MANUAL OF RESPONSIBILITY
INDUS WATERS TREATY 1960
GOVERNMENT OF PAKISTAN

INDUS WATERS TREATY 1960

MANUAL OF RESPONSIBILITY

FOR

THE VARIOUS MINISTRIES, DEPARTMENTS

AND AGENCIES CONCERNED

WITH

THE IMPLEMENTATION OF THE TREATY

***************

OFFICE OF

THE PAKISTAN COMMISSIONER FOR INDUS WATERS

FEBRUARY 1971.
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**INTRODUCTION**

The **Indus Waters Treaty 1960**, concluded between the Government of Pakistan and the Government of India in September 1960, fixes and delimits the rights and obligations of each Party in relation to the other concerning the use of the waters of the **Indus system of rivers**. The Treaty also provides for the settlement of all questions that may arise in regard to the interpretation or application of its provisions. The Government of Pakistan created, as contemplated in the Treaty, a permanent post of **Commissioner for Indus Waters**, the incumbent being the Government's representative for the due and proper implementation of the Treaty. The Pakistan Commissioner serves as the regular channel of communication with India on all matters relating to the implementation of the Treaty, except for any particular question which either Government may decide to take up directly with the other Government.

2. The **Pakistan Commissioner for Indus Waters** and his Indian counterpart together form the Permanent Indus Commission. The purpose and functions of the Commission are to establish and maintain co-operative arrangements for the implementation of the Treaty, to promote co-operation between the Parties in the development of the waters of the
Indus System of rivers and, in particular,

a) to study and report to the two Governments on any problem relating to the development of the waters of the Rivers which may be jointly referred to the Commission by the two Governments; in the event that a reference is made by one Government alone, the Commissioner of the other Government shall obtain the authorisation of his Government before he proceeds to act on the reference;

b) to make every effort to settle promptly any question which may arise concerning the interpretation or application of the Treaty or the existence of any fact which, if established, might constitute a breach of the Treaty;

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.

3. The Indus Waters Treaty 1960 places certain obligations on both Pakistan and India and it is in the interest of Pakistan, as a lower riparian, to see that these obligations are honoured both in letter and spirit. To achieve this objective the Pakistan Commissioner for Indus Waters had prepared in 1961 a Manual of Responsibilities for official use of the concerned departments and agencies of the Central and the Provincial Governments. The manual indicated the provisions of the Treaty, with the implementation of which each department or agency was either
directly concerned or regarding which it was to initiate some action. With the break-up of West Pakistan into four Provinces, it became necessary to revise the Manual so as to apprise departments and agencies of the new Provinces of their respective responsibilities in connection with the Indus Waters Treaty 1960. In the revised Manual independent chapters have been incorporated for the four Provincial Governments in addition to the chapters for the concerned Ministries of the Central Government and the other agencies.

A Statement showing the Paragraphs of Articles and Annexures of the Treaty, with the implementation of which each department or Agency is directly concerned, has also been included in the Manual.

4. The definitions of the relevant terms, as given in the Treaty, have been reproduced at the end of the Manual for ready reference. In case of any doubt regarding the interpretation or implication of any provision of the Treaty, the matter should be referred to the Pakistan Commissioner for Indus Waters.

5. The 'Transition Period' provided for in the Treaty ended on 31st March 1970. Accordingly the provisions concerning the Transition Period have not been included in the revised Manual.
STATEMENT OF THE TREATY PROVISIONS
WITH THE IMPLEMENTATION OF WHICH
VARIOUS MINISTRIES / DEPARTMENTS
AND AGENCIES ARE CONCERNED
STATEMENT OF TREATY PROVISIONS WITH THE IMPLEMENTATION OF WHICH VARIOUS MINISTRIES/DEPARTMENTS/AGENCIES ARE CONCERNED.

1. Ministry of Defence
   Article II - Paragraphs (2) & (3)
   Article IV - Paragraphs (2), (3) and (6)
   Article VI - Paragraph (2)
   Article VII - Paragraphs (1) and (2)

2. Ministry of Home and Article IV Kashmir Affairs and Kashmir Affairs and States and Frontier States and Frontier Regions
   Article VI - Paragraphs (1) and (2)
   Article VII - Paragraphs (1) and (2)
   Article VIII - Paragraph (4)
   Annexure C - Paragraph 9
   Annexure D - Paragraph 15
   Annexure E - Paragraphs 10 and 17

3. Ministry of Industries and Natural Resources
   Article IV - Paragraphs (10) and (12)

4. Meteorological Department
   Article VI - Paragraph (2)
   Article VII - Paragraph (1)

5. Government of Baluchistan
   (a) Deputy Commissioners
       Article VI - Paragraph (2)
       Article VII - Paragraph (2)
       Article VIII - Paragraph (4)
   (b) Irrigation and Power Department
       Article IV - Paragraph (10)
       Article VI - Paragraphs (1) and (2)
       Article VII - Paragraph (2)
       Article VIII - Paragraph (4)
6. Government of N.W.F.P.
   (a) Deputy Commissioners
       Article VI - Paragraph (2)
       Article VII - Paragraph (2)
       Article VIII - Paragraph (4)
   (b) Public Works Department
       Article IV - Paragraph (10)
       Article VI - Paragraph (1) and (2)
       Article VII - Paragraph (2)
       Article VIII - Paragraph (4)

7. Government of the Punjab
   (a) Deputy Commissioners
       Article II - Paragraphs (2) and (3)
       Article IV - Paragraphs (2), (3), (6), (7) and (13)
       Article VI - Paragraph (2)
       Article VII - Paragraph (2)
       Article VIII - Paragraph (4)
       Annexure B - Paragraphs (2), (3) and (6)
   (b) Board of Revenue
       Article IV - Paragraph (13)
       Annexure B - Paragraphs (2), (3) and (6)

* Provisions of Articles IV(6), VI(2), VII(2) and VIII(4) concern all the Deputy Commissioners. Provisions of Article II(2), II(3), IV(2), IV(3) and IV(7) concern the Deputy Commissioners of Lahore, Sahiwal, Sheikhupura and Sialkot only. Provisions of Article IV(13) and Paragraphs 2, 3 & 6 of Annexure B concern the Deputy Commissioner of Sialkot District only.
(c) Forest Department

Article IV - Paragraph (11)

(d) Industries Department

Article IV - Paragraphs (10), (12) and (13)

(e) Irrigation and Power Department

Article II - Paragraphs (2), (3) and (4)

Article III - Paragraph (3)

Article IV - Paragraphs (2), (3), (4), (6), (7), (8) and (10)

Article VI - Paragraphs (2) and (2)

Article VII - Paragraphs (1) and (2)

Article VIII - Paragraph (4)

Annexure D - Paragraph (15)

8. Government of Sind

(a) Deputy Commissioners

Article VI - Paragraph (5)

Article VII - Paragraph (2)

Article VIII - Paragraph (4)

(b) Irrigation and Power Department

Article IV - Paragraph (10)

Article VI - Paragraphs (1) and (2)

Article VII - Paragraph (2)

Article VIII - Paragraph (4)

9. Pakistan Western Railways

Article II - Paragraph (2) and (3)

Article IV - Paragraphs (2), (3), (6) and (7)

Article VI - Paragraph (1) and (2)

Article VIII - Paragraph (4)

10. West Pakistan Agricultural Development Corporation

Article VIII - Paragraph (4)
11. West Pakistan Industrial Development Corporation
   Article IV - Paragraphs (10) and (12)

12. West Pakistan Water and Power Development Authority
   Article IV - Paragraphs (2), (3), (6), (7), (8) and (9)
   Article VI - Paragraphs (1) and (2)
   Article VII - Paragraphs (1) and (2)
   Article VIII - Paragraph (4)
MANUAL OF RESPONSIBILITY FOR
THE MINISTRY OF DEFENCE
Article II(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 Fasta Bund upstream of Suleimanki in the case of the Sutlej Main, and (b) about one and a half miles upstream of the syphon for the R.R.B.D. Link in the case of the Ravi Main.

Article II(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.

To see that the obligation undertaken by Pakistan is fulfilled and no water is withdrawn for Consumptive use, other than Domestic use, from the border reaches of the two rivers.

To see that the obligation undertaken by Pakistan is fulfilled and no water is to be withdrawn for Consumptive Use, from the tributaries of the Sutlej and the Ravi which join these rivers in the border reaches, except for the withdrawals for Agricultural Use as provided for in Paragraphs 2 and 3 of Annexure B to the Treaty.
Article IV(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 by 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.

Article IV(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.

Article IV(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

To see that the schemes undertaken in Pakistan meet the stipulated requirements.

To see that the schemes undertaken in Pakistan meet the stipulated requirements.

To bring to the notice of the Pakistan Commissioner for Indus
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<th>PROVISIONS OF THE TREATY</th>
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<td>the flow in these channels likely to cause material damage to the other Party.</td>
<td>Waters any contravention of this provision by India.</td>
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Article VI(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(1)  
The two Parties recognise 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 there-to and carry out such observations thereof, as may be requested, and will supply the data so obtained.

To supply to the Pakistan Commissioner for Indus Waters the data requested by him in this connection.

To supply to the Pakistan Commissioner for Indus Waters as and when necessary, its proposals for works to be undertaken under this Article.
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<th>PROVISIONS OF THE TREATY</th>
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<tr>
<td>(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.</td>
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<td>(c) At the request of the either Party, the two Parties may, by mutual agreement, co-operate in undertaking engineering works on the Rivers.</td>
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The formal arrangements, in each case, shall be as agreed upon between the Parties.

Article VII(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.

To supply to the Pakistan Commissioner for Indus Waters data requested by him in this connection.
MANUAL OF RESPONSIBILITY FOR THE
MINISTRY OF HOME AND KASHMIR
AFFAIRS AND STATES AND FRONTIER
REGION
### Article IV(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 use(s) 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.

### Article IV(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.

To see that the schemes undertaken in Azad Kashmir and Jammu State and Frontier regions meet the stipulated requirements.
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<td>(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.</td>
<td></td>
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**Article IV(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 those channels likely to cause material damage to the other Party. To see that the obligation undertaken by Pakistan is fulfilled and to bring to the notice of the Pakistan Commissioner any contravention of the provision by India.

**Article IV(8)**

The use of the natural channels of the Rivers for the discharge of flood or other excess water shall be free and not subject to limitation by Either Party, and neither Party shall To supply to the Pakistan Commissioner for Indus Waters well before every flood season a list of the
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<td>have any claim against</td>
<td>sites for which</td>
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<td>the other in respect of</td>
<td>India is to be</td>
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<td>any damage caused by such</td>
<td>asked to supply</td>
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<td>use. Each Party agrees</td>
<td>flood data to</td>
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<td>to communicate to the</td>
<td>Pakistan.</td>
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<td>other Party, as far in</td>
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<td>advance as practicable,</td>
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<td>any information it may</td>
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<td>have in regard to such</td>
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<td>extra-ordinary discharges</td>
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<td>of water from reservoirs</td>
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<td>and flood flows as may</td>
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<td>effect the other Party.</td>
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**Article IV(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.

To see that the provision is complied with within Jammu State and the Frontier Regions.

**Article IV(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.
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<td><strong>Article IV(11)</strong></td>
<td>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. To see that arrangements are made for the recovery of marked drift timber and other property and for keeping it in safe custody till instructions for its disposal or restoration to the owners are given by the Pakistan Commissioner for Indus Waters. To supply the Pakistan Commissioner for Indus Waters, the details of the recoveries made every month.</td>
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<td><strong>Article IV(12)</strong></td>
<td>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</td>
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(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 affect on 
the other Party.

Article VI(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.

**Article VI(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(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.

To supply to the Pakistan Commissioner for Indus Waters as and when necessary, its proposals for works to be undertaken under this Article.
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.
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<tr>
<td>Article VII(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/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.</td>
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<tr>
<td>(a) --------------------------</td>
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<td>(b) --------------------------</td>
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To supply to the Pakistan Commissioner for Indus Waters data requested by him in this connection.

Article VIII(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,

To assist the Pakistan Commissioner for Indus Waters in planning, arranging and undertaking the tours of inspection in Azad Kashmir and Jammu State and Frontier Regions.
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<td>(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;</td>
<td></td>
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<tr>
<td>(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</td>
<td></td>
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<td>(e) ---------------------</td>
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Annexure (c) Paragraph 19

The Jhelum on which there is any agricultural use or hydro-electric use by Pakistan, any 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.

To keep the Pakistan Commissioner for Indus Waters informed of the Agricultural and hydro-electric uses developed on the Jhelum tributaries in Azad Kashmir, Jammu State and bring to his notice any contravention of this provision by India.

Annexure D Paragraph 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.

To keep the Pakistan Commissioner for Indus Waters informed of the Agricultural and hydro-electric uses developed
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 be not 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 on the Jhelum tributaries in Azad Kashmir and Jammu State and to bring to his notice any contravention of this provision by India.
or hydro-electric use by Pakistan on the former Tributary would not be adversely affected.

Annexure E  Paragraph 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.

To keep the Pakistan Commissioner for Indus Waters informed of the Agricultural and hydro-electric uses developed on the Jhelum Tributaries and to bring to his notice any contravention of this provision by India.

Annexure E  Paragraph 17

The flood Storage specified against Item (b) in Paragraph 7 may be affected 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.

To bring to the notice of the Pakistan Commissioner for Indus Waters any contravention of this provision by India that may come to their notice.
MANUAL OF RESPONSIBILITY
FOR THE MINISTRY OF INDUSTRIES AND NATURAL RESOURCES
Article IV(10) Each Party declares its intention to prevent, as far as practicable, undue pollution of the waters 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.

Remarks: To see that the provision is compiled with.

Article IV(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 process; or

Remarks: To collect and supply to the Pakistan Commissioner for Indus Waters data regarding the use of waters in the industrial processes in Pakistan where substantial quantity of water is used.
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<th>PROVISIONS OF THE TREATY</th>
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<td>11) 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.</td>
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MANUAL OF RESPONSIBILITY
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<td><strong>Article VI(2)</strong></td>
<td>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. To supply to the Pakistan Commissioner for Indus Waters the data requested by him in this connection.</td>
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| **Article VII(1)**       | The two Parties recognise 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: To supply to the Pakistan Commissioner for Indus Waters, as and when necessary, its proposals for works to be undertaken under this Article, |

(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 the 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.
MANUAL OF RESPONSIBILITY
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<tr>
<td>Article IV(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.</td>
<td>Irrigation and Power Department.</td>
<td>To see that the provision is complied with.</td>
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| Article VI(1) The following data with respect to the flow in, and utilization of the waters of, the Rivers shall be exchanged regularly between the Parties: (a) Daily (or as observed or estimated less | Irrigation and Power Department. | To supply to the Pakistan Commissioner for Indus Waters the relevant data for each calendar month within two months of the end of the month to which the data relate. |
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 telegraph, telephone, or wireless, it shall reimburse the other Party for the cost of transmission.
Article VII(2) If, in addition to the data specified in Paragraph (1) of this Article, either Party request 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.

To supply to the Pakistan Commissioner for Indus Waters the data requested by him in this connection.

Article VII(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

To supply to the Pakistan Commissioner for Indus Waters data requested by him in this connection.
such data re-
garding the nature,
magnitude and
effect, if any,
of the work as may
be available.

Article VIII(4) The purpose and functions of the Commission shall be to es-
tablish and maintain co-operative arrange-
ments for the implementa-
tion of this Treaty,
to promote co-operation between the Parties in the development of the waters of the Rivers and, in particular,

(a) --------------
(b) --------------
(c) to undertake, once in every five years, a general tour of inspection of the Rivers for ascer-
taining the facts connected with var-
ious developments and works on the Rivers;
(d) to undertake prompt-
ly, 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) --------------
MANUAL OF RESPONSIBILITY
FOR THE
GOVERNMENT OF N.W.F.P.
Article XX(10)  Each Party declares its intention to prevent, so far as practicable, such pollution of the waters of the Rivers which might affect adversely uses similar in nature to those to which the waters are put on the Delta side, 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.

Article XXII  The following data 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.
Article VI(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(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 the data requested by him in this connection.
with such data regarding the nature, magnitude and effect, if any, of the work as may be available.

Article VIII(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 cooperation between the Parties in the development of the waters of the Rivers and, in particular,

(a)  
(b)  
(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)  

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<td>i) Public Works Department</td>
<td>To assist the Pakistan Commissioner for Indus Waters in planning, arranging and undertaking the tours of inspection in their jurisdiction.</td>
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<td>ii) All Deputy Commissioners</td>
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MANUAL OF RESPONSIBILITY FOR THE VARIOUS DEPARTMENTS OF THE GOVERNMENT OF THE PUNJAB

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<td>Article II(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 Natasha 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.</td>
<td>i) Irrigation and Power Department</td>
<td>To see that the obligation undertaken by Pakistan is fulfilled and no water is withdrawn for Consumptive Use, other than Domestic Use: from the border reaches of the two rivers.</td>
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| Article II(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. | i) Irrigation and Power Department | ii) Deputy Commissioners of Lahore, Sialkot, Sheikhpura and Sahiwal Districts. | To see that the obligation undertaken by Pakistan is fulfilled and no water is withdrawn for Consumptive Use, other than Domestic Use: from the tributaries of the Sutlej and the Ravi which join these rivers in the border.
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<td>Article II(4)</td>
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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 as may be necessary for the determination of the component reaches, except for the withdrawals for Agricultural Use as provided for in Paragraphs 2 and 3 of Annexure B to the Treaty.

As and when the necessity arises, proposals for the establishment of new discharge observation stations in Pakistan and India should be sent to the Pakistan Commissioner for Indus Waters.
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<td>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.</td>
<td>Irrigation and Power Department</td>
<td>As and when the necessity arises, proposals for the establishment of new discharge observation stations in Pakistan and India should be sent to the Pakistan Commissioner for Indus Waters.</td>
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**Article III(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.

**Article IV(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

1) Irrigation and Power Department.

To see that the schemes undertaken in Pakistan meet the stipulated requirements.
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<td>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.</td>
<td>11) Deputy Commissioners of Lahore, in Pakistan Sialkot, Sheikhpura and Sahiwal Districts,</td>
<td>To see that the schemes undertaken meet the stipulated requirements.</td>
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**Article IV(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) ---------------------

To see that the schemes undertaken in Pakistan meet the stipulated requirements and to inform the Pakistan Commissioner for Indus Waters regarding any contravention of the provision by India that may come to their notice.
(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
received 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 efficiency for dealing with drainage waters received from India as on the Effective Date.

Article IV(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)HUDIARA Drain

ii) Kasur Nala

iii) Salimshah Drain

iv) Fazilka Drain

Article IV(6)

Each Party will use its 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 irrigation and power undertakings. To see that the obligation undertaken by Pakistan is fulfilled and to bring to the notice of the Pakistan...
Article IV(7) Neither Party will take any action which would have the effect of diverting the Ravi Main between Dadhopur and Lahore, or the Sutlej Main between Harike and Suleimanke, from its natural channel between high banks.

Article IV(8) The use of the natural channels of the Rivers for the discharge of flood or other excess water 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 effect the other Party.
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<td>Article IV(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.</td>
<td>Irrigation</td>
<td>To see that the provision is complied with.</td>
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<td>Power Department</td>
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<td>Article IV(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.</td>
<td>i) Irrigation</td>
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<td>Industries Department</td>
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<td>Article IV(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</td>
<td>Forest Department</td>
<td>1) To see that arrangements are made for the recovery of marked drift timber and other property and</td>
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Article IV(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 process; or
24) 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.

Article IV(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 Annexures B and 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.

1) Board of Revenue
2) Industries Department
3) Deputy Commissioner, Sialkot

To see that these provisions are complied with.
**Article VI(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

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<td>Irrigation and Power Department</td>
<td>To supply the Pakistan Commissioner for Indus Waters the relevant data for each calendar month, within two months of the end of the month to which the data relate.</td>
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which they relate.
Provided that such of
the data specified
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ered by either Party
to be necessary for
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quently intervals, as
may be requested,
Should one Party re-
quest the supply of
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telegram, telephone,
or wireless, it shall
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Party for the cost of
transmission.

Article VI(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 pro-
vision of this Treaty,
such data shall be
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Article VII(1) The two Parties
recognise that they
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Rivers, and, to that
end, they declare their
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<td>1) Irrigation and Power Department.</td>
<td>To supply to the Pakistan Commissioner for Indus Waters the data requested by him in this connection.</td>
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<tr>
<td>2) All Deputy Commissioners.</td>
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Irrigation and Power Department. To supply to the Pakistan Commissioner for Indus Waters.
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 the 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.

Article VII(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(4) The purpose and functions of the Commission shall be to establish and maintain co-operative arrangements for the implementation of this Treaty, i) Irrigation and Pakistan Power Commissioner Department, for Indus Waters data requested by him in this connection.

\[\text{To assist the Pakistan Power Commissioner Department, for Indus Waters in planning, arranging and undertakings.}\]
to promote co-operation between the Parties in the development of the waters of the Rivers and, in particular,

(a) ------------------

(b) ------------------

(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 these works or sites; and

(e) ------------------

Annexure B
Paragraph 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.

1) Board of Revenue
2) Deputy Commissioner, Sialkot
To see that the total area whether irrigated or cultivated on sailab does not exceed the agreed figures except in the case of a year of exceptionally heavy floods
### PROVISIONS OF THE TREATY

<table>
<thead>
<tr>
<th>DEPARTMENTS CONCERNED</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>Annexure F</td>
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</tbody>
</table>

**Paragraph 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 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 /sailab as on the Effective Date and when such areas may be cultivated in addition to the limits specified:

<table>
<thead>
<tr>
<th>Name of Tributary</th>
<th>Maximum Cultivation (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basman</td>
<td>14,000</td>
</tr>
<tr>
<td>Bel</td>
<td>26,600</td>
</tr>
<tr>
<td>Tarhi</td>
<td>1,900</td>
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<tr>
<td>Uth</td>
<td>3,000</td>
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</tbody>
</table>

**Paragraph 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 such crop year, the following information shall be supplied to the authorities concerned in the respective countries:

1. Board of Revenue. To supply the total area whether irrigated or cultivated on sailab does not exceed the agreed figures except in the case of a year of exceptionally heavy floods.

2. Deputy Commissioner, Sialkot.
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 D

Paragraph 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 be not less than 30% and not more than 130% of the volume received in the river above the Plant during the same 24-year 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.

(i) 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 hour period; and

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<tr>
<th>PROVISIONS OF THE TREASURY</th>
<th>DEPARTMENTS</th>
<th>REMARKS</th>
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</table>

(ii) 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.
MANUAL OF RESPONSIBILITY
FOR THE
GOVERNMENT OF SIND
### Article IV(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.

### Article VI(1)

The following data with respect to the flow in, and utilization 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.

<table>
<thead>
<tr>
<th>Provisions of the Treaty</th>
<th>Departments Concerned</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article IV(10)</td>
<td>Irrigation and Power Department</td>
<td>To see that the provision is complied with.</td>
</tr>
<tr>
<td>Article VI(1)</td>
<td>Irrigation and Power Department</td>
<td>To supply to the Pakistan Commissioner for Indus Waters the relevant data for each calendar month, within two months of the end of the month to which the data relate.</td>
</tr>
<tr>
<td>PROVISIONS OF THE TREATY</td>
<td>DEPARTMENT CONCERNED</td>
<td>REMARKS</td>
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<tr>
<td>(b) Daily extractions for or releases from reservoirs.</td>
<td></td>
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<tr>
<td>(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.</td>
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<td></td>
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<tr>
<td>(d) Daily escapages from all canals, including link canals.</td>
<td></td>
<td></td>
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<tr>
<td>(e) Daily deliveries from link canals.</td>
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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.

**Article VI(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(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(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) ----------------

(b) ----------------

(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) ----------------

1) Irrigation and Power Department.

To assist the Pakistan Commissioner for Indus waters in planning, arranging and undertaking the tours of inspection in their jurisdiction.

ii) All Deputy Commissioners.
MANUAL OF RESPONSIBILITY
FOR THE
PAKISTAN WESTERN RAILWAY
Article II(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.

Article II(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.

Remarks
To see that the obligation undertaken by Pakistan is fulfilled. No water is to be withdrawn for Consumptive Use, other than Domestic Use, from the border reaches of the two rivers.

To see that the obligation undertaken by Pakistan is fulfilled. No water is to be withdrawn for Consumptive Use, other than Domestic Use, from the tributaries of the Sutlej and the Ravi which join these rivers in the border reaches, except for the withdrawals for Agricultural Use as provided for in Paragraphs 2 and 3 of Annexure B to the Treaty.
<table>
<thead>
<tr>
<th>PROVISIONS OF THE TREATY</th>
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<tr>
<td><strong>Article IV(2)</strong> 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.</td>
<td></td>
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<tr>
<td>To see that the schemes undertaken in Pakistan meet the stipulated requirements.</td>
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<tr>
<td><strong>Article IV(3)</strong> 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</td>
<td></td>
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<tr>
<td>(a) in executing any of the schemes mentioned above, each Party will avoid, as far as practicable, any material damage to the other Party.</td>
<td></td>
</tr>
<tr>
<td>To see that the schemes undertaken in Pakistan meet the stipulated requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>Article IV(6)</strong> 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.</td>
<td></td>
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<td>To see that the obligation undertaken by Pakistan is fulfilled.</td>
<td></td>
</tr>
<tr>
<td>Article IV(7)</td>
<td>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.</td>
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<td>Article VI(1)</td>
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(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.

Article VI(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 supplied by the other Party to the extent that these are available.

Article VIII(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) ------------------------
(b) ------------------------
(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) --------------------------
MANUAL OF RESPONSIBILITY FOR THE
WEST PAKISTAN AGRICULTURAL DEVELOPMENT
CORPORATION
Article VIII(4) The purpose and functions of the Commission shall be to establish and maintain cooperative arrangements for the implementation of this Treaty, to promote cooperation between the Parties in the development of the waters of the Rivers and, in particular,

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(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

To assist the Pakistan Commissioner for Indus Waters in planning arranging and undertaking the tours of inspection of river works and sites in their jurisdiction.
MANUAL OF RESPONSIBILITY FOR THE
WEST PAKISTAN INDUSTRIAL DEVELOPMENT
CORPORATION
MANUAL OF RESPONSIBILITY FOR THE WEST PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION.

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Article IV(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.

To see that the provision is complied with.

Article IV(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

To collect and supply to the Pakistan Commissioner for Indus Waters data regarding the use of waters in the industrial processes in West Pakistan where substantial quantity of water is used.
(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.
MANUAL OF RESPONSIBILITY FOR THE
WEST PAKISTAN WATER AND POWER
DEVELOPMENT AUTHORITY
**PROVISIONS OF THE TREATY**

| Article IV(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. |
| Article IV(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; |
| Article IV(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 |

| REMARKS | To see that the schemes undertaken in Pakistan meet the stipulated requirements. |
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the flow in these channels likely to cause material damage to the other Party.

Pakistan Commissioner for Indus Waters any contravention of this provision by India.

**Article IV(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.

To see that the obligation undertaken by Pakistan is fulfilled and to bring to the notice of the Pakistan Commissioner for Indus Waters any contravention of this provision by India.

**Article IV(8)**  The use of the natural channels of the Rivers for the discharge of flood or other excess water 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 discharge of water from reservoirs and flood flows as may affect the other Party.

To supply to the Pakistan Commissioner for Indus Waters well before every flood season a list of the sites for which India is to be asked to supply flood data to Pakistan.

**Article IV(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.

To see that the provision is complied with.
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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.
Article VI(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.

To supply to the Pakistan Commissioner for Indus Waters the data requested by him in this connection.

Article VII(1) The two Parties recognise 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:

To supply to the Pakistan Commissioner for Indus Waters, as and when necessary, its proposals for works to be undertaken under this Article.

(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 the other Party, the two Parties may, by mutual agreement, cooperate in undertaking engineering works on the Rivers.

The formal arrangements, in each case, shall be as agreed upon between the Parties.

Article VII(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(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,

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(b) ------------------------

(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 assist the Pakistan Commissioner for Indus Waters in planning, arranging and undertaking the tours of inspection within its jurisdiction.
DEFINITIONS OF IMPORTANT TERMS
DEFINITIONS OF IMPORTANT TERMS

The definitions of the important terms used in the Treaty provisions dealt with in this manual, are reproduced below from Article I of the Treaty and the various paragraphs of the Annexures to the 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 the 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.


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 House-hold 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);

(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 evapor-tion 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 Tri-butaries; but the term does not include Agricultural use or use for the generation of hydro-electric power.
12. The term "Commissioner" means either of the Commissioner appointed under the provisions of Article VIII(1) and the term "Commission" means the Permanent Indus Commission constituted in accordance with Article VIII(3).

13. 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.

14. 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.

15. The term "Plant" or 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.

16. The term "Live Storage" means all storage above Dead Storage.

17. The term "Pondage" means Live Storage of only sufficient magnitude to meet the fluctuations in the discharge of the turbines arising from variations in the daily and weekly loads of the plant.

18. The term "Surcharge Storage" means controllable storage occupying space above the Full Pondage Level.

19. The term "Full Pondage Level" means the level corresponding to the maximum Pondage provided in the design in accordance with Paragraph 8(c) of Annexure D to the Treaty.

20. The term "Storage Work" means a work constructed for the purpose of impounding the waters of a stream but excludes
   (i) a Small Tank
(ii) the specified in Paragraphs 3 and 4 of Annexure D to the Treaty, and

(iii) a new work constructed in accordance with provisions of Annexure D to the Treaty.

21. The term “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.

22. The term “Full Reservoir Level” means the level of water in a reservoir corresponding to Conservation Storage Capacity.

23. The term “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.

24. The term 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.