

THE WATER ACCORD - 1991

1.0 KEY NOTE

In 1991, an agreement to share waters of the Indus River was reached between the four provinces of Pakistan in the form of the Water Apportionment Accord (WAA). This accord is based on both, the existing and future water needs of the four provinces.

The Chief Ministers of the four provinces, in a unique demonstration of mutual cooperation and national spirit, resolved the long outstanding dispute, which had brought water development in the country to a grinding halt.

2.0 HISTORIC DEVELOPMENTS

Even during the pre-partition era, there were episodes of contention among various provinces of the sub-continent over water. As early as 1920, during the period when Sutlej valley and Sukkur barrage projects were under consideration, some doubts were expressed about the availability of water for these projects. Moreover, Bhawalpur State also protested against the allocation of waters to non-riparian areas. The then Government of India persuaded the Punjab, Bhawalpur and Bikanir states to sign an agreement called the Sutlej Valley Tripartite Agreement of 1920.

During the operation of the Sutlej valley projects, it was noted that river supplies were short of assumed supplies particularly in the early *kharif* period. To investigate this, a Sutlej Valley Project Inquiry Committee was setup in 1932. Later, the Anderson Committee was set up in 1935 to examine the distribution of water for Sutlej valley projects, Sukkur barrage and other projects proposed by Punjab.

In 1939, the Government of Sindh lodged a complaint against the Government of Punjab about the perceived effects of the Punjab projects on inundation canals of Sindh and on Sukkur barrage. The Rau Commission was constituted which presented its recommendations in 1942.

The post-independence period has also witnessed similar events. In 1968, under the chairmanship of Mr Akhtar Hussain, the Water Allocation and Rates Committee was constituted by the Governor of former West Pakistan to review barrage water allocations, reservoir release patterns, drawdown levels and use of groundwater in relation to surface water deliveries. The Committee submitted its report on July 01, 1970 when the provinces were revived. No attention was paid to this report.

As a result, the Justice Fazle Akbar Committee was constituted in October 1970 to recommend apportionment of waters of the River Indus and its tributaries. The Committee submitted its report in 1971. During the same time period, ad hoc distribution of Chashma barrage and later Tarbela reservoir storage among the provinces was ordered. No decision was taken on the Fazle Akbar Committee recommendations and water continued to be distributed on ad hoc orders by the Government of Pakistan.

In 1977, the Government of Pakistan established another commission comprising the Chief Justices of the High Courts of the Provinces, headed by

the Chief Justice of the Supreme Court to examine the issue of water apportionment. The report of this commission is still pending with the Government of Pakistan.

It was finally the Chief Ministers of the provinces who managed to reach consensus on the contentious issue. The breakthrough came in a series of meeting, first in Lahore and finally on March 16 in Karachi.

3.0 THE PURPOSE OF THE WATER ACCORD

Surface water developments after the final commissioning of the Tarbela Dam Project in 1977, were almost stalled due to the non-resolution of the inter-provincial water dispute. The country underwent a one and a half decade long crisis related to irrigation supplies and hydropower generation before reaching consensus. Load-shedding and irregular agriculture produce was observed during this period. An inter-provincial agreement became essential to solve the longstanding dispute of canal water uses, shares in the river supplies and surplus flows in the form of floods, etc.

An agreement called the "Apportionment of the Water of the Indus River System between Provinces" was arrived upon, which had two important features:

- i. It protected the existing uses of canal water in each province.
- ii. It apportions the balance of river supplies, including flood surpluses and future storages among the provinces.

4.0 THE WATER APPORTIONMENT ACCORD - 1991

The Water Apportionment Accord was agreed upon on March 16, 1991 at Karachi in a meeting of the Chief Minister's of the four provinces along with several provincial representatives. The accord allocates the following share to provinces:

Province	Kharif (MAF)	Rabi (MAF)	Total (MAF)
Punjab	37.07	18.87	55.94
Sindh *	33.94	14.82	48.76
NWFP (a)	3.48	2.3	5.78
** (b) Civil Canals	1.80	1.2	3.00
Balochistan	2.85	1.02	3.87
Total	77.34	37.01	114.35
**	1.8	1.2	3

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

** Ungauged Civil Canals above the rim stations

- The NWFP/ Balochistan projects, under execution, were provided their authorized quota of water as existing uses.
- Balance river supplies (including flood supplies and future storages) was to be distributed as below:

Punjab	Sindh	Balochistan	NWFP	Total
37	37	12	14	100 %

- Industrial and Urban Water supplies for Metropolitan City, for which there were sanctioned allocations, was to be accorded priority.
 - The need for storages, wherever feasible on the Indus and other rivers was admitted and recognized by the participants for planned future agricultural development.
 - The need for certain minimum escape to sea, below Kotri, to check sea intrusion was recognized. Sindh held the view, that the optimum level was 10 MAF, which was discussed at length, while other studies indicated lower/high figures. It was, therefore, decided that further studies would be undertaken to establish the minimal escape needs downstream Kotri.
 - There would be no restrictions on the provinces to undertake new projects within their agreed shares.
 - No restrictions were placed on small schemes not exceeding 5,000 acres above elevation of 1200 ft. SPD.
 - No restrictions were 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.
 - There were no restrictions on Balochistan, to develop the water resources of the Indus right bank tributaries, flowing through its areas.
 - The requirements of LBOD would be met out of the flood supplies in accordance with the agreed sharing formula.
 - For the implementation of this accord, the need to establish an Indus River System Authority was recognized and accepted. It was to have headquarters at Lahore and representation from all the four province.
 - (i) The system-wise allocation would be worked out separately, on ten daily basis and attached with the agreement as part and parcel of it.
- (ii) 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.
- (iii) The existing reservoirs would be operated with priority for the irrigation uses of the Provinces
- (iv) The provinces would have the freedom within their allocations to modify system-wise and period-wise uses.
- (v) 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.

5.0 DISCUSSION ON THE ACCORD

The Water Apportionment Accord allocated about 12 MAF of additional water to the four provinces for priority irrigation development. It also specified sharing percentages for the provinces out of balance river supplies for further development. Hence, the Water Apportionment Accord envisaged long-term surface water development in Pakistan, which should lead to ultimate canal head diversions of about 131 MAF.

Surplus river water is available only between 70-100 days during the flood season (June-September). Water Apportionment Accord has also specified 10 daily allocations of various provincial projects throughout the year, which take into account the additional allocations. To provide these additional allocations during the non-flood period of the year, it is necessary to store the surplus water.

In the absence of new storage facilities, the provinces will be forced to share the shortages and in this scenario, the largest suffering will be transferred on to the new irrigation projects. Hence it is in the interest of all provinces to encourage the development of water resources projects in order to increase national storage capacity.

6.0 CURRENT CONDITION OF RIVER WATERS

Pakistan has been facing drought conditions for the past 3 years. Moreover, seasonal and hydrologic variations, escapages to sea and canal water diversions create a huge imbalance in water availability.

The following tables have been generated for both *kharif* and *rabi* seasons using statistics at the first rim station on the Indus system - the Tarbela Rim Station. Averages of post-Tarbela period i.e. 1975-2000 have been calculated for the three western rivers.

A similar exercise has been undertaken for the three eastern rivers for the period 1990-2000. Average escapages below Kotri are also averaged for the period of 1975-2000 for both *kharif* and *rabi*. Finally, the canal water diversions are calculated for averages between the years 1975-2000 for both *kharif* and *rabi*.

It may be noted that the Water Accord allocates a total of 114.35 for the four provinces for canal water diversions whereas the averages are far below the amount of water allocated for development and implementation of irrigation projects. These facts clearly indicate the urgent need for development of water storage projects.

	Rim Station Inflow of Indus River and its Western Tributaries		
1975-2000	Kharif	Rabi	Annual
Average MAF	118.99	25.92	144.91

	Eastern Rivers Inflow at Rim Stations		
1990-2000	Kharif	Rabi	Annual Total
Average MAF	7.446	1.69	9.136

	Outflow to Sea below Kotri		
1975-2000	Kharif	Rabi	Annual
Average MAF	37.01	2.49	39.5

	Canal Water Diversions		
1975-2000	Kharif	Rabi	Annual
Average MAF	67.11	37.63	104.73

REFERENCES

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