

**APPORTIONMENT OF WATERS
OF INDUS RIVER SYSTEM
BETWEEN THE PROVINCES OF PAKISTAN**

AGREEMENT 1991
(A CHRONOLOGICAL EXPOSE)

INDUS RIVER SYSTEM AUTHORITY
Government of Pakistan
Islamabad

**APPORTIONMENT OF THE WATERS OF
THE INDUS RIVER
SYSTEM BETWEEN
THE PROVINCES OF PAKISTAN**

SECRET

**APPORTIONMENT OF THE WATERS OF THE INDUS RIVER SYSTEM
BETWEEN THE PROVINCES OF PAKISTAN**

As a follow-up to the meeting of the Chief Ministers at Lahore on March 3, 1991, a meeting of the representatives of the four provinces was held at Lahore on March 04, 1991. Another meeting was held at Karachi on March 16, 1991. The list of participants is attached.

The participants agreed on the following points:-

1. There was an agreement that the issue relating to Apportionment of the Waters of the Indus River System should be settled as quickly as possible,
2. In the light of the accepted water distributional principles the following apportionment was agreed to:

Mr. Mahmood Qureshi

(Fig. in MAF)

Asad
RSP

PROVINCE	KHARIF	RABI	TOTAL
PUNJAB	37.07	18.87	55.94
SINDH*	33.94	14.82	48.76
N.W.F.P. (a)	3.48	2.30	5.78
(b) CIVIL CANALS**	1.80	1.20	3.00
BALUCHISTAN	2.85	1.02	3.87
	77.34	37.01	114.35
	+	+	+
	1.80	1.20	3.00

Asad
16-3-91

Asad
14/3

* Including already sanctioned Urban and Industrial uses for Metropolitan Karachi.
** Ungauged Civil Canals above the rim stations.

M. Shah
10/3/91

M. Shah
16/3/91

Mujib
14/3
Asad
16-3-91

Asad
16-3-91

3. N.W.F.P/Baluchistan Projects which are under execution have been provided their authorised quota of water as existing uses.

4. Balance river supplies (including flood supplies and future storages) shall be distributed as below:

<u>Punjab</u>	<u>Sindh</u>	<u>Balochistan</u>	<u>NWFP</u>	<u>Total</u>
37	37	12	14	100%

5. Industrial and Urban Water supplies for Metropolitan city, for which there were sanctioned allocations will be accorded priority.

6. The need for storages, wherever feasible on the Indus and other rivers was admitted and recognised by the participants for planned future agricultural development.

7. The need for certain minimum escapage to sea, below Kotri, to check sea intrusion was recognised. Sindh held the view, that the optimum level was 10 M.A.F., which was discussed at length, while other studies indicated lower/higher figures. It was, therefore, decided that further studies would be undertaken to establish the minimal escapage needs down stream Kotri.

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8. There would be no restrictions on the Provinces to undertake new projects within their agreed shares.

9. No restrictions are placed on small schemes not exceeding 5000 acres above elevation of 1200 ft. SPD.

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10. No restrictions are placed on developing irrigation uses in the Kurram/Gomal/Kohat basins, so long as these do not adversely affect the existing uses on these rivers.

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11. There are no restrictions on Baluchistan, to develop the water resources of the Indus right bank tributaries, flowing through its areas.

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12. The requirements of LBOD will be met out of the flood supplies in accordance with the agreed sharing formula.
13. For the implementation of this accord, the need to establish an Indus River System Authority was recognised and accepted. It would have headquarters at Lahore and would have representation from all the four provinces.
14.
 - a) The system-wise allocation will be worked out separately, on ten daily basis and will be attached with this agreement as part and parcel of it.
 - b) The record of actual average system uses for the period 1977-82, would form the guide line for developing a future regulation pattern. These ten daily uses would be adjusted pro-rata to correspond to the indicated seasonal allocations of the different canal systems and would form the basis for sharing shortages and surpluses on all Pakistan basis.
 - c) The existing reservoirs would be operated with priority for the irrigation uses of the Provinces.
 - d) The provinces will have the freedom within their allocations to modify system-wise and period-wise uses.
 - e) All efforts would be made to avoid wastages. Any surpluses may be used by another province, but this would not establish any rights to such uses.

[Signature]
16/3/91

C.M. Punjab
Ghulam Hyder
Wyne

[Signature]
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C.M. Sindh
Jam Sadiq Ali

[Signature]

C.M. NWFP
Mir Afzal Khan

[Signature]
16/3

C.M. Baluchistan
Mr. Taj Mohammad Jamali

[Signature]

Shah Mehmood
Qureshi
Minister Finance

[Signature]

Muzaffar Hussain
Minister Law

[Signature]

Mohsin Ali Khan
Minister Finance

[Signature]
16/3-91

Mir Zulfikar Ali Magsi
Minister Home

[Signature]

Mazhar Ali
Adviser

[Signature]
16/3-

[Signature]

Mohammad Ali Beloch
A.C.S (I&P)/Adviser

[Signature]

Khalid Aziz
A.C.S. (P & D)

16/3/91

[Signature]

Mohammad Amiq
Secretary (I&P)

[Signature]
16-3-91

ACTUL AVERAGE SYSTEM USES
(1977 - 82)

LIST OF PARTICIPANTS

1. Mr. Ghulam Hyder Wyne Chief Minister, Punjab
2. Mr. Jam Sadiq Ali Chief Minister, Sindh
3. Mr. Mir Afzal Khan Chief Minister, N.W.F.P.
4. Mr. Mir Taj Muhammad Jamali Chief Minister, Balochistan

5. Mr. Shah Mehmood Qureshi Minister Finance, Punjab
6. Mr. Muzaffar Hussain shah Minister Law, Sindh
7. Mr. Mohsin Ali Khan Minister Finance, N.W.F.P.
8. Mr. Zulfiqar ali Magsi Minister Home, Balochistan

9. Mr. Farid Khan Toofan Minister for Irrigation,
Government of N.W.F.P.
10. Mr. Mazhar Ali Advisor, Government of Punjab
11. Mr. Muhammad Alam Baloch ACS (I&P)/Advisor, Government of Sindh
12. Mr. Khalid Aziz ACS (P&D), Government of N.W.F.P.
13. Mr. Muhammad Amin Secretary (I&P), Government of Balochistan
14. Mr. Rana Khurseed Anwer Secretary (I&P), Government of Punjab
15. Mr. Pervez Masud Chief Secretary, Government of Punjab
16. Mr. M.H. Siddique Director Regulation, Government of Punjab
17. Mr. Abdul Aziz Shaikh Advisor (WD), Government of Sindh
18. Mr. Allah Bux Baloch XEN, Government of N.W.F.P.
19. Mr. Muhammad Ibrahim XEN, Government of Balochistan
20. Mr. Faqir Ahmed Paracha Secretary (I&P), Government of N.W.F.P.



D.O. No. WA-13(199)/88
Government of Pakistan
MINISTRY OF WATER AND POWER

From:
Maj Gen (Retd.)
Agha Manzoor Rauf
Additional Secretary (Water)

Islamabad, the 25th March, 1991

**Subject: - APPORTIONMENT OF THE WATERS OF THE INDUS RIVER SYSTEM
BETWEEN THE PROVINCES.**

My dear

You would recall that in accordance with para 14 (a) of the Agreement signed between the Provinces on the subject issue, the system wise allocation have to be worked out separately, on ten daily basis and attached with the aforementioned agreement as a part of it.

Accordingly, I am sending herewith a statement of average canal withdrawals for the period from 1977-78 to 1981-82. You are requested to finalize the 10-daily averages system wise, through mutual consultations. A reply in the matter may kindly be provided by 30th March, 1991.

With regards,

Yours sincerely,
(---Sd---)

Encl: As above
Ch. Mazhar Ali,
Adviser to the
Punjab Irrigation and Power Department,
Lahore.
Mr. Mohammad Allam Baloch,
Additional Chief Secretary (I&P)/
Adviser Irrigation and Power Department
and Adviser (Technical) to the
Government of Sind, Karachi.

Mr. Khalid Aziz,
Additional Chief Secretary,
Planning and Development Department
Government of NWFP,
Peshawar.

Mr. Mohammad Amin,
Secretary,
Irrigation and Power Department,
Government of Baluchistan, Quetta.

BY SPECIAL MESSENGER

Copy forwarded for information and necessary follow up action forwarded
to Mr. Asif H. Kazi CEA/, CFFC, Islamabad.



A handwritten signature in black ink, appearing to read "Agha Manzoor Rauf".

**Maj Gen. (Retd)
Agha Manzoor Rauf,
Additional Secretary, (W)**

CANALS WITHDRAWALS (1000xcs)
(1977-78 to 1981-82)

Period	Punjab (Indus Canals) a/	Trimmu+ SVC (L) Canals	Jhelum Chenab Zone Canal Withdrawals	Total Punjab Canals	Sindh Canals	Baloch. Canals	KP Canals b/	Total
Apr 1	15.7	6.8	34.8	57.3	33.9	0.9	8.4	100.5
2	15.9	7.2	37.1	60.2	34.9	0.3	9.7	105.1
3	21.8	11.1	44.9	77.8	34.3	0.0	10.5	122.6
May 1	24.4	14.1	51.1	89.6	44.0	0.4	10.1	144.1
2	27.4	14.7	54.4	96.5	52.4	0.8	10.1	159.8
3	28.3	15.4	55.8	99.5	66.3	1.2	10.4	177.4
Jun 1	30.2	15.9	56.9	103.0	84.1	2.0	10.5	199.6
2	30.9	16.3	58.4	105.6	101.8	2.0	10.4	219.8
3	31.2	16.1	59.7	107.0	111.6	2.8	10.3	231.7
July 1	31.1	16.2	59.3	106.6	115.4	3.5	9.9	235.4
2	27.8	14.0	53.2	95.0	101.4	3.2	9.3	208.9
3	28.2	13.2	51.2	90.6	92.0	3.3	8.9	194.8
Aug 1	26.0	12.7	53.6	92.3	91.6	3.3	8.7	195.9
2	27.8	15.2	59.5	102.5	88.3	3.5	9.1	203.4
3	31.2	16.8	62.6	110.6	87.5	3.5	9.3	210.9
Sep 1	32.1	16.8	61.5	110.4	91.9	3.7	10.0	216.0
2	31.4	16.7	60.2	108.3	92.6	3.7	10.3	214.9
3	30.4	16.8	57.9	105.1	90.7	3.9	10.5	210.2
Kharif (MAF)	9.88	5.17	19.61	34.66	28.55	0.85	3.55	67.61

a/ Thal+Taunsa+Panjnad Canals.

b/ Including Civil Canals.

**CANAL WITHDRAWALS (1000xcs
(1977-78 to 1981-82)**

Period	Punjab (Indus Canals) a/	Trimmu+ SVC (L) Canals	Jhelum Chenab Zone Canal Withdrawals	Total Punjab Canals	Sindh Canals	Baloch- Canals	KP Canals b/	Total
Oct 1	29.4	16.2	51.1	96.7	79.4	3.8	7.5	187.4
2	26.1	15.0	46.7	87.8	63.4	3.3	7.6	162.1
3	21.7	12.2	43.5	77.4	50.8	3.3	7.6	139.1
Nov 1	16.7	8.6	39.7	65.0	45.0	2.7	7.0	119.7
2	16.3	6.8	37.1	60.2	43.3	2.9	6.5	112.9
3	13.6	5.8	35.7	55.1	41.4	2.1	6.2	104.8
Dec 1	12.7	6.5	35.9	55.1	40.0	2.2	5.9	103.2
2	12.7	7.5	34.8	55.0	39.5	1.8	5.9	102.2
3	8.2	8.0	25.7	41.9	35.6	1.5	6.1	85.1
Jan 1	3.5	11.8	12.9	28.2	19.2	2.1	3.2	52.7
2	5.2	7.5	15.4	28.1	21.7	1.7	2.4	53.9
3	9.6	0.8	21.2	31.6	37.5	2.3	2.3	73.7
Feb 1	12.5	2.1	27.6	42.2	43.2	1.8	4.0	91.2
2	12.9	4.9	32.4	50.2	38.1	1.8	5.1	95.2
3	11.3	5.9	27.9	45.1	37.6	1.5	5.2	89.4
Mar 1	11.4	6.9	31.8	50.1	37.1	1.8	5.5	94.5
2	13.1	9.6	35.1	57.8	37.8	1.4	5.5	102.5
3	15.0	10.4	35.5	60.9	35.6	0.8	5.8	103.1
Rabi (MAF)	5.07	2.93	11.86	19.86	14.98	0.78	2.00	37.62
Annual	14.95	8.10	31.47	54.52	43.53	1.63	5.55	105.23

a/ Thal+Taunsa+Panjnad Canals.

b/ Including Civil Canals.

**MINUTES OF THE MEETING
OF
COUNCIL OF COMMON INTEREST**

Held on
MARCH 21, 1991

SECRET/IMMEDIATE

**CABINET SECRETARIAT
(CABINET DIVISION)**

No. CCI-2/M/91.

Islamabad, the 26th March 1991

A copy of the Decisions of the meeting of the Council of Common Interests (CCI) held at 10.30 a.m. on Thursday, the 21st March, 1991 in the Cabinet Room of the Prime Minister's Secretariat, Islamabad, is sent herewith for information and necessary action in terms of rule 14 of Rules of Procedure of the Council of Common Interests (CCI).

(GHAFOOR MIRZA)
Joint Secretary of the Cabinet

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28-3-91
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28-3-91
Deputy Chairman, Planning Commission. 4/CCI-2/91
Secretary, Finance Division. 4/CCI-2/91
Secretary, Water & Power Division. 4/CCI-2/91
Secretary, Information and Broadcasting 4/CCI-2/91 (Decision 4 (IV))
All Chief Secretaries 4/CCI-2/91

28/3/91
CS
27/3/91
Recy (A)
28/3
DS (A)
28/3
20/3

DECISION

1. The Council of Common Interests (CCI) took note of the summary dated 20th March, 1991 submitted by Ministry of Water & Power and accorded its approval to the agreement on apportionment of waters of the Indus River System attached as Annex-I to the Summary and reproduced below:—

- 1) There was an agreement that the issue relating to Apportionment of the Waters of the Indus River System should be settled as quickly as possible.
- 2) In the light of the accepted water distributional principles the following apportionment was agreed to:—

(Fig. in MAF)

Province	Kharif	Rabi	Total
Punjab	37.07	18.87	55.94
Sindh*	33.94	14.82	48.76
N.W.F.P. (a)	3.48	2.30	5.78
(b) Civil Canals**	1.80	1.20	3.00
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	+	+	+
	1.80	1.20	3.00

* Including already sanctioned Urban and Industrial uses for Metropolitan Karachi.

** Ungauged Civil Canals above the rim stations.

- 3) NWFP/Balochistan projects which are under execution have been provided their quota of water as existing uses.
- 4) Balance river supplies (including flood supplies and future storages) shall be distributed as below:

<u>Punjab</u>	<u>Sindh</u>	<u>Balochistan</u>	<u>NWFP</u>	<u>Total</u>
37	37	12	14	100%

- 5) Industrial and Urban Water supplies for Metropolitan City, for which there were sanctioned allocations will be accorded priority.
- 6) The need for storages, wherever feasible on the Indus and other rivers was admitted and recognised by the participants for planned future agricultural development.
- 7) The need for certain minimum escapage to sea, below Kotri, to check sea intrusion was recognised. Sindh held the view, that the optimum level was 10 M.A.F., which was discussed at length, while other studies indicated lower/higher figures. It was, therefore, decided that further studies would be undertaken to establish the minimal escapage needs down stream Kotri.
- 8) There would be no restrictions on the Provinces to undertake new projects within their agreed shares.
- 9) No restrictions are placed on small schemes not exceeding 5000 acres above elevation of 1200 ft. SPD.
- 10) No restrictions are placed on developing irrigation uses in the Kurram/Gomal/Kohat basins, so long as these do not adversely affect the existing uses on these rivers.
- 11) There are no restrictions on Baluchistan, to develop the water resources of the Indus right bank tributaries, flowing through its areas.
- 12) The requirements of LBOD will be met out of the flood supplies in accordance with the agreed sharing formula.
- 13) For the implementation of this accord, the need to establish an Indus River System Authority was recognised and accepted.

It would have headquarters at Islamabad* and would have representation from all the four provinces.

- 14) a) The system-wise allocation will be worked out separately, on ten daily basis and will be attached with this agreement as part and parcel of it.
- b) The record of actual average system uses for the period 1977-82, would form the guide line for developing a future regulation pattern. These ten daily uses would be adjusted pro-rata to correspond to the indicated seasonal allocations of the different canal systems and would form the basis for sharing shortages and surpluses on all Pakistan basis.
- c) The existing reservoirs would be operated with priority for the irrigation uses of the Provinces.
- d) The provinces will have the freedom within their allocations to modify system-wise and period-wise uses.
- e) All efforts would be made to avoid wastages. Any surpluses may be used by another province, but this would not establish any rights to such uses.

II. The four Provincial Governments should work out the system-wise allocation, on ten daily basis by the end of March, 1 991. The allocations so worked out should be treated, ex-post, as part of the agreement reproduced at decision No. I above.

III. The request for additional allocation of 1.5 MAF of water to Sindh outside the agreement signed by the four Chief Ministers on 16th March, 1991 may be discussed between the Chief Ministers concerned.

*Vide Presidential Ordinance No. XLI of 2000, dated September 4, 2000.

SECRET

IV . Ministry of Information and Broadcasting should ensure that the accord on apportionment of Indus waters was given extensive publicity aimed at strengthening national unity.

V. In the wake of settlement of Indus water distribution issue, the Provinces should strengthen their project preparation units to formulate new schemes in the Agriculture/Irrigation sectors, both for implementation over the next 2 years and during the 8th Five Year Plan period.

VI. The Ministry of Water & Power should submit to the Council of Common Interests in its next meeting, specific proposals for setting up the Indus River System Authority envisaged in para. 13 of the accord re-produced at decision No. I above.



**APPORTIONMENT
OF
THE INDUS WATERS
PROMISE AND PROSPECTS**

Pamphlet issued
by
MINISTRY OF INFORMATION AND BROADCASTING

– AN HISTORIC ACCORD: MARCH 21, 1991

APPORTIONMENT OF THE INDUS WATERS (PROMISE AND PROSPECTS)

21st March, 1991, will go down in the history of Pakistan as a pivotal breakthrough in its leap towards the 21st century and turning point in its march towards national consolidation. On that day was unravelled a dispute that had been festering in this part of the subcontinent for the past seventy years.

The Chief Ministers of the four provinces, namely, Punjab, Sindh, NWFP and Balochistan, in a rare show of mutual accommodation and national spirit, were able to overcome what had looked like insurmountable hurdles to reach a consensus accord on the apportionment of the waters of the Indus River System, which constitutes the lifeline of Pakistan.

The Council of Common Interests, which is a constitutional body for resolving issues between the Centre and the provinces as well as between the provinces, meeting under the chairmanship of the Prime Minister, Mr. Nawaz Sharif, approved the accord in Islamabad on 21st March, 1991, and decided to set up an Indus River System Authority for its implementation. The Authority will be headquartered at Lahore and will include representatives of the four provinces.

Historical Background

The dispute had its origins in the earlier part of the century when the Sutlej Valley Project was being planned in Punjab. Actually, from hoary past, millions of acres of land in the Indus Basin were irrigated from the spills of the rivers and by inundation canals. These canals diverted supplies directly from the rivers during the flood periods without the diversion dams. Since Punjab, due to long interruptions in water supplies, was prey to recurrent famines, the British authority, towards the middle of the last century, started expanding irrigation facilities through the introduction of improved methods and construction of diversion dams across the rivers.

The area between the tributaries was developed first as the tributaries, being smaller rivers, were easier to control than the mighty Indus. The Upper Bari Doab Canal on the Ravi was the first to be opened in 1859. It was followed by Sirhind Canal on the Sutlej in 1882, the Lower Chenab in 1892, and the Lower Jhelum in 1901. The Bahawalpur and the Upper Swat canals were opened in 1908 and 1914 respectively. The Dipalpur Canal Project, an

elaborate and ingeniously-conceived project, consisting of the Upper Jhelum, the Upper Chenab, and the Lower Bari Doab canals was completed in 1915.

In the post World War-I period, plans to harness the flow of the main Indus river materialised with the construction of the Sukkur Barrage Project, the largest single irrigation project in the world, in 1932. The Sutlej Valley Project comprising 11 canals and four headworks at Ferozepur, Suleimanki, Islam, and Panjnad was completed in 1932. The Haveli Canal Project with headworks at Trimmu on the Chenab came up in 1939 and the Kalabagh in 1947.

Before the Sutlej Valley Project was sanctioned in 1921, concern was voiced by various units on the adequacy of available supplies. Bahawalpur State protested against any supplies being given to Bikaner State, as provided in that project, on the ground that the supplies were insufficient even for the needs of the riparian areas of Punjab and Bahawalpur State. At the same time, Punjab protested against the Sukkur Canals Project, which also was before the Government for sanction, as it felt there would be inadequate supplies for both Sukkur and Thal barrages. Bombay province, which then included Sindh, on its part protested against the Sutlej Valley Project because it feared that withdrawals for that project would leave inadequate supplies for the Sukkur Barrage canals.

Almost from the start of the Sutlej Valley Project, it became evident that supplies for its canals were inadequate. These canals had been planned on the basis of average supplies occurring over a certain period of years. Without ample storage, average supplies were not dependable. The unusable peak flows distorted the picture. The result was that the canals, after construction, suffered overall shortages in half the year. In most years, they suffered extreme shortages during early Kharif when supplies were most needed, a situation which proved intolerable.

Anderson Committee

As many as six committees/commissions appointed by government, two before Independence and four after the establishment of Pakistan, went into the question of apportionment but could not help resolve it. In view of continuing protests from Bahawalpur State and Sindh even after the sanction of Sukkur and Sutlej Valley projects, the Government of India set up a committee, popularly known as the Anderson Committee, to study the distribution of supplies from the Indus river for the various existing and proposed canals of

Khairpur and Bahawalpur states and for the Haveli Project. The Committee submitted its report in 1935, on which the Government of India passed orders in 1937. These related to additional allocation of water to Sukkur and Panjnad canals, allocations to Paharpur, Thal and Haveli Canals, and the basis for sharing of shortages and utilisation of surplus supplies.

Rau Commission

In October 1939, the Sindh Government again lodged a complaint regarding the apprehended effects of the Punjab projects on the inundation canals in Sindh and the Government of India appointed a three-man Indus Commission known as the Rau Commission. In its report, the Commission recommended that the principle of equitable apportionment should govern the respective rights of the parties and affirmed the rule that an upper riparian cannot take any action that interferes with the existing irrigation of the lower riparian. It therefore laid down that the proposed dam at Bakhra, on completion, must be so operated as not to cause material damage to the canals of the downstream province of Sindh.

The Commission placed an embargo on undertaking its construction before 1st October, 1945, and suggested that, in the meantime, the representatives of Punjab and Sindh should sort out on a bilateral basis the issue of the sharing of waters and related matters. On 28th September, 1945, a draft agreement regarding the sharing of Indus and five Punjab rivers was signed by the Chief Engineers of the two provinces, but it could not be ratified for want of a settlement of the financial issue.

However, water allocation from the additional three barrages constructed at Kotri, Taunsa and Guddu on the main Indus after Independence was substantially based upon the draft Sindh-Punjab Agreement of 1945.

Indus Basin Treaty

By the time, Pakistan and India became two independent countries, the irrigation system of the Indus Basin had already become the most extensive and complex in the world. But the partition line in 1947, drawn between them, cut across the rivers and canals comprising the most highly developed portion of the Indus Basin irrigation system in a manner that certain canal headworks, which also supplied water to canals in Pakistan, were left in the Indian territory. The assumption probably was that arrangements for continuity of supplies made at the time of partition would be respected. But India lost no time to

exploiting its upstream position and in April 1948 arbitrarily cut off the supplies to every canal crossing into Pakistan.

A serious situation developed on the Pakistan side which led to long drawn negotiations. The issue was settled with the signing of the Indus Basin Treaty through the good offices of the World Bank in 1960. Under the Treaty, the Indians were given the right to use the waters of the three eastern rivers, namely, the Ravi, the Beas and the Sutlej and Pakistan, the three western rivers, namely, the Indus, the Jhelum and Chenab.

In the closing stages of the negotiations with India on the Indus waters, the Government of Pakistan set up an organisation, called Indus Basin Advisory Board (IBAB), in 1959 to prepare a plan for replacement of water from the western rivers for uses in Pakistan, till then met from the eastern rivers. The list of works, both for replacement and development, was approved by the Government and is generally referred to as the "Settlement Plan".

To ensure a common approach on the Settlement Plan, the Federal Government had earlier assured the smaller units that "all materials supplied to the Central Government by the various units, and all arguments advanced, material prepared or positions taken by the Central Government in its negotiations with India, are completely without prejudice to the legal rights of any interest to present a unified point of view for Pakistan as a whole. Any points of dispute between the units in Pakistan will be resolved in a fair and equitable manner, if necessary, by the appointment of an impartial commission by the Central Government.

Akhtar Hussain Committee

With the completion of the Mangla Dam and other emergent replacement works, the Water Allocation and Rates Committee of West Pakistan was constituted in 1968, under the chairmanship of Mr. Akhtar Hussain. Among other matters, it was asked "to review and recommend barrage allocations, reservoir release pattern and draw down levels and examine other issues of water policy, such as the use of ground water in relation to surface water deliveries".

Before however the Committee could submit its report, the Council of Administration consisting of the governors-designate of the four provinces decided on 26th June, 1970 to

request the Pakistan Government to appoint a commission for allocation of Indus waters.

The Akhtar Hussain Committee submitted its report to the West Pakistan Governor on 30th June, 1970, but the very next day, that is, on 1st July, 1970, One Unit — the administrative unit created in 1955 by amalgamating the four provinces of the then West Pakistan— was dismembered and the report could not receive the attention of the Government, which had already decided to appoint a commission.

Fazl-e-Akbar Committee

On 5th October, 1970, the Pakistan Government appointed the Indus Waters Committee for allocation of waters of the Indus and its tributaries among the four provinces. Community known as the Fazl-e-Akbar Committee, it submitted its report in November, 1971. Since its members were not able to work out a consensus either on apportionment of water or even on purely technical issues, Mr. Justice Fazl-e-Akbar himself formulated the recommendations. These were discussed at the Governors Conference in October 1972, but no decision could be taken. Further efforts to resolve the problem through mutual discussions among the provinces also did not succeed. The Cabinet in its meeting on 13th January, 1975 therefore decided to defer the issue for the time being.

Indus Waters Commission (Anwar-ul-Haq Commission)

On the recommendations of the Council of Common Interests, which discussed the water apportionment issue on 31st December, 1976, the President constituted a commission comprising the Chief Justice of Pakistan, Mr. Anwar-ul-Haq as its chairman and the Chief Justices of the four High Courts as its members. It was asked to give its report within nine months, which it could not do and instead asked for an extension of the time-limit. The President however felt doubtful if the Commission would be able to achieve anything at all. He therefore discussed the matter with his Law Minister who advised him to consult the Council Common Interests, Ministry of Fuel and Power and the provincial Governors. The decision taken after such consultations, he was told, could be given effect to by an appropriate legal instrument.

A reference was made by the Government on this point to the Chief Justice of the Supreme Court, who analysed the position obtaining in the case on 27th June, 1982. He

recommended to the President that the distribution of waters of the River Indus and its tributaries among the four provinces may be based on the Fazl-e-Akbar Committee Report, which may be adopted with some modifications and adjustments to be made by appointing an Indus River Authority.

Haleem Committee

The President of Pakistan however directed the Chief Justice of the Supreme Court, Mr. Justice Muhammad Haleem on 3rd March 1983 to undertake, with the assistance of the Chief Justices of the High Courts of the four provinces, the work of apportionment of waters on a fair and equitable basis. The report of the Haleem Committee was submitted on 15th April, 1983, with a note of dissent by the Chief Justice of Peshawar High Court. Unfortunately no decision could be reached on the basis of this report and the stalemate continued for the next seven years.

Ad Hoc Arrangements

In the absence of a final settlement, the provinces received irrigation supplies through *ad hoc* distribution arrangements of Indus waters notified by the Federal Government for each period/season of the year. This only revived bitterness among them everytime they met and wrangled over *ad hoc* allocations.

Consequences of Delay

Quite apart from the continuous injection of poison in the relations among the provinces, the longer-term consequences of this delay were extremely serious, considering the scale of the irrigation system in Pakistan, which is one of the largest and oldest irrigation systems in the world. The system consists of 43 independent canal sub-systems, 2 super-storage reservoirs and 19 large headworks. The primary canals alone are 57,000 kilometres (36,000 miles) in length. The canal system commands 34.5 million acres of area. The quantum of canal head withdrawals is 105 Million Acre Feet (MAF) in an average year. The system supplies irrigation water to approximately 29 million acres of land covering three million individual farms, or 58 per cent of the total cultivated area of 50 million acres. An additional 20 per cent of the area (or 10 million acres) is irrigated by tubewells.

The annual growth rate of Pakistan's population is over three per cent. This continual

population increase has seriously hampered the country's pace of development. The population of Pakistan which at present stands at over 110 million, will increase to 150 million by the year 2000. This high rate of growth in population has reduced the average cropped area per person from 0.78 acres in 1950 to 0.45 acres in 1990, resulting in doubling of the number of farms. This trend is not unfamiliar because it has brought about famines in a number of Third World countries. Unless, therefore, additional land is brought under cultivation, it would be difficult for Pakistan to remain self-sufficient in food, or to maintain a rate of agricultural growth that is necessary for the economy as a whole.

Potential for Development

Pakistan possesses an enormous land development potential. Availability of approximately 86 million acres of cultivable area is a resource which few countries are endowed with. At present, canal irrigation water (excluding *barani*, *chahi*, etc.) caters for water requirements of only 34.5 million acres through a network of canals, barrages and storage reservoirs of which about 29 million acres only are actually irrigated. A province-wise breakdown of the command areas is as follows:—

Province	Total Cultivable Area (Million Acres)	Canal Commanded Area (Million Acres)	Actual Canal Irrigated Area (Million Acres)
Punjab	36.40 (42%)	19.50 (56%)	16.41 (57.3%)
Sindh	26.50 (31%)	12.20 (36%)	10.00 (34.9%)
NWFP	7.60 (09%)	1.80 (05%)	1.32 (4.6%)
Balochistan	15.50 (18%)	1.00 (03%)	0.94 (3.2%)
Total	86.00 (100%)	34.50 (100%)	28.67 (100%)

Source: National Commission Agriculture's Report of March, 1988.

It is agriculture that constitutes the mainstay of Pakistan's economy. It has the capacity to fuel economic growth and to meet the rapidly-expanding domestic consumption needs. It has not been possible to bring more land under cultivation because of the limited amount of water that has so far been developed. With virtually no constraint on availability of land, it is unfortunate that large quantities of water (a substantial portion of 32 million acre feet of average annual outflow) should be allowed to go waste into the sea.

Approximately 20 to 22 MAF of water can be effectively developed in a way that can help millions of people in Pakistan.

Hazards of Staying put

If further development of Pakistan's potential water resources is not undertaken in a planned manner, with the passage of time, even the quantum of irrigation water presently available will go on declining. The deterioration is caused by the sedimentation of Tarbela, Mangla and Chashma reservoirs, which is continually decreasing their storage capacity. So far, some 1.3 MAF of water has been lost to siltation making it an impossible task to even sustain the present level of irrigation. This continuing decline in the availability of irrigation, unless checked, can cause major social and political dislocations in the coming years. Incidentally, a 200 feet high sedimentation delta at Tarbela is approaching the Dam at a pace of approximately 1/2 mile per year. In 10 to 15 Years, this 200 feet high wall of sediment will come so close to the dam that it will pose a serious threat to the very safety of the Project. Abrasion of tunnel linings, turbines and other outlet structures will then put Tarbela in an extremely vulnerable position. Even a medium-intensity earthquake can trigger liquefaction of the delta which may choke the tunnels, thereby stopping power production for several months. A debacle of this magnitude would indeed precipitate a national catastrophe.

Moreover, Pakistan periodically becomes a victim of massive devastation as a result of recurring floods. The monsoon rains combined with snowmelt in the Indus catchment cause widespread damage to life, crops, livestock, built-up property and other social infrastructure. Floods of 1973 inundated over 1.2 million acres and the loss was then estimated at Rs. 1.5 billion. The floods of 1988 cost the country 350 human lives with a financial loss of over 5 billion rupees. Aside from causing human and financial losses on a colossal scale, these floods jeopardised the productivity of the entire system.

Missed Benefits

Some of the potential benefits, which were being missed as a result of non-settlement of the issue, may be listed as:—

- (i) Extension/new development of water resource facilities remains suspended while a sizeable amount of water goes waste to the sea each year.

- (ii) In 1970, before Tarbela waters become available, the total water use was 97.57 MAF (Kharif — 67.36 MAF, Rabi 30.21 MAF). On completion of Tarbela, experts had recommended that the existing system should be improved to expand utilisation of water to 104.24 MAF (Kharif — 76.41 MAF, Rabi — 27.83 MAF), to meet planned requirements. With the balance of additional water from Tarbela (8.56 MF) for new schemes, the total water use was to increase to 117.81 MAF (Kharif — 80.00 MAF; Rabi 37.81 MAF). However because the water allocation issue was not resolved, additional projects to extend the system could not be taken up and the existing irrigation system has consumed the Tarbela water raising its utilisation from 97.51 MAF to 105.35 MAF (and not to 117.81 MAF).
- (iii) In the absence of proper works, the Tarbela water was added to the existing system with serious consequences in terms of waterlogging and salinity in many areas. The Tarbela water has not been utilised in an optimum manner and no surplus water now is available during Rabi for new irrigation schemes.
- (iv) Estimates indicate a loss of Rs. 20 billion annually to the national economy as a direct benefit and Rs. 25 billion as an indirect benefit. An amount of \$ 750 million in foreign currency is an additional annual expenditure on fuel required for thermal generation by not implementing the planned hydropower projects.
- (v) Due to delayed decision on water apportionment, a huge segment of our working force is being denied employment opportunities. Approximately, a million people would find gainful employment directly on the extended/intensive irrigated lands while another one million jobs would be created indirectly, on resolution of the issue of water apportionment.

Political Will

A careful analysis of the recommendations of various commissions would show that the difference between Fazl-e-Akbar's recommendations and the latest report of the Haleem Committee in terms of provincial allocation was of the order 1 or 2 MAF only and either one of them could provide the basis for arriving at a settlement. In the case of the Haleem Committee Report, the Chief Justice of the three Provincial High Courts as well as the Chairman, namely, the Chief Justice of the Supreme Court, had signed the Report. But one

member, namely, the Chief Justice of Peshawar High Court had given his note of dissent. While Punjab, Sindh and Balochistan were willing to consider the recommendations of the Haleem Committee, the Frontier Province wanted to safeguard initially a minimum of 14 MAF. Later, the Government of NWFP softened its stand and brought down its demand to 12 MAF. The difference of 1.5 or 2 MAF, out of some 126 MAF of usable water, was therefore not so large as to prevent a consensus among the four provinces. Only the political will to take the bull by the horns was lacking.

Solution

The present Government headed by Mr. Nawaz Sharif recognised the need for an early resolution of the issue. The Prime Minister set up a Sub-Committee of the Cabinet to finalise the working paper and explore different options under which the outstanding issues could be resolved on a final basis. Based on its recommendations, a summary was put up before the Council of Common Interests on 2nd January, 1991.

The Council considered it on 12th January, 1991 and decided that an "Inter-Provincial Committee on Apportionment of Indus Waters" be set up to examine all the previous reports and formulate recommendations within thirty days. The Committee headed by the Minister for Finance included a minister each from the four provinces nominated by the Chief Ministers, with one technical expert each to assist him.

The Inter-Provincial Committee held its first meeting on 30th January, 1991 and identified the main outstanding issues. The provincial representatives offered to hold mutual consultations on those issues in an effort to arrive at a consensus. These consultations were initially at the technical level and subsequently at the level of Chief Ministers. The Chief Ministers met at Lahore on 3rd March, 1991 and again at Karachi on 16th March, 1991. They reached a complete consensus by mutual agreement on the apportionment of the waters of the Indus River System between the provinces.

Main Features

The existing uses of water supplies to the provinces, which they have so far been getting as *ad hoc* allocations, remain untouched. In fact, projects which are under execution in the Frontier Province and Balochistan have also been provided their authorised quota of water as existing uses.

Moreover, the Frontier Province will be free to develop irrigation uses in the Kurram/Gomal/Kohat basins so long as these do not adversely affect the existing uses on these rivers. There are no restrictions either on Balochistan for developing the river resources of the Indus right bank tributaries flowing through its areas.

The apportionment that has been agreed to under the accepted principles of water distribution provides both for Kharif and Rabi seasons, a total allocation of 55.94 million acre feet (MAF) to Punjab, 48.76 (MAF) to Sindh inclusive of already sanctioned urban and industrial uses for metropolitan Karachi, 5.78 (MAF) to NWFP and 3.87 (MAF) to Balochistan. Additionally, NWFP will have a total of 3.00 (MAF) available from ungauged canals above the rim stations.

The distribution of the balance river supplies, including flood supplies and future storages, will be: Punjab and Sindh 37% each, NWFP 14% and Balochistan 12%.

A minimum escapage to sea, below Kotri, will be allowed to check sea intrusion. Sindh's estimate was 10 MAF, but the final figure will be determined after further studies.

The provinces will be free to undertake new projects within their agreed shares. They can also go in for small schemes not exceeding 5000 acres above elevation of 1200 feet SPD.

Allocations to different systems will be worked out separately on the basis of ten daily uses. These uses will also help determine sharing of shortages and surpluses on all-Pakistan basis. The existing reservoirs will be operated with priority for the irrigation uses of the provinces.

Within their allocations, the provinces may modify uses both system-wise and period-wise. But all efforts will be made to avoid wastages. In case, a province is not in a position, for the time being, to make full use of its allocation, that surplus may be used by another province, without its acquiring a right on it. The idea is that every drop of available water should be put to productive use.

Above all, the agreement clears the stage for building future storages as it provides that: "The need for storage, wherever feasible on the Indus and other rivers, was admitted and recognised by the participants for planned future development"

Fresh Air

The agreement has come as a rare breath of fresh air since the birth of Pakistan, because its polity has been constantly riven by fractiousness and confrontation, stemming from a promoted sense of deprivation and exploitation, which has blighted the tremendous latent energies of its people. These energies rightly directed could have by now altered the entire socio-economic, cultural, and political landscape of Pakistan.

With each province, master of its own share of water resources, it no longer has to confront others to win its right but to brace itself up to meet the challenge to its own ability to put to best use what it has won. With economic frictions out of the way, politics in Pakistan is being introduced to a new idiom.

The agreement has therefore been hailed by all the four provinces both for its economic benefit and political promise. In pure economic terms, the accord will help bring 50 lakh acres of more land under cultivation, increase wheat production by 20 lakh tons a year, and provide lakhs of jobs to unemployed workers both on land and otherwise in Pakistan.

The Sindh Chief Minister, Jam Sadiq Ali has listed three gains as the main features of the agreement. One, it is a consensus accord. Two, it has been arrived at by politicians. And, three, it protects the interests of all the four provinces.

He said an additional 4.5 MAF water will be available to Sindh for irrigation, which is about 13 per cent more than the present utilisation. Under *ad hoc* allocation, Sindh had been receiving 44.34 MAF but, according to the new agreement, Sindh's share had been increased to 48.76 MAF. This allocation was the highest that Sindh had got compared to the previous recommended allocations including those proposed by Fazl-e-Akbar and Haleem Committees.

He said besides irrigating vast new areas, additional water will help increase intensity from the present 81 per cent to 120 per cent.

The Sindh Minister for Irrigation and Power, Mr. Masroor Ahmed Khan Jatoi, says the accord symbolises the desire of the four provinces to resolve all outstanding issues in a spirit of accommodation, which, in turn, would further strengthen the Federation of Pakistan.

The NWFP Chief Minister, Mir Afzal Khan has said that the Frontier has got almost 50 per cent more water than it had demanded and was prepared to accept in 1983. It had pitched its demand then at 11.85 MAF but it has now been given 12.69 MAF.

He said at present 18 lakh acres of land was being irrigated in the province but with the new allocation, it will increase by about fifty per cent. As a result, sugarcane production will go up by another 11 crore maunds and wheat production by another 1,75,00,000 maunds, besides other crops also receiving a boost.

He said the economic benefit accruing from one project alone, namely, the Chashma Right Bank Canal will be Rs. 760 crore in terms of agricultural income.

Basically, he pointed out, it was an economic issue but it had tremendous political significance as well because it would contribute toward strengthening the federation and promoting national integration.

The Awami National Party leader, Khan Abdul Wali Khan, whose party is an important component of the Frontier government, has said he is fully satisfied with the water apportionment. He said it is the first time that the provinces have made the happy beginning of resolving their mutual differences through negotiations. If this trend is pursued, it will help terminate the present bitterness among them and solve their problems.

He commended the Prime Minister's approach and said it appears that he wants to take along all the provinces with him.

The Balochistan Chief Minister, Mir Taj Mohammad Jamali, has said that his province is certainly a major beneficiary of the water distribution accord. He said as a result, about ten lakh acres additional land will be brought under cultivation, taking the total from the present six lakh acres to sixteen lakh acres.

In particular, he drew attention to the irrigation of the virgin soil in the upper reaches of Nasirabad and in the plains of Kachhi district and said availability of water will turn Kachhi plains into a granary of Balochistan.

He praised Mr. Nawaz Sharif for his political sagacity and said the Prime Minister was firm in his commitment that Balochistan's rights would be fully protected. He also

commended the sense of cooperation and appreciation of each other's point of view displayed by the Chief Ministers in reaching the water accord.

The Punjab Chief Minister, Mr. Ghulam Hyder Wyne, has described the accord as a historic achievement of the present Government and said that this is the first decision in the 43-year history of Pakistan that has sent a wave of happiness throughout rural Pakistan. With the passage of time, this happiness will increase.

He said an agricultural revolution was in the offing, and democratic traditions, national integration, political consultation, and mutual accommodation would flourish, leading to a prosperous Pakistan.

He said if a province has made any sacrifices for facilitating the accord, heavens are not going to fall. "We are not big or small brothers, but only brothers".

Mr. Wyne pointed out that with the water that will become available to Punjab, it will be possible to execute the Greater Thal Canal Project, which consists of a network of canals.

The Punjab Finance Minister, Makhdoomzada Shah Mahmood Qureshi, who represented his province in the accord negotiations says that Punjab as a whole will benefit, particularly the underdeveloped areas of southern Punjab, such as, Rajanpur, D.G. Khan, Mianwali, Bhakkar, Cholistan, and the *Barani* areas of Pindi Dadan Khan and district Jhelum. According to him, the irrigated area in the province will increase by another 30 lakh acres.

He said the accord opens the door to the building of new storages as long as the provinces remain within their share of the allocation. He pointed out that the quantity of surplus water is much greater than what is envisaged in future dams.

Malik Miraj Khalid, a prominent leader of the Pakistan People's Party and the former Speaker of the National Assembly, who had also served as the Chief Minister of Punjab at one time, has described the accord as a very positive development saying that it would help solve a very ticklish problem, which had been a big hurdle in the way of economic progress, political understanding among the provinces and even in the social cohesion of the nation.

The Prime Minister Mr. Nawaz Sharif, who was the main catalyst of the accord, announcing it at a news conference in Islamabad said the water dispute had not only been eating into the vitals of national economy but had also been fuelling hatred and tension among the provinces, which the politicians exploited for political purpose. It is with great anguish, he said, that he had to point out that no previous government had tried to tackle it with any seriousness and always handed it down to its successor after creating more complications. "When it reached our hands, it had become highly critical and explosive".

Mr. Nawaz Sharif said many friends had advised him not to put his hands into this hornet's nest as big leaders had failed before. He said "My answer to them was that the nation has given the responsibilities to us to solve its problems. Either we tackle them or we have no right to cling to power. The goal before me is not power but service and work".

Mr. Nawaz Sharif pointed out that the accord removes the biggest hurdle in the way of national unity and cohesion. He congratulated the four Chief Ministers both on his own behalf and on behalf of the nation for their sagacity, sincerity, and patriotism, in solving this complicated and complex issue.

The President, Mr. Ghulam Ishaq Khan, in identical letters to the Prime Minister and the four Chief Ministers has facilitated them on his behalf and on behalf of "a grateful nation on this remarkable achievement", which, he was confident, "would go down in history as one of the most significant, far-reaching and courageous contributions to the strengthening of our federal bonds and the opening of new vistas of the country's all-out development".

The President pointed out that "this great event signifies the victory of the democratic process and testifies to the efficacy of our constitutional institutions for the amicable solution of national problems.

TEXT OF AGREEMENT

1. There was an agreement that the issue relating to apportionment of the waters of the Indus River System should be settled as quickly as possible.
2. In the light of the accepted water distributional principles the following apportionment was agreed to:—

(Fig. in MAF)

PROVINCE	KHARIF	RABI	TOTAL
PUNJAB	37.07	18.87	55.94
SINDH*	33.94	14.82	48.76
N.W.F.P. (a)	3.48	2.30	5.78
(b) CIVIL CANALS**	1.80	1.20	3.00
BALUCHISTAN	2.85	1.02	3.87
	77.34	37.01	114.35
	+	+	+
	1.80	1.20	3.00

* Including already sanctioned Urban and Industrial uses for Metropolitan Karachi.

** Ungauged Civil Canals above the rim stations.

- (3) N.W.F.P./Balochistan Projects which are under execution have been provided their authorised quota of water as existing uses.
- (4) Balance river supplies (including flood supplies and future storages) shall be distributed as below:—

Punjab	Sindh	Balochistan	NWFP	Total
37%	37%	12%	14%	100%
- (5) Industrial and Urban Water supplies for Metropolitan city, for which there were sanctioned allocations will be accorded priority.
- (6) The need for storages, wherever feasible on the Indus and other rivers was admitted and recognised by the participants for planned future agricultural development.

- (7) The need for certain minimum escapage to sea, below Kotri, to check sea intrusion was recognised. Sindh held the view, that the optimum level was 10 M.A.F., which was discussed at length, while other studies indicated lower/higher figures. It was, therefore, decided that further studies would be undertaken to establish the minimal escapage needs down stream Kotri.
- (8) There would be no restrictions on the Provinces to undertake new projects within their agreed shares.
- (9) No restrictions are placed on small schemes not exceeding 5000 acres above elevation of 1200 ft. SPD.
- (10) No restrictions are placed on developing irrigation uses in the Kurram/Gomal/Kohat basins, so long as these do not adversely affect the existing uses on these rivers.
- (11) There are no restrictions on Balochistan, to develop the water resources of the Indus right bank tributaries, flowing through its areas.
- (12) The requirements of LBOD will be met out of the flood supplies in accordance with the agreed sharing formula.
- (13) For the implementation of this accord, the need to establish an Indus River System Authority was recognised and accepted. It would have headquarters at Lahore and would have representation from all the four provinces.
- (14)
 - (a) The system-wise allocation will be worked out separately, on ten daily basis and will be attached with this agreement as part and parcel of it.
 - (b) The record of actual average system uses for the period 1977-82, would form the guide line for developing a future regulations pattern. These ten daily uses would be adjusted pro-rata to correspond to the indicated seasonal allocations of the different canal systems and would form the basis for sharing shortages and surpluses on all Pakistan basis.
 - (c) The existing reservoirs would be operated with priority for the irrigation uses of the Provinces.

- (d) The provinces will have the freedom within their allocations to modify system-wise and period-wise uses.
- (e) All efforts would be made to avoid wastages. Any surpluses may be used by another province, but this would not establish any rights to such uses.

*Published by
Ministry of Information & Broadcasting,
Directorate of Films & Publications,
Government of Pakistan,
Islamabad*

**MINUTES OF THE MEETING
OF
COUNCIL OF COMMON INTEREST**

Held on
September 16, 1991



SECRET /IMMEDIATE

CABINET SECRETARIAT
(CABINET DIVISION)

No. CCI - 3 /M/91.

Islamabad, the 23rd September, 1991.

A copy of the Minutes and Decisions of the meeting of the Council of Common Interests held at 12:30 pm. on Monday, the 16th September, 1991 in the Cabinet Room of the Prime Minister's Secretariat, Islamabad, is sent herewith for perusal and return.

(MANSOOR ELAHI)
Joint Secretary to the Cabinet

Minister for Finance and Economic Affairs.
Minister for Law and Justice.
Minister for Railways.

Chief Minister, Punjab.
Chief Minister, Sindh.
Chief Minister, NWFP
Chief Minister, Balochistan.

- Deputy Chairman, Planning Commission.
- Arshad Mirza, Additional Secretary, Ministry of Water & Power, Islamabad.

SECRET

MINUTES AND DECISIONS OF THE MEETING OF THE COUNCIL OF COMMON INTERESTS HELD AT 12:30 P.M. ON MONDAY THE 16TH SEPTEMBER, 1991, IN THE PRIME MINISTER'S SECRETARIAT, ISLAMABAD.

**Case No. 5/CCI-3/91 Follow-up Actions of the Water Accord.
Dated: 16.09. 1991**

MINUTES

1. **10-Day Average System-wise Allocations**

The follow-up actions of the Water Accord required that a system-wise allocation would be worked out on a 10-daily basis and would be attached with the Agreement as its integral part. In order to implement the decision the Provinces were required to furnish the relevant data so that the Accord would be complete in all respects for implementation.

2. Punjab expressed the view that Water Accord was a comprehensive package and it would not be appropriate to take up any one clause in isolation. The data provided in the form of 10-daily system-wise allocations by the provinces should not be taken into account in isolation without protecting the existing uses and deciding on future storages. During the critical periods of Rabi and early or late Kharif any increase in the existing level of uses would be possible only after additional storage capacity becomes available. Till then the existing sharing arrangements had to continue during these deficit periods.

3. In Rabi season, Punjab is presently using about 1 MAF of water more than allocated to it under the Water Accord since this water had been allocated to Frontier Province. In order to compensate for the ultimate loss of this water Punjab would need to improve their canal lining system through a federally financed programme to reduce seepage. An understanding to this effect had been given at the time of signing of the Accord. Punjab had submitted a PC-I to the Federal Government which needed to be examined urgently. Another view was that the scheme in its present shape was not viable as it envisaged the cost of irrigation to be as high as Rs. 15,000 per acre. It was desirable, therefore, that it should be revised. It was suggested that the Deputy Chairman, Planning Commission should associate the Chief Engineering Advisor and two representatives of the Government of Punjab to look into the viability of the proposal.

4. Government of Sindh expressed the view that the providing data on 10-Daily average allocations on a system-wise basis was an integral part of the Accord. It would not be appropriate to link other issues such as development of future storages etc. with this provision of the Accord. The Accord should be religiously implemented and there should be openness in dealing with all issues.

5. NWFP pointed out that it would have no difficulty in accepting Annex II provided small discrepancies in the data were corrected. Page 5 of Annex II should be revised accordingly.

6. Balochistan supported the adoption of data in Annex II to complete the Accord.

7. The status of the independent study proposed to be carried out by the international panel of experts to establish minimal escapage needs down-stream of Kotri was noted. It was stated that the provincial governments might also be associated with the study at an appropriate stage.

DECISION

I. The Council of Common Interests authorised the 10-Day Seasonal System-wise Adjusted Allocations (excluding flood flows and future storages) provided by the provinces (Annex-II-page 5 as revised) to become part and parcel of the Water Accord.

II. The Council of Common Interests directed that the study proposed to be carried out by International panel of experts to establish minimal escapage needs down-stream of Kotri should be completed within one year of the signing of the agreement with the consultants.

III. Dy Chairman, Planning Commission would head a Committee to review the proposal of the Government of Punjab for canal lining. The Secretary, Ministry of Water and Power, Chief Engineering Adviser and representatives of Punjab may be associated.

SECRET

Case No.6/CCI-3/91 Indus River System Authority
Dted:16.09.1991

MINUTES

Indus River System Authority (IRSA) was required to be created under Para 13 of the Indus Water Accord. The following observations were made on the Draft Resolution:

- i) The modalities for expressing its views on the availability of water for new schemes were not clear. This might create bottlenecks in the approval of such schemes.
- ii) The provincial governments supported the representation of the Federal Government on the Authority.
- iii) The Chairman of the Authority should be appointed on rotation basis in alphabetical order from amongst the provinces.
- iv) The tenure of the members of the Authority should be three years.
- v) Till such time, the Authority was established as a corporate body, the terms and conditions of the staff of the Authority would have to be subject to the approval of the Government of Pakistan.
- vi) Certain provisions of the Draft Resolution were not properly drafted.

DECISION

- I. The Council of Common Interests approved, in principle the creation of Indus River System Authority (IRSA). The draft Resolution for the creation of the Authority would be reviewed by the Deputy Chairman, Planning Commission, in consultation with the provinces and submitted to the Prime Minister for approval.
- II. The Authority would consist of a Chairman and four Members. The Chairman would be appointed for one year on rotation basis, in alphabetical order of the Federation/Provinces. The Members would be appointed for a period of three years.
- III. The Federal Government would also have a voting member on the Authority.

SECRET

Case No.7/CCI-3/91 New Irrigation Projects and Programme.
Dated: 16.09.1991

MINUTES

It was stated that the Federal Government would arrange foreign aid for new Irrigation projects evolving out of the Accord for all the provinces on an equitable basis. The amount not covered by foreign aid would be provided by the provinces themselves.

2. It was stated that important irrigation and power projects were located in larger provinces and the province of Balochistan was deprived of the impact of development of such activates in its own area. It would therefore be appropriate that the irrigation projects of Balochistan were totally financed by the Federal Government. Also the net profits earned from generation of hydro power by the provinces should be shared by all the provinces. It was explained that the Federal Government had already transferred substantial resources to Balochistan through the NFC Award. The arrangement for the transfer of net profits on hydel power generation to the provinces needed to be interpreted carefully since it would jeopardize the involvement of the private sector in such projects if net profits did not accrue to them and continued to be transferable to the provinces, irrespective of whether the projects were public funded or involved private sector participation.

DECISION

The Council of Common Interests approved recommendations in Para 14(1) and (2) of the summary dated 27th August, 1991 submitted by the Ministry of Water and Power. The proposal contained in Para 14 (3) for the provinces to convert their Irrigation Departments into semi-autonomous Provincial Irrigation Authorities was left to be implemented by them if and when considered appropriate.

.....

MINUTES

The Water Accord of March 1991, has resolved the inter-provincial water dispute which had obstructed the development of water and power resources over the last 15 years.

The benefits of the Accord could only be achieved if new canals and storages have been planned and built.

2. New irrigation projects needed to be added to the system to meet the population growth of 3 per cent per annum which had led to a reduction in cropped area per person to half the size since 1950. It was estimated that in the absence of major improvements in the water sector, Pakistan would become deficit in food to the extent of 20 per cent by the year 2000. The existing storage capacity at Tarbela had decreased by 1.03 MAF since its commissioning due to normal sedimentation, which would be further reduced by another 1.87 MAF in the next 9 years. This loss in storage capacity is a matter of deep concern.

3. The hydel power generation potential of the Indus River System had been only marginally exploited. This had changed the power generation mix in Pakistan in favour of thermal, increasing the average cost of energy in the country. There would therefore remain a persistent strain on the balance of payments position. Also, large investment would be required in the development of infrastructure for the transportation and handling of imported fuel.

4. In order to harness the water and hydel resources, an integrated plan had been developed over the next 20 years at an estimated cost of Rs.245 billion. The province-wise allocations was as follows:-

- (i) Punjab would receive Rs. 10 billion for four canal/irrigation schemes namely, Greater Thal, Djal, CRBS (lift) and tubewell irrigation in riverine areas.
- (ii) Sindh would have irrigation scheme between Nara and Khairpur besides Tubewell Irrigation in Riverine Areas. There were two drainage projects, LBOD Stage-II and RBOD. The total cost of these projects is estimated at Rs.50.8 billion.
- (iii) KP would have two irrigation schemes, Peshawar High Level Canal and CRBC (Lift) along with two dams namely, Gomal Zam and Munda. The total cost of these projects is estimated to be Rs.20.6 billion.
- (iv) Balochistan would have two irrigation projects namely, Kachhi Plain and Water Development for Quetta and Adjoining Valleys, at an estimated cost of Rs. 11 Billion.

SECRET

5. In addition to the above projects, Kalabagh multipurpose project would be built in the first ten years of the Plan at an estimated cost of Rs. 71.5 billion. In the second 10 years phase, Basha Dam would be built which is estimated to cost Rs. 81.2 billion.
6. The following points were made in considering the plan:-
 - i. The basis for the size of the plan was questionable.
 - ii. The costs were considered to have been under-stated since the estimates did not take into consideration interest during construction period and escalation of costs. The proposed plan could easily cost upto Rs. 500 billion. It would require extensive consultations with the donor agencies to seek support.
 - iii. The plan was prepared without consulting the Planning and Development Division. The liability of the projects needed to be examined. The provincial governments should also be consulted in detail to reflect their priorities accurately.
7. The following views were expressed on the proposed Kalabagh Dam :
 - i. The adverse effects of silting, flooding and water logging of Peshawar valley needed to be technically appraised;
 - ii. Availability of water for the dam needed to be ascertained in the light of the Water Accord;
 - iii. Public opinion has to be mobilized to meet adverse political reactions, likely especially in the province of KP . The irrigation experts of Government of KP had been involved in extensive discussions with WAPDA on the pros and cons of the Kalabagh Dam and were largely convinced of its great benefits for the country as whole.
 - iv. The Provinces other than Punjab, needed to be provided with an attractive package of water and power projects to be able to explain to their people that the benefits of Water Accord accrued equitably for all.

8. The Kalabagh Dam Project was considered sustainable as long as views at (i) to (iv) in para 7 were adequately catered for in the comprehensive development plans. It was concluded that without its implementation subject to above safeguards, the additional water allocated in the Water Accord would not be useable. The potential for hydro power also needed to be exploited because of lower cost of generation and protection of environment.

9. The Prime Minister stated that national interest had to be kept paramount in considering such issues. Political or narrow provincial considerations were of secondary importance. The plan presented was however not realistic and needed to be revised to fully reflect national priorities.

DECISION

The Council of Common Interests directed the Deputy Chairman, Planning Commission, to review and improve upon the: Twenty-year Water and Hydropower Development Plan in consultation with the provinces and submit it in the next meeting.

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Case No. 9/CCI-3/91: Payment of net profit from Bulk Generation of Hydel Electricity.

Dated: 16-09-1991

DECISION

The Council of Common Interests deferred consideration of the summary dated 2nd September, 1991 submitted by the Ministry of Water & Power to its next meeting.

(ANNEXURE-II)
10- DAILY SEASONAL
SYSTEM WISE ADJUSTED
ALLOCATIONS

**10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)**

1 of 8 E1

PUNJAB – KHARIF

PERIOD		F.L.C.	M-R INT	CBDC	S.V.C. (Upper)	S.V.C. (Lower)	TRIMMU	PANJNAD	THAL	TAUNSA	CRBC	GREATER THAL	TOTAL (1000 X Cs)
APR	1.	24.2	0.1	1.8	8.3	3.9	2.9	4.3	6.0	4.9	1.3	2.6	60.3
	2.	24.7	0.3	1.8	10.8	3.7	3.4	5.1	6.4	4.3	0.8	3.4	64.7
	3.	28.1	1.1	2.0	13.3	5.5	5.5	7.3	6.4	7.9	0.5	4.9	82.5
MAY	1.	30.1	1.3	2.1	16.0	8.0	5.9	7.6	6.6	10.0	0.7	5.4	93.7
	2.	30.8	2.0	2.1	17.2	8.7	6.1	9.0	6.8	11.5	1.1	5.5	100.8
	3.	31.6	2.4	2.2	18.1	9.2	6.3	9.5	6.8	11.9	1.3	5.5	104.8
JUN	1.	32.3	2.6	2.3	18.5	9.4	6.6	10.5	6.8	13.0	1.7	5.4	109.1
	2.	33.2	3.6	2.2	18.7	9.7	6.7	10.4	6.9	13.5	1.8	5.5	112.2
	3.	34.0	4.0	2.2	19.2	9.6	6.7	10.7	6.7	14.0	1.8	5.7	114.6
JUL	1.	32.7	5.4	2.2	19.2	9.9	6.6	10.4	6.6	14.3	1.7	5.8	114.8
	2.	29.6	5.0	2.0	17.9	8.7	5.7	9.9	6.3	12.5	1.7	5.1	104.4
	3.	27.8	6.1	1.8	16.8	8.7	5.1	9.6	5.8	11.8	1.8	4.7	100.0
AUG	1.	28.2	5.8	1.7	17.4	8.2	5.3	9.6	6.0	11.5	1.8	4.8	100.3
	2.	31.5	6.1	1.8	19.3	9.3	6.3	10.6	6.3	11.3	1.8	5.4	109.7
	3.	34.6	4.9	2.0	20.6	10.1	6.8	11.1	6.6	13.9	1.8	5.9	118.3
SEP	1.	33.9	4.4	2.1	21.0	10.0	6.8	11.1	6.8	14.4	1.8	5.9	118.2
	2.	33.9	3.7	2.1	20.6	9.8	6.8	10.8	6.8	14.0	1.8	5.8	116.1
	3.	33.1	2.3	2.2	19.6	9.8	6.9	11.0	6.8	13.0	1.8	5.5	112.0
TOTAL MAF		11.18	1.24	0.74	6.31	3.07	2.15	3.40	2.37	4.19	0.55	1.87	37.07

10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

2 of 8 E2

PUNJAB – RABI

PERIOD		F.L.C.	M-R INT	CBDC	S.V.C. (Upper)	S.V.C. (Lower)	TRIMMU	PANJNAD	THAL	TAUNSA	CRBC	GREATER THAL	TOTAL (1000 X Cs)
OCT	1.	28.2	1.0	1.4	15.2	8.9	6.5	10.3	6.3	11.9	1.3	—	91.0
	2.	26.7	0.6	1.9	13.4	8.4	5.7	9.2	5.9	9.8	0.9	—	82.5
	3.	25.4	0.7	2.0	11.3	6.3	4.6	7.2	6.2	6.2	1.0	—	70.9
NOV	1.	24.3	0.3	2.1	9.6	4.3	3.6	4.9	6.1	4.5	0.9	—	60.6
	2.	23.5	0.1	2.0	8.6	3.3	3.0	4.1	6.0	5.0	1.0	—	56.6
	3.	22.4	0.0	2.0	8.7	2.9	2.9	3.7	6.0	3.1	1.0	—	52.7
DEC	1.	22.3	0.0	1.9	9.4	4.0	3.2	3.6	5.9	2.6	0.6	—	53.5
	2.	21.3	0.0	1.8	8.9	3.7	3.3	3.5	5.7	2.9	0.6	—	51.8
	3.	17.3	0.0	1.0	5.5	3.5	2.9	1.9	5.3	1.5	0.7	—	39.6
JAN	1.	9.9	0.2	0.1	1.0	6.7	4.1	1.4	1.8	0.6	0.8	—	26.6
	2.	8.7	0.1	0.8	3.5	4.3	2.6	2.1	0.1	1.8	0.8	—	24.8
	3.	10.4	0.1	1.3	7.1	0.5	0.2	2.9	2.0	3.1	0.9	—	28.5
FEB	1.	19.6	0.1	1.6	9.4	0.8	1.0	3.1	4.8	3.7	1.3	—	45.4
	2.	18.5	0.7	1.7	9.6	2.3	2.5	3.1	5.7	3.3	1.1	—	48.5
	3.	17.8	0.2	1.5	7.6	3.6	2.4	2.9	4.9	3.1	0.9	—	44.9
MAR	1.	18.0	0.6	1.1	10.1	4.3	2.9	2.9	4.8	3.4	1.5	—	49.6
	2.	20.0	0.1	1.2	11.3	5.2	4.0	4.3	5.3	3.7	1.3	—	56.4
	3.	21.3	0.1	1.2	10.0	5.5	3.5	4.3	5.6	4.4	1.2	—	57.1
TOTAL MAF		7.13	0.10	0.53	3.21	1.57	1.18	1.52	1.77	1.50	0.36	—	18.87

INDUS WATER ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

3 of 8 E3

SINDH — KHARIF

PERIOD		GUDDU BARRAGE SYSTEM	SUKKUR BARRAGE SYSTEM	KOTRI BARRAGE SYSTEM	TOTAL (1000 X Cs)
APR	1.	0.00	34.00	6.20	40.20
	2.	0.20	34.30	6.80	41.30
	3.	1.40	31.60	6.90	39.90
MAY	1.	3.70	35.10	12.30	51.10
	2.	6.50	39.50	15.70	61.70
	3.	12.60	43.10	21.70	77.40
JUN	1.	22.70	49.10	26.90	98.70
	2.	31.10	56.00	32.50	119.60
	3.	35.20	60.60	33.80	129.60
JUL	1.	41.10	61.20	34.20	136.50
	2.	36.20	57.10	29.80	123.10
	3.	30.20	54.40	31.30	115.90
AUG	1.	28.50	54.00	27.60	110.10
	2.	27.80	54.40	23.40	105.60
	3.	28.70	54.60	23.80	107.10
SEP	1.	26.50	55.10	27.60	109.20
	2.	26.80	57.50	25.10	109.40
	3.	25.80	55.80	23.30	104.90
TOTAL MAF		7.78	17.90	8.26	33.94

INDUS WATERS ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

4 of 8 E4

SINDH — RABI

PERIOD		GUDDU BARRAGE SYSTEM	SUKKUR BARRAGE SYSTEM	KOTRI BARRAGE SYSTEM	TOTAL (1000 X Cs)
OCT	1.	17.60	43.60	18.00	79.20
	2.	10.20	37.80	14.50	62.50
	3.	6.30	33.00	11.30	50.60
NOV	1.	4.10	31.40	9.60	45.10
	2.	3.50	31.40	7.50	42.40
	3.	3.20	31.10	5.70	40.00
DEC	1.	2.60	31.40	5.00	39.00
	2.	1.99	31.80	4.70	38.49
	3.	1.99	26.30	4.50	32.79
JAN	1.	5.40	12.30	3.10	20.80
	2.	10.40	5.40	8.60	24.40
	3.	5.50	20.30	11.70	37.50
FEB	1.	1.30	31.90	8.80	42.00
	2.	1.70	31.10	4.90	37.70
	3.	2.30	30.00	5.20	37.50
MAR	1.	2.70	29.70	4.40	36.80
	2.	3.40	29.40	4.20	37.00
	3.	2.00	28.50	4.70	35.20
TOTAL MAF		1.73	10.34	2.75	14.82

INDUS WATERS ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

4 of 8 E4

SINDH — RABI

PERIOD		GUDDU BARRAGE SYSTEM	SUKKUR BARRAGE SYSTEM	KOTRI BARRAGE SYSTEM	TOTAL (,1000 X Cs)
OCT	1.	17.60	43.60	18.00	79.20
	2.	10.20	37.80	14.50	62.50
	3.	6.30	33.00	11.30	50.60
NOV	1.	4.10	31.40	9.60	45.10
	2.	3.50	31.40	7.50	42.40
	3.	3.20	31.10	5.70	40.00
DEC	1.	2.60	31.40	5.00	39.00
	2.	1.99	31.80	4.70	38.49
	3.	1.99	26.30	4.50	32.79
JAN	1.	5.40	12.30	3.10	20.80
	2.	10.40	5.40	8.60	24.40
	3.	5.50	20.30	11.70	37.50
FEB	1.	1.30	31.90	8.80	42.00
	2.	1.70	31.10	4.90	37.70
	3.	2.30	30.00	5.20	37.50
MAR	1.	2.70	29.70	4.40	36.80
	2.	3.40	29.40	4.20	37.00
	3.	2.00	28.50	4.70	35.20
TOTAL MAF		1.73	10.34	2.75	14.82

INDUS WATER ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

6 of 8 E6

KP -- RABI

PERIOD		SWAT CANALS	KABUL RIVER CANALS	INDUS CANALS	OTHER CANALS	CIVIL UNGAUGED CANALS	TOTAL (1000 X Cs)
OCT	1.	3.67	1.16	4.94	0.42	3.73	13.92
	2.	3.25	1.20	4.97	0.48	3.73	14.13
	3.	3.86	1.12	4.01	0.56	3.73	13.28
NOV	1.	3.93	1.14	3.87	0.46	3.24	12.64
	2.	2.72	1.04	3.24	0.36	3.24	10.60
	3.	2.39	1.02	3.64	0.30	3.24	10.59
DEC	1.	1.74	0.98	2.19	0.10	3.41	8.42
	2.	1.78	1.05	1.96	0.10	3.41	8.30
	3.	1.74	0.94	2.00	0.22	3.41	8.31
JAN	1.	0.00	0.12	1.84	0.26	1.95	4.17
	2.	0.00	0.00	1.82	0.20	1.95	3.97
	3.	0.00	0.40	2.07	0.12	1.95	4.54
FEB	1.	1.32	0.10	2.52	0.16	3.73	7.83
	2.	1.33	0.60	2.93	0.14	3.57	8.54
	3.	1.48	0.58	3.81	0.06	3.57	9.50
MAR	1.	2.18	0.54	3.92	0.12	3.89	10.65
	2.	2.62	0.48	3.86	0.30	3.73	10.99
	3.	3.27	0.58	3.66	0.30	3.73	11.54
TOTAL MAF		0.81	0.26	1.12	0.11	1.20	3.50

45

INDUS WATERS ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

7 of 8 E7

BALUCHISTAN — KHARIF

PERIOD		SUUKUR BARRAGE SYSTEM	GUDDU BARRAGE SYSTEM	TOTAL (1000 X Cs)
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APR	1.	2.19	0.05	2.24
	2.	0.57	0.70	1.27
	3.	0.00	0.40	0.40
MAY	1.	0.00	0.68	0.68
	2.	0.60	1.24	1.84
	3.	0.70	2.54	3.24
JUN	1.	2.00	5.64	7.64
	2.	2.20	6.44	8.64
	3.	2.20	7.83	10.03
JUL	1.	2.20	9.49	11.69
	2.	2.20	8.80	11.00
	3.	2.20	9.80	12.00
AUG	1.	2.20	9.21	11.41
	2.	2.20	9.23	11.43
	3.	2.20	9.45	11.65
SEP	1.	2.20	9.22	11.42
	2.	2.20	9.78	11.98
	3.	2.20	10.24	12.44
TOTAL MAF		0.61	2.24	2.85

46

INDUS WATER ACCORD
10-DAY SEASONAL SYSTEMWISE ADJUSTED ALLOCATIONS
(EXCLUDING FLOOD FLOWS & FUTURE STORAGES)

8 of 8 E8

BALUCHISTAN — RABI

PERIOD		SUKKUR BARRAGE SYSTEM	GUDDU BARRAGE SYSTEM	TOTAL (1000 X Cs)
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OCT.	1.	1.00	3.74	4.74
	2.	0.90	3.15	4.05
	3.	0.90	3.15	4.05
NOV	1.	0.80	2.38	3.18
	2.	0.90	2.54	3.44
	3.	0.60	2.17	2.77
DEC	1.	0.70	2.21	2.91
	2.	0.65	1.68	2.33
	3.	0.50	1.32	1.82
JAN	1.	0.60	1.83	2.43
	2.	0.65	2.12	2.77
	3.	0.70	2.18	2.88
FEB	1.	0.60	1.91	2.51
	2.	0.70	2.01	2.71
	3.	0.60	2.03	2.63
MAR	1.	0.60	1.43	2.03
	2.	0.60	1.63	2.23
	3.	0.40	1.12	1.52
TOTAL MAF		0.25		1.02

47