Western Rivers, and to the construction and operation of Storage Works thereon, by India under the provisions of Article III (4).

2. As used in this Annexure :

- (a) “Storage Work” means a work constructed for the purpose of impounding the waters of a stream; but excludes
 - (i) a Small Tank,
 - (ii) the works specified in Paragraphs 3 and 4 of Annexure D, and
 - (iii) a new work constructed in accordance with the provisions of Annexure D.
- (b) “Reservoir Capacity” means the gross volume of water which can be stored in the reservoir.
- (c) “Dead Storage Capacity” means that portion of the Reservoir Capacity which is not used for operational purposes, and “Dead Storage” means the corresponding volume of water.
- (d) “Live Storage Capacity” means the Reservoir Capacity excluding Dead Storage Capacity, and “Live Storage” means the corresponding volume of water.
- (e) “Flood Storage Capacity” means that portion of the Reservoir Capacity which is reserved for the temporary storage of flood waters in order to regulate downstream flows, and “Flood Storage” means the corresponding volume of water.
- (f) “Surcharge Storage Capacity” means the Reservoir Capacity between the crest of an uncontrolled spillway or the top of the crest gates in normal closed position and the maximum water elevation above this level for which the dam is designed, and “Surcharge Storage” means the corresponding volume of water.
- (g) “Conservation Storage Capacity” means the Reservoir Capacity excluding Flood Storage Capacity, Dead Storage Capacity and Surcharge Storage Capacity, and “Conservation Storage” means the corresponding volume of water.
- (h) “Power Storage Capacity” means that portion of the Conservation Storage Capacity which is designated to be used for generating electric energy, and “Power Storage” means the corresponding volume of water.
- (i) “General Storage Capacity” means the Conservation Storage Capacity excluding Power Storage Capacity, and “General Storage” means the corresponding volume of water.
- (j) “Dead Storage Level” means the level of water in a reservoir corresponding to Dead Storage Capacity, below which level the reservoir does not operate.

- (k) "Full Reservoir Level" means the level of water in a reservoir corresponding to Conservation Storage Capacity.
- (l) "Multi-purpose Reservoir" means a reservoir capable of and intended for use for more than one purpose.
- (m) "Single-purpose Reservoir" means a reservoir capable of and intended for use for only one purpose.
- (n) "Small Tank" means a tank having a Live Storage of less than 700 acre-feet and fed only from a non-perennial small stream: Provided that the Dead Storage does not exceed 50 acre-feet.

3. There shall be no restriction on the operation as heretofore by India of those Storage Works which were in operation as on the Effective Date or on the construction and operation of Small Tanks.

4. As soon as India finds it possible to do so, but not later than 31st March 1961, India shall communicate to Pakistan in writing the information specified in the Appendix to this Annexure for such Storage Works as were in operation as on the Effective Date. If any such information is not available or is not pertinent to the design of the Storage Work or to the conditions at the site, it will be so stated.

5. (a) If any alteration proposed in the design of any of the Storage Works referred to in Paragraph 3 would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 4, India shall, at least 4 months in advance of making the alteration, communicate particulars of the change to Pakistan in writing and the provisions of Paragraph 6 shall then apply.

(b) In the event of an emergency arising which requires repairs to be undertaken to protect the integrity of any of the Storage Works referred to in Paragraph 3, India may undertake immediately the necessary repairs or alterations and, if these repairs or alterations result in a change in the information furnished to Pakistan under the provisions of Paragraph 4, India shall as soon as possible communicate particulars of the change to Pakistan in writing. The provisions of Paragraph 6 shall then apply.

6. Within three months of the receipt of the particulars specified in Paragraph 5, Pakistan shall communicate to India in writing any objection it may have with regard to the proposed change on the ground that the change involves a material departure from the criteria set out in Paragraph 11. If no objection is received by India from Pakistan within the specified period of three months, then Pakistan shall be deemed to have no objection. If a question arises as to whether or not the change involves a material departure from such of the criteria mentioned above as may be applicable, then either Party may proceed to have the question resolved in accordance with the provisions of Article IX (1) and (2).

7. The aggregate storage capacity of all Single-purpose and Multi-purpose Reservoirs which may be constructed by India after the Effective Date on each of the River Systems specified in Column (2) of the following table shall not exceed, for each of the categories shown in Columns (3), (4) and (5), the quantities specified therein:

		<i>Conservation Storage Capacity</i>		
	<i>River System</i>	<i>General Storage Capacity</i>	<i>Power Storage Capacity</i>	<i>Flood Storage Capacity</i>
(1)	(2)	(3)	(4)	(5)
		<i>million acre-feet</i>		
	(a) The Indus ...	0·25	0·15	Nil
	(b) The Jhelum (excluding the Jhelum Main) ...	0·50	0·25	0·75
	(c) The Jhelum Main	Nil	Nil	As pro- vided in Paragraph 9
	(d) The Chenab (excluding the Chenab Main) ...	0·50	0·60	Nil
	(e) The Chenab Main	Nil	0·60	Nil

Provided that

- (i) the storage specified in Column (3) above may be used for any purpose whatever, including the generation of electric energy.
- (ii) the storage specified in Column (4) above may also be put to Non-Consumptive Use (other than flood protection or flood control) or to Domestic Use;
- (iii) India shall have the option to increase the Power Storage Capacity specified against item (d) above by making a reduction by an equal amount in the Power Storage Capacity specified against items (b) or (e) above; and
- (iv) Storage Works to provide the Power Storage Capacity on the Chenab Main specified against item (e) above shall not be constructed at a point below Naunat (Latitude 33° 19' N. and Longitude 75° 59' E.).

8. The figures specified in Paragraph 7 shall be exclusive of the following:—

- (a) Storage in any Small Tank.
- (b) Any natural storage in a Connecting Lake, that is to say, storage not resulting from any man-made works.
- (c) Waters which, without any man-made channel or works, spill into natural depressions or borrow-pits during floods.
- (d) Dead Storage.
- (e) The volume of Pondage for hydro-electric plants under Annexure D and under Paragraph 21 (a).
- (f) Surcharge Storage.
- (g) Storage in a Regulating Basin (as defined in Annexure D).
- (h) Storage incidental to a barrage on the Jhelum Main or on the Chenab Main not exceeding 10,000 acre-feet.

9. India may construct on the Jhelum Main such works as it may consider necessary for flood control of the Jhelum Main and may complete any such works as were under construction on the Effective Date: Provided that

- (i) any storage which may be effected by such works shall be confined to off-channel storage in side valleys, depressions or lakes and will not involve any storage in the Jhelum Main itself; and
- (ii) except for the part held in lakes, borrow-pits or natural depressions, the stored waters shall be released as quickly as possible after the flood recedes and returned to the Jhelum Main lower down.

These works shall be constructed in accordance with the provisions of Paragraph 11 (d).

10. Notwithstanding the provisions of Paragraph 7, any Storage Work to be constructed on a Tributary of The Jhelum on which Pakistan has any Agricultural Use or hydro-electric use shall be so designed and operated as not to adversely affect the then existing Agricultural Use or hydro-electric use on that Tributary.

11. The design of any Storage Work (other than a Storage Work falling under Paragraph 3) shall conform to the following criteria:—

- (a) The Storage Work shall not be capable of raising artificially the water level in the reservoir higher than the designed Full Reservoir Level except to the extent necessary for Flood Storage, if any, specified in the design.
- (b) The design of the works shall take due account of the requirements of Surcharge Storage.
- (c) The volume between the Full Reservoir Level and the Dead Storage Level of any reservoir shall not exceed the Conservation Storage Capacity specified in the design.
- (d) With respect to the Flood Storage mentioned in Paragraph 9, the design of the works on the Jhelum Main shall be such that no water can spill from the Jhelum Main into the off-channel storage except when the water level in the Jhelum Main rises above the low flood stage.
- (e) Outlets or other works of sufficient capacity shall be provided to deliver into the river downstream the flow of the river received upstream of the Storage Work, except during freshets or floods. These outlets or works shall be located at the highest level consistent with sound and economical design and with satisfactory operation of the Storage Work.
- (f) Any outlets below the Dead Storage Level necessary for sediment control or any other technical purpose shall be of the minimum size, and located at the highest level, consistent with sound and economical design and with satisfactory operation of the Storage Work.
- (g) If a power plant is incorporated in the Storage Work, the intakes for the turbines shall be located at the highest level consistent with satisfactory and economical construction and operation of the plant and with customary and accepted practice of design for the designated range of the plant's operation.

12. To enable Pakistan to satisfy itself that the design of a Storage Work (other than a Storage Work falling under Paragraph 3) conforms to the criteria

mentioned in Paragraph 11, India shall, at least six months in advance of the beginning of construction of the Storage Work, communicate to Pakistan in writing the information specified in the Appendix to this Annexure; if any such information is not available or is not pertinent to the design of the Storage Work or to the conditions at the site, it will be so stated:

Provided that, in the case of a Storage Work falling under Paragraph 9,

- (i) if the work is a new work, the period of six months shall be reduced to four months, and
- (ii) if the work is a work under construction on the Effective Date, the information shall be furnished not later than 31st December 1960.

13. Within three months (or two months, in the case of a Storage Work specified in Paragraph 9) of the receipt by Pakistan of the information specified in Paragraph 12, Pakistan shall communicate to India in writing any objection that it may have with regard to the proposed design on the ground that the design does not conform to the criteria mentioned in Paragraph 11. If no objection is received by India from Pakistan within the specified period of three months (or two months, in the case of a Storage Work specified in Paragraph 9), then Pakistan shall be deemed to have no objection.

14. If a question arises as to whether or not the design of a Storage Work (other than a Storage Work falling under Paragraph 3) conforms to the criteria set out in Paragraph 11, then either Party may proceed to have the question resolved in accordance with the provisions of Article IX (1) and (2).

15. (a) If any alteration proposed in the design of a Storage Work (other than a Storage Work falling under Paragraph 3) before it comes into operation would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 12, India shall immediately communicate particulars of the change to Pakistan in writing and the provision of Paragraphs 13 and 14 shall then apply, but where a period of three months is specified in Paragraph 13, that period shall be reduced to two months.

(b) If any alteration proposed in the design of a Storage Work (other than a Storage Work falling under Paragraph 3), after it comes into operation would result in a material change in the information furnished to Pakistan under the provisions of Paragraph 12, India shall, at least four months in advance of making the alteration, communicate particulars of the change to Pakistan in writing and the provisions of Paragraphs 13 and 14 shall then apply, but where a period of three months is specified in Paragraph 13, that period shall be reduced to two months.

16. In the event of an emergency arising which requires repairs to be undertaken to protect the integrity of a Storage Work (other than a Storage Work falling under Paragraph 3), India may undertake immediately the necessary repairs or alterations; if these repairs or alterations result in a change in the information furnished to Pakistan under the provisions of Paragraph 12, India shall, as soon as possible, communicate particulars of the change to Pakistan in writing to enable Pakistan to satisfy itself that after such change the design of the work conforms to the criteria specified in Paragraph 11. The provisions of Paragraphs 13 and 14 shall then apply.

17. The Flood Storage specified against item (b) in Paragraph 7 may be effected only during floods when the discharge of the river exceeds the

amount specified for this purpose in the design of the work; the storage above Full Reservoir Level shall be released as quickly as possible after the flood recedes.

18. The annual filling of Conservation Storage and the initial filling below the Dead Storage Level, at any site, shall be carried out at such times and in accordance with such rules as may be agreed upon between the Commissioners. In case the Commissioners are unable to reach agreement, India may carry out the filling as follows:

- (a) if the site is on The Indus, between 1st July and 20th August;
- (b) if the site is on The Jhelum, between 21st June and 20th August; and
- (c) if the site is on The Chenab, between 21st June and 31st August at such rate as not to reduce, on account of this filling, the flow in the Chenab Main above Merala to less than 55,000 cusecs.

19. The Dead Storage shall not be depleted except in an unforeseen emergency. If so depleted, it will be refilled in accordance with the conditions of its initial filling.

20. Subject to the provisions of Paragraph 8 of Annexure C, India may make releases from Conservation Storage in any manner it may determine.

21. If a hydro-electric power plant is incorporated in a Storage Work (other than a Storage Work falling under Paragraph 3), the plant shall be so operated that:

- (a) the maximum Pondage (as defined in Annexure D) shall not exceed the Pondage required for the firm power of the plant, and the water-level in the reservoir corresponding to maximum Pondage shall not, on account of this Pondage, exceed the Full Reservoir Level at any time; and
- (b) except during the period in which a filling is being carried out in accordance with the provisions of Paragraph 18 or 19, the volume of water delivered into the river below the work during any period of seven consecutive days shall not be less than the volume of water received in the river upstream of the work in that seven-day period.

22. In applying the provisions of Paragraph 21 (b):

- (a) the period of seven consecutive days shall commence at 8 A.M. on every Saturday and the time shall be Indian Standard Time;
- (b) a tolerance of 10% in volume shall be permissible and adjusted as soon as possible; and
- (c) any temporary uncontrollable retention of water due to variation in river supply will be accounted for.

23. When the Live Storage Capacity of a Storage Work is reduced by sedimentation, India may, in accordance with the relevant provisions of this Annexure, construct new Storage Works or modify existing Storage Works so as to make up the storage capacity lost by sedimentation.

24. If a power plant incorporated in a Storage Work (other than a Storage Work falling under Paragraph 3) is used to operate a peak power plant and lies on any Tributary of The Jhelum on which there is any Agricultural Use

by Pakistan, a Regulating Basin (as defined in Annexure D) shall be incorporated.

25. If the change referred to in Paragraph 5 (a) or 15 is not material, India shall communicate particulars of the change to Pakistan, in writing, as soon as the alteration has been made or the repairs have been undertaken. The provisions of Paragraph 6 or Paragraphs 13 and 14, as the case may be, shall then apply.

APPENDIX TO ANNEXURE E

(Paragraphs 4 and 12)

1. *Location of Storage Work*

General map showing the location of the site; if on a Tributary, its situation with respect to the main river.

2. *Hydrologic Data*

- (a) General map (Scale: $\frac{1}{4}$ inch or more = 1 mile) showing the discharge observation site or sites or rainfall gauge stations, on whose data the design is based. In case of a work on a Tributary, this map should also show the catchment area of the Tributary above the site.
- (b) Observed or estimated daily river discharge data on which the design is based (observed data will be given for as long a period as available; estimated data will be given for as long a period as possible; in both cases data may be limited to the latest 25 years).
- (c) Flood data, observed or estimated (with details of estimation).
- (d) Gauge-discharge curve or curves for site or sites mentioned in (a) above.
- (e) Sediment data.

3. *Hydraulic Data*

- (a) Stage-area and stage-capacity curves of the reservoir with contoured survey maps on which based.
- (b) Reservoir Capacity, Dead Storage Capacity, Flood Storage Capacity, Conservation Storage Capacity, Power Storage Capacity, General Storage Capacity and Surcharge Storage Capacity.
- (c) Full Reservoir Level, Dead Storage Level and levels corresponding to Flood Storage and Surcharge Storage.
- (d) Estimated evaporation losses in the reservoir.
- (e) Maximum designed flood discharge and discharge-capacity curve for spillway.
- (f) If a power plant is incorporated in a Storage Work:
 - (i) Stage-area and stage-capacity curves of forebay and Regulating Basin, with contoured survey maps on which based.
 - (ii) Estimated evaporation losses in the Regulating Basin, head-race, forebay and tail-race.
 - (iii) Designated range of operation.

4. *Particulars of Design*

- (a) Dimensioned plan showing dam, spillway, diversion works and outlet works.
- (b) Type of dam, length and height above mean bed of the river.
- (c) Cross-section of the river at the site and mean bed level.
- (d) Type of spillway, length and crest level; size, number and top level of spillway gates.
- (e) Type of diversion works, maximum designed capacity, number and size; sill levels.
- (f) Outlet works: function, type, size, number, maximum designed capacity and sill levels.
- (g) If a power plant is incorporated in a Storage Work,
 - (i) Dimensioned plan showing head-race and forebay, powerhouse, tail-race and Regulating Basin.
 - (ii) Type of intake, maximum designed capacity, size and sill level.
 - (iii) Head-race and tail-race, length, size and maximum designed capacity.
 - (iv) Discharge proposed to be passed through the plant, initially and ultimately, and expected variations in the discharge on account of the daily and the weekly load fluctuations.
 - (v) Maximum aggregate capacity of power units (exclusive of standby units) for firm power and secondary power.
 - (vi) Regulating Basin and its outlet works: type, number, size, sill levels and designed maximum discharge capacity.

5. *General*

- (a) Probable date of completion of river works and probable dates on which various stages of the work would come into operation.
- (b) Estimated effect of proposed Storage Work on the flow pattern of river supplies below the Storage Work or, if India has any other Storage Work or Run-of-River Plant (as defined in Annexure D) below the proposed Storage Work, then on the flow pattern below the last Storage Work or Plant.

ANNEXURE F—NEUTRAL EXPERT

(ARTICLE IX (2))

Part 1—Questions to be referred to a Neutral Expert

1. Subject to the provisions of Paragraph 2, either Commissioner may, under the provisions of Article IX (2) (a), refer to a Neutral Expert any of the following questions:

- (1) Determination of the component of water available for the use of Pakistan
 - (a) in the Ravi Main, on account of the deliveries by Pakistan under the provisions of Article II (4), and

- (b) at various points on The Ravi or The Sutlej, on account of the deliveries by Pakistan under the provisions of Article III (3).
- (2) Determination of the boundary of the drainage basin of The Indus or The Jhelum or The Chenab for the purposes of Article III (2).
 - (3) Whether or not any use of water or storage in addition to that provided under Article III is involved in any of the schemes referred to in Article IV (2) or in Article IV (3) (b) and carried out by India on the Western Rivers.
 - (4) Questions relating to
 - (a) obligations with respect to construction or remodelling of, or pouring of waters into, any drainage or drain as provided in Article IV (3) (c) and Article IV (3) (d); and
 - (b) maintenance of drainages specified in Article IV (4).
 - (5) Questions arising under Article IV (7) as to whether any action taken by either Party is likely to have the effect of diverting the Ravi Main between Madhopur and Lahore, or the Sutlej Main between Harike and Suleimanke, from its natural channel between high banks.
 - (6) Determination of facts relating to questions arising under Article IV (11) or Article IV (12).
 - (7) Whether any of the data requested by either Party falls outside the scope of Article VI (2).
 - (8) Determination of withdrawals to be made by India under proviso (iii) to Paragraph 3 of Annexure C.
 - (9) Determination of schedule of releases from Conservation Storage under the provisions of Paragraph 8 of Annexure C.
 - (10) Whether or not any new Agricultural Use by India, on those Tributaries of The Jhelum on which there is any Agricultural Use or hydro-electric use by Pakistan, conforms to the provisions of Paragraph 9 of Annexure C.
 - (11) Questions arising under the provisions of Paragraph 7, Paragraph 11 or Paragraph 21 of Annexure D.
 - (12) Whether or not the operation by India of any plant constructed in accordance with the provisions of Part 3 of Annexure D conforms to the criteria set out in Paragraphs 15, 16 and 17 of that Annexure.
 - (13) Whether or not any new hydro-electric plant on an irrigation channel taking off the Western Rivers conforms to the provisos to Paragraph 24 of Annexure D.
 - (14) Whether or not the operation of a Storage Work which was in operation as on the Effective Date substantially conforms to the provisions of Paragraph 3 of Annexure E.
 - (15) Whether or not any part of the storage in a Connecting Lake is the result of man-made works constructed after the Effective Date (Paragraph 8 (b) of Annexure E).

- (16) Whether or not any flood control work constructed on the Jhelum Main conforms to the provisions of Paragraph 9 of Annexure E.
- (17) Whether or not any Storage Work to be constructed on a Tributary of The Jhelum on which Pakistan has any Agricultural Use or hydro-electric use conforms to the provisions of Paragraph 10 of Annexure E.
- (18) Questions arising under the provisions of Paragraph 6 or 14 of Annexure E.
- (19) Whether or not the operation of any Storage Work constructed by India, after the Effective Date, conforms to the provisions of Paragraphs 17, 18, 19, 21 and 22 of Annexure E and, to the extent necessary, to the provisions of Paragraph 8 of Annexure C.
- (20) Whether or not the storage capacity proposed to be made up by India under Paragraph 23 of Annexure E exceeds the storage capacity lost by sedimentation.
- (21) Determination of modifications to be made in the provisions of Parts 2, 4 or 5 of Annexure H in accordance with Paragraphs 11, 31 or 38 thereof when the additional supplies referred to in Paragraph 66 of that Annexure become available.
- (22) Modification of Forms under the provisions of Paragraph 41 of Annexure H.
- (23) Revision of the figure for the conveyance loss from the head of the Madhopur Beas Link to the junction of the Chakki Torrent with the Beas Main under the provisions of Paragraph 45 (c) (ii) of Annexure H.

2. If a claim for financial compensation has been raised with respect to any question specified in Paragraph 1, that question shall not be referred to a Neutral Expert unless the two Commissioners are agreed that it should be so referred.

3. Either Commissioner may refer to a Neutral Expert under the provisions of Article IX (2) (a) any question arising with regard to the determination of costs under Article IV (5), Article IV (11), Article VII (1) (a) or Article VII (1) (b).

Part 2—Appointment and Procedure

4. A Neutral Expert shall be a highly qualified engineer, and, on the receipt of a request made in accordance with Paragraph 5, he shall be appointed, and the terms of his retainer shall be fixed, as follows:—

- (a) During the Transition Period, by the Bank.
- (b) After the expiration of the Transition Period,
 - (i) jointly by the Government of India and the Government of Pakistan, or
 - (ii) if no appointment is made in accordance with (i) above within one month after the date of the request, then by such person or body as may have been agreed upon between the two Governments in advance, on an annual basis, or, in the absence of such agreement, by the Bank.

Provided that every appointment made in accordance with (a) or (b) (ii) above shall be made after consultation with each of the Parties.

The Bank shall be notified of every appointment, except when the Bank is itself the appointing authority.

5. If a difference arises and has to be dealt with in accordance with the provisions of Article IX (2) (a), the following procedure will be followed:—

- (a) The Commissioner who is of the opinion that the difference falls within the provisions of Part 1 of this Annexure (hereinafter in this paragraph referred to as “the first Commissioner”) shall notify the other Commissioner of his intention to ask for the appointment of a Neutral Expert. Such notification shall clearly state the paragraph or paragraphs of Part 1 of this Annexure under which the difference falls and shall also contain a statement of the point or points of difference.
- (b) Within two weeks of the receipt by the other Commissioner of the notification specified in (a) above, the two Commissioners will endeavour to prepare a joint statement of the point or points of difference.
- (c) After expiry of the period of two weeks specified in (b) above, the first Commissioner may request the appropriate authority specified in Paragraph 4 to appoint a Neutral Expert; a copy of the request shall be sent at the same time to the other Commissioner.
- (d) The request under (c) above shall be accompanied by the joint statement specified in (b) above; failing this, either Commissioner may send a separate statement to the appointing authority and, if he does so, he shall at the same time send a copy of the separate statement to the other Commissioner.

6. The procedure with respect to each reference to a Neutral Expert shall be determined by him, provided that:

- (a) he shall afford to each Party an adequate hearing;
- (b) in making his decision, he shall be governed by the provisions of this Treaty and by the *compromis*, if any, presented to him by the Commission; and
- (c) without prejudice to the provisions of Paragraph 3, unless both Parties so request, he shall not deal with any issue of financial compensation.

7. Should the Commission be unable to agree that any particular difference falls within Part 1 of this Annexure, the Neutral Expert shall, after hearing both Parties, decide whether or not it so falls. Should he decide that the difference so falls, he shall proceed to render a decision on the merits; should he decide otherwise, he shall inform the Commission that, in his opinion, the difference should be treated as a dispute. Should the Neutral Expert decide that only a part of the difference so falls, he shall, at his discretion, either:

- (a) proceed to render a decision on the part which so falls, and inform the Commission that, in his opinion, the part which does not so fall should be treated as a dispute, or

(b) inform the Commission that, in his opinion, the entire difference should be treated as a dispute.

8. Each Government agrees to extend to the Neutral Expert such facilities as he may require for the discharge of his functions.

9. The Neutral Expert shall, as soon as possible, render a decision on the question or questions referred to him, giving his reasons. A copy of such decision, duly signed by the Neutral Expert, shall be forwarded by him to each of the Commissioners and to the Bank.

10. Each Party shall bear its own costs. The remuneration and the expenses of the Neutral Expert and of any assistance that he may need shall be borne initially as provided in Part 3 of this Annexure and eventually by the Party against which his decision is rendered, except as, in special circumstances, and for reasons to be stated by him, he may otherwise direct. He shall include in his decision a direction concerning the extent to which the costs of such remuneration and expenses are to be borne by either Party.

11. The decision of the Neutral Expert on all matters within his competence shall be final and binding, in respect of the particular matter on which the decision is made, upon the Parties and upon any Court of Arbitration established under the provisions of Article IX (5).

12. The Neutral Expert may, at the request of the Commission, suggest for the consideration of the Parties such measures as are, in his opinion, appropriate to compose a difference or to implement his decision.

13. Without prejudice to the finality of the Neutral Expert's decision, if any question (including a claim to financial compensation) which is not within the competence of a Neutral Expert should arise out of his decision, that question shall, if it cannot be resolved by agreement, be settled in accordance with the provisions of Article IX (3), (4) and (5).

Part 3—Expenses

14. India and Pakistan shall, within 30 days after the Treaty enter into force, each pay to the Bank the sum of U.S. \$5,000 to be held in trust by the Bank, together with any income therefrom and any other amounts payable to the Bank hereunder, on the terms and conditions hereinafter set forth in this Annexure.

15. The remuneration and expenses of the Neutral Expert, and of any assistance that he may need, shall be paid or reimbursed by the Bank from the amounts held by it hereunder. The Bank shall be entitled to rely upon the statement of the Neutral Expert as to the amount of the remuneration and expenses of himself (determined in accordance with the terms of his retainer) and of any such assistance utilized by him.

16. Within 30 days of the rendering of a decision by the Neutral Expert, the Party or Parties concerned shall, in accordance with that decision, refund to the Bank the amounts paid by the Bank pursuant to Paragraph 15.

17. The Bank will keep amounts held by it hereunder separate from its other assets, in such form, in such banks or other depositories and in such

accounts as it shall determine. The Bank may, but it shall not be required to, invest these amounts. The Bank will not be liable to the Parties for failure of any depository or other person to perform its obligations. The Bank shall be under no obligation to make payments hereunder of amounts in excess of those held by it hereunder.

18. If at any time or times the amounts held by the Bank hereunder shall in its judgment be insufficient to meet the payments provided for in Paragraph 15, it will so notify the Parties, which shall, within 30 days thereafter, pay to the Bank, in equal shares, the amount specified in such notice as being the amount required to cover the deficiency. Any amounts so paid to the Bank may, by agreement between the Bank and the Parties, be refunded to the Parties.

ANNEXURE G—COURT OF ARBITRATION

(ARTICLE IX (5))

1. If the necessity arises to establish a Court of Arbitration under the provisions of Article IX, the provisions of this Annexure shall apply.

2. The arbitration proceeding may be instituted

(a) by the two Parties entering into a special agreement (*compromis*) specifying the issues in dispute, the composition of the Court and instructions to the Court concerning its procedures and any other matters agreed upon between the Parties; or

(b) at the request of either Party to the other in accordance with the provisions of Article IX (5) (b) or (c). Such request shall contain a statement setting forth the nature of the dispute or claim to be submitted to arbitration, the nature of the relief sought and the names of the arbitrators appointed under Paragraph 6 by the Party instituting the proceeding.

3. The date of the special agreement referred to in Paragraph 2 (a), or the date on which the request referred to in Paragraph 2 (b) is received by the other Party, shall be deemed to be the date on which the proceeding is instituted.

4. Unless otherwise agreed between the Parties, a Court of Arbitration shall consist of seven arbitrators appointed as follows:—

(a) Two arbitrators to be appointed by each Party in accordance with Paragraph 6; and

(b) Three arbitrators (hereinafter sometimes called the umpires) to be appointed in accordance with Paragraph 7, one from each of the following categories:—

(i) Persons qualified by status and reputation to be Chairman of the Court of Arbitration who may, but need not, be engineers or lawyers.

(ii) Highly qualified engineers.

(iii) Persons well versed in international law.

The Chairman of the Court shall be a person from category (b) (i) above.

5. The Parties shall endeavour to nominate and maintain a Standing Panel of umpires (hereinafter called the Panel) in the following manner:—

- (a) The Panel shall consist of four persons in each of the three categories specified in Paragraph 4 (b).
- (b) The Panel will be selected, as soon as possible after the Effective Date, by agreement between the Parties and with the consent of the persons whose names are included in the Panel.
- (c) A person may at any time be retired from the Panel at the request of either Party: Provided however that he may not be so retired
 - (i) during the period after arbitration proceedings have been instituted under Paragraph 2 (b) and before the process described in Paragraph 7 (a) has been completed; or
 - (ii) during the period after he has been appointed to a Court and before the proceedings are completed.
- (d) If a member of the Panel should die, resign or be retired, his successor shall be selected by agreement between the Parties.

6. The arbitrators referred to in Paragraph 4 (a) shall be appointed as follows:—

The Party instituting the proceeding shall appoint two arbitrators at the time it makes a request to the other Party under Paragraph 2 (b). Within 30 days of the receipt of this request, the other Party shall notify the names of the arbitrators appointed by it.

7. The umpires shall be appointed as follows:—

- (a) If a Panel has been nominated in accordance with the provisions of Paragraph 5, each umpire shall be selected as follows from the Panel, from his appropriate category, provided that the category has, at that time, at least three names on the Panel:—

The Parties shall endeavour to agree to place the names of the persons in each category in the order in which they shall be invited to serve on the Court. If such agreement cannot be reached within 30 days of the date on which the proceeding is instituted, the Parties shall promptly establish such an order by drawing lots. If, in any category, the person whose name is placed first in the order so established, on receipt of an invitation to serve on the Court, declines to do so, the person whose name is next on the list shall be invited. The process shall be repeated until the invitation is accepted or all names in the category are exhausted.

- (b) If a Panel has not been nominated in accordance with Paragraph 5, or if there should be less than three names on the Panel in any category or if no person in a category accepts the invitation referred to in Paragraph 7 (a), the umpires, or the remaining umpires or umpire, as the case may be, shall be appointed as follows:—

- (i) By agreement between the Parties.
- (ii) Should the Parties be unable to agree on the selection of any or all of the three umpires, they shall agree on one or more persons to help them in making the necessary selection by

agreement; but if one or more umpires remain to be appointed 60 days after the date on which the proceeding is instituted, or 30 days after the completion of the process described in sub-paragraph (a) above, as the case may be, then the Parties shall determine by lot for each umpire remaining to be appointed, a person from the appropriate list set out in the Appendix to this Annexure, who shall then be requested to make the necessary selection.

- (iii) A national of India or Pakistan, or a person who is, or has been, employed or retained by either of the Parties shall be disqualified from selection under sub-paragraph (ii) above :

Provided that

- (1) the person making the selection shall be entitled to rely on a declaration from the appointee, before his selection, that he is not disqualified on any of the above grounds; and
- (2) the Parties may by agreement waive any or all of the above disqualifications in the case of any individual appointee.
- (iv) The lists in the Appendix to this Annexure may, from time to time, be modified or enlarged by agreement between the Parties.

8. In selecting umpires pursuant to Paragraph 7, the Chairman shall be selected first, unless the Parties otherwise agree.

9. Should either Party fail to participate in the drawing of lots as provided in Paragraphs 7 and 10, the other Party may request the President of the Bank to nominate a person to draw the lots, and the person so nominated shall do so after giving due notice to the Parties and inviting them to be represented at the drawing of the lots.

10. In the case of death, retirement or disability from any cause of one of the arbitrators or umpires his place shall be filled as follows:—

- (a) In the case of one of the arbitrators appointed under Paragraph 6, his place shall be filled by the Party which appointed him. The Court shall, on request, suspend the proceedings but for not longer than 15 days pending such replacement.
- (b) In the case of an umpire, a new appointment shall be made by agreement between the Parties or, failing such agreement, by a person determined by lot from the appropriate list set out in the Appendix to this Annexure, who shall then be requested to make the necessary selection subject to the provisions of Paragraph 7 (b) (iii). Unless the Parties otherwise agree, the Court shall suspend the proceedings pending such replacement.

11. As soon as the three umpires have accepted appointment, they together with such arbitrators as have been appointed by the two Parties under Paragraph 6 shall form the Court of Arbitration. Unless the Parties otherwise agree, the Court shall be competent to transact business only when all the three umpires and at least two arbitrators are present.

12. Each Party shall be represented before the Court by an Agent and may have the assistance of Counsel.

13. Within 15 days of the date of institution of a proceeding, each Party shall place sufficient funds at the disposal of its Commissioner to meet in equal shares the initial expenses of the umpires to enable them to attend the first meeting of the Court. If either Party should fail to do so, the other Party may initially meet the whole of such expenses.

14. The Court of Administration shall convene, for its first meeting, on such date and at such a place as shall be fixed by the Chairman.

15. At its first meeting the Court shall

- (a) establish its secretariat and appoint a Treasurer;
- (b) make an estimate of the likely expenses of the Court and call upon each Party to pay to the Treasurer half of the expenses so estimated: Provided that, if either Party should fail to make such payment, the other Party may initially pay the whole of the estimated expenses;
- (c) specify the issues in dispute;
- (d) lay down a programme for submission by each side of legal pleadings and rejoinders; and
- (e) determine the time and place of reconvening the Court.

Unless special circumstances arise, the Court shall not reconvene until the pleadings and rejoinders have been closed. During the intervening period, at the request of either Party, the Chairman of the Court may, for sufficient reason, make changes in the arrangements made under (d) and (e) above.

16. Subject to the provisions of this Treaty and except as the Parties may otherwise agree, the Court shall decide all questions relating to its competence and shall determine its procedure, including the time within which each Party must present and conclude its arguments. All such decisions of the Court shall be by a majority of those present and voting. Each arbitrator, including the Chairman, shall have one vote. In the event of an equality of votes, the Chairman shall have a casting vote.

17. The proceedings of the Court shall be in English.

18. Two or more certified copies of every document produced before the Court by one Party shall be communicated by the Court to the other Party; the Court shall not take cognizance of any document or paper or fact presented by a Party unless so communicated.

19. The Chairman of the Court shall control the discussions. The discussions shall not be open to the public unless it is so decided by the Court with the consent of the Parties. The discussions shall be recorded in minutes drawn up by the Secretaries appointed by the Chairman. These minutes shall be signed by the Chairman and shall alone have an authentic character.

20. The Court shall have the right to require from the Agents of the Parties the production of all papers and other evidence it considers necessary and to demand all necessary explanations. In case of refusal, the Court shall take formal note of it.

21. The members of the Court shall be entitled to put questions to the Agents and Counsel of the Parties and to demand explanations from them on doubtful points. Neither the questions put nor the remarks made by the

members of the Court during the discussions shall be regarded as an expression of an opinion of the Court or any of its members.

22. When the Agents and Counsel of the Parties have, within the time allotted by the Court, submitted all explanations and evidence in support of their case, the Court shall pronounce the discussions closed. The Court may, however, at its discretion re-open the discussions at any time before making its Award. The deliberations of the Court shall be in private and shall remain secret.

23. The Court shall render its Award, in writing, on the issues in dispute and on such relief, including financial compensation, as may have been claimed. The Award shall be accompanied by a statement of reasons. An Award signed by four or more members of the Court shall constitute the Award of the Court. A signed counterpart of the Award shall be delivered by the Court to each Party. Any such Award rendered in accordance with the provisions of this Annexure in regard to a particular dispute shall be final and binding upon the Parties with respect to that dispute.

24. The salaries and allowances of the arbitrators appointed pursuant to Paragraph 6 shall be determined and, in the first instance, borne by their Governments; those of the umpires shall be agreed upon with them by the Parties or by the persons appointing them, and (subject to Paragraph 13) shall be paid, in the first instance, by the Treasurer. The salaries and allowances of the secretariat of the Court shall be determined by the Court and paid, in the first instance, by the Treasurer.

25. Each Government agrees to accord to the members and officials of the Court of Arbitration and to the Agents and Counsel appearing before the Court 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 these Sections. The Chairman of the Court, with the approval of the Court, has the right and the duty to waive the immunity of any official of the Court in any case where the immunity would impede the course of justice and can be waived without prejudice to the interests of the Court. The Government appointing any of the aforementioned Agents and Counsel has the right and the duty to waive the immunity of any of its said appointees in any case where in its opinion the immunity would impede the course of justice and can be waived without prejudice to the effective performance of the functions of the said appointees. The immunities and privileges provided for in this paragraph shall not be applicable as between an Agent or Counsel appearing before the Court and the Government which has appointed him.

26. In its Award, the Court shall also award the costs of the proceedings, including those initially borne by the Parties and those paid by the Treasurer.

27. At the request of either Party, made within three months of the date of the Award, the Court shall reassemble to clarify or interpret its Award. Pending such clarification or interpretation the Court may, at the request of either Party and if in the opinion of the Court circumstances so require, grant a stay of execution of its Award. After furnishing this clarification or interpretation, or if no request for such clarification or interpretation is made

within three months of the date of the Award, the Court shall be deemed to have been dissolved.

28. Either Party may request the Court at its first meeting to lay down, pending its Award, such interim measures as, in the opinion of that Party, are necessary to safeguard its interests under the Treaty with respect to the matter in dispute, or to avoid prejudice to the final solution or aggravation or extension of the dispute. The Court shall, thereupon, after having afforded an adequate hearing to each Party, decide, by a majority consisting of at least four members of the Court, whether any interim measures are necessary for the reasons hereinbefore stated and, if so, shall specify such measures: Provided that

- (a) the Court shall lay down such interim measures only for such specified period as, in its opinion, will be necessary to render the Award: this period may, if necessary, be extended unless the delay in rendering the Award is due to any delay on the part of the Party which requested the interim measures in supplying such information as may be required by the other Party or by the Court in connection with the dispute; and
- (b) the specification of such interim measures shall not be construed as an indication of any view of the Court on the merits of the dispute.

29. Except as the Parties may otherwise agree, the law to be applied by the Court shall be this Treaty and, whenever necessary for its interpretation or application, but only to the extent necessary for that purpose, the following in the order in which they are listed:—

- (a) International conventions establishing rules which are expressly recognized by the Parties.
- (b) Customary international law.

APPENDIX TO ANNEXURE G

(Paragraph 7 (b))

List I
for selection of
Chairman

- (i) The Secretary-General of the United Nations
- (ii) The President of the International Bank for Reconstruction and Development

List II
for selection of
Engineer Member

- (i) The President of Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.
- (ii) The Rector of the Imperial College of Science and Technology, London, England

List III
for selection of
Legal Member

- (i) The Chief Justice of the United States
- (ii) The Lord Chief Justice of England

ANNEXURE H

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ANNEXURE H—TRANSITIONAL ARRANGEMENTS

ARTICLE II (5)

Part 1—Preliminary

1. The provisions of Article II (5) with respect to the distribution of the waters of the Eastern Rivers during the Transition Period shall be governed by the provisions of this Annexure. With the exception of the provisions of Paragraph 50, all the provisions of this Annexure shall lapse on the date on which the Transition Period ends. The provisions of Paragraphs 50 and 51 shall lapse as soon as the final refund or the additional payment referred to therein has been made for the last year of the Transition Period.

2. For the purposes of this Annexure, the Transition Period shall be divided into two parts: Phase I and Phase II.

3. Phase I shall begin on 1st April 1960 and it shall end on 31st March 1965, or, if the proposed Trimmu-Islam Link is not ready to operate by

31st March 1965 but is ready to operate prior to 31st March 1966 then, on the date on which the link is ready to operate. In any event, whether or not the Trimmu-Islam Link is ready to operate, Phase I shall end not later than 31st March 1966.

4. Phase II shall begin on 1st April 1965, or, if Phase I has been extended under the provisions of Paragraph 3, then on the day following the end of Phase I but in any case not later than 1st April 1966. Phase II shall end on the same date as the Transition Period.

5. As used in this Annexure :

- (a) The term 'Central Bari Doab Channels' or 'C.B.D.C.' means the system of irrigation channels located in Pakistan which, prior to 15th August 1947, formed a part of the Upper Bari Doab Canal System.
- (b) The terms '*kharif*' and '*rabi*' respectively mean the crop seasons extending from 1st April to 30th September (both days inclusive) and 1st October to 31st March (both days inclusive).
- (c) The term 'Water-accounting Period' means the period which is treated as a unit for the purpose of preparing an account of the distribution of waters between India and Pakistan.
- (d) The term 'Beas Component at Ferozepore' means the amount of flow water derived from The Beas which would have reached Ferozepore if there had been
 - (i) no transfers from The Ravi or contribution from The Sutlej,
 - (ii) no withdrawals by the canals at Harike,
 - (iii) no abstraction of flow waters by, or release of stored waters from, any storage reservoir on The Beas or the pond at Harike,
 - (iv) no withdrawals by the Shahnehr Canal in excess of those specified in Paragraph 55, and
 - (v) no withdrawal by any new canal from the The Beas or from the Sutlej Main between Harike Below and Ferozepore constructed after the Effective Date with a capacity of more than 10 cusecs.
- (e) The term 'Sutlej Component at Ferozepore' means the amount of flow water derived from The Sutlej which would have reached Ferozepore if there had been
 - (i) no transfers from The Ravi or contribution from The Beas,
 - (ii) no withdrawals, as at Rupar, in excess of those specified in Paragraph 21 (a), and
 - (iii) no abstraction of flow waters by, or release of stored waters from, any storage reservoir on The Sutlej or the ponds at Nangal or Harike.

Part 2—Distribution of the Waters of the Ravi

6. Subject to the provisions of Paragraph 20 and to the payment by Pakistan, by due date, of the amounts to be specified under the provisions of Paragraph 48, India agrees to continue the supply of water to the C.B.D.C., during the Transition Period, in accordance with the provisions of Paragraphs 7 to 19. The balance of the waters of The Ravi, after India has made the

deliveries specified in these Paragraphs or the releases specified in Paragraph 20, shall be available for unrestricted use by India.

7. India will deliver supplies to the C.B.D.C. throughout *rabi* and during April 1-10 and September 21-30 in *khariif* (dates as at the points of delivery, no time-lag being allowed from Madhopur to these points), at the points noted in Column (3) of Table A below, according to indents to be placed by Pakistan, up to the maximum quantity noted against each point in Column (4) of Table A:

TABLE A

<i>Item</i>	<i>Name of Channel</i>	<i>Point of Delivery</i> (Approximate)	<i>Maximum Quantity</i> (cusecs)
<i>Col. (1)</i>	<i>Col. (2)</i>	<i>Col. (3)</i>	<i>Col. (4)</i>
1.	Lahore Branch	R.D. 196,455	615
2.	Main Branch Lower	R.D. 250,620	1,382
3.	Pull Distributary	R.D. 74,595	10
4.	Kohali Distributary	R.D. 67,245	26
5.	Khalra Distributary	R.D. 26,900	11
6.	Bhuchar Kahna Dis- tributary... ..	R.D. 15,705	317
Total			2,361

8. (a) The supply available in the Ravi Main, at Madhopur Above, after deducting the actual withdrawal (the deduction being limited to a maximum of 120 cusecs during April 1-10 and September 21-30 and to nil cusecs during *rabi*) for the Kashmir (Basantpur) Canal, will be taken as the 'gross supply available': Provided that any withdrawal from The Ravi upstream of Madhopur by a new canal constructed after the Effective Date with a capacity of more than 10 cusecs will be accounted for in working out the supply available in the Ravi Main at Madhopur Above.

(b) From the 'gross supply available' as determined in (a) above, the escapages, if any, from the Upper Bari Doab Canal into The Ravi will be deducted to get the 'net supply available'. India will use its best endeavours to limit these escapages to the minimum necessary for operational requirements.

(c) The 'net supply available' as determined in (b) above, limited to a daily ceiling of 6,800 cusecs during April 1-10 and 21st September to 15th October and of 5,770 cusecs during 16th October to 31st March, will be taken as the 'distributable supply'.

9. If the 'distributable supply' falls below 6,800 cusecs during April 1-10 or 21st September to 15th October, the aggregate deliveries to the C.B.D.C. may be reduced to 34.7 per cent of the 'distributable supply'. If the 'distributable supply' falls below 5,770 cusecs during 16th October to 31st March, the aggregate deliveries to the C.B.D.C. may be reduced to 41 per cent of the 'distributable supply'.

10. If in any year after the Rasul-Qadirabad and the Qadirabad-Balloki Links are ready to operate, the average discharge for a period of five consecutive days during 21st February to 6th April in the Jhelum Main at Rasul Above (including the supply in the tail-race of the Rasul hydro-electric plant) exceeds 20,000 cusecs and the daily discharge is not less than 17,000 cusecs on any of these five days, India may, from a date four days after the expiry of the said period of five days, discontinue deliveries to the C.B.D.C. from that date until 10th April in that year: Provided that, if India should decide to exercise this option, India shall notify Pakistan telegraphically three days in advance of the date proposed for the discontinuance of deliveries.

11. As soon as the supplies specified in Paragraph 66 are available for reduction of deliveries by India during September 21-30 and *rabi*, the Commissioners will meet and agree upon suitable modifications in the provisions of this Part of this Annexure. In case the Commissioners are unable to agree, the difference shall be dealt with by a Neutral Expert in accordance with the provisions of Annexure F.

12. A rotational programme will be followed for the distribution of supplies during 16th October to 31st March; it will be extended, if necessary, for the distribution of supplies during 21st September to 15th October and April 1-10. This programme will be framed and, if necessary, modified by the Chief Engineer, Punjab, India, in such manner as will enable the C.B.D.C. to get the due percentage of the 'distributable supply' during each of the following Water-accounting Periods:—

- (i) 21st September to 15th October.
- (ii) 16th October to 2nd December (*rabi* sowing period).
- (iii) 3rd December to 12th February (*rabi* growing period).
- (iv) 13th February to 31st March (*rabi* maturing period).
- (v) April 1-10.

In framing, operating and, if necessary, modifying the rotational programme, the Chief Engineer, Punjab, will make every effort to see that, within each of the Water-accounting Periods specified above, the supplies delivered to the C.B.D.C. are spread out over the period as fairly as the prevailing circumstances permit.

13. The Chief Engineer, West Pakistan, will communicate to the Chief Engineer, Punjab (India) by 31st August each year, his suggestions, if any, for framing the next rotational programme and the Chief Engineer, Punjab, in framing that programme, will give due consideration to these suggestions. Copies of the programme shall be supplied by the Chief Engineer, Punjab, to the Chief Engineer, West Pakistan, and to the Commissioners, as early as possible but not later than 30th September each year. Copies of the modified programme shall similarly be supplied as soon as possible after the modifications have been made and the Chief Engineer, West Pakistan, and the Commissioners will be kept informed of the circumstances under which the modifications are made.

14. Neither Party shall have any claim for restitution of water not used by it when available to it.

15. India will give Pakistan adequate prior notice of any closures at the head of the Upper Bari Doab Canal during the period 21st September to 10th April. If, however, on account of any operational emergency, India finds it necessary to suddenly close the Upper Bari Doab Canal at head, or any channel specified in Table A, India will notify Pakistan telegraphically.

16. No claim whatsoever shall lie against India for any interruption of supply to the C.B.D.C. due to a closure of the Upper Bari Doab Canal at head, or of any channel specified in Table A, if such closure is considered necessary by India in the interest of the safety or the maintenance of the Upper Bari Doab Canal system.

17. India will use its best endeavours not to pass into any of the channels listed as Items 1, 2 and 6 of Table A, any supplies in excess of 110 per cent of the corresponding figure given in Column (4) of that Table. Any supplies passed into any of the aforesaid channels in excess of 105 per cent of the corresponding figure given in Column (4) of Table A will not be taken into account in drawing up the water-account. If however the indent of any channel is less than the corresponding figure given in Column (4) of Table A, the supplies passed into that channel up to 110 per cent of the indent will be taken into account in drawing up the water-account.

18. If, because of unavoidable circumstances arising out of the inherent difficulties in the operation of the Upper Bari Doab Canal (U.B.D.C.) system, deliveries to C.B.D.C. are temporarily reduced below the amounts indented or due (whichever amounts are less), no claim for financial compensation shall lie against India on this account. India will make every effort to bring about at the earliest possible opportunity a resumption of deliveries to C.B.D.C. up to the amounts indented or due (whichever amounts are less).

19. The delivery into each of the channels specified in Table A will be regulated by India in accordance with the discharge table current for that channel on the Effective Date until that table is revised, if necessary, on the basis of

- (i) any discharge observation made by India whenever it may consider necessary to do so, but not more often than once in two months; or
- (ii) any joint discharge observation by India and Pakistan which may be undertaken at the request of either Commissioner, but not more often than once in three months; the observation shall be made within a fortnight of the receipt of the request.

India will supply to Pakistan, for each channel specified in Table A, a copy of the discharge table current on the Effective Date and of any revised discharge table prepared thereafter in accordance with (i) or (ii) above.

20. Pakistan shall have the option to request India to discontinue the deliveries to C.B.D.C. at the points specified in Table A and to release instead equal supplies (that is, those due under the provisions of Paragraphs 7 to 11) into the Ravi Main below Madhopur. This option may be exercised, effective 1st April in any year, by written notification delivered to India before 30th September preceding. On receipt of such notification, India shall comply with Pakistan's request and thereupon India shall have no obligation to make

deliveries to C.B.D.C. at the points specified in Table A during the remaining part of the Transition Period, but will use its best endeavours to ensure that no abstraction is made by India below Madhopur from the supplies so released.

Part 3.—Distribution of the Waters of The Sutlej and The Beas in Kharif during Phase I

21. Except as provided in Paragraphs 22, 23, 24 and 27, India agrees to limit its withdrawals during Phase I at Bhakra, Nangal, Rupar, Harike and Ferozepore (including abstractions for storage by the Bhakra Dam and for the ponds at Nangal and Harike) and by the Bachherewah Grey Canal from the flow waters (as distinct from stored waters) present in the Sutlej Main and from the 'Beas Component at Ferozepore', in each Water-accounting Period, to the equivalent of the following:

- (a) 10,250 cusecs from April 1-10 to July 1-10; 12,000 cusecs from July 11-20 to August 21-31 and 10,500 cusecs during September 1-10 to 21-30 from the Sutlej Main, as at Rupar; *plus*
- (b) 3,500 cusecs during April 1-10 to 21-30; 4,500 cusecs during May 1-10 to 21-31 and 5,500 cusecs from June 1-10 to September 21-30, as at Ferozepore, from the 'Sutlej Component at Ferozepore' and the 'Beas Component at Ferozepore' taken together: Provided that this withdrawal shall not exceed the sum of the 'Sutlej Component at Ferozepore' and 16 per cent of the 'Beas Component at Ferozepore'.

22. In addition to the withdrawals under Paragraph 21, India may make further withdrawals, in each Water-accounting Period, equivalent to the amount related to Pakistan's ability to replace. This amount shall be determined as follows:—

- (a) For each Water-accounting Period, the 'average discharge at Merala Above' shall first be worked out as follows:
 - (i) The daily figures for the discharges at Merala Above shall be limited to a minimum equal to the figure for the appropriate Floor Discharge at Merala Above, as given in Column (2) of Table B below, and to a maximum of M cusecs where M has the following values:

<i>Period</i>	<i>Value of M</i> (<i>cusecs</i>)
April 1-10	28,000
11-20	33,000
21-30	35,000
May 1-10	41,000
11-20	43,000
May 21-31 } to } Sept. 21-30 }	45,000

- (ii) The average of the daily figures, limited in accordance with (i) above, will be taken as the 'average discharge at Merala Above', for the Water-accounting Period.

- (b) For each Water-accounting Period, the 'gross amount' as at Ferozepore, corresponding to the 'average discharge at Merala Above', as determined in (a) above, shall next be worked out from Table B, in the following manner:

When the 'average discharge at Merala Above' is equal to the Floor Discharge shown in Column (2) of Table B, the 'gross amount', as at Ferozepore, shall be zero. When the 'average discharge at Merala Above' equals or exceeds the Ceiling Discharge shown in Column (3) of Table B, the 'gross amount', as at Ferozepore, shall be the amount shown in Column (4) of Table B. For an 'average discharge at Merala Above' between those shown in Columns (2) and (3) of Table B, the 'gross amount', as at Ferozepore, shall be the proportional intermediate amount: Provided that

- (i) if during April 1-10 in any year, the 'average discharge at Merala Above' is equal to 11,100 cusecs and the 'gross amount' for the whole of the preceding March, under the provisions of Paragraph 35, has been equal to zero, then for the succeeding April 11-20 the figures for Columns (2), (3) and (4) of Table B will be taken as 12,000; 23,400 and 8,600 respectively; no change will be made for calculating the 'gross amount' in any subsequent Water-accounting Period in that year, but if, in addition to the conditions already stated for April 1-10, the 'average discharge at Merala Above', during April 11-20, equals 12,000 cusecs, then for the succeeding April 21-30 the figures for Columns (2), (3) and (4) of Table B will be taken as 12,100; 23,500 and 8,600 respectively; no change will be made for calculating the 'gross amount' in any subsequent Water-accounting Period in that year;
- (ii) if during March 21-31 in any year, the average discharge at Merala Above (obtained by limiting the daily values to a maximum of 27,000 cusecs) exceeds 22,000 cusecs, then for the succeeding April 1-10 the figures for Columns (2), (3) and (4) of Table B will be taken as 11,100; 26,700 and 12,900 respectively; no change will be made for any subsequent Water-accounting Period in that year; and
- (iii) if, during any Water-accounting period from April 1-10 to September 21-30, the Upper Chenab Canal (U.C.C.) and M.R. Link are both closed at head (any day, on which some supplies are passed into U.C.C. in order that the head across the U.C.C. Head Regulator should not exceed 17 feet, being treated as a day of closure), on account of the discharge on any day in the Jammu Tawi having exceeded 30,000 cusecs, or on account of the discharge at Merala Above on any day having exceeded 200,000 cusecs, the 'gross amount', as at Ferozepore, will be worked out as follows:

For each of the days for which both U.C.C. and M.R. Link remain closed at head, the 'gross amount', as at Ferozepore, shall be taken as 108 per cent of Q during April 1-10 to August 21-31 and 100 per cent of Q during September 1-10 to 21-30, where Q equals 67 per cent of the corresponding actual river

supply at Balloki Above (allowing three days time-lag from Merala to Balloki) *minus* 300 cusecs; Q being limited to 8,000 cusecs during April 1-10, to 11,000 cusecs during April 11-20, to 13,000 cusecs during April 21-30 and to 15,000 cusecs from May 1-10 to September 21-30. For the remaining days in the Water-accounting Period, the 'gross amount' shall be worked out on the basis of the average of the daily discharges at Merala Above for those days, the daily discharges being limited, where necessary, in accordance with (a) (i) above. The 'gross amount', for the Water-accounting Period taken as a whole, will be taken as equal to the sum of the 'gross amount' for each of the days of closure *plus* the 'gross amount' for the remaining days of the Water-accounting Period multiplied by the corresponding number of days the aggregate being divided by the total number of days in the Water-accounting Period.

Pakistan will notify India about any such closure by telegram stating therein the discharge of Jammu Tawi, the discharge at Merala Above and the discharge of U.C.C. at head, and will continue to supply similar information daily by telegram till the U.C.C. and M.R. Link are re-opened.

TABLE B

<i>Period</i>	<i>Floor Discharge at Merala Above</i>	<i>Ceiling Discharge at Merala Above</i>	<i>'Gross amount' as at Ferozepore, corresponding to the Ceiling Discharge</i>	<i>Factor to be applied to the 'gross amount' as determined under Paragraph 22 (b)</i>
<i>Col. (1)</i>	<i>Col. (2)</i>	<i>Col. (3)</i>	<i>Col. (4)</i>	<i>Col. (5)</i>
		<i>cusecs</i>		
April 1-10	11,000	22,500	8,600	0.60
11-20	12,000	27,600	12,900	0.60
21-30	12,100	30,000	16,000	0.60
May 1-10	18,000	37,100	17,300	0.60
11-20	19,900	39,000	17,300	0.65
21-31	21,600	40,900	17,300	0.70
June 1-10	19,100	38,100	17,300	0.70
11-20	22,900	41,900	17,300	0.70
21-30	22,700	41,500	17,300	0.70
July 1-10	20,200	38,900	17,300	0.70
11-20	22,000	41,200	17,300	0.70
21-31	20,000	39,900	18,400	0.70
Aug. 1-10	14,100	33,700	18,400	0.70
11-20	15,000	34,500	18,400	0.70
21-31	18,300	37,300	18,400	0.70
Sept. 1-10	20,400	39,700	17,200	0.70
11-20	22,200	40,400	17,200	0.70
21-30	21,100	39,300	17,200	0.70

(c) The 'gross amount', as at Ferozepore, as determined under (b) above, will then be multiplied by the corresponding factor in Column (5) of Table B to obtain the amount of further withdrawals by India, as at Ferozepore.

23. During September 11-20 and September 21-30, an adjustment shall be made in the withdrawals which India may make under the provisions of Paragraphs 21 and 22 by adding the actual gains in the Sutlej Main from Ferozepore to Islam to the value determined under the provisions of Paragraphs 21 and 22 and deducting from the resulting total 3,400 cusecs during September 11-20 and 2,900 cusecs during September 21-30.

24. If, in any Water-accounting Period, the sum of (i) and (ii) below exceeds 35,000 cusecs during April 1-10 to August 21-31, or 30,000 cusecs during September, then India may make further withdrawals, as at Ferozepore, from the flow waters of The Sutlej and The Beas to the extent of the excess over 35,000 cusecs or 30,000 cusecs, as the case may be.

(i) The supply available from the 'Sutlej Component at Ferozepore' and from the 'Beas Component at Ferozepore' less the withdrawals due to be made by India under the provisions of Paragraphs 21 (b), 22 and 23.

(ii) The appropriate 'gross amount', as at Ferozepore, determined in accordance with Paragraph 22 (b).

25. After allowing for the withdrawals by India under the provisions of Paragraphs 21 (b), 22, 23 and 24, the balance of the 'Sutlej Component at Ferozepore' and of the 'Beas Component at Ferozepore' shall be delivered at Ferozepore for use by the Pakistan Sutlej Valley Canals.

26. Pakistan undertakes that, between 1st April and 30th June, and between 11th and 30th September, when the flow at Merala Above on any day is less than the appropriate Ceiling Discharge shown in Column (3) of Table B, it will not allow surplus water to escape below Khanki or below Balloki (except in circumstances arising out of an operational emergency or out of inherent difficulties in the operation of the system of works) and will cause such surplus waters to be transferred to Suleimanke. If, however, there should be spill at Khanki or at Balloki because of the aforesaid circumstances, Pakistan will immediately inform India of the reasons for such spill and take steps to discontinue the spill as soon as possible.

27. If the aggregate of (i) and (ii) below does not exceed 35,000 cusecs during any Water-accounting Period from April 1-10 to June 21-30, or 30,000 cusecs during September 11-20 or 21-30, and if Pakistan expects at any time during any of these Water-accounting Periods, that on one or more days it would be unable to use in its Sutlej Valley Canals the supplies likely to be available to it under the provisions of Paragraph 25 and the probable transfers under Paragraph 26, and that there is, therefore, a likelihood of escape below Islam, Pakistan agrees that it will give such timely information to India as will enable India to make such additional withdrawals at or above Ferozepore on the day or days to be specified as will reduce the escape below Islam to a minimum.

(i) The likely delivery to Pakistan at Ferozepore under the provisions of Paragraph 25.

- (ii) The probable appropriate 'gross amount,' as at Ferozepore, determined in accordance with Paragraph 22 (b).

Provided that the above provisions shall not apply during any Water-accounting Period in which (i) above is zero.

28. Subject to the provisions of Paragraph 64 and to the payment by Pakistan, by due date, of the amounts to be specified under the provisions of Paragraph 49, India agrees to deliver into the Dipalpur Canal at Ferozepore, during each Water-accounting Period, such part of the supplies due to be released by India under the provisions of Paragraph 25, as Pakistan may request, limited to a maximum of 6,950 cusecs: Provided that no claim shall lie against India if, because of circumstances arising out of the inherent difficulties in feeding the Dipalpur Canal, the supply delivered into the Dipalpur Canal should at any time fall below the supply requested by Pakistan to be fed into this Canal out of the total supplies due to be released by India at Ferozepore.

Part 4—Distribution of the Waters of The Sutlej and The Beas in Kharif During Phase II

29. Subject to the provisions of Paragraphs 30 and 31 below, India agrees to deliver at Ferozepore for use by the Pakistan Sutlej Valley Canals the following minimum supplies during Phase II:—

- (a) In each Water-accounting Period during April 1-30:

74 per cent of the amount calculated for delivery at Ferozepore under the provisions of Paragraph 25 *minus* 21 per cent of the 'gross amount' determined in accordance with Paragraph 22 (b): Provided that, during April 1-10 in any year, if the discharge at Trimmu Above is less than 8,500 cusecs, the delivery during April 1-10 in that year shall be the same as under the provisions of Paragraph 25.

- (b) In each Water-accounting Period during May 1-31:

71 per cent of the amount calculated for delivery at Ferozepore under the provisions of Paragraph 25 *minus* 24 per cent of the 'gross amount' determined in accordance with Paragraph 22 (b).

- (c) In each Water-accounting Period during June 1-30:

58 per cent of the amount calculated for delivery at Ferozepore under the provisions of Paragraph 25 *minus* 36 per cent of the 'gross amount' determined in accordance with Paragraph 22 (b).

- (d) July 1-10: 3,000 cusecs.
(e) July 11-20 to August 21-31: 4,000 cusecs.
(f) September 1-10: 3,000 cusecs.
(g) September 11-20 and 21-30:

As under the provisions of Part 3 of this Annexure reduced by the following:

66 per cent of the amount by which the discharge at Trimmu Above (corrected for actual gains and losses between Trimmu and

Panjnad, allowing a time-lag of three days from Trimmu to Panjnad) exceeds the smaller of the following two quantities:

- (i) the sum of the actual withdrawals by the Panjnad and Haveli canals; and
- (ii) 19,600 cusecs :

Provided that the gains from Trimmu to Panjnad shall be deemed to be limited to the actual withdrawals at Panjnad and provided further that the reduction, as thus calculated, shall be limited to a daily maximum of 7,000 cusecs and shall not exceed one-third of the sum of the supply which would have been delivered at Ferozepore under the provisions of Paragraph 25 and the 'gross amount' determined in accordance with Paragraph 22 (b).

30. As soon as the Rasul-Qadirabad and the Qadirabad-Balloki Links are ready to operate, the deliveries at Ferozepore for use by the Pakistan Sutlej Valley Canals, as specified in Paragraph 29, may be reduced

- (a) in each Water-accounting Period during April 1-10 to June 21-30, by (AX-AB) cusecs limited to (AY) cusecs where

X=the actual discharge at Rasul Above (including the supply in the tail-race of the Rasul hydro-electric plant),

Y=difference between 18,400 cusecs (limited during April 1-10 to 21-30 to the 'gross amount' as at Ferozepore corresponding to the Ceiling Discharge in Table B, read with provisos (i) and (ii) of Paragraph 22 (b)) and the actual 'gross amount' worked out under Paragraph 22 (b),

A=a factor equal to 0.60 from April 1-10 to May 1-10, 0.65 for May 11-20, and 0.70 from May 21-31 to June 21-30, and

B=24,000 cusecs from April 1-10 to 21-30,
32,000 cusecs from May 1-10 to 21-31 and
40,500 cusecs from June 1-10 to 21-30; and

- (b) during July 1-10 and 11-20, by 1,000 cusecs.

31. As soon as the supplies specified in Paragraph 66 are available for reduction of deliveries by India during September, the Commissioners will meet and agree upon modifications in the provisions relating to the deliveries at Ferozepore during September 11-20 and 21-30. In case the Commissioners are unable to agree, the difference shall be dealt with by a Neutral Expert in accordance with the provisions of Annexure F.

32. Subject to the provisions of Paragraph 64 and to the payment by Pakistan, by due date, of the amounts to be specified under the provisions of Paragraph 49, India will arrange to deliver into the Dipalpur Canal at Ferozepore, during each Water-accounting Period, such part of the supplies due to be released for Pakistan under the provisions of Paragraphs 29, 30 and 31 as Pakistan may request, limited to a maximum of 6,950 cusecs: Provided that no claim shall lie against India if, because of circumstances arising out of the inherent difficulties in feeding the Dipalpur Canal, the supply delivered into the Dipalpur Canal should at any time fall below the supply requested by Pakistan to be fed into this canal out of the total supplies due to be released by India at Ferozepore.

33. Subject to the provisions of Paragraphs 29 to 32 and Paragraph 57, there shall be no restriction on the use by India of the waters of The Sutlej and The Beas in *kharif* during Phase II.

Part 5—Distribution of the Waters of The Sutlej and The Beas in Rabi

34. Subject to the provisions of Paragraphs 35 to 38, during the Transition Period India agrees to deliver at Ferozepore for use by the Pakistan Sutlej Valley Canals, the following minimum supplies during *rabi* :—

- (a) October 1-10 and
October 11-15: (i) 84 per cent. of the ' Beas Component at Ferozepore ' plus (ii) 1,670 cusecs minus (iii) the actual gains from Ferozepore to Islam
- (b) October 16-20: (i) 79 per cent. of the ' Beas Component at Ferozepore ' plus (ii) 960 cusecs minus (iii) the actual gains from Ferozepore to Islam
- (c) October 21-31: (i) 79 per cent. of the ' Beas Component at Ferozepore ' plus (ii) 640 cusecs minus (iii) the actual gains from Ferozepore to Islam
- (d) November 1-10: (i) 79 per cent. of the ' Beas Component at Ferozepore ' plus (ii) 570 cusecs minus (iii) the actual gains from Ferozepore to Islam
- (e) In each Water-accounting Period from November 11-20 to March 21-31: 79 per cent. of the ' Beas Component at Ferozepore '

35. When the flow at Trimmu Above, during March 1-10, 11-20 and 21-31 in any year, exceeds the smaller of the following two quantities :

- (i) the supplies required at Trimmu Above to meet the withdrawals of the Haveli and Panjnad Canals (after allowing a time-lag of five days from Trimmu to Panjnad), and
- (ii) 7,500 cusecs during Phase I or 10,000 cusecs during Phase II,

the deliveries specified in Paragraph 34 (e) may be reduced, during March 1-10, 11-20 and 21-31 in that year, by amounts related to Pakistan's ability to replace. For March 1-10, 11-20 and 21-31, these amounts shall be taken as equal to 60 per cent of the ' gross amount ' determined as follows :

When the sum of (a) the average discharge at Merala Above (obtained by limiting the daily values to a maximum of 25,000 cusecs during March 1-10, a maximum of 26,000 cusecs during March 11-20 and a maximum of 27,000 cusecs during March 21-31) and (b) the Ravi Component at Balloki Above (total supply at Balloki Above minus the delivery at U.C.C. tail minus the delivery at M.R. Link outfall minus the delivery into the Ravi Main through B.R.B.D. escapes, the result being limited to a

minimum of zero) is less than or equal to the Floor Discharge shown in Column (2) of Table C below, the 'gross amount', as at Ferozepore, shall be zero. When this sum equals or exceeds the Ceiling Discharge shown in Column (3) of Table C, the 'gross amount', as at Ferozepore, shall be the amount shown in Column (4) of Table C. When the sum is between the values shown in the said Columns (2) and (3), the 'gross amount', as at Ferozepore, shall be the proportional intermediate amount.

TABLE C

<i>Period</i>	<i>Floor Discharge</i>	<i>Ceiling Discharge</i>	<i>'Gross amount', as at Ferozepore, corresponding to the Ceiling Discharge</i>
<i>Col. (1)</i>	<i>Col. (2)</i>	<i>Col. (3)</i>	<i>Col. (4)</i>
		<i>cusecs</i>	
March 1-10	14,500	21,200	5,000
11-20	14,500	22,000	6,000
21-31	14,500	24,000	8,000

36. If, during any Water-accounting Period, the aggregate of (i), (ii) and (iii) below exceeds 25,000 cusecs during October 1-10 and 11-15 or 10,000 cusecs from October 16-20 to March 21-31, the deliveries due to be made under the provisions of Paragraphs 34 and 35 may be reduced by the amount of such excess over 25,000 cusecs or 10,000 cusecs, as the case may be.

- (i) Deliveries due to Pakistan at Ferozepore under the provisions of Paragraphs 34 and 35.
- (ii) During March only, 60 per cent of the appropriate 'gross amount', as worked out under Paragraph 35.
- (iii) During October 1-10 to November 1-10 only, the actual gains from Ferozepore to Islam, or, under the circumstances specified in Paragraph 62, the estimated gains agreed upon between the Commissioners.

37. In Phase II, during March, the deliveries to Pakistan, under the provisions of Paragraphs 34 to 36, may on any day be reduced by 60 per cent of the amount by which the discharge at Trimmu Above two days earlier exceeds 10,000 cusecs, but the reduction on this account shall not exceed 12 per cent of the 'Beas Component at Ferozepore'.

38. As soon as the supplies specified in Paragraph 66 are available for reduction of deliveries by India during *rabi*, the Commissioners will meet and agree upon modifications in the deliveries to be made by India at Ferozepore during *rabi*. In case the Commissioners are unable to agree, the difference shall be dealt with by a Neutral Expert in accordance with the provisions of Annexure F.

39. Subject to the provisions of Paragraph 64 and to the payment by Pakistan, by due date, of the amounts to be specified under the provisions of Paragraph 49, India agrees to deliver into the Dipalpur Canal at Ferozepore, during October 1-10 and 11-15 in each year, such part of the supplies due to be released for Pakistan under the provisions of Paragraphs 34 to 38 as

Pakistan may request, limited to a maximum of 6,950 cusecs: Provided that no claim shall lie against India if, because of circumstances arising out of the inherent difficulties in feeding the Dipalpur Canal, the supply delivered into the Dipalpur Canal should at any time fall below the supply requested by Pakistan to be fed into this canal out of the total supplies due to be released by India at Ferozepore.

40. Subject to the provisions of Paragraphs 34 to 38 and Paragraph 57, there shall be no restriction on the use by India of the waters of The Sutlej and The Beas during *rabi*.

Part 6—Water-Accounts at Ferozepore

41. An account of the distribution of waters, as at Ferozepore, under the provisions of Parts 3, 4 and 5 of this Annexure will be maintained by each Commissioner in accordance with the provisions of Paragraphs 42–46, and appropriate Forms will be used, both for Phase I and Phase II, in order to facilitate, and to provide a record of, the distribution of waters in accordance with the provisions of this Annexure. Such Forms for Phase I are set out in Appendix II to this Annexure. Appropriate Forms for Phase II will be prepared by the Commission. The Forms (both for Phase I and Phase II) may, from time to time, be modified or added to by the Commission, but only to the extent that the Commission finds it necessary to do so in order to further facilitate, and to maintain an appropriate record of, the distribution of waters in accordance with the provisions of this Annexure. In the absence of agreement in the Commission, the question shall be referred to a Neutral Expert for decision in accordance with the provisions of Annexure F.

42. Each calendar month will be divided into three Water-accounting Periods, viz., 1st to 10th, 11th to 20th and 21st to the last day of the month, except the month of October which will be divided into four Water-accounting Periods, viz., 1st to 10th, 11th to 15th, 16th to 20th and 21st to 31st.

43. For each Water-accounting Period, the river supplies or withdrawals or deliveries at any point will, unless otherwise specified in this Annexure, be taken as the average values of the daily figures for the days included in or corresponding to that Water-accounting Period.

44. The water-accounts for the period April 1-10 to July 1-10 (Ferozepore dates) will be prepared with due allowance for time-lag as set out in Appendix I to this Annexure.

45. (a) The 'Sutlej Component at Ferozepore' during each Water-accounting Period from April 1-10 to September 21-30 and the 'Beas Component at Ferozepore' during each Water-accounting Period from April 1-10 to March 21-31 shall be worked out in accordance with Appendix I to this Annexure.

(b) During the Water-accounting Periods from September 11-20 to November 1-10, the gains and losses in the reach from Ferozepore to Islam shall be taken as the actual gains or losses calculated without allowance for time-lag.

(c) A conveyance loss of 6 per cent from the head of the Madhopur Beas Link to the junction of the Chakki Torrent with the Beas Main shall be adopted until revised, at the request of either Commissioner, as follows:

- (i) The figure may be revised by agreement between the Commissioners, either after a study of available data and general considerations or after an analysis of discharge observations to be carried out jointly by the Commissioners, at the request of either Commissioner, or
- (ii) if the Commissioners are unable to agree on a suitable figure (or figures) for the conveyance losses, the matter may be referred to a Neutral Expert for decision in accordance with the provisions of Annexure F.

(d) The procedure for working out the equivalent, at Mandi Plain, of any withdrawals from the Beas Main by any new canal constructed after the Effective Date, with a capacity of more than 10 cusecs, or of any abstractions from the flow waters by, or releases of stored waters from, any reservoir on The Beas will be determined by the Commission at the appropriate time.

(e) An allowance for run-out (*Nikal*) shall be made in the water-account in respect of the waters passed into the Beas by the M.B. Link (including escapages from the U.B.D.C. into The Beas). This allowance shall equal the volume of water passed by the Link (including escapages from U.B.D.C.) into The Beas on the last two days of the operation of the Link during the period from 1st September to 15th October and it shall be accounted for at Mandi Plain during the ten days following the closure of the Link: Provided that this allowance shall be made only once and if the Link is re-opened thereafter, no further allowance on that account shall be made.

46. Every effort will be made by India to balance the water-account at Ferozepore for each of the Water-accounting Periods, but any excess or deficit in deliveries, due to Pakistan, in any Water-accounting Period, under the provisions of this Annexure, that may arise out of the inherent difficulties in determining these deliveries shall be carried over to the next Water-accounting Period for adjustment: Provided that:

- (a) If, in any Water-accounting Period during Phase I, the sum of (i), (ii) and (iii) below exceeds 35,000 cusecs during April 1-10 to August 21-31, 30,000 cusecs during September 1-10 to 21-30, 25,000 cusecs during October 1-10 or 11-15, or 10,000 cusecs during October 16-20 to March 21-31, then there will be no carry-over from any such period to the next period.
 - (i) The supply at Ferozepore Below (including withdrawals by the Dipalpur Canal, if any).
 - (ii) During March 1-10 to September 21-30, the appropriate 'gross amount', as at Ferozepore, determined in accordance with Paragraph 22 (b) or Paragraph 35.
 - (iii) During September 11-20 to November 1-10, the actual gains and losses from Ferozepore to Islam, losses being treated as negative gains; or, under the circumstances specified in Paragraph 62, the estimated gains agreed upon between the Commissioners.

(b) If, in any Water-accounting Period, the indents of the Indian Canals at Ferozepore and Harike have been fully met and there is an excess

delivery to Pakistan at Ferozepore, then such excess shall not be carried forward to the next period.

- (c) In each year, the water-account shall be finally closed at the end of the Water-accounting Period March 21-31 and any excess or deficit in the water-account, at the end of that Period, shall not be carried over to the succeeding Water-accounting Period, viz., April 1-10.
- (d) If, during Phase I, in any Water-accounting Period from April 1-10 to June 21-30, the withdrawals computed as due to India under the provisions of Paragraphs 21 (b), 22, 23 and 24 exceed the supply available to India from the 'Sutlej Component at Ferozepore' and from the 'Beas Component at Ferozepore' taken together, then, in the Water-account only 50 per cent of such excess shall be carried over for use by India.
- (e) If, during Phase II, in any Water-accounting Period from April 1-10 to June 21-30, the withdrawals computed as due to India from the 'Sutlej Component at Ferozepore' and from the 'Beas Component at Ferozepore' after allowing for the deliveries due to Pakistan at Ferozepore under the provisions of Paragraphs 29 and 30 exceed the supply available to India from the 'Sutlej Component at Ferozepore' and from the 'Beas Component at Ferozepore', then such excess shall be treated separately and accounted for as below:—
 - (i) The excess may be carried over for adjustment to the succeeding Water-accounting Period and, where necessary, to the next succeeding Water-accounting Period, but shall be deemed to have lapsed if not adjusted by then.
 - (ii) The cumulative excess carried over shall not exceed 2,000 cusecs from April 1-10 to May 21-31 and 3,000 cusecs during June 1-10 to 21-30.
 - (iii) In no case shall the excess be carried over beyond June 21-30.

47. As soon as possible after the end of each Water-accounting Period, each Commissioner will intimate to the other, by telegram, the excess or deficit carried over to the next Water-accounting Period. On receipt of this information, either Commissioner may, if he considers it necessary, ask for an exchange of the relevant water-accounts.

Part 7—Financial Provisions

48. For each year for which Pakistan has not exercised the option under the provisions of Paragraph 20:

- (a) India will, by 1st February preceding, communicate to Pakistan, in writing, the estimated proportionate working expenses payable by Pakistan for the Madhopur Headworks and the carrier channels calculated in accordance with Appendix III to this Annexure; and
- (b) Pakistan will pay to the Reserve Bank of India, New Delhi, for the credit of the Government of India, before 1st April of that year, the amount intimated by India.

49. For each year for which Pakistan has not exercised the option under the provisions of Paragraph 64 :

- (a) India will, by 1st February preceding, communicate to Pakistan, in writing, the estimated proportionate working expenses payable by Pakistan for the Ferozepore Headworks (including the part of the Dipalpur Canal in India) calculated in accordance with Appendix IV to this Annexure; and
- (b) Pakistan will pay to the Reserve Bank of India, New Delhi, for the credit of the Government of India, before 1st of April of that year, the amount intimated by India.

50. As soon as the figures of actual audited expenditures on the Madhopur Headworks and the carrier channels and on the Ferozepore Headworks for each year are supplied by the Accountant General, Punjab (India), but not later than one year after the end of the year to which the expenditure relates, India will communicate to Pakistan, in writing, the actual expenditure corresponding to the estimated proportionate working expenses paid by Pakistan under the provisions of Paragraphs 48 (b) and 49 (b). If the actual proportionate expenditure is less than the amount paid by Pakistan under the provisions of Paragraphs 48 (b) and 49 (b), India shall, within one month, refund the difference to Pakistan and if the actual proportionate expenditure is more than the amount paid, Pakistan shall, within one month, make an additional payment to India to cover the difference.

51. The payments by Pakistan to India under the provisions of Paragraphs 48, 49 and 50 and the refund by India under the provisions of Paragraph 50 shall be made without any set off against any other financial transaction between the Parties.

Part 8—Extension of Transition Period

52. In the event that Pakistan is of the opinion that the replacement referred to in Article IV (1) cannot be effected unless the Transition Period is extended beyond 31st March 1970, this period may be extended at the request of Pakistan

- (a) by one, two or three years beyond 31st March 1970; or
- (b) having been extended initially by one year beyond 31st March 1970, then by one or two years beyond 31st March 1971; or
- (c) having been extended initially by two years beyond 31st March 1970, or having been extended by one year beyond 31st March 1971 under (b) above, then by one more year beyond 31st March 1972.

53. A request by Pakistan for any extension under the provisions of Paragraph 52 shall be made to India by formal notice in writing, and any such notice shall specify the date up to which Pakistan requests an extension under the aforesaid provisions. On the receipt of such notice by India within the time-limit specified in Paragraph 54, the Transition Period shall be extended up to the date requested by Pakistan.

54. A formal notice under Paragraph 53 shall be given as early as possible and, in any event, in such manner as to reach India at least twelve

months before the due date for the expiration of the Transition Period. Unless such a notice is received by India within this time-limit, the Transition Period shall expire on the due date without any right of extension or further extension: Provided however that the Transition Period shall be extended, within the provisions of Paragraph 52, by an exceptional notice of request for an extension received by India not later than five months before the due date for expiration of the Transition Period, if, within the twelve months prior to such due date, heavy flood damage should have occurred which, in the opinion of Pakistan, cannot be repaired in time to operate the system of works as planned.

Part 9—General

55. India may continue to irrigate from the Eastern Rivers those areas which were so irrigated, as on the Effective Date, from The Sutlej, The Beas or The Ravi by means other than the canals taking off at Madhopur, Nangal, Rupar, Harike and Ferozepore: Provided that

- (i) any withdrawals by the Shahnehr Canal in excess of 940 cusecs during any Water-accounting Period shall be accounted for in the estimation of the ' Beas Component at Ferozepore ', and
- (ii) the capacity of the Shahnehr Canal shall not be increased beyond its actual capacity as on the Effective Date (about 1,000 cusecs).

If India should construct a barrage across the Beas Main below the head of the Shahnehr Canal or undertake such other works as would enable the Canal to increase its withdrawals by more than 50 cusecs over and above those attained as on the Effective Date, the withdrawals during each Water-accounting Period in excess of the average withdrawals for each such period during the five years preceding the completion of the barrage or of such other works shall be accounted for in the estimation of the ' Beas Component at Ferozepore '.

56. India agrees that, from 21st September to 31st March, it will not make any withdrawals for Agricultural Use by Government canals or by power pumps from the Ravi Main below Madhopur, in excess of the withdrawals as on the Effective Date.

57. Subject to the provisions of Paragraph 55, India agrees that it will not make any withdrawals for Agricultural Use from the Sutlej Main below Ferozepore from the supplies delivered at Ferozepore for use by the Pakistan Sutlej Valley Canals.

58. India shall be entitled to utilise without restriction the waters stored by it (in accordance with the provisions of this Annexure) in any reservoir on the Eastern Rivers or in the ponds at Nangal or Harike.

59. Pakistan agrees that

- (i) it will have filled the ponds at Suleimanke and Islam by 10th September in each year to the maximum extent possible without causing the maximum working head across the weirs and the maximum pond levels to exceed the values given in Table D below:

TABLE D

<i>Weir</i>	<i>Maximum working head in feet</i>	<i>Maximum pond level (R.L.)</i>
Suleimanke ...	18·5	569·0
Islam	18·0	452·0

(ii) after the river has fallen to a stage at which the releases from the ponds will not result in a spill below Islam, it will lower the pond levels gradually to R.L. 565.5 at Suleimanke and R.L. 449.0, or lower if possible, at Islam, and complete the lowering, as far as possible, by 31st October, without spilling below Islam; and

(iii) it will use its best endeavours to fill the pond at Islam to R.L. 455.0, provided that this does not endanger the safety of the weir :

Provided that the above provisions in so far as they relate to the Islam Weir shall lapse on the date Pakistan discontinues the use of this weir. Instead, the pond at the new weir below Islam shall be filled by 10th September each year and lowered by 31st October in accordance with the above provisions, but the maximum working head in feet, the maximum pond level and the level to which the pond is to be lowered by 31st October shall be determined in accordance with the design of the new weir.

60. Pakistan agrees that it will not release any water below the barrage at Suleimanke between 13th October and 10th November, except when the supply reaching Suleimanke on any day (including the delivery, if any, from B.S. Link tail) is in excess of 6,000 cusecs, when the excess on that day over 4,000 cusecs may be released. If the supply reaching Islam falls below 350 cusecs, Pakistan may release supplies below Suleimanke provided that such releases shall be so regulated that the supply reaching Islam does not appreciably exceed 20 per cent of the sum of the withdrawals, at head, of the perennial Pakistan Sutlej Valley Canals.

61. Pakistan agrees that from 21st August to 15th September it will, except under unavoidable circumstances, run the B.S. Link with a discharge not less than 13,000 cusecs, at head.

62. If, for any reason, Pakistan is unable to adhere to the programme for filling and emptying the ponds at Suleimanke and Islam, as set out in Paragraph 59, the Commissioners will agree on an estimate of the gains which would have accrued in the reach from Ferozepore to Islam but for Pakistan's inability to adhere to the aforesaid programme and these estimated gains will be used in the water-account instead of the actual gains or losses.

63. In the event of an emergency, leading to circumstances under which Pakistan is unable to fulfil the provisions of Paragraph 61, the actual gains or losses will be used in the water-account, and the Pakistan Commissioner will immediately inform the Indian Commissioner of the emergency and take steps to restore normal conditions as soon as possible.

64. Pakistan shall have the option to request India to discontinue the deliveries into the Dipalpur Canal. This option may be exercised effective 1st April in any year by written notification delivered to India before 30th September preceding. On receipt of such notification, India will cease to

have any obligation to make deliveries into the Dipalpur Canal during the remaining part of the Transition Period.

65. If, owing to heavy floods,

- (i) damage should occur to any of the Link Canals (including Headworks) specified in Column (1) below during the period specified for that particular Link Canal in Column (2) below, and,
- (ii) as a result of such damage, the ability of that Link Canal to transfer supplies should have been diminished to an extent causing serious interruption of supplies in irrigation canals dependent on that Link Canal,

then the two Commissioners will promptly enter into consultations, with the good offices of the Bank, to work out the steps to be taken to restore the situation to normal and to work out such temporary modifications of the relevant provisions of this Annexure as may be agreed upon as appropriate and desirable, taking equitably into consideration the consequences of such modifications on the cultivators concerned both in India and in Pakistan. Any modifications agreed upon shall lapse on the terminal date specified in Column (2) below.

<i>Column (1)</i>	<i>Column (2)</i>
(a) M.R. Link	Up to 31st March 1962
(b) B.S. Link	” ” ” ”
(c) B.R.B.D. Link	” ” ” ”
(d) Trimmu—Islam Link (including the Headworks for this Link on the Ravi Main and the Sutlej Main)	Two years beginning from the date on which the Link is ready to operate, but not to extend beyond 31st March 1968
(e) Rasul-Qadirabad and Qadirabad-Balloki Links (including the Headworks for these Links)	Three years beginning from the date on which the Links are ready to operate, but not to extend beyond the end of the Transition Period

66. If, at any time before the end of the Transition Period, the Bank is of the opinion that the part of the system of works referred to in Article IV (1) is ready to provide additional supplies during September 11-30 and *rabi*, over and above the replacements in these periods specifically provided for in Parts 2 to 5 of this Annexure, it shall so notify the Parties. On receipt of such notification, Pakistan shall provide, towards a reduction of the deliveries by India during September 11-30 and *rabi* to the C.B.D.C. and at Ferozepore under the provisions of Parts 2 to 5 of this Annexure, the equivalent (at points of delivery) of 60 per cent of the total supplies made available by the whole of the above-mentioned system of works: Provided that, in computing the aforesaid total supplies, any contribution from the Indus and any supplies developed by tube-wells shall be excluded.

67. The provisions of this Annexure may be amended by agreement between the Commissioners. Any such amendment shall become effective when agreement thereto has been signified in an exchange of letters between the two Governments.

Part 10—Special Provisions for 1960 and 1961

68. The actual withdrawals made by India and the actual deliveries made by India into the C.B.D.C., into the Dipalpur Canal and into the Sutlej Main at Ferozepore, during the period between the Effective Date and the date on which this Treaty enters into force, shall be deemed to be withdrawals and deliveries made in accordance with the provisions of this Annexure.

69. For the year commencing on 1st April 1960, (a) the communication by India of the amount of the estimated proportionate working expenses specified in Paragraphs 48 (a) and 49 (a) shall be made within one month of the date on which this Treaty enters into force and (b) the payment by Pakistan to India specified in Paragraphs 48 (b) and 49 (b) with respect to that year shall be made by Pakistan within three months of the date on which this Treaty enters into force and the provisions of Paragraph 50 shall then apply.

70. Subject to the provisions of Paragraph 28 and if the supplies due to be released for Pakistan at Ferozepore, during 1961 from April 1-10 to June 21-30, are less than the amounts set out in Column (2) below and Pakistan is unable to deliver into the Dipalpur Canal from the B.R.B.D. Link during April, May or June amounts equal to the aggregate amounts specified for that month in Column (2) below, India will make additional deliveries into the Dipalpur Canal at Ferozepore to make up these aggregate amounts in such manner as to ensure that the canal is not closed for more than 10 days either in May or in June 1961.

<i>Column (1)</i>	<i>Column (2)</i>
April 1-10	Nil cusecs
11-15	Nil „
16-20	1,000 „
21-30	800 „
Aggregate for April	13,000 cusec-days
May 1-10	Nil cusecs
11-20	1,000 „
21-31	800 „
Aggregate for May	18,800 cusec-days
June 1-10	1,000 cusecs
11-20	1,000 „
21-30	1,200 „
Aggregate for June	32,000 cusec-days

APPENDIX I TO ANNEXURE H

Provisions for Time-Lag and for Determination of the 'Sutlej Component at Ferozepore' and the 'Beas Component at Ferozepore'

A. Time-lag

				<i>Time-lag in days</i>	
				<i>April</i>	<i>May 1 to July 10</i>
				<i>(Ferozepore Dates)</i>	
Bhakra/Nangal to Rupar	...	...	...	1	1
Rupar to Ferozepore	...	...	...	4	3
Ferozepore to Suleimanke	...	...	...	3	2
Shahnehr Canal head to Mandi Plain	...	...	...	3	2
Mandi Plain to Ferozepore	...	...	...	1	1
Western Bein to Ferozepore	...	...	...	1	1
Madhopur to Mandi Plain via Beas	...	...	...	3	2
Mirthal to Mandi Plain	...	...	...	3	2

For other periods and reaches, unless otherwise specified in this Annexure, the dates will be taken to be the same as the dates at Ferozepore, with no allowance for time-lag.

B. 'Sutlej Component at Ferozepore' corresponding to assumed releases of flow waters below Rupar

(i) The assumed releases of flow waters below Rupar shall be taken as equal to the Sutlej flow waters, as distinct from stored waters, which would have been released below Rupar if the aggregate of the net Indian withdrawals from these flow waters had been limited to the values specified in Paragraph 21 (a) of this Annexure.

(ii) For each of the Water-accounting Periods from April 1-10 to August 21-31 (Ferozepore dates) the values of the 'Sutlej Component at Ferozepore' corresponding to the assumed releases below Rupar shall be worked out from the following table:—

<i>Assumed releases below Rupar (cusecs)</i>	<i>'Sutlej Component at Ferozepore' (cusecs)</i>
below 500	Actual at Ferozepore
500	320
1,000	640
1,500	960
2,000	1,280
3,000	1,920
5,000	3,200
7,500	5,400
10,000	7,600
15,000	12,000

<i>Assumed releases below Rupar (cusecs)</i>	<i>'Sutlej Component at Ferozepore' (cusecs)</i>
20,000	16,400
30,000	25,200
40,000	34,000
50,000	42,800
100,000	86,800
200,000	174,800

For intermediate values of the assumed releases below Rupar, in excess of 500 cusecs, the 'Sutlej Component at Ferozepore' will be worked out proportionately.

(iii) During September 1-10 to 21-30, the 'Sutlej Component at Ferozepore' shall be taken as equal to 0.90 S *plus* 400 cusecs, where S equals the assumed releases of flow water below Rupar (allowing three days time-lag between Ferozepore and Rupar).

C. '*Beas Component at Ferozepore*' (X) corresponding to the sum (Y) of the *Beas Component at Mandi Plain and the discharge of the Western Bein*

For each Water-accounting Period, the 'Beas Component at Ferozepore' (X) shall be worked out by multiplying the sum (Y) of the Beas Component at Mandi Plain and the discharge of the Western Bein by the appropriate factor given in the following table:—

<i>Water-accounting Periods (Ferozepore Dates)</i>	<i>Factor for converting Y to X</i>
April 1-10 and 11-20	0.95
April 21-30 and May 1-10	0.89
May 11-20 to July 1-10	0.87
July 11-20 to August 11-20	0.89
August 21-31 and September 1-10	0.92
September 11-20 to October 21-31	0.98
November 1-10 to 21-30	0.95
December 1-10 to 21-31	0.97
January 1-10 to February 21-28/29	0.92
March 1-10 to 21-31	0.94

APPENDIX II TO ANNEXURE H

Forms of Water-account

(not printed)

APPENDIX III TO ANNEXURE H

Calculations for determining proportionate working expenses to be paid by Pakistan under the provisions of Paragraphs 48 and 50 of this Annexure

1. Until Pakistan exercises the option under the provisions of Paragraph 20 of this Annexure, the proportionate working expenses payable by it under the provisions of Paragraphs 48 and 50 of this Annexure shall be (X per cent of A) plus B, where

(a) For the year commencing on 1st April 1960, X equals 100; and from the year commencing 1st April 1961,

$$X = \frac{202}{365} \times 100;$$

(b) A is the aggregate sum of the following:—

- (i) 45 per cent of the 'working expenses' during the year on Madhopur Headworks;
- (ii) 65.5 per cent of the 'working expenses' during the year on 'II Main Canals and Branches' (carrier channels only); and
- (iii) 66.8 per cent of the 'working expenses' during the year on 'III Distributaries' (carrier channels only); and

(c) B is a fixed over-head charge equal to Pounds Sterling 60,000 per year.

2. The 'working expenses' for the purpose of paragraph 1 above shall consist of:

- (i) Expenditure under account heads Maintenance and Repairs, Extensions and Improvements, and Tools and Plant, and
- (ii) Pro-rata establishment charges on account of Divisional and Circle Offices and Chief Engineers' Direction Charges.

3. The proportionate working expenses payable by Pakistan shall be modified, in accordance with paragraph 4 below, if

(a) India should bring into operation any new channel to irrigate any part of the areas which were irrigated, before the Effective Date, from the Lahore Branch and the Main Branch Lower; or

(b) Pakistan should desire to reduce

- (i) the period specified in Paragraph 7 of this Annexure; or
- (ii) the maximum quantities (in cusecs) specified in Paragraph 7 of this Annexure; or

(c) any change is made in the period or quantity of deliveries to the C.B.D.C. in accordance with the provisions of Paragraphs 10 and 11 of this Annexure.

In case of (b) above, Pakistan shall give India due notice of its intentions, such notice to reach India at least six months before the date from which the change is sought.

4. (a) Under the conditions envisaged in paragraph 3 (a) above, Pakistan shall pay 100 per cent of the 'working expenses' on such Branches or Distributaries as carry supplies for Pakistan only and for the remaining carrier channels the percentages given in paragraph 1 (b) (ii) or 1 (b) (iii) above shall be recalculated on the basis of ratio of cusec-miles to be delivered by the remaining channels to Pakistan (with pro-rata addition on account of absorption losses) to the aggregate of cusec-miles of the remaining channels (on the basis of 1948 capacities), the cusec-miles for each such channel being worked out separately.

(b) If there is a reduction in the period specified in Paragraph 7 of this Annexure, as envisaged under paragraph 3 (b) (i) and 3 (c) above, the factor X in paragraph 1 (a) above will be taken as equal to

number of days during which C.B.D.C. is due to receive
supplies from U.B.D.C.

number of days in the year

(c) In the event that there is a reduction in the maximum quantities specified in Paragraph 7 of this Annexure as mentioned in paragraph 3 (b) (ii) and (c) above, the percentages in paragraphs 1 (b) (i), (b) (ii) and (b) (iii) above will be reduced pro-rata.

APPENDIX IV TO ANNEXURE H

Calculations for determining proportionate working expenses to be paid by Pakistan under the provisions of Paragraphs 49 and 50 of this Annexure

1. Until Pakistan exercises the option under the provisions of Paragraph 64 of this Annexure, the proportionate working expenses payable by it under the provisions of Paragraphs 49 and 50 of this Annexure shall be X per cent of (A plus B) where :

- (a) For each of the three years commencing on 1st April 1960, 1st April 1961 and 1st April 1962, X equals 51; and from the year commencing 1st April 1963, X equals 80;
- (b) A is the aggregate sum of the 'working expenses' during the year; and
- (c) B is a fixed overhead charge equal to Pounds Sterling 110,000.

2. The 'working expenses' for the purpose of paragraph 1 above shall consist of :

- (i) expenditure on the Ferozepore Headworks (including the part of the Dipalpur Canal in India) under account heads Maintenance and Repairs, Extensions and Improvements, and Tools and Plant;
- (ii) pro-rata establishment charges on account of the Divisional and Circle Offices and Chief Engineers' Direction Charges; and
- (iii) expenditure on 'Minor Works 18A (2) Miscellaneous' (discharge observations at Ferozepore).

ANNEXURE B—LOAN AGREEMENT BETWEEN REPUBLIC OF PAKISTAN AND INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

AGREEMENT, dated September 19, 1960, between **REPUBLIC OF PAKISTAN** acting by its President (hereinafter called the Borrower) and **INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT** (hereinafter called the Bank).

WHEREAS (A) The Borrower and the Government of India have on the date hereof signed The Indus Waters Treaty 1960 (hereinafter called the Treaty) providing *inter alia* for the division and use of the waters of the Indus Basin;

(B) The effective utilization by the Borrower of the waters assigned to it by the Treaty will require the construction of a system of works;

(C) By the terms of Article V of the Treaty, the Government of India has undertaken to make a payment of 62,060,000 pounds sterling towards the cost of the part of such works which will accomplish the replacement of water supplies for irrigation canals in Pakistan which hitherto have been dependent on waters assigned by the Treaty of India, such sum to be paid to an Indus Basin Development Fund to be established and administered by the Bank;

(D) The Borrower, the Bank and the Governments of the Commonwealth of Australia, Canada, the Federal Republic of Germany, New Zealand, the United Kingdom of Great Britain and Northern Ireland and the United States of America have, in the Indus Basin Development Fund Agreement signed on the date hereof (hereinafter called the Fund Agreement), agreed to provide additional funds required for such works on the terms provided therein through an Indus Basin Development Fund (hereinafter called the Fund) established thereby, to be held and administered by the Bank as Administrator (the term "Administrator" being hereinafter used to refer to the Bank acting in that capacity pursuant to the Fund Agreement); and

WHEREAS the Bank has agreed upon the basis, *inter alia*, of the foregoing to make a loan to the Borrower upon the terms and conditions hereinafter set forth;

NOW THEREFORE, it is hereby agreed as follows :

ARTICLE I

The Loan

SECTION 1.01. The Bank agrees to lend to the Borrower, on the terms and conditions in this Agreement set forth or referred to, an amount in various currencies equivalent to ninety million dollars (\$90,000,000), hereinafter referred to as the Loan.

SECTION 1.02. The Bank shall open a Loan Account on its books in the name of the Borrower and, except as the Borrower and the Bank may otherwise agree, shall, subject to the rights of cancellation and suspension set forth in this Agreement, credit to such Account on the Effective Date (for the period

ending with the next March 31st or September 30th) and on the first day of each half-year period commencing with April 1st or October 1st thereafter:

- (a) The part of the Loan specified in a notice by the Administrator pursuant to Section 3.01 of the Fund Agreement as the amount required to be contributed by the Bank to the Fund to cover the Bank's share of the estimated disbursements of the Fund during such period. Parts of the Loan so credited to the Loan Account shall be withdrawn by the Bank from the Loan Account, and paid by it to the Fund at the time or times specified in such notice, in dollars or in such other currency or currencies as shall be determined by the Bank. Not more than an aggregate amount of \$80,000,000 shall be credited to the Loan Account pursuant to this subparagraph (a).
- (b) The part of the Loan which the Bank shall estimate will accrue during such period as interest and commitment charge on the Loan and the Bonds. On or before each semi-annual interest payment date the Bank shall withdraw from the Loan Account amounts required to pay such interest and commitment charge on such date and shall make payment thereof. Except as the Borrower and the Bank shall otherwise agree:
 - (i) not more than an aggregate amount of \$10,000,000 shall be credited to the Loan Account pursuant to this sub-paragraph (b);
 - (ii) no amounts so credited shall be withdrawn from the Loan Account after April 1, 1968; and
 - (iii) no provision of this sub-paragraph (b) shall impair or modify the obligation of the Borrower to pay in full as in this Agreement and in the Bonds provided the interest and commitment charge on the Loan and the Bonds.

Parts of the Loan credited to the Loan Account pursuant to each of the foregoing sub-paragraphs of this Section shall be deemed to be withdrawn therefrom pursuant to that sub-paragraph in the order in which they were so credited.

SECTION 1.03. The Borrower shall pay to the Bank in dollars a commitment charge at the rate of three-fourths of one per cent ($\frac{3}{4}$ of 1%) per annum on amounts of the Loan standing to the credit of the Borrower from time to time in the Loan Account. Such commitment charge shall accrue from the several dates on which amounts shall be credited to the Loan Account to the respective dates on which they are withdrawn from the Loan Account or are cancelled pursuant to this Agreement.

SECTION 1.04. (a) The Borrower shall pay interest on the principal amount of each part of the Loan withdrawn from the Loan Account and outstanding from time to time at such rate as shall have been notified by the Bank to the Borrower at the time when such part of the Loan was credited to the Loan Account as being the rate then generally applicable to new long-term Bank loans. Interest shall accrue from the respective dates on which amounts shall be so withdrawn. Interest on any portion of the Loan shall be payable in the currency in which the principal of such portion of the Loan is repayable.

(b) In all cases in which it shall be necessary to compute the amount of interest or any other charge which shall have accrued under this Agreement, such computation shall be made on the basis of a 360-day year of twelve 30-day months.

SECTION 1.05. Interest and other charges shall be payable semi-annually on April 1st and October 1st in each year.

SECTION 1.06. (a) The Borrower shall repay the principal amount of each part of the Loan withdrawn from the Loan Account in proportion to, and in accordance with, the several maturities of the amortization schedule set forth in Schedule 1 to this Agreement.

(b) The principal of the Loan shall be repayable in the several currencies withdrawn from the Loan Account and the amount repayable in each currency shall be the amount withdrawn in that currency. The foregoing provision is subject to one exception, namely: if withdrawal shall be made in any currency which the Bank shall have purchased with another currency for the purpose of such withdrawal, the portion of the Loan so withdrawn shall be repayable in such other currency and the amount so repayable shall be the amount paid by the Bank on such purchase. Except as the Bank and the Borrower shall otherwise agree, the portion of the Loan to be repaid, under the provisions of this Section, in any particular currency shall be repayable in such instalments, not inconsistent with the instalments set forth in Schedule 1 to this Agreement, as the Bank shall specify. Any premium payable under Section 1.07 on prepayment of any portion of the Loan, or under Section 3.16 on redemption of any Bond, shall be payable in the currency in which the principal of such portion of the Loan, or of such Bond, is repayable.

SECTION 1.07. (a) The Borrower shall have the right, upon payment of all accrued charges for interest and payment of the premium specified in Schedule 1 to this Agreement, and upon not less than 45 days' notice to the Bank, to repay in advance of maturity (i) all of the principal amount of the Loan at the time outstanding or (ii) all of the principal amount of any one or more maturities, provided that on the date of such prepayment there shall not be outstanding any portion of the Loan maturing after the portion to be prepaid. However, if Bonds shall have been delivered pursuant to Article III in respect of any portion of the Loan to be prepaid, the terms and conditions of prepayment of that portion shall be those set forth in Section 3.16 and in such Bonds.

(b) It is the policy of the Bank to encourage the repayment of its loans prior to maturity. Accordingly, the Bank will sympathetically consider, in the light of all circumstances then existing, any request of the Borrower to waive the payment of any premium payable under paragraph (a) of this Section or under Section 3.16 on repayment of any portions of the Loan or the Bonds which the Bank has not sold or agreed to sell.

SECTION 1.08. The principal of, and interest and other charges on, the Loan and the Bonds shall be paid at such places as the Bank shall reasonably request, except that payments under any Bonds held by others than the Bank shall be made at the places specified in such Bonds.

SECTION 1.09. Any payment required under this Agreement to be made to the Bank in the currency of any country shall be made in such manner, and in currency acquired in such manner, as shall be permitted under the laws of such country for the purpose of making such payment and effecting the deposit of such currency to the account of the Bank with a depository of the Bank in such country.

SECTION 1.10. Whenever it shall be necessary for the purposes of this Agreement to determine the value of one currency in terms of another, such value shall be as reasonably determined by the Bank.

ARTICLE II

Use of Proceeds of Loan

SECTION 2.01. Amounts of the Loan credited to the Loan Account pursuant to sub-paragraph (a) of Section 1.02 shall be withdrawn from the Loan Account only as provided in said sub-paragraph (a) and shall, subject to the provisions of Section 8.04 of the Fund Agreement, become available to the Borrower only as provided in the Fund Agreement. Such amounts, as they become available to the Borrower from the Fund, shall be used by the Borrower in accordance with the provisions of the Fund Agreement exclusively to finance the cost of goods required to construct the system of works described in Annexure D to the Fund Agreement, such system of works together with any changes therein being hereinafter collectively called the Project.

SECTION 2.02. Amounts of the Loan credited to the Loan Account pursuant to sub-paragraph (b) of Section 1.02 shall be withdrawn from the Loan Account and applied by the Bank only for the purposes specified in said sub-paragraph (b).

ARTICLE III

Bonds

SECTION 3.01. The Borrower shall execute and deliver Bonds representing the principal amount of each part of the Loan, as hereinafter in this Article provided.

SECTION 3.02. The payment of the principal of any Bonds shall *pro tanto* discharge the obligation of the Borrower to repay the principal of the part of the Loan represented by such Bonds; and the payment of interest on any Bonds and of the service charge, if any, provided for in Section 3.04, shall *pro tanto* discharge the obligation of the Borrower to pay interest on the part of the Loan represented by such Bonds.

SECTION 3.03. If and as the Bank shall from time to time request, the Borrower shall, as soon as practicable and within such period not less than 60 days after the date of any request therefor as the Bank shall specify in such request, execute and deliver to or on the order of the Bank Bonds in the aggregate principal amount specified in such request, not exceeding, however, the aggregate principal amount of the Loan which shall have been withdrawn and shall be outstanding at the time of such request and for which Bonds shall not theretofore have been so delivered or requested.

SECTION 3.04. Each Bond shall bear interest at such rate or rates as the Bank shall request, not in excess, however, of the rate of interest on the part of the Loan represented by such Bond. If the rate of interest on any Bond shall be less than the rate of interest on the part of the Loan represented by such Bond, the Borrower shall, in addition to the interest payable on such Bond, pay to the Bank a service charge on the principal amount of such

part of the Loan at a rate equal to the difference between the interest rate on such part of the Loan and the interest rate on such Bond. Such service charge shall be payable on the dates on which and in the currency in which such interest is payable.

SECTION 3.05. The Bonds shall be payable as to principal and interest in the several currencies in which the Loan is repayable. Each Bond delivered pursuant to any request under Section 3.03 shall be payable in such currency as the Bank shall specify in such request except that the aggregate principal amount of Bonds representing a part of the Loan and payable in any currency shall at no time exceed the outstanding amount of such part of the Loan repayable in such currency.

SECTION 3.06. The maturities of the Bonds shall correspond to the maturities of instalments of the principal amount of the Loan set forth in Schedule 1 to this Agreement. Bonds delivered pursuant to any request under Section 3.03 shall have such maturities as the Bank shall specify in such request except that the aggregate principal amount of Bonds of any maturity shall at no time exceed the corresponding instalment of the principal amount of the Loan.

SECTION 3.07. The Bonds shall be fully registered bonds without coupons (hereinafter sometimes called registered Bonds) or bearer bonds with coupons for semi-annual interest attached (hereinafter sometimes called coupon Bonds). Bonds delivered to the Bank shall be registered Bonds or coupon Bonds as the Bank shall request. Registered Bonds payable in dollars shall be substantially in the form set forth in Schedule 2 to this Agreement. Coupon Bonds payable in dollars and the coupons attached thereto shall be substantially in the forms set forth in Schedule 3 to this Agreement. Bonds payable in any currency other than dollars shall be substantially in the forms set forth in Schedule 2 or 3 to this Agreement, as the case may be, except that they shall (a) provide for payment of principal, interest and premium on redemption, if any, in such other currency, (b) provide for such place of payment as the Bank shall specify, and (c) contain such other modifications as the Bank shall reasonably request in order to conform to the laws or to the financial usage of the place where they are payable.

SECTION 3.08. Except as the Bank and the Borrower shall otherwise agree and subject to the provisions of Section 3.11 (c), the Bonds shall be either (a) printed or lithographed on an engraved base having an engraved border or (b) fully engraved in conformity with the requirements of the leading securities exchange in the country in whose currency such Bonds are payable.

SECTION 3.09. Each registered Bond shall be dated the semi-annual interest payment date on which or next preceding the date on which it shall be executed and delivered. Each coupon Bond shall be dated six months prior to the first semi-annual interest payment date after the Effective Date except as the Bank and the Borrower shall otherwise agree, and shall be delivered with all unmatured coupons attached. Upon any delivery of Bonds appropriate adjustment shall be made so that there shall be no loss to the Bank or to the Borrower in respect of commitment charge or interest and service charge, if any, on the principal amount of the part of the Loan represented by such Bonds.

SECTION 3.10. The Borrower shall authorize the issuance of Bonds in such denominations as the Bank shall reasonably request. The Bonds delivered pursuant to any request under Section 3.03 shall be in such authorized denominations as the Bank shall specify in such request.

SECTION 3.11. The Borrower shall, as soon as practicable after the Bank shall so request, execute and deliver to or on the order of the Bank, in exchange for Bonds theretofore executed and delivered to it, new Bonds in accordance with the following provisions :

- (a) Bonds representing a part of the Loan and bearing interest at one rate may be exchanged for Bonds bearing interest at any other rate not in excess of the rate of interest on such part of the Loan. The Bank shall reimburse the Borrower for the reasonable cost of any such exchange.
- (b) Registered Bonds in large denominations may be exchanged without charge to the Bank for registered or coupon Bonds in smaller authorized denominations for purposes of sale by the Bank.
- (c) Bonds initially issued which are not fully engraved in accordance with the provisions of Section 3.08 (b) may be exchanged without charge to the Bank for such fully engraved Bonds.

The foregoing rights of exchange are in addition to any rights of exchange provided in the Bonds. Except as in this Section expressly provided, exchanges of Bonds pursuant to this Section shall be subject to all provisions of the Bonds relating to exchanges.

SECTION 3.12. The Bonds shall be signed in the name and on behalf of the Borrower by a Secretary to the Government of Pakistan, Ministry of Finance, or such person or persons as he shall appoint in writing for the purposes of this Section. The foregoing shall be in addition to any other designation by the Borrower for such purpose. The signature of any such representative may be a facsimile signature if the Bonds are also manually countersigned by an authorized representative of the Borrower. Coupons attached to coupon Bonds shall be authenticated by the facsimile signature of an authorized representative of the Borrower. If any authorized representative of the Borrower whose manual or facsimile signature shall be affixed to any Bond or coupon shall cease to be such authorized representative, such Bond or coupon may nevertheless be delivered, and shall be valid and binding on the Borrower, as though the person whose manual or facsimile signature shall have been affixed to such Bond or coupon had not ceased to be such authorized representative.

SECTION 3.13. The Borrower shall maintain, or cause to be maintained, books for the registration and transfer of registered Bonds.

SECTION 3.14. The Borrower shall promptly furnish to the Bank such information and execute such applications and other documents as the Bank shall reasonably request in order to enable the Bank to sell any of the Bonds in any country, or to list any of the Bonds on any securities exchange, in compliance with applicable laws and regulations. To the extent necessary to comply with the requirements of any such exchange, the Borrower shall, if the Bank shall so request, appoint and maintain an agency for authentication of such Bonds.

SECTION 3.15. If the Bank shall sell any Bond and shall guarantee any payment thereunder, the Borrower shall reimburse the Bank for any amount paid by the Bank under such guarantee by reason of any failure of the Borrower to make payment in accordance with the terms of such Bond.

SECTION 3.16. (a) The Bonds shall be subject to redemption prior to their maturity by the Borrower in accordance with their terms, at a redemption price equal to the principal amount thereof plus the interest accrued and unpaid thereon to the date fixed for the redemption thereof plus as a premium the percentages of said principal amount specified in Schedule 1 to this Agreement.

(b) If any Bond so to be redeemed shall bear interest at a rate less than the rate of interest on the part of the Loan represented by such Bond, the Borrower shall pay to the Bank on the date fixed for redemption the service charge provided for in Section 3.04 accrued and unpaid to such date on the principal amount of such part of the Loan.

SECTION 3.17. No holder (other than the Bank) of any Bond shall, by virtue of being the holder thereof, be entitled to exercise any rights under this Agreement or be subject to any of the conditions or obligations imposed upon the Bank thereby. The provisions of this Section shall not impair or affect any rights or obligations under the terms of any Bond.

SECTION 3.18. At the request of the Bank the Borrower shall execute and deliver to the Bank promissory notes in lieu of Bonds. Each note shall be payable to the order of such payee or payees, and at such place within the country in which the note is payable, as the Bank shall specify, and shall be dated the interest payment date next preceding the date of its delivery. Such note shall be in such customary form as the Bank and the Borrower shall mutually agree upon in order to conform to the laws or financial usage of the place where it is payable. Except as otherwise expressly provided in this Section or where the context otherwise requires, references in this Agreement to Bonds shall include any promissory notes executed and delivered under this Section.

ARTICLE IV

Particular Covenants

SECTION 4.01. The Borrower shall duly and punctually perform all obligations provided to be performed by it pursuant to the Fund Agreement.

SECTION 4.02. It is the mutual intention of the Borrower and the Bank that no other external debt shall enjoy any priority over the Loan by way of a lien on governmental assets. To that end, the Borrower undertakes that, except as the Bank shall otherwise agree, if any lien shall be created on any assets of the Borrower as security for any external debt, such lien will *ipso facto* equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan and the Bonds, and that in the creation of any such lien express provision will be made to that effect, provided, however, that the foregoing provisions of this Section shall not apply to: (i) any lien created on property, at the time of purchase thereof, solely as security for the payment of the purchase price of such property; (ii) any lien on

commercial goods to secure a debt maturing not more than one year after the date on which it is originally incurred and to be paid out of the proceeds of sale of such commercial goods; or (iii) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

The term "assets of the Borrower" as used in this Section includes assets of the Borrower or of any of its political subdivisions or of any agency of the Borrower or of any such political subdivision, including the State Bank of Pakistan.

SECTION 4.03. The principal of, and interest and other charges on, the Loan and the Bonds shall be paid without deduction for, and free from, any taxes (including duties, fees and impositions) imposed under the laws of the Borrower or laws in effect in its territories; provided, however, that the provisions of this Section shall not apply to taxation of, or duties or fees or impositions levied upon, payments under any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of the Borrower.

SECTION 4.04. This Agreement and the Bonds shall be free from any taxes (including duties, fees and impositions) that shall be imposed under the laws of the Borrower or laws in effect in its territories on or in connection with the execution, issue, delivery or registration thereof and the Borrower shall pay all such taxes (including duties, fees and impositions), if any, imposed under the laws of the country or countries in whose currency the Loan and the Bonds are payable or laws in effect in the territories of such country or countries.

SECTION 4.05. The principal of, and interest and other charges on, the Loan and the Bonds shall be paid free from all restrictions imposed under the laws of the Borrower or laws in effect in its territories.

SECTION 4.06. (a) The Borrower and the Bank shall furnish to each other all such information as the other shall reasonably request with regard to the general status of the Loan. On the part of the Borrower such information shall include information with respect to financial and economic conditions in the territories of the Borrower and the international balance of payments position of the Borrower.

(b) The Borrower and the Bank shall from time to time exchange views through their representatives with regard to matters relating to the purposes of the Loan and the maintenance of the service thereof; and the Borrower shall promptly inform the Bank of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of the Loan or the maintenance of the service thereof. :

(c) The Borrower shall maintain or cause to be maintained records adequate to disclose the use of the goods, to record the progress of the Project (including the cost thereof) and to reflect in accordance with consistently maintained sound accounting practices the operations and financial condition of the agency or agencies of the Borrower responsible for the construction or operation of the Project or any part thereof; shall enable the Bank's (and the Administrator's) representatives to inspect the Project, the operation thereof, the goods used or acquired for the Project and any relevant

records and documents; and shall furnish to the Bank all such information as the Bank shall reasonably request concerning the expenditure of the monies disbursed by the Fund, the Project, the goods, and the operations and financial condition of the agency or agencies of the Borrower responsible for the construction or operation of the Project or any part thereof; provided, however, that, until the termination for any reason of the Fund Agreement, compliance by the Borrower with the requirements of Section 7.03 (b) of the Fund Agreement shall, to the extent thereof, be deemed compliance with the provisions of this Section 4.06 (c).

(d) The Borrower shall afford all reasonable opportunity for accredited representatives of the Bank (and the Administrator) to visit any part of the territories of the Borrower for purposes related to the Loan and the Fund Agreement.

ARTICLE V

Cancellation and Suspension; Remedies of the Bank

SECTION 5.01. The Borrower may by notice to the Bank cancel all or any portion of the Loan which shall not have been withdrawn from the Loan Account prior to the giving of such notice.

SECTION 5.02. If any of the following events shall have happened and be continuing, the Bank may by notice to the Borrower and the Administrator suspend in whole or in part withdrawals from the Loan Account:

- (a) A default shall have occurred in the payment of principal or interest or any other payment required under this Agreement or the Bonds.
- (b) A default shall have occurred in the payment of principal or interest or any other payment required under any other loan agreement or under any guarantee agreement between the Borrower and the Bank.
- (c) A default shall have occurred in the performance of any other covenant or agreement on the part of the Borrower under this Agreement or the Bonds.
- (d) An extraordinary situation shall have arisen which shall make it improbable that the Borrower will be able to perform its obligations under this Agreement or the Fund Agreement.
- (e) The Borrower shall have been suspended from membership in or ceased to be a member of the Bank.
- (f) The Borrower shall have ceased to be a member of the International Monetary Fund or shall have become ineligible to use the resources of said Fund under Section 6 of Article IV of the Articles of Agreement of said Fund or shall have been declared ineligible to use said resources under Section 5 of Article V, Section 1 of Article VI or Section 2 (a) of Article XV of the Articles of Agreement of said Fund.
- (g) After the date of this Agreement and prior to the Effective Date any action shall have been taken which would have constituted a violation of any covenant contained in this Agreement if this Agreement and the Fund Agreement had been effective and in force on the date such action was taken.

Withdrawals from the Loan Account shall continue to be suspended in whole or in part, as the case may be, until the event or events which gave rise to such suspension shall have ceased to exist or until the Bank shall have notified the Borrower that such suspension has been removed, whichever is the earlier; provided, however, that in the case of any such notice of removal of a suspension, the suspension shall be removed only to the extent and subject to the conditions specified in such notice, and no such notice shall affect or impair any right, power or remedy of the Bank in respect of any other or subsequent event described in this Section.

SECTION 5.03. (a) If any of the events described in Section 5.02 shall have happened and be continuing, the Bank may by notice to the Borrower terminate in whole or in part withdrawals from the Loan Account. Upon the giving of such notice the unwithdrawn amount of the Loan in respect of which such notice shall have been given shall be cancelled.

(b) If the full amount of the Loan shall not have been withdrawn from the Loan Account by September 30, 1973, or such other date as shall be agreed upon between the Borrower and the Bank, the Bank may by notice to the Borrower terminate withdrawals from the Loan Account. Upon the giving of such notice the unwithdrawn amount of the Loan shall be cancelled.

SECTION 5.04. Except as otherwise agreed between the Bank and the Borrower, any cancellation pursuant to this Article, and any amounts received from the Fund pursuant to Section 11.02 (a) of the Fund Agreement, shall be applied *pro rata* to, or to the payment of, the several maturities of the principal amount of the Loan as set forth in Schedule 1 to this Agreement, except that no such cancellation or amount shall be applied to, or to the payment of, Bonds theretofore delivered or requested pursuant to Article III, or to Bonds or portions of the Loan which the Bank has theretofore sold or agreed to sell.

SECTION 5.05. Notwithstanding any cancellation or suspension pursuant to this Article, all the provisions of this Agreement shall continue in full force and effect except as in this Article specifically provided.

SECTION 5.06. (i) If any event specified in paragraph (a) or paragraph (b) of Section 5.02 shall occur and shall continue for a period of thirty days, or (ii) if any event specified in paragraph (c) of Section 5.02 shall occur and shall continue for a period of sixty days after notice thereof shall have been given by the Bank to the Borrower, then at any subsequent time during the continuance thereof, the Bank, at its option, may declare the principal of the Loan and of all the Bonds then outstanding to be due and payable immediately, and upon any such declaration such principal shall become due and payable immediately, anything in this Agreement or in the Bonds to the contrary notwithstanding.

ARTICLE VI

Enforceability; Failure to Exercise Rights; Arbitration

SECTION 6.01. The rights and obligations of the Bank and the Borrower under this Agreement and the Bonds shall be valid and enforceable in accordance with their terms notwithstanding the law of any state, or political subdivision thereof, to the contrary. Neither the Bank nor the

Borrower shall be entitled in any proceeding under this Article to assert any claim that any provision of this Agreement or the Bonds is invalid or unenforceable because of any provision of the Articles of Agreement of the Bank or for any other reason.

SECTION 6.02. No delay in exercising, or omission to exercise, any right, power or remedy accruing to either party under this Agreement upon any default shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence in such default; nor shall the action of such party in respect of any default, or any acquiescence in any default, affect or impair any right, power or remedy of such party in respect of any other or subsequent default.

SECTION 6.03. (a) Any controversy between the parties to this Agreement and any claim by either such party against the other arising under this Agreement or the Bonds which shall not be determined by agreement of the parties shall be submitted to arbitration by an Arbitral Tribunal as hereinafter provided.

(b) The parties to such arbitration shall be the Bank and the Borrower.

(c) The Arbitral Tribunal shall consist of three arbitrators appointed as follows: one arbitrator shall be appointed by the Bank; a second arbitrator shall be appointed by the Borrower; and the third arbitrator (hereinafter sometimes called the Umpire) shall be appointed by agreement of the parties or, if they shall not agree, by the President of the International Court of Justice or, failing appointment by him, by the Secretary-General of the United Nations. If either of the parties shall fail to appoint an arbitrator, such arbitrator shall be appointed by the Umpire. In case any arbitrator appointed in accordance with this Section shall resign, die or become unable to act, a successor arbitrator shall be appointed in the same manner as herein prescribed for the appointment of the original arbitrator and such successor shall have all the powers and duties of such original arbitrator.

(d) An arbitration proceeding may be instituted under this Section upon notice by the party instituting such proceeding to the other party. Such notice shall contain a statement setting forth the nature of the controversy or claim to be submitted to arbitration, the nature of the relief sought, and the name of the arbitrator appointed by the party instituting such proceeding. Within 30 days after the giving of such notice, the adverse party shall notify the party instituting the proceeding of the name of the arbitrator appointed by such adverse party.

(e) If, within 60 days after the giving of such notice instituting the arbitration proceeding, the parties shall not have agreed upon an Umpire, either party may request the appointment of an Umpire as provided in paragraph (c) of this Section.

(f) The Arbitral Tribunal shall convene at such time and place as shall be fixed by the Umpire. Thereafter, the Arbitral Tribunal shall determine where and when it shall sit.

(g) Subject to the provisions of this Section and except as the parties shall otherwise agree, the Arbitral Tribunal shall decide all questions relating to its competence and shall determine its procedure. All decisions of the Arbitral Tribunal shall be by majority vote.

(h) The Arbitral Tribunal shall afford to both parties a fair hearing and shall render its award in writing. Such award may be rendered by default. An award signed by a majority of the Arbitral Tribunal shall constitute the award of such Tribunal. A signed counterpart of the award shall be transmitted to each party. Any such award rendered in accordance with the provisions of this Section shall be final and binding upon the parties to this Agreement. Each party shall abide by and comply with any such award rendered by the Arbitral Tribunal in accordance with the provisions of this Section.

(i) The parties shall fix the amount of the remuneration of the arbitrators and such other persons as shall be required for the conduct of the arbitration proceedings. If the parties shall not agree on such amount before the Arbitral Tribunal shall convene, the Arbitral Tribunal shall fix such amount as shall be reasonable under the circumstances. Each party shall defray its own expenses in the arbitration proceedings. The costs of the Arbitral Tribunal shall be divided and borne equally by the parties. Any question concerning the division of the costs of the Arbitral Tribunal or the procedure for payment of such costs shall be determined by the Arbitral Tribunal.

(j) The provisions for arbitration set forth in this Section shall be in lieu of any other procedure for the determination of controversies between the parties to this Agreement and any claim by either party against the other party arising thereunder or under the Bonds.

(k) The Bank shall not be entitled to enter judgment against the Borrower upon the award, to enforce the award against the Borrower by execution or to pursue any other remedy against the Borrower for the enforcement of the award, except as such procedure may be available against the Borrower otherwise than by reason of the provisions of this Section. If, within 30 days after counterparts of the award shall be delivered to the parties, the award shall not be complied with by the Bank, the Borrower may take any such action for the enforcement of the award against the Bank.

(l) Service of any notice or process in connection with any proceeding under this Section or (to the extent that such remedy shall be available) in connection with any proceeding to enforce any award rendered pursuant to this Section may be made in the manner provided in Section 7.01. The parties to this Agreement waive any and all other requirements for the service of any such notice or process.

ARTICLE VII

Miscellaneous Provisions

SECTION 7.01. Any notice or request required or permitted to be given or made under this Agreement and any agreement between the parties contemplated by this Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable or radiogram to the party to which it is required or permitted to be given or made at such party's address specified in Section 7.05, or at such other address as such party shall have designated by notice to the party giving such notice or making such request.

SECTION 7.02. Any action required or permitted to be taken, and any documents required or permitted to be executed, under this Agreement on behalf of the Borrower may be taken or executed by a Secretary to the Government of Pakistan, Ministry of Finance, who is hereby designated as the representative of the Borrower for the purposes of this Section, and such designation shall be in addition to any other designation which may be made for any of the acts referred to in this Section. Any modification or amplification of the provisions of this Agreement may be agreed to on behalf of the Borrower by written instrument executed on behalf of the Borrower by the representative so designated or any person thereunto authorized in writing by him; provided that, in the opinion of such representative or other person, such modification or amplification is reasonable in the circumstances and will not substantially increase the obligations of the Borrower under this Agreement. The Bank may accept the execution by such representative or other person of any such instrument as conclusive evidence that in the opinion of such representative any modification or amplification of the provisions of this Agreement effected by such instrument is reasonable in the circumstances and will not substantially increase the obligations of the Borrower thereunder.

SECTION 7.03. The Borrower shall furnish to the Bank sufficient evidence of the authority of the person or persons who will, on behalf of the Borrower, take any action or execute any documents required or permitted to be taken or executed by the Borrower under this Agreement, and the authenticated specimen signature of each such person.

SECTION 7.04. This Agreement may be executed in several counterparts, each of which shall be an original. All such counterparts shall collectively be but one instrument.

SECTION 7.05. The following addresses are specified for the purposes of Section 7.01 :

For the Borrower :

The Secretary to the Government
of Pakistan

Ministry of Finance

Rawalpindi, Pakistan

Alternative address for cablegrams and radiograms :

Finpak, Rawalpindi

For the Bank :

International Bank for Reconstruction
and Development

1818 H Street, N.W.

Washington 25, D.C.

United States of America

Alternative address for cablegrams and radiograms :

Intbafrad

Washington, D.C.

ARTICLE VIII

Effective Date; Termination

SECTION 8.01. This Agreement shall not become effective until evidence satisfactory to the Bank shall have been furnished to the Bank that

- (a) the execution and delivery of this Agreement on behalf of the Borrower have been duly authorized or ratified by all necessary governmental action; and
- (b) the Treaty shall have entered into force pursuant to its terms.

SECTION 8.02. As part of the evidence to be furnished pursuant to Section 8.01, the Borrower shall furnish to the Bank an opinion or opinions satisfactory to the Bank of counsel acceptable to the Bank showing:

- (a) that this Agreement has been duly authorized or ratified by, and executed and delivered on behalf of, the Borrower and constitutes a valid and binding obligation of the Borrower in accordance with its terms; and
- (b) that the Bonds when executed and delivered in accordance with this Agreement will constitute valid and binding obligations of the Borrower in accordance with their terms and that, except as stated in such opinion, no further signatures or formalities are required for that purpose.

SECTION 8.03. This Agreement shall come into force and effect on the date when the Bank dispatches to the Borrower notice of its acceptance of the evidence required by Section 8.01.

SECTION 8.04. If all acts required to be performed pursuant to Section 8.01 shall not have been performed before a date sixty days after the date of this Agreement or such other date as shall be agreed upon by the Bank and the Borrower, the Bank may at any time thereafter at its option terminate this Agreement by notice to the Borrower. Upon the giving of such notice this Agreement and all obligations of the parties hereunder shall forthwith terminate.

SECTION 8.05. If and when the entire principal amount of the Loan and the Bonds and the premium, if any, on the prepayment of the Loan and on the redemption of all Bonds called for redemption (as the case may be) and all interest and other charges which shall have accrued on the Loan and the Bonds shall have been paid, this Agreement and all obligations of the parties hereunder shall forthwith terminate.

ARTICLE IX

Definitions

SECTION 9.01. Except where the context otherwise requires, the following terms have the following meanings wherever used in this Agreement or any Schedule hereto:

1. The term "this Agreement" means this Agreement, as amended from time to time; and such term includes all agreements supplemental to this

Agreement and all schedules hereto with the same force and effect as if they were fully set forth herein.

2. The term "part of the Loan" means part of the Loan as credited to the Loan Account pursuant to Section 1.02, provided that for the purposes of Section 1.06 (a) and Article III parts of the Loan bearing interest at the same rate shall be deemed to be one such part.

3. The term "currency" means such coin or currency as at the time referred to is legal tender for the payment of public and private debts in the territories of the government referred to. Whenever reference is made to the currency of the Borrower, the term "currency" includes the currencies of all colonies and territories on whose behalf at the time referred to the Borrower has accepted membership in the Bank.

4. The term "dollars" and the sign "\$" mean dollars in currency of the United States of America.

5. The term "Bonds" means bonds executed and delivered by the Borrower pursuant to this Agreement; and such term includes any such bonds issued in exchange for, or on transfer of, Bonds as herein defined.

6. The term "Loan Account" means the account on the books of the Bank to which the amount of each part of the Loan is to be credited as provided in Section 1.02.

7. The term "goods" means equipment, supplies, other property and services which are required for the Project. Wherever reference is made to the cost of any goods, such cost shall be deemed to include the cost of importing such goods into the territories of the Borrower.

8. The term "external debt" means any debt payable in any medium other than currency of the Borrower, whether such debt is or may become payable absolutely or at the option of the creditor in such other medium.

9. The term "Effective Date" means the date on which this Agreement shall come into force and effect as provided in Section 8.03.

10. The term "lien" shall include mortgages, pledges, charges, privileges and priorities of any kind.

11. The term "assets" shall include revenues and property of any kind.

12. The terms "tax" and "taxes" shall include imposts, duties and levies of any kind, whether in effect at the date of this Agreement or thereafter imposed.

13. Wherever reference is made to the incurring of debt such reference shall include the assumption and guarantee of debt.

Unless otherwise specified references in this Agreement to Articles or Sections are to Articles or Sections of this Agreement.

IN WITNESS WHEREOF, the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names and delivered in Karachi as of the day and year first above written.

REPUBLIC OF PAKISTAN

By M. SHOAIB

Authorized Representative

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

By W. A. B. ILIFF

President

SCHEDULE 1

Amortization Schedule

<i>Date Payment Due</i>			<i>Payment of Principal (Expressed in dollars)*</i>
			\$
October 1, 1970	...	...	1,194,000
April 1, 1971	...	...	1,230,000
October 1, 1971	...	...	1,266,000
April 1, 1972	...	...	1,304,000
October 1, 1972	...	...	1,343,000
April 1, 1973	...	...	1,384,000
October 1, 1973	...	...	1,425,000
April 1, 1974	...	...	1,468,000
October 1, 1974	...	...	1,512,000
April 1, 1975	...	...	1,557,000
October 1, 1975	...	...	1,604,000
April 1, 1976	...	...	1,652,000
October 1, 1976	...	...	1,702,000
April 1, 1977	...	...	1,753,000
October 1, 1977	...	...	1,805,000
April 1, 1978	...	...	1,860,000
October 1, 1978	...	...	1,915,000
April 1, 1979	...	...	1,973,000
October 1, 1979	...	...	2,032,000
April 1, 1980	...	...	2,093,000
October 1, 1980	...	...	2,156,000
April 1, 1981	...	...	2,221,000
October 1, 1981	...	...	2,287,000
April 1, 1982	...	...	2,356,000

* To the extent that any part of the Loan is repayable in a currency other than dollars (see Section 1.06 (b)), the figures in this column represent dollar equivalents determined as for purposes of withdrawal.

<i>Date Payment Due</i>	<i>Payment of Principal (Expressed in dollars)*</i>
	\$
October 1, 1982	2,426,000
April 1, 1983	2,499,000
October 1, 1983	2,574,000
April 1, 1984	2,651,000
October 1, 1984	2,731,000
April 1, 1985	2,813,000
October 1, 1985	2,897,000
April 1, 1986	2,984,000
October 1, 1986	3,074,000
April 1, 1987	3,166,000
October 1, 1987	3,261,000
April 1, 1988	3,359,000
October 1, 1988	3,460,000
April 1, 1989	3,563,000
October 1, 1989	3,670,000
April 1, 1990	3,780,000

Premiums on Prepayment and Redemption

The following percentages are specified as the premiums payable on repayment in advance of maturity of any part of the principal amount of the Loan pursuant to Section 1.07 or on the redemption of any Bond prior to its maturity pursuant to Section 3.16:

<i>Time of Prepayment or Redemption</i>	<i>Premium</i>
Not more than three years before maturity ...	½%
More than three years but not more than six years before maturity	1%
More than six years but not more than eleven years before maturity	2%
More than eleven years but not more than sixteen years before maturity	3%
More than sixteen years but not more than twenty-one years before maturity	4%
More than twenty-one years but not more than twenty-six years before maturity ...	5%
More than twenty-six years before maturity	6%

* To the extent that any part of the Loan is repayable in a currency other than dollars (see Section 1.06 (b)), the figures in this column represent dollar equivalents determined as for purposes of withdrawal.

SCHEDULE 2

Form of Registered Bond without Coupons Payable in Dollars

\$ 000

\$ 000

No. 000

No. 000

[NAME OF BORROWER]

Serial Bond due

[NAME OF BORROWER] (hereinafter called [the Borrower]), for value received, hereby promises to pay to _____, or registered assigns, on the _____ day of _____, 19____, at the office or agency of [the Borrower] in the Borough of Manhattan, in The City of New York, the sum of _____ DOLLARS in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts, and to pay interest thereon from the date hereof at said office or agency in like coin or currency at the rate of _____ per centum (_____ %) per annum, payable semi-annually on _____ and _____ until payment of said principal sum has been made or duly provided for.

This Bond is one of an authorized issue of bonds of the aggregate principal amount of _____ (or the equivalent thereof payable in other currencies), known as the Serial Bonds of [the Borrower] (hereinafter called the Bonds), issued or to be issued under a Loan Agreement dated _____ between [the Borrower] and International Bank for Reconstruction and Development (hereinafter called the Bank). No reference herein to the Loan Agreement shall confer upon the holder hereof any rights thereunder or impair the obligation of [the Borrower], which is absolute and unconditional, to pay the principal and interest on this Bond at the times and place and in the amounts and in the currency herein prescribed.

This Bond is transferable by the registered holder hereof, or by his attorney duly authorized in writing, at said office or agency of [the Borrower] in the Borough of Manhattan, upon payment, if [the Borrower] shall so require, of a charge calculated to reimburse [the Borrower] for the cost of the transfer and upon surrender of this Bond for cancellation, duly endorsed or accompanied by a proper instrument or instruments of assignment and transfer. Upon any such transfer a new fully registered Bond or Bonds, without coupons, of authorized denominations, of the same maturity and in the same aggregate principal amount, will be issued to the transferee in exchange for this Bond.

Upon payment, if [the Borrower] shall so require, of a charge calculated to reimburse [the Borrower] for the cost of the exchange (1) bearer Bonds with interest coupons attached (hereinafter called coupon Bonds) of any maturity, together with all unmatured coupons thereto appertaining, may be exchanged upon presentation and surrender thereof at said office or agency in the Borough of Manhattan for coupon Bonds of other authorized denominations with all unmatured coupons thereto appertaining, or for fully registered Bonds without coupons (hereinafter called registered Bonds) of any

authorized denominations, or both, of the same maturity and in the same aggregate principal amount; and (2) registered Bonds of any maturity may be exchanged upon presentation and surrender at said office or agency, duly endorsed or accompanied by a proper instrument or instruments of assignment and transfer, for registered Bonds of other authorized denominations or for coupon Bonds of any authorized denominations with all unmatured coupons thereto appertaining, or both, of the same maturity and in the same aggregate principal amount.

[The Borrower] shall not be required to make transfers or exchanges of any Bonds for a period of ten days next preceding any interest payment date thereof or of any Bonds called for redemption.

The Bonds are subject to redemption at the election of [the Borrower], as hereinafter provided, at a redemption price for each Bond equal to the principal amount thereof, plus the interest accrued and unpaid thereon to the date fixed for the redemption thereof, plus as a premium the following respective percentages of such principal amount: [insert percentages set forth in Schedule 1 to the Loan Agreement]. All the Bonds at the time outstanding may be so redeemed at any time. All the Bonds at the time outstanding of any one or more maturities may be so redeemed at any time, provided that, at the date fixed for the redemption of such Bonds, there shall not be outstanding any Bonds maturing after the Bonds to be redeemed. If [the Borrower] shall elect to redeem Bonds it shall give notice of intention to redeem all the Bonds, or all the Bonds of one or more designated maturities as hereinabove provided, as the case may be. Such notice shall designate the redemption date and shall state the redemption price or prices, determined as hereinbefore provided. Such notice shall be given by publication in two daily newspapers printed in the English language and published and of general circulation in said Borough of Manhattan at least once a week for three successive weeks, the first publication to be not less than 45 nor more than 60 days prior to said redemption date. Notice of election to redeem having been given as above provided, the Bonds so called for redemption shall become due and payable on said redemption date at their redemption price or prices, and upon presentation and surrender thereof on or after such date at said office or agency in said Borough of Manhattan, together with any appurtenant coupons maturing after said redemption date, shall be paid at the redemption price or prices aforesaid. All unpaid interest instalments represented by coupons which shall have matured on or prior to said redemption date shall continue to be payable to the bearers of such coupons severally and respectively, and the redemption price payable to the holders of coupon Bonds presented for redemption shall not include such unpaid instalments of interest unless coupons representing such instalments shall accompany the Bonds presented for redemption. From and after said redemption date, if payment is made or duly provided for pursuant thereto, the Bonds so called for redemption shall cease to bear interest and any appurtenant coupons maturing after said redemption date shall be void.

In certain events provided in said Loan Agreement, the Bank, at its option, may declare the principal of all the Bonds then outstanding (if not already due) to be due and payable immediately, and upon any such declaration such principal shall be due and payable immediately.

The principal of the Bonds, the interest accruing thereon and the premium, if any, on the redemption thereof shall be paid without deduction for and free from any taxes, imposts, levies or duties of any nature or any restrictions now or at any time hereafter imposed under the laws of [the Borrower] or laws in effect in its territories; *provided, however, that the provisions of this paragraph shall not apply to the taxation of payments made under the provisions of any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of [the Borrower].*

[The Borrower] may deem and treat the bearer of any coupon Bond, and the bearer of any coupon for interest on any Bond, and the registered owner of any registered Bond, as the absolute owner thereof for all purposes whatsoever notwithstanding any notice to the contrary; and all payments to such bearer or to or on the order of such registered owner, as the case may be, shall be valid and effectual to discharge the liability of [the Borrower] upon such coupon Bond, such coupon or such registered Bond to the extent of the sum or sums so paid.

This Bond shall not be valid or become obligatory for any purpose until it shall have been [insert appropriate reference to authentication, signature or attestation].

IN WITNESS WHEREOF [the Borrower] has caused this Bond to be signed in its name by [here insert reference to official or officials signing Bonds, to countersignatures, attestation and seal, if used, and, if any signature is a facsimile signature, make reference thereto].

[Signature, attestation,
authentication, as may
be appropriate]

Dated

Note: Italicized provisions may be omitted if Borrower desires.

Form of Assignment and Transfer

FOR VALUE RECEIVED

hereby sell, assign and transfer unto

the within Bond issued by [NAME OF BORROWER] and hereby irrevocably authorize said [Borrower] to transfer said Bond on its books.

Dated

Witness:

SCHEDULE 3

Form of Coupon Bond Payable in Dollars

\$ 000

\$ 000

No. 000

No. 000

[NAME OF BORROWER]

Serial Bond due

[NAME OF BORROWER] (hereinafter called [the Borrower]), for value received, hereby promises to pay to the bearer hereof, on the day of _____, 19____, at the office or agency of [the Borrower] in the Borough of Manhattan, in The City of New York, the sum of _____ DOLLARS in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts, and to pay interest thereon from the date hereof at said office or agency in like coin or currency at the rate of _____ per centum (_____ %) per annum, payable semi-annually on _____ and _____ until payment of said principal sum has been made or duly provided for, but until the maturity hereof only upon presentation and surrender of the coupons hereto attached as they severally mature.

This Bond is one of an authorized issue of bonds of the aggregate principal amount of _____ (or the equivalent thereof payable in other currencies), known as the Serial Bonds of [the Borrower] (hereinafter called the Bonds), issued or to be issued under a Loan Agreement dated _____ between [the Borrower] and International Bank for Reconstruction and Development (hereinafter called the Bank). No reference herein to the Loan Agreement shall confer upon the holder hereof any rights thereunder or impair the obligation of [the Borrower], which is absolute and unconditional, to pay the principal and interest on this Bond at the times and place and in the amounts and in the currency herein prescribed.

Upon payment, if [the Borrower] shall so require, of a charge calculated to reimburse [the Borrower] for the cost of the exchange (1) bearer Bonds with interest coupons attached (hereinafter called coupon Bonds) of any maturity, together with all unmatured coupons thereto appertaining, may be exchanged upon presentation and surrender thereof at said office or agency in the Borough of Manhattan for coupon Bonds of other authorized denominations with all unmatured coupons thereto appertaining, or for fully registered Bonds without coupons (hereinafter called registered Bonds) of any authorized denominations, or both, of the same maturity and in the same aggregate principal amount; and (2) registered Bonds of any maturity may be exchanged upon presentation and surrender at said office or agency, duly endorsed or accompanied by a proper instrument or instruments of assignment and transfer, for registered Bonds of other authorized denominations or for coupon Bonds of any authorized denominations with all unmatured coupons thereto appertaining, or both, of the same maturity and in the same aggregate principal amount.

[The Borrower] shall not be required to make transfers or exchanges of any Bonds for a period of ten days next preceding any interest payment date thereof or of any Bonds called for redemption.

The Bonds are subject to redemption at the election of [the Borrower], as hereinafter provided, at a redemption price for each Bond equal to the principal amount thereof, plus the interest accrued and unpaid thereon to the date fixed for the redemption thereof, plus as a premium the following respective percentages of such principal amount: [insert percentages set forth in Schedule 1 to the Loan Agreement]. All the Bonds at the time outstanding may be so redeemed at any time. All the Bonds at the time outstanding of any one or more maturities may be so redeemed at any time, provided that, at the date fixed for the redemption of such Bonds, there shall not be outstanding any Bonds maturing after the Bonds to be redeemed. If [the Borrower] shall elect to redeem Bonds it shall give notice of intention to redeem all the Bonds, or all the Bonds of one or more designated maturities as hereinabove provided, as the case may be. Such notice shall designate the redemption date and shall state the redemption price or prices, determined as hereinbefore provided. Such notice shall be given by publication in two daily newspapers printed in the English language and published and of general circulation in said Borough of Manhattan at least once a week for three successive weeks, the first publication to be not less than 45 nor more than 60 days prior to said redemption date. Notice of election to redeem having been given as above provided, the Bonds so called for redemption shall become due and payable on said redemption date at their redemption price or prices, and upon presentation and surrender thereof on or after such date at said office or agency in said Borough of Manhattan, together with any appurtenant coupons maturing after said redemption date, shall be paid at the redemption price or prices aforesaid. All unpaid interest instalments represented by coupons which shall have matured on or prior to said redemption date shall continue to be payable to the bearers of such coupons severally and respectively, and the redemption price payable to the holders of coupon Bonds presented for redemption shall not include such unpaid instalments of interest unless coupons representing such instalments shall accompany the Bonds presented for redemption. From and after said redemption date, if payment is made or duly provided for pursuant thereto, the Bonds so called for redemption shall cease to bear interest and any appurtenant coupons maturing after said redemption date shall be void.

In certain events provided in said Loan Agreement, the Bank, at its option, may declare the principal of all the Bonds then outstanding (if not already due) to be due and payable immediately, and upon any such declaration such principal shall be due and payable immediately.

The principal of the Bonds, the interest accruing thereon and the premium, if any, on the redemption thereof shall be paid without deduction for and free from any taxes, imposts, levies or duties of any nature or any restrictions now or at any time hereafter imposed under the laws of [the Borrower] or laws in effect in its territories; *provided, however, that the provisions of this paragraph shall not apply to the taxation of payments made under the provisions of any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of [the Borrower].*

[The Borrower] may deem and treat the bearer of any coupon Bond, and the bearer of any coupon for interest on any Bond, and the registered owner of any registered Bond, as the absolute owner thereof for all purposes whatsoever notwithstanding any notice to the contrary; and all payments to such bearer or to or on the order of such registered owner, as the case may be, shall be valid and effectual to discharge the liability of [the Borrower] upon such coupon Bond, such coupon or such registered Bond to the extent of the sum or sums so paid.

This Bond shall not be valid or become obligatory for any purpose until it shall have been [insert appropriate reference to authentication, signature or attestation].

IN WITNESS WHEREOF [the Borrower] has caused this Bond to be signed in its name by [here insert reference to official or officials signing Bonds, to countersignatures, attestation and seal, if used, and, if any signature is a facsimile signature, make reference thereto] and the coupons for said interest bearing the facsimile signature of its [insert title or name of official] to be attached hereto.

[Signature, attestation,
authentication, as may
be appropriate]

Dated

Note : Italicized provisions may be omitted if Borrower desires.

Form of Coupon

On the day of , 19 , unless the Bond mentioned below shall have been called for previous redemption and payment duly provided therefor, [NAME OF BORROWER] will pay to bearer, upon surrender of this coupon, at the office or agency of said [BORROWER] in the Borough of Manhattan in The City of New York dollars in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts, being six months' interest then due on its Serial Bond, No. due

[facsimile signature]

ANNEXURE C—ESTIMATED DISBURSEMENTS

A. FOREIGN EXCHANGE

(Amounts in U.S.\$ m. equivalents)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
	(424)	47.46	44	59	68	45	38	26	28	31	13	3
1. Direct Costs ...	5.7	12.1	17.7	21.3	22.5	20.9	13.7	12.1	12.5	8.5	4.8	2.8
2. Purchase of Rupees from State Bank (See line 5, table B) ...	(154.6)											
3. 1 plus 2 ...	(578.6)	27.24	59.56	61.7	80.3	65.9	51.7	38.1	40.5	39.5	17.8	5.8
4. Provision for Special Reserve (a)	(27.6)	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	—	—
5. 3 plus 4 (Total Foreign Exchange Requirements)	(606.2)	30.00	62.32	64.46	83.06	68.66	54.46	40.86	43.26	42.26	17.8	5.8
6. Indian Contribution ...	(173.8)	17.38	17.38	17.38	17.38	17.38	17.38	17.38	17.38	17.38	—	—
7. 5 minus 6 ...	(432.4)	12.62	44.94	47.08	65.68	51.28	37.08	23.48	25.88	24.88	17.8	5.8
8. Pakistan Contribution (1.2)		.12	.12	.12	.12	.12	.12	.12	.12	.12	—	—
9. 7 minus 8 ...	(431.2)	12.50	44.82	46.96	65.56	51.16	39.96	23.36	25.76	24.76	17.8	5.8
10. New Zealand Contribution (2.8)		.28	.28	.28	.28	.28	.28	.28	.28	.28	—	—
11. Amounts to be apportioned between Grants and Loans	(428.4)	12.22	44.54	46.68	65.28	50.88	36.68	23.08	25.48	24.48	17.8	5.8
Grants—												
65% (b) ...	(278.4)	7.92	28.97	30.34	42.43	33.07	23.84	15.00	16.56	15.91	11.57	3.77
Loans—												
35% ...	(150.0)	4.30	15.57	16.34	22.85	17.81	12.84	8.08	8.92	8.57	6.23	2.03

Notes.—(a) Under Section 4.01.* (b) The incidence on the contributing governments will be as set out in Section 3.02 (b) (i).

* All section references in this Annexure are to Sections of the Indus Basin Development Fund Agreement.

B. LOCAL CURRENCY

(Amounts in U.S.\$ m. equivalents)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
(Total) (414)	17	33	47	56	59	55	37	33	34	24	12	7
1. Direct Costs ...	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	—	—
2. From Pakistan Budget (a) ...	14.24	30.24	44.24	53.24	56.24	52.24	34.24	30.24	31.24	21.24	12	—
3. 1 minus 2 ...	8.54	18.14	26.54	31.94	33.74	31.34	20.54	18.14	18.74	12.74	7.2	4.2
4. From U.S. Govt. (b) 60% of Line 3	5.7	12.1	17.7	21.3	22.5	20.9	13.7	12.1	12.5	8.5	4.8	2.8
5. From Purchase of Rupees from State Bank (c) 40% of Line 3 ...												

Notes.—(a) Under Section 3.03 (a). (b) Under Section 3.03 (b) (i). (c) Under Section 3.03 (b) (ii).

ANNEXURE D—PROJECT DESCRIPTION

1. The Project consists of a system of works to be constructed by Pakistan which will:

- (a) transfer water from the three Western Rivers of the Indus system (Indus, Jhelum and Chenab), to meet existing irrigation uses in Pakistan which have hitherto depended upon the waters of the three Eastern Rivers (Ravi, Beas and Sutlej), thereby releasing the whole flow of the three Eastern Rivers for irrigation developments in India;
- (b) provide substantial additional irrigation development in West Pakistan;
- (c) develop 300,000 KW of hydro-electric potential for West Pakistan;
- (d) make an important contribution to soil reclamation and drainage in West Pakistan by lowering ground water levels in water-logged and saline areas; and
- (e) afford a measure of flood protection in West Pakistan.

2. The system of works includes:

	<i>Location</i>	<i>Capacity</i>
A. Dams and Related Works	(1) Jhelum River	Live storage of 4.75 million acre feet
	(a) Hydro-electric generating facilities	300,000 KW
	(2) Indus River	Live storage of 4.2 million acre feet
B. Link Canals (Construction and remodelling)	Rasul-Qadirabad	19,000 cusecs
	Qadirabad-Balloki	18,600 cusecs
	Balloki-Suleimanke	18,500 cusecs
	Marala-Ravi	22,000 cusecs
	Bambanwala-Ravi-Bedian-Dipalpur	5,000 cusecs
	Trimmu-Islam	11,000 cusecs
	Kalabagh-Jhelum	22,000 cusecs
Taunsa-Panjnad	12,000 cusecs	
C. Barrages	Qadirabad	
	Ravi River	
	Sutlej River	

D. Tubewells and Drainage Works

- (1) About 2,500 tubewells to contribute to a lowering of the water-table, some of which will yield additional water supplies for irrigation use; and
- (2) A system of open drains to lower the water-table in about 2.5 million acres of land now under cultivation but seriously threatened by water-logging and salinity.

E. Other Works

Ancillary irrigation works directly related to the foregoing, including remodelling of existing works.